

The importance of debt in the response to crises in the EU

An analysis of policy discourses

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Abstract

The different responses to the Eurozone and Covid-19 crises, a strong fiscal consolidation in the first case and a use of fiscal expansions and the suspension of the rules in the second, can be explained by many different factors. The different discourses and views on debt in the European institutions could be one of them. In line with the theory of discursive institutionalism, this study analyses speeches from the European Commission and the European Central Bank between 2010 and 2020 to see whether there is a shift in the views on debt expressed in these discourses. A sample of speeches is used to perform a quantitative text analysis and looking at concordances – the number of times a word appears in the discourses –, collocates – words appearing in the environment of a search-term – and clusters - a group of words including the search term - for different terms linked to debt. This analysis is complemented by a short qualitative analysis of some of the speeches. The results from this analysis allow to determine whether the discourses have changed, when they have changed, how they have changed, and partially, why they have changed. It is found that the views on debt in the discourses have changed, this change appears around 2015 and is confirmed in 2020. The views are found to be negative at the beginning of the period studied and becoming more neutral over time. The changes in 2015 can be linked to changes in the economic conditions in the European Union and to changes of speakers in the institutions while the accentuated change in 2020 is mainly linked to the outbreak of the Covid-19 crisis. The fact that the discourses have changed over time indeed means that it could be part of the explanation for the different reactions to the crises.

Keywords: Debt, fiscal policies, discursive institutionalism, discourses change, crises reactions.

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List of Abbreviations

DI Discursive institutionalism

ECB European Central Bank

ECFIN Economic and Financial Affairs

ECFIN Economic and Financial Affairs

EFSF European Financial Stability Facility

EPP European People's Party

ESM European Stability Mechanism

EU European Union

NGEU Next Generation EU

SGP Stability and Growth Pact

1 Introduction

By the end of 2009, several Eurozone countries, beginning with Greece, started to experience significant difficulties in financing the debts undertaken to save their financial institutions from the global financial crisis, partly due to the fact that investors started having doubts about the national solvency and stopped lending to these countries. ¹ These problems mark the start of the Eurozone crisis. To react to this situation, different measures were taken at the level of the European Union (EU) over the years.² While adjustment packages were allocated to the worst hit countries from 2010 onwards and the European Financial Stability Facility (EFSF) was introduced, different measures to reinforce the fiscal control of the member states were also initiated.³ The European Semester aiming to increase the economic policy coordination accompanied a reinforcement of the Stability and Growth Pact (SGP) in 2010.4 In 2012, the European Stability Mechanism (ESM) aiming at helping countries in financial distress was introduced but supplemented by the agreement by member states on the implementation of a new treaty, the Fiscal Compact, to "strengthen policy coordination, fiscal rules and economic governance". 5 From these measures, it can be seen that even though different packages were granted to some member states to help them, these measures were accompanied by strong fiscal consolidation measures for the whole euro area, showing the will to reduce the levels of debt as fast as possible.

In 2010, one economic discourse about debt was particularly influential. Reinhart and Rogoff presented evidence that high public debt levels are linked with lower growth, even when real interest rates are low.⁶ Even if this debate was taking place in the United States, it also indirectly influenced policymaking in the European Union as can be seen from the fact that EU policymakers were investigating ways to sustainably reduce public debt because of

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¹ Glencross, Andrew, 'The EU Response to the Eurozone Crisis: Democratic Contestation and the New Fault Lines in European Integration', *Europa-Kolleg Hamburg Institute for European Integration Discussion Paper*, 2013, p.8.

² Only some of them are presented here.

³ European Commission Timeline; Heliodoro Temprano Arroyo, *The EU's Fiscal Crisis and Policy Response: Reforming Economic Governance in the EU*, Presentation, OECD, slide 25, retrieved 27 February 2021, https://www.oecd.org/governance/budgeting/48871475.pdf

⁴ Ibid; Ibid, slide 28.

⁵ European Commission Timeline; Glencross, op. cit., pp.8-11.

⁶ Carmen M. Reinhart and Kenneth Rogoff, 'Growth in a Time of Debt', *American Economic Review*, vol.100, no.2, 2010, p.573.; Carmen M. Reinhart, Vincent R. Reinhart and Kenneth S. Rogoff, 'Debt Overhangs: Past and Present', *National Bureau of Economic Research Working Paper Series*, 2012, p.22.

the potential harm that high public debt levels could have on economic growth. Other concerns such as the debt sustainability and the reduced flexibility of fiscal policies to respond to economic shocks linked to high debt levels also justified the need for a decrease of the debt levels in the EU. One of the solutions identified to have a sustainable public debt reduction was to implement "drastic and permanent fiscal consolidation". These findings show that the responses to the Eurozone crisis can partially be explained by the influence of the economic debates of that time.

In 2020, what started like a public health crisis at the end of 2019 quickly transformed into an economic and social crisis, the overall situation created by this pandemic is referred to as the Covid-19 crisis. The responses given by the EU to this new economic crisis were significantly different from the response given to the Eurozone crisis, they have been "impressive and substantially exceeded the response to the sovereign debt crisis". ¹⁰ One of the first EU actions, in March 2020, was to suspend the fiscal rules because of the extraordinary situation, which allowed governments to "push through unprecedent fiscal expansions", creating a lot of additional debt. 11 National governments were the first ones to react and support their economies, but to compensate for the fact that their reactions would be limited and that not all member states have been affected to the same extent nor have the same resources to have an appropriate reaction, the EU decided to act to allow all member states to have an adequate reaction. 12 First, the European facilities such as the ESM were strengthened. 13 However, when realising that loans would not be sufficient, especially for the worst-hit countries, they agreed on the Next Generation EU (NGEU) fund that is unprecedented for the fact that it is financed through European debt and that it will partially be distributed through grants. 14 These two fiscal responses are the most significant in this study, but there were also some important monetary policy reactions, such as the Pandemic

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⁷ Christiane Nickel, Philipp Rother and Lilli Zimmermann, *Major Public Debt Reductions: Lessons from the Past, Lessons for the Future*, VOX EU CEPR, 2010, retrieved 23 April 2021, https://voxeu.org/article/major-public-debt-reductions-lessons-past-lessons-future

⁸ Ibid.

⁹ Ibid.

¹⁰ Christine Lagarde, *Europe's response to the crisis*, European Central Bank, 2020, retrieved 7 February 2021, https://www.ecb.europa.eu/press/blog/date/2020/html/ecb.blog200723~c06fafabb6.en.html

¹¹ Ibid; European Commission, *Questions and Answers: Communication on Fiscal Policy Response to Coronavirus Pandemic*, European Commission, 2021, retrieved 30 April 2021, https://ec.europa.eu/commission/presscorner/detail/en/ganda 21 885

¹² Lagarde, loc. cit.

¹³ Ibid.

¹⁴ Ibid.

Emergency Purchase Programme.¹⁵ Monetary and fiscal policies have reinforced each other in responding to the crisis, the EU implemented a "twin policy response".¹⁶

The international economic discourse about debt is surely part of the reasons for accepting this extraordinary increase in the level of debt. Indeed, Blanchard argues that the fiscal and welfare costs linked to debt are actually small when the interest rates are low and are lower than the growth rates, which is the case at the moment and expected to continue for a certain period of time.¹⁷ Another justification for these actions is that they will mostly finance investments contributing to the green and digital transitions, which are essential at the moment.¹⁸

Even by only focusing on the fiscal responses to the two crises, we see that the difference is remarkable. While one of the results of the response to the Eurozone crisis was the implementation of more fiscal controls, the response to the Covid-19 was to stop these rules and have almost unlimited fiscal expansions, or at least as much as needed. The change of the international economic discourse can partly explain this difference. However, changes in the EU economic situation and institutions certainly also played a role.

These conclusions show that the economic debates influenced the reactions to the crises. However, the focus of this study is to show how the difference in the reactions to the crises can be linked to the discourse of European institutions. In this study, the difference in the way the EU reacted to the Eurozone crisis and to the Covid-19 crisis is investigated through the lens of discursive institutionalism (DI), a theory about the importance of ideas. One main difference in the reactions is investigated, the views on debt. The first question that is investigated in this study is "To what extent do we see a shift in the policy discourses about debt in the European Union?". If a shift in the discourses is found in these discourses, three additional questions are investigated: "When does the shift in the discourses appear?", "How do the discourses change?" and "What are possible explanations for this shift?". These questions will be investigated through text analyses.

Four hypotheses regarding these different questions are developed and will be tested in the following parts of this study.

¹⁵ Lagarde, loc. cit.

¹⁶ Ibid.

¹⁷ Olivier Blanchard, 'Public Debt and Low Interest Rates', *American Economic Review*, vol.109, no.4, 2019, p.1198.

¹⁸ Lagarde, loc. cit.

Hypothesis 1: There is a shift in the discourses about debt.

This first hypothesis is developed based on the fact that international discourses, as shown before, have changed and that it certainly had an impact on European discourses. Additionally, to respond to the Eurozone crisis, austerity was imposed but on the contrary, to respond to the Covid-19 crisis, the SGP was suspended. This difference is surely linked to a change of the views on debt in the EU.

Hypothesis 2: The shift occurs after the Eurozone crisis but before the start of the Covid-19 crisis.

The reasoning for this hypothesis is that the different reactions to the Covid-19 were quick, implying that a change compared to the time of the Eurozone crisis had already appeared, and only had to be applied.

Hypothesis 3: In the discourses, the view on debt changes from negative to positive.

The basis for this third hypothesis is that fiscal policies play a bigger role in the response to the Covid-19 crisis than in the response to the Eurozone crisis. This different use of fiscal policies hints that debts are now viewed as something that is not necessarily bad for the economy while it used to be seen more negatively during the Eurozone crisis.

Hypothesis 4: The change in the economic situation and institutions of the European Union can explain this shift.

The role of the economic situation is suggested by the change in the international discourses and Blanchard's argument that low interest rates make debt acceptable. ¹⁹ The role of the change in the institutions is based on discursive institutionalism and the role of ideas.

Starting from DI, research about discourses in European institutions is undertaken, primarily relying on a quantitative analysis. This type of analysis is different from the studies normally performed by using DI, adding value to the literature about crises responses and their link with the role of ideas and discourse. Based on this analysis, we find that there are changes in the discourses about debt in the European Commission²⁰ and the European Central Bank (ECB). These changes are found to have taken place around 2015 and 2020. The views on debt are negative at the beginning of the study but become more neutral over time. This change is mostly seen in the fact that fiscal actions are becoming more important

¹⁹ Blanchard, loc. cit.

²⁰ In this paper, 'European Commission' and 'Commission' are used interchangeably.

over the period studied and the diminishing focus on fiscal consolidation indicates a diminished focus on the reduction of debt accumulation.

The remaining of this paper consists of four additional sections. The next section presents the theory, discursive institutionalism, followed by the methodology. Section 3 shows the results of this analysis with their interpretation. The results are discussed in the fourth section. The last section concludes.

2 Theoretical and methodological frameworks

2.1 Discursive institutionalism

This section presents the theory that is used for trying to resolve the puzzle analysed in this study regarding the different reactions to the Eurozone and Covid-19 crisis and the changes in policy discourses regarding debt.

Vivien Schmidt developed a theory about the explanatory power of ideas called discursive institutionalism (DI). ²¹ According to her, this theory is the fourth "new institutionalism", after rational choice institutionalism, historical institutionalism, and sociological institutionalism. ²² Four characteristics make DI different from the other new institutionalism theories. First, the ideas and discourses are taken seriously. ²³ Second, the lines of the other new institutionalism theories are used as background information to "set ideas and discourse in institutional context". ²⁴ Third, ideas are put into "their 'meaning context'" and discourses are supposed to be "following a 'logic of communication'". ²⁵ Fourth, the view on change is more dynamic. ²⁶ This last characteristic of DI is the most important and is in contradiction with the focus of the three other theories that concentrate on static institutionalism and are "equilibrium-focused". ²⁷ DI considers discourses not just as ideas or texts, but also as a context, so that what is said is important, but where, when, how and why it is said are also key. ²⁸ In addition to what is said, where and how, representing the structure, who says what to whom, the agency, is also essential. ²⁹ This focus on the discourses and the change are the reasons why this theory is a good fit for this study.

Schmidt differentiates between two types of discourses. The coordinative discourses take place in the 'policy sphere', between policy actors while trying to design policies.³⁰ The communicative discourses happen in the 'political sphere', when officials present the ideas to the public and explain why these measures are necessary and appropriate.³¹ In DI, institutions are considered to be given but also contingent because these represent the

²¹ Vivien A. Schmidt, 'Discursive Institutionalism: The Explanatory Power of Ideas and Discourse', *Annual Review of Political Science*, vol.11, 2008, p.304.

²² Ibid.

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid, p.305.

²⁹ Ibid.

³⁰ Ibid, p.310.

³¹ Ibid.

structure in which the political actors have to act – the context for the actions, but they are also created and changed by the same actors as a result of their thoughts, words and actions.³²

In short, DI acknowledges that "how ideas are generated among policy actors and communicated to the public by political actors through discourse is the key to explaining institutional change (and continuity)"33. This is why this theory is useful for explaining the differences in reactions for the Eurozone and the Covid-19 crises by looking at policy discourses. This theory could be used to confirm the first hypothesis that there was a change in the policy discourses, which would explain the different reactions to the crises.

Schmidt has used DI on different occasions to explain changes or reactions to crises. She argues that DI is valuable for explaining change and continuity because of the way it is able to explain the development of capitalism between the 1980s and 2010.³⁴ The other three new institutionalism theories are often used to explain the development of capitalism, but these theories are dependent on the role of ideas and discourse.³⁵ For example, DI is best for explaining the future of capitalism because the arguments developed by the three other new institutionalism theories depend on the public choices which result from "the battle of ideas through discourse and deliberation". 36 In another study, Schmidt uses DI to assess the response to the EU's sovereign debt crisis.³⁷ She argues that both the coordinative and communicative discourses had problems.³⁸ For the coordinative discourse, she highlights the obstacle represented by the high level of intergovernmentalism leading to actions being too little too late.³⁹ The communicative discourse, between the political actors and the public, also suffered from this separation between the member states which led to a negative assessment of the measures taken to respond to the crisis by the markets and the people.⁴⁰ This analysis proves the importance of ideas and mostly discourses in this case. Because the discourses did not go well, the responses to the crisis were also not totally efficient.⁴¹

³² Schmidt 2008, op. cit, p.314.

³³ Vivien A. Schmidt, 'Taking Ideas and Discourse Seriously: Explaining Change Through Discursive Institutionalism as the Fourth 'New Institutionalism', European Political Science Review, vol.2, no.1, 2010, p.15. ³⁴ Ibid, p.19.

³⁵ Ibid.

³⁷ Vivien A. Schmidt, 'Speaking to the Markets or to the People? A Discursive Institutionalist Analysis of the EU's Sovereign Debt Crisis', The British Journal of Politics and International Relations, vol.16, 2014, p.189. ³⁸ Ibid, pp.199-205.

³⁹ Ibid, p.202.

⁴⁰ Ibid, pp.203-205.

⁴¹ Ibid, p.206.

Schmidt has also used DI to analyse the responses given to the Covid-19 crisis. ⁴² She argues that the response to the Covid-19 crisis is a paradigmatic shift in policies and processes in different domains of EU politics and that this affected European integration. ⁴³ While the actual content of the changes – what and how – is better explained by historical institutionalism, DI is the best theory to understand the reasons and reasoning behind these changes – who and why. ⁴⁴ DI is useful for understanding the interests of the different actors as well as the ideas and discursive interactions of the different agents at both the intergovernmental and supranational levels. ⁴⁵ Finally, another interesting study by Schmidt using DI concerns the reinterpretation of the rules, reshaping of institutions and redefinition of their interest by EU agents in the European Commission and the ECB between 2010 and 2015. ⁴⁶ In both cases, discourses played an important role. In the ECB, the communicative discourse moved from a focus on 'credibility' to a focus on 'stability', which allowed to hide the reinterpretation of the rules. ⁴⁷ In the Commission, the communicative discourse was also used to convince the public that the rules were followed to the letter while these were actually becoming increasingly flexible. ⁴⁸

These different examples of studies using DI to investigate responses to crises but also changes in the institutions again confirm the convenience of this theory for the current study. This study being about the difference in the response to two crises happening in the EU, investigating this change following discursive institutionalism and hence looking at the ideas and discourses in the European institutions is a good way to go.

2.2 Text analysis

2.2.1 Data

The data is composed of speeches given by ECB and Commission officials between January 2010 and December 2020. The period studied hence covers the period affected by

⁴² Vivien Schmidt, 'Theorizing Institutional Change and Governance in European Responses to the Covid-19 Pandemic', *Journal of European Integration*, vol.42, no.8, 2020, p.1177.

⁴³ Ibid, p.1178.

⁴⁴ Ibid.

⁴⁵ Ibid, p.1190.

⁴⁶ Vivien A. Schmidt, 'Reinterpreting the Rules 'by Stealth' in Times of Crisis: a Discursive Institutionalist Analysis of the European Central Bank and the European Commission', *West European Politics*, vol.39, no.5, 2016, p.1034&1048.

⁴⁷ Ibid, p.1049.

⁴⁸ Ibid.

the Eurozone crisis⁴⁹ as well as the beginning of the Covid-19 crisis, and the period inbetween these two crises. The corpus is composed of 951 speeches in total, the details about the number of speeches per speaker and year and the links to the databases are presented in Table A1 and A2. Here, the selection of the speeches is described.

Concerning the Commission, the speeches were collected on the 'Press corner' page of the European Commission website. 50 The officials considered here are, first, the Presidents of the Commission. From the beginning of the period studied, January 2010, until October 2014, discourses by José Manuel Barroso are analysed. 51 Following him, Jean-Claude Juncker is the speaker for the speeches analysed between November 2014 and November 2019.⁵² Finally, the speeches delivered by Ursula von der Leyen are studied for the period between December 2019 and the end of the period studied, December 2020.⁵³ Additionally, the discourses given by Commissioners with a portfolio related to economics are also analysed. For the period between February 2010 until end of 2014⁵⁴, different Commissioners are considered during the same period because of their different portfolios being important for the economy. First, speeches given by Olli Rehn, who was Vice President of the European Commission and Commissioner responsible for Economic and Monetary Affairs and the Euro, are considered between February 2010 and June 2014.55 From July 2014 until November 2014, speeches by Jyrki Katainen are considered because he replaced Rehn as Vice President and Commissioner for Economic and Monetary Affairs and the Euro to finish the mandate. 56 At the same time, discourses by Algirdas Šemeta, ex-Commissioner for Taxation, Customs, Statistics, Audit and Anti-Fraud, are considered between February 2010 and November 2014.⁵⁷ From November 2014 until November 2019,

⁴⁹ Even though the start of the Eurozone crisis was at the end of 2009, beginning of 2010 has been selected as starting point in order to have only full years in the data.

Access:

https://ec.europa.eu/commission/presscorner/advancedsearch/en?keywords=&dotyp=4&parea=1013&datepic kerbefore=&commissioner=0&datepickerafter=&dateafter=

⁵¹ European University Institute, *Barroso*, *José Manuel*, European Union Institute, 2018, retrieved 1 May 2021, https://archives.eui.eu/en/isaar/650

European Commission, *The Commissioners (2014-2019)*, European Commission (archived), 2019, retrieved 1 May 2021, https://wayback.archive-it.org/12090/20191119095411/https://ec.europa.eu/commission/commissioners/2014-2019_en

⁵³ European Commission, *The Commissioners (2019-2024)*, European Commission, 2021, retrieved 1 May 2021, https://ec.europa.eu/commission/commissioners/2019-2024 en

⁵⁴ The period covered by the data for the Commision starts in February 2010 but, to avoid having a number of speakers too important, the short period between January 2010 and February 2010 is not considered here.

European Commission, European Commission – Commissioners 2010-2014, European Commission (archived), 2014, retrieved 1 May 2021, https://ec.europa.eu/archives/commission_2010-2014/members/index_en.htm

⁵⁶ Ibid.

⁵⁷ Ibid.

Pierre Moscovici as Commissioner for Economic and Financial Affairs, Taxation and Customs is studied.⁵⁸ For the remaining time, from December 2019 until December 2020, the focus is on Paolo Gentiloni's discourses as Commissioner for Economy.⁵⁹ In the remaining of the text, the different Commissioners are referred to as 'ECFIN Commissioners'.

The number of speeches contained in the database is high. A selection based on the title of the speeches was made to limit the number used in this study. All the speeches relating to economics in broad terms (e.g.: growth, employment, trade agreements,...) were kept while others were left out. Many of the texts omitted were for example statements given by the President or the Commissioner following a meeting with a Head of State, these were not considered because they were deemed too focused on a particular case and are too numerous to all be included in the sample.

For the ECB, a similar process was followed. The speeches given by the different Presidents and Vice-Presidents for the period studied were collected from the 'Media' section of the ECB website. For the Presidents, the data contains speeches given by Jean-Claude Trichet from the beginning of the period studied, January 2010, until October 2011. From November 2011, the speeches given by Mario Draghi until October 2019 are analysed. For the remaining period studied, from November 2019 until December 2020, the speeches analysed are Christine Lagarde's. Regarding the Vice Presidents, the first months studied, from January 2010 until May 2010, are about the discourses of Lucas Papademos. From June 2010 until May 2018, Vítor Constâncio is the speaker analysed. Luis de Guindos is the one who gave the speeches from June 2018 until the end of the period studied. Almost all the speeches contained in the database were used in the analysis. Only discourses about inaugurations, laudations, 'speeches in memory of...', awards,..., so the speeches not linked to policy making, were omitted.

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⁵⁸ European Commission Commissioners 2014-2019.

⁵⁹ European Commission Commissioners 2019-2024.

⁶⁰ Access: https://www.ecb.europa.eu/press/html/index.en.html

⁶¹ European Central Bank, *Executive Board members – terms of office*, European Central Bank, 2021, retrieved 15 March 2021, https://www.ecb.europa.eu/ecb/orga/decisions/eb/html/ebtimeline.en.html

⁶³ European Central Bank, Executive Board members – terms of office.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

In both cases, the speakers were selected because of their importance for the institution and because not all the important actors from these institutions can be considered. For the ECB, the Presidents and Vice-Presidents were deemed to be the best actors to present the overall views of the ECB. In the Commission, the Presidents were also selected to represent the overall view of the Commission and the discourses by the ECFIN Commissioners were chosen to have texts focusing more explicitly on the economy. For all the speakers, the speeches not in English were disregarded to make the sample more homogeneous. In each case, the fact that there is a change of speaker during the period studied could influence the discourses delivered.

In sum, the data used for this study is composed of 951 speeches in total, given by different European officials at different moments. The corpus contains text related to the economy in broad terms, delivered in English between January 2010 and December 2020. Going back to the theory, this dataset fits the DI characteristics by looking at communicative and coordinative discourses – given in the European Parliament for example, without differentiating between the two types. The different speakers and institutions also give a good mix of structure and agency.

2.2.2 Quantitative text analysis

The corpus of speeches was used to perform a quantitative text analysis using the software 'AntConc', designed by Laurence Anthony, ⁶⁷ to investigate different statistics about the corpus of text to discover different characteristics and patterns.

2.2.2.1 Concordance tool

The first tool used in the analysis is the concordance tool. This tool shows "how a search term is used in a target corpus". ⁶⁸ The results show the search term encompassed by the other words around it, giving indications on the situation in which the word appears. Even though this functionality is useful, the concordance tool in this case is only used to determine how many times a certain term appears in a corpus of text. The total number of times this term appears in the corpus is divided by the number of speeches in this corpus to give an average frequency per speech for each term ⁶⁹ and make the comparison between

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⁶⁷ Access: https://www.laurenceanthony.net/software/antconc/

⁶⁸ Laurence Anthony, 'AntConc: a Learner and Classroom Friendly, Multi-Platform Corpus Analysis Toolkit', *An Interactive Workshop on Language e-Learning*, 2004, p.9.

 $^{^{69}}$ Total # of occurrences of term X in corpus Y/Total # of speeches in corpus Y = average # of occurrences of term X in a speech in corpus Y.

different corpuses easier and more precise because the number of speeches analysed is accounted for. Still, it is acknowledged that the number of speeches in a corpus of texts has an impact on the results because a higher number of speeches considered increases the probability that a term is found in this corpus.

For this first step of the analysis, 11 terms in total were investigated. These terms were selected mostly based on their relevance regarding the fiscal debate that is assessed here. 'Debt' is one of the selected terms because it is the main subject of this study. 'Austerity' is also selected because this is a term that is often linked to debt, being one way to limit the amount of debt in a country. 'Growth' is part of the selected terms because this is an important economic characteristic for a country, and it could be linked to the levels of debt in that country. However, it should be noted that this term is not included for its link to debt directly but only to see whether the attention given to one of the terms, 'debt' or 'growth', comes at the expense of the attention given to the other term.

'Fiscal' is included to refer to fiscal policies because these are often linked to the stabilization of debt and are then very important for this study. This term is also used to refer to other fiscal actions taken by the policymakers because these are associated with changes in the debt level of a country, hence also being central for this research. Some terms to make the reference to fiscal actions are also included. 'Fiscal expansion' is included in the search-terms because it refers to the increase of spending by the government or a reduction of taxes to the decrease in government spending or an increase in taxes, and hence the decrease of the level of debt, is also included as a search-term. 'Fiscal consolidation', defined as "concrete policies aimed at reducing government deficits and debt accumulation" is part of the search-terms because it is also directly linked to debt.

"*debt*' is also included in the search-terms because 'debt' is the most important word in the study and including this term allows to capture all the variations of 'debt', which are also important. 'Fiscally' is included as a search-term for similar reasons, to capture a

⁷⁰ Carlo Favero and Francesco Giavazzi, 'Debt and the Effects of Fiscal Policy', *National Bureau of Economic Research Working Paper Series*, 2007, p.2.

⁷¹ Wendy Carlin and David Soskice, *Macroeconomics – Institutions, Instability, and the Financial System*, Oxford, Oxford University Press, 2015, p.356.

⁷² OECD, 'Fiscal Consolidation – Targets, Plans, and Measures', OECD Journal of Budgeting, 2011, p.17.

variation of 'fiscal'. Finally, the terms 'sustainable debt' and 'unsustainable debt' are also used as search-terms to investigate the feeling surrounding 'debt'.

For this first step, the corpus of text is divided in different ways to compare the results of focusing on different speeches. Two divisions are discussed more intensively. First, when all the 951 speeches are used, giving a general overview of the data and a first impression on the relative importance of the different words studied. Second, when the discourses are divided between the institutions and based on the years they were delivered in, picturing the evolution of the discourses in each institution over time. This division allows to link the results to particular speakers, permitting to assess whether the evolution of the discourses depends on the person giving the speech or not.

Some results about the average frequency of use of the terms in the different situations are presented in graphs and discussed in the results section. These results can be used to partially answer the question of whether and when there is a change in the discourses based on the frequency of the use of a term. Additionally, these results are used to decide which terms are most important in the corpus, a higher frequency of use showing a greater importance, and hence which terms will be considered in the deeper analysis. As already discussed before, the term 'growth' is automatically disregarded for the deeper analysis, even if it were shown to appear frequently in the discourses, because this term is not directly linked to the questions asked in this study. This term is investigated in the first part of the analysis to determine whether the attention given to 'debt' was linked to the attention given to 'growth'. This relationship between the importance of the terms is a useful result, also regarding the effect of the background of the speakers, but the actual term 'growth' is not the focus of the study, so it is not considered in the further analysis.

2.2.2.2 Collocates and clusters

For the deeper analysis, only the results for terms that are determined to be the most important by the concordance study are discussed. For the reasons presented before, the term 'growth' is automatically taken out of the sample of terms studied. The actual terms studied are presented in the results. In this case, only two groups of speeches are analysed: the corpuses divided based on the institution giving the speech and the years. These divisions give the finest grouping of the speeches and give an answer to the questions regarding the change of the discourses because it looks at the evolution of the discourses over the years in each institution. The fact that the speeches are divided based on the institutions allow to study the influence of the speakers' background on the speeches. By putting together the

results for the two institutions, it is possible to determine the evolution of the discourses at the EU level.⁷³

In this second part of the quantitative analysis, the collocates and clusters tools are used to study the environment of the terms. The collocates are the words that often appear in the environment of the search-term. In this case, the environment is defined 5 words to the left or the right of the search-term. This size of environment is deemed enough to have a view on the context in which the search-term appears without deviating from the focus on that word. The collocates give an impression of the context in which the search-term is used, without referring to the direct qualification of the word. To have a view on the direct qualification of the search-term, "clusters of words that surround a search term" are investigated. The size of these clusters, indicating the number of words that appear directly on the left or the right of the search-term, is set at between 2 and 10. This interval is chosen to capture the words directly next to the search-term but also possibly the full sentences that appear before or after the search-term.

In both cases, the results are ranked based on the frequency at which they appear in the corpus, not the statistics or probability, because it is deemed critical that the collocates or clusters appear several times and in different speeches. The minimum frequency threshold in both cases is set at 3, meaning that the collocates or clusters have to appear at least 3 times in the whole corpus studied to be considered in the results. This minimum frequency is deemed appropriate to disregard the collocates or clusters that only appear once or twice in the speeches, but it is still not too high to keep a reasonable number of results to be able to draw conclusions. Additionally, in both cases, the results not helping in qualifying the search-terms or describing the context in which they are used (e.g.: the, and, of,...) are disregarded in the analysis.

The conclusions from the analysis of the clusters and collocates give an impression of the context in which the search-terms are used and of the feelings linked to them. This study of the feelings and surroundings of the search-terms allows to first complete the answers to the questions of *whether* we see a shift in the discourses and, if we do, *when* it happens. Additionally, these results answer the question of *how* the discourses change, if

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⁷³ This is not exactly the evolution at the EU level because only two institutions are studied, but since they are among the most important ones for taking decisions regarding this topic, the results are quite accurate for representing the EU level.

⁷⁴ Anthony, op. cit,, p.11.

they do. After answering these questions, there is still a last question to answer: the *why* the discourses changed or not.

2.2.3 Interviews

A first way to confirm whether or not the discourses about debt shifted over the years and give possible reasons why this shift happened or not, is to conduct interviews with EU officials to get more information about the reflection inside the institutions. For this study, three interviews were conducted. The interviewees are EU officials who were working at some point during the period studied for one of the institutions considered.

2.2.4 Qualitative analysis

Another way to discover the reasons why the discourse about debt has changed or not in the institutions is to do a qualitative analysis of the speeches. Some speeches contained in the data for the quantitative analysis are investigated more closely. This is done by looking at the clusters results and looking around them in the speeches to have a broader view on the context in which they appear. This broader view is analysed and gives more precision about the views on debt in the discourses, and possible justifications for these views.

3 Analysis and results

This section presents the results of the analysis. First, the concordance results – the frequency of occurrences of the terms – are presented. Based on these a preliminary answer to some of the research questions is developed and the words considered in the second, deeper part of the analysis are selected. Second, the collocates and clusters – showing the context and feelings linked to a word – are presented for the selected words. The interpretation of these results is also presented and complemented with the results of the interviews and qualitative analysis.

3.1 Frequency of occurrences

This section presents the results of the first step of the analysis, the concordance analysis. In this study, this analysis is used to see how many times a certain term appears in a corpus of texts, which allows to determine the importance of this term in the corpus. A term that appears more frequently in the corpus is deemed to have a higher importance.

3.1.1 Complete corpus

First, the complete corpus of speeches is studied. Only one graph showing the total number of occurrences for the different terms is presented in figure 1. From this graph, we can see that four terms appear a lot more frequently than others: 'growth', 'fiscal', '*debt*' and 'debt'. The last two terms overlap, but the difference between the number of occurrences for '*debt*' and 'debt' shows the importance of the variations of the word debt, it is not very high. The seven remaining terms only happen on rare occasions in the corpus. Still, among these infrequent terms, 'fiscal consolidation' has a certain importance.

The four terms that are found to be used most often in the text are also the most general ones, the other ones are more specific. This difference between the nature of the terms can explain the difference in the number of occurrences in the corpus. However, one term that is also quite general, 'austerity', is found to appear only a low number of times. The feelings linked with austerity are generally negative, certainly explaining the reluctance of policymakers to use this term in their speeches. On the contrary, growth is the term that is most often used in these speeches, among the investigated search-terms, which is probably linked to the generally positive feeling that is present when discussing growth – at least when it is about positive growth. 'Debt' and 'fiscal' are also often mentioned in the speeches, showing the importance of these concepts in policy discourses.

Concordance - All terms

7000
6000
5000
90
4000
1000
0
Debt Risterited Growth Fiscal Fiscal Contraction at the Fiscal Fiscal Contraction at the Fiscal Contraction at the Fiscal Fiscal Contraction at the Fiscal Contraction at t

Figure 1 Number of occurrences of the different terms, full sample

Source: author, based on collected data.

The results obtained for the different divisions of the corpus are now discussed. From this point onwards, the average frequency of use of a term per speech is now used instead of the total number of occurrences of the terms.

For the analysis of the division of the corpus based only on the speakers' institutions and then only on the year of delivery, only the final results are presented. When comparing the frequency of use of the terms between the Commission and the ECB, we find that in most cases, words relating to debt and fiscal policies are most often used by the ECB. The ECB additionally talks more about growth than the Commission. However, the Commission is the most important communicator about 'fiscal consolidation'. The analysis of the evolution of the use of different terms over the years gives interesting results. First, the direct reference to debt is frequent in the discourses between 2010 and 2019 but falls in 2020, showing that debt is not an important variable in the response to the Covid-19 crisis. 'Growth' is mentioned several times per speech during the whole period studied, but the frequency is also lower in 2020 than in the other years. This decrease in frequency could be linked to a willingness to dissimulate the negative effects of the Covid-19 crisis. 'Fiscal' is used less often in 2020 than in 2010-2012, and linked to that, 'fiscal consolidation' also plays a more important role in the aftermath of the eurozone crisis. Similarly, 'austerity' is mostly used in the aftermath of the eurozone crisis, on rare occasions. Finally, the sustainability of debt is directly mentioned between 2011 and 2014, with the view of unsustainability dissipating, replaced by a view of sustainability. A change in the discourses can already be determined here. There is a decreasing trend in the number of occurrences of all the terms

studied. In most of the cases, the most important change in the discourses seem to be linked with the start of the Covid-19 crisis in 2019-2020.

3.1.2 Division based on institutions and years

Now that the overall results have been presented, we shortly analyse and compare the evolution over time in the two institutions separately. In the previous discussion, the results were justified by looking at the economic situation and actions of the institutions in general. Here, since the speeches are divided based on the institutions, it is possible to link the speeches to particular speakers and assess the effect that their political background has on the results. Before presenting the results of the analysis, the background of the different speakers is briefly discussed.

In the Commission, as table A1 shows, there are four changes of speakers in total. In 2014, Juncker replaced Barroso as the President of the Commission and Moscovici replaced Olli Rehn⁷⁵ as ECFIN Commissioner. In 2019, von der Leyen replaced Juncker as President of the Commission and Moscovici was replaced by Gentiloni. The two changes of President should not significantly impact the content of the discourses, at least when considering the political ideology behind these, because all the Presidents were part of the EPP⁷⁶, hence having right-wing ideas. ⁷⁷ Regarding the ECFIN Commissioners, the moment when Moscovici took over the position marks the moment when the ECFIN Commissioner became a position linked to left-wing politics instead of centre-right politics. ⁷⁸ The nomination of Gentiloni for replacing Moscovici continued on the path of left-wing politics. ⁷⁹ In the ECB, the political background of the speakers is supposed to be less important because of the ECB's independence. However, starting with Draghi, it was understood that politics has an

⁷⁵ With a short period in between occupied by Katainen and the simultaneous analysis of speeches by Šemeta. ⁷⁶ European People's Party.

⁷⁷ Barroso: European University Institute *Barroso, José Manuel*, loc. cit.; Juncker: Jean-Claude Juncker, *Speeches Political Guidelines for the next European Commission*, European Commission, 2014, p.3, retrieved 1 May 2021, https://wayback.archive-it.org/12090/20191008230752/https://ec.europa.eu/commission/sites/beta-political/files/juncker-political-guidelines-speech_en.pdf; von der Leyen: European People's Party, *Network*, European People's Party, 2021, retrieved 1 May 2021, https://www.epp.eu/network

⁷⁸ Rehn and Šemeta: Barroso gets new EU Commission team, BBC News, 2009, retrieved 1 May 2021, http://news.bbc.co.uk/2/hi/europe/8378401.stm; Moscovici: Robert, Aline, Moscovici out of the Commission race due to lack of French support, Euractiv, 2018, retrieved 1 May 2021, https://www.euractiv.com/section/eu-elections-2019/news/moscovici-renonce-aux-elections-europeennes-faute-de-soutien-francais/

⁷⁹Socialists and Democrats, *Our Commissioners*, Socialists and Democrats, 2021, retrieved 1 May 2021, https://www.socialistsanddemocrats.eu/working-for-you/our-commissioners

important role to play also in the central bank and Lagarde followed his lead.⁸⁰ It will be interesting to see whether this politicization of the ECB decisions is playing a role in the ECB discourses about debt.

The results for the Commission are presented in figure 2 and the ones for the ECB are presented in figure 3, the discussion for both is simultaneous. In both cases, on the graphs showing the results for all the terms, grouped per term, we again see that the four most important terms are 'growth', 'fiscal', '*debt*' and 'debt', followed by 'fiscal consolidation'. In each case, we again see a general decreasing trend in the number of occurrences of the terms, but with considerable fluctuations in some cases, especially for the ECB.

Regarding 'debt' and '*debt*', first in the Commission, these terms are most often used in the years just after the Eurozone crisis, from 2010 to 2012. From 2013 the frequency decreases and reaches the lowest level in 2017. The frequency of use in 2020 is also quite low, with a mention only approximately every 2 speeches. The frequency in the Commission is low compared to the results of the ECB. Indeed, the Presidents and Vice-Presidents of the ECB mention debt consistently around 2 to 3 times per speech until 2018. 2019 and 2020 have the lowest frequency. In any case, the ECB mentions 'debt' a lot more often than the Commission. This shows the importance that debt is given in each institution, the ECB making it more central to its discourses and hence more important. Still, we see that in both cases, the number of occurrences is lower in 2020 than in 2010, showing that the matter of debt was less discussed in the response to the Covid-19 crisis than in the response to the Eurozone crisis. These changes are supposed to be predominantly caused by the different economic situations.

Next, we look at the frequency for 'fiscal'. In both cases, 'fiscal' is most often mentioned in the years following the Eurozone crisis, in 2010-2011. In the Commission, from 2013 onwards, the lower frequency remains approximately stable until 2017, falling in 2018 and 2019, but increasing again in 2020. In the ECB, in 2012 the frequency falls and remains similar until 2014 and then decreases in 2017 and increases again in 2018 to keep the same frequency until 2020. From these results, it seems that in both cases, the fiscal side was more important in the years following the eurozone crisis than during the later years and

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⁸⁰ Guntram Wolff and Rebecca Christie, *Politics, not policy will help Lagarde save the eurozone*, Politico, 2019, retrieved 1 May 2021, https://www.politico.eu/article/christine-lagarde-ecb-european-central-bank-politics-not-policy-save-eurozone/

the response to the Covid-19 crisis. It also seems that the ECB was more willing to talk about this than the Commission. These first observations are not directly in line with the evidence collected through interviews with ECB officials who mentioned that fiscal policies were acknowledged to have become more important to stabilise the economy towards the middle of the period studied here, Glöckler for example referring to the speech given by Draghi in 2014 in Jackson Hole. ⁸¹ Additionally, Glöckler mentioned that there was an evident separation between monetary and fiscal policies in the early years in the ECB while in the later years, the fiscal-monetary interaction became more important. ⁸² These views are not reflected in the results.

The evolution of the number of occurrences of 'growth' seems to have opposite dynamics in the two institutions. Indeed, in the Commission, 'growth' was mentioned 7 to 10 times per speech between 2010 and 2012 while later on it was less than 4 times per speech on average, with the lowest frequency observed in 2017. In the ECB, on the contrary, 'growth' was mentioned most often during discourses between 2014 and 2018. The highest frequency was observed in 2018, at almost 12 mentions per speech on average, while the lowest frequency of around 3 times per speech on average was observed in 2020. As argued before, the low frequency in both institutions in 2020 could show that the officials did not want to attract attention to the negative effects of the crisis on the growth rates. The analysis of the frequency of 'growth' shows whether a focus on debt and growth can appear in the discourses simultaneously. In the Commission, it is seen that the evolution of the frequency of the two terms is similar and decreases over time. In the ECB, the evolutions are also very similar, with many fluctuations but still a decreasing general trend. It can hence be said that a focus on growth does not replace a focus on debt, nor the other way around. The change of political background of ECFIN Commissioner becoming more left-wing could have influenced the discourses and led to a higher focus on 'growth' than 'debt', but this is not seen here.

When looking at the terms that appear less often, first looking at 'austerity', as seen before, it is almost only mentioned by the Commission. The term only appears once in one

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⁸¹ Interview with Official 1, ECB, Bruges (Webex), 23 April 2021; Interview with Gabriel Glöckler, Principal Adviser DG Communication, ECB, Bruges (Webex), 15 April 2021; Mario Draghi, 'Unemployment in the euro area', Annual central bank symposium in Jackson Hole, 22 August 2014, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2014/html/sp140822.en.html

⁸² Interview Glöckler.

speech by Draghi at the ECB in 2015.83 In the Commission, 'austerity' is used on more occasions, but its use remains rare. In 2020, regarding the response to the Covid-19 crisis, the word austerity was not mentioned, again proving that this concept was not considered when talking about the response to the Covid-19 crisis. Regarding the terms 'fiscal expansion', 'fiscal contraction', 'fiscal consolidation', and 'fiscally', mostly only 'fiscal consolidation' is mentioned at different occasions. In the Commission, this term was mentioned approximately once per speech in the years following the Eurozone crisis, showing the importance of this principle for responding to the crisis. From 2013 onwards, this concept is mentioned at a decreasing frequency, to reach 0 in 2019, but in 2020 the term appears again, at rare occasions. The fact that the focus on fiscal consolidation seems to disappear based on these results is not in line with the affirmations given by Moscovici during an interview, who mentioned that "fiscal consolidation was really the central purpose of our rules and our management until the [Covid-19] crisis". 84 However, he acknowledged that they "introduced flexibility", meaning that "the thing was not pure consolidation, that was not 'à la lettre' implementation of the rules (...)". 85 This second affirmation could explain the reason why the number of occurrences of 'fiscal consolidation' decreases, but in the deeper analysis, it should be found that the ideas of 'fiscal consolidation' were still present in the discourses until 2019, even if the term itself is not mentioned. In the ECB, the frequency for the term 'fiscal consolidation' also decreases, but already from 2010 onwards, and it starts from a lower level than at the Commission. Here, the frequency reaches 0 in 2016, then increases again to appear on rare occasions during discourses in 2018, the term however does not seem to reappear when the ECB discusses the Covid-19 crisis. These findings for the ECB are in line with the results of the interview with Glöckler who mentioned that the speech about "whatever it takes" by Draghi⁸⁶ marks the moment where "we started to change also our rhetoric away from pure consolidation, towards growthfriendly composition of public expenditure". 87 The remaining terms occur on too little occasions to play a role and be discussed here.

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⁸³ Mario Draghi, 'Hearing at the European Parliament's Economic and Monetary Affairs Committee (introductory remarks and Q&A)', Brussels, 23 March 2015, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2015/html/sp150323 1.en.html

⁸⁴ Interview with Pierre Moscovici, President of the 'Cour des comptes' and former EU Commissioner, Bruges (Webex), 26 April 2021.

⁸⁵ Ibid.

Mario Draghi, 'Verbatim of the remarks made by Mario Draghi', Global Investment Conference in London, 26 July 2012, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html

⁸⁷ Interview Glöckler

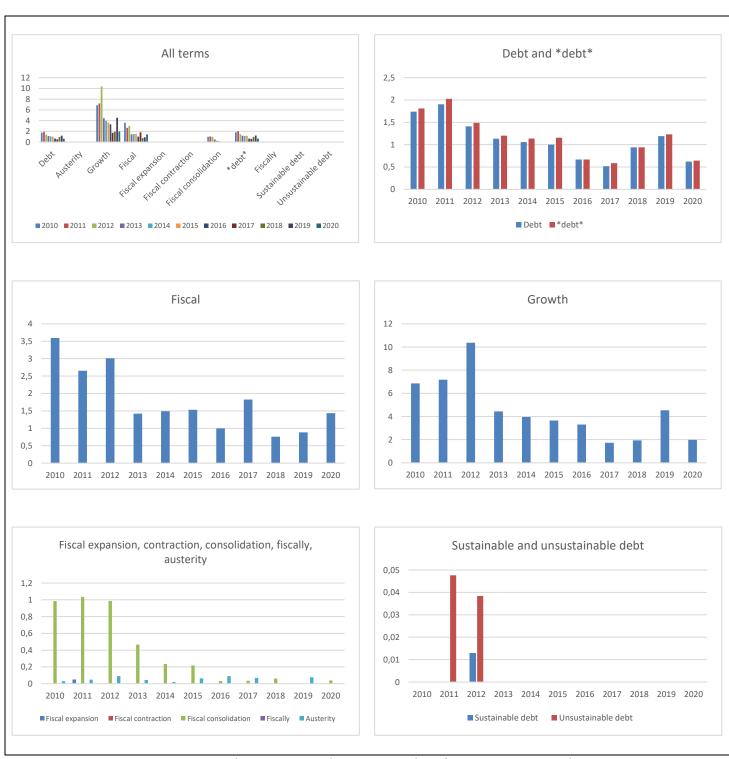
Finally, regarding the qualification of the debt as 'sustainable debt' or 'unsustainable debt', both institutions use these exact terms only at rare occasions. The Commission qualifies the debt as unsustainable in some of its discourses in 2011 and 2012, while in 2012 it also mentions the possibility of sustainable debts. In the ECB, the debts are mentioned to be unsustainable in some discourses in 2011 and 2013. Surprisingly, in 2013, 'sustainable debt' is mentioned as many times per speech on average as 'unsustainable debt'. In 2014 however, the ECB mentions 'sustainable debt' more frequently, but still at rare occasions. After 2014, the institutions do not use these terms to qualify the debt in their discourses. This does not mean that the debt sustainability is not considered. Moscovici made it clear that "sustainability of public debt is still something that matters for the future". *88*

In conclusion, the five most important terms identified in the corpus are 'growth', 'fiscal', 'debt', '*debt*', and 'fiscal consolidation'. This shows that the ECB and the Commission are focused on growth when giving discourses, but they also both often talk about fiscal issues. 'Debt' also appears on regular occasions in the discourses of the two institutions, but the evolution over time of the use of this term is different in the two institutions. The Commission uses it more often just after the Eurozone crisis while the highest frequency in the ECB is seen in between the Eurozone and the Covid-19 crises. This difference in the progressive evolution is also true for 'growth'. Concerning 'fiscal', the use in each institution is most important in the aftermath of the Eurozone crisis and logically, this evolution over time is also true for 'fiscal consolidation'. The evolution of the frequencies is different between the institutions, but the actual frequencies are also different. The ECB uses the terms 'debt', 'growth' and 'fiscal' more than the Commission. Not following the tendency for 'fiscal', 'fiscal consolidation' is most often used in the Commission's discourses. This could be due to the political weight of this term. Regarding the qualification of the debt as sustainable or not, since only the actual expressions 'sustainable debt' or 'unsustainable debt' were looked for in the corpus, not many appearances are seen. The two institutions use these terms in different years and at different frequencies. The political background of the speakers could not compellingly be used to explain particular results and some findings are in contradiction with the evidence collected during interviews. The deeper analysis for some of the terms is useful for giving more information about these results.

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⁸⁸ Interview Moscovici.

Figure 2 Concordances, European Commission per year



Notes: vertical axis represents the average number of occurrences per speech. Source: author, based on collected data.

Figure 3 Concordances, ECB per year



Notes: vertical axis represents the average number of occurrences per speech. Source: author, based on collected data.

In sum, based on this first analysis, we see that the frequency at which different terms linked to debt and fiscal policies are used differs depending on the year that is investigated, as well as on whether we look at discourses in the ECB or the Commission. These results

allow to give a preliminary answer to the question of whether there is a shift in the discourses, and if there is one, when it happens. It was found that there are changes in the discourses because the frequency at which the different terms related to debt are used changes over time. For example, the diminution of the use of 'debt' suggests that the importance of debt in the discourses changes, and it is possible that the feelings linked to it also change. The diminution of the focus on fiscal consolidation that appears in these results also insinuates that the views on debt change over time because the focus on the diminution of the accumulation of debt is decreased. Even if we can see from these results that there is a change in the discourses, it is gradual and no specific moment of change can be highlighted. The further investigations allow to have more precise results about whether we indeed see a shift in the feelings about debt in the discourses, or just a change in the frequency of their use, and about the timing of the changes.

To make a first link to DI which claims that discourses and ideas play a central role in the changes in an institution, an attempt has been made to link the change in the discourses observed here with the speakers. No fluctuation could convincingly be linked to the change in speakers and the influence of their political backgrounds. The more precise results of the deeper analysis might give more convincing results about the theory. Still about growth, as argued before, we find that it is used at a decreasing frequency over time, so the use of 'growth' is not replacing the use of 'debt', nor the other way around.

Based on the concordance results, the terms analysed more deeply in the next steps of the analysis are selected. The first thing to remember is that 'growth' was only included in this part to test whether attention to growth replaces the attention to debt, and it was found that it is not the case. Three other terms - 'fiscal', 'debt' and '*debt*' – are found to be very important in the corpus, and are then selected for the deeper analysis. However, it is deemed that the results for '*debt*' would not add much value to the results of the analysis of 'debt', this term is then excluded from the deeper analysis. This decision is also supported by the fact that the evolution over time of the two terms is very similar, proving that concentrating on only one of them is sufficient to determine their importance in the discourses. For similar reasons, even if 'fiscal consolidation' is the most important term among the rarest terms, it is not studied because it is believed that the study of this term would overlap too much with the study of 'fiscal' and would not add much value to the analysis. The other terms that do not appear often – 'austerity', 'fiscal expansion', 'fiscal contraction', 'fiscally', 'sustainable debt' and 'unsustainable debt' – are also not included in the sample of terms for the deeper

analysis because the fact that they do not appear frequently in the speeches makes them less important, and it is deemed that it would not add much value to the overall analysis to analyse them more deeply. In the end, the results for only two terms are presented for the findings of the deeper analysis: 'debt' and 'fiscal'.

3.2 Context of use and feeling

Now that some first answers have been given to some questions and that the most important words have been determined, we analyse the environment of the selected terms – 'debt' and 'fiscal' – to determine in which context they are used, and most importantly, the feelings that are linked to them in the discourses. The results of this deeper analysis complement the first answers given by the concordance analysis, give an answer to the other questions of this study, and helps make a more concrete link with the theory.

As discussed in the methodology, two characteristics of the discourses are discussed to investigate the environment of a word: the collocates and the clusters. The results are presented in tables A3 to A90 in the annexes. The most useful results for determining the context and feeling around a word are presented in bold in those tables. Regarding the investigation of the clusters, in some cases, more investigation was made to find the words following or preceding the results presented in the table, or to make the link between the right and left clusters, to have more complete results.

The results and analysis for 'debt' are first presented, giving the collocates and clusters analysis for the Commission, followed by the analysis for the ECB. These first results are then put together to discuss the general trend at the EU level. The results for 'fiscal' are then presented by following the same logic. A general conclusion about the two terms and what it means for the discourses is then presented and discussed.

3.2.1 Debt

3.2.1.1 Views on debt in the Commission

The first results to be analysed are the ones in tables A3 to A13, presenting the collocates for 'debt' in the Commission speeches per year. Throughout the years, the public debt is the main focus of the discourses when referring to debt. In the first years of the study, from 2010 until 2012, 'sovereign' debt is mentioned on many occasions. This term still refers to the public debt but is used when referring to the sovereign debt crisis, explaining why it appears most often in the years directly following this crisis. From 2010 until 2014, the

words used in close connection with 'debt' suggest that debt is seen as a problem that has to be solved. Indeed, 'reduction' and 'excessive' are among the most frequent collocates of 'debt' in 2010, in 2011 and 2012 'high' and 'unsustainable' also prove this point. In 2013, 'high', 'unsustainable' but also 'irresponsible' are often linked with 'debt'. In 2014, 'high' and 'excessive' are also often used, again proving that debt is generally seen as problematic. The notion of debt sustainability is also often mentioned during this period. In 2011, 2012 and 2013 we also see that 'growth' is often discussed in relation to 'debt'. This analysis cannot tell how debt is considered to influence growth here, but we know that there is a link that is made between the two concepts on different occasions.

From 2015 onwards, the number of occurrences of 'debt' diminishes, and with it the number of collocates that can be considered in this analysis. The results hence give less details, but we can still draw conclusions. In 2015, public debt and its high levels are still very important in the discourses. The mentions about debt 'sustainability' are also still frequent, but there is no more direct mention of 'unsustainable', suggesting that debt is becoming to be seen as less problematic. In this year, the debt-to-GDP ratio also becomes more important in the discourses. In 2016, the same trend continues, with the GDP ratio being frequently mentioned. In this year, the private debts are also often discussed, so the discourse is not only focused on public debt. High levels of debt are also still often mentioned in the discourses, showing that debt and deficits are still discussed to be at high levels, but this discussion does not only concern public debt. In 2017, 'debt' only appears on very rare occasions so not many collocates can be discussed, but still 'public' and 'high' are often found to be used around 'debt', again showing that there is probably still a concern about public debt being too high.

In 2018, the number of collocates for 'debt' increases again. The focus is still on 'public' debt, but from the mentions of Greece, Italy, 'criterion' and 'meaningfully', it can be deducted that the discourses about debt in the Commission in that year were more focused on evaluating the measures and rules. In 2019, the focus is still on 'public' debt, but no other collocate can be used to say more about the feelings or the context. Finally, in 2020, the discourses again mention 'high' and 'public' debt on many occasions. However, in this case, 'next' and 'measures' show that the speeches reflect on what will have to be done, probably linked to the Covid-19 crisis, even if it is not directly mentioned. The context of using debt in 2020 is clearly about discussing future measures, but the collocates do not allow to see the feelings that are linked to debt in this case.

In sum, using the collocates of 'debt' in the discourses given by the Commission, we find that debt is viewed negatively from 2010 to 2014, being really obvious until 2012. From 2015 onwards, the discourse becomes more neutral, still often finding the word 'high' linked to debt. In 2018 there seems to have been an evaluation of the current and past measures on debt and in 2020, an evaluation of measures that will have to be taken regarding debt during the Covid-19 crisis. The discourse started to shift in 2012 and seem to have completely shifted in 2015, going from an obvious negative evaluation of debt in the first discourses to a more neutral discourse from 2015 onwards.

The results for the clusters around 'debt' in the speeches given by the Commission are presented in table A14 to A24. The evolution of the information given by these clusters over the years is again discussed. In 2010, the talks focus on sovereign and public debt, but there is a negative feeling linked to them as 'excessive debt' shows. In two discourses, Rehn acknowledges the shortcomings that the crisis has shown about the euro, most precisely, the fact that "good times were not used to reduce public debt". This again shows that debt is seen as something that has to be decreased and is then problematic. There are also discussions about the evolution of debt. Rehn for example discusses the fact that criteria regarding a "satisfactory pace of debt reduction" will be defined on once again proving the will to reduce debt, and hence the negative feeling associated with it. In 2011, the negative view remains, as the emphasis to 'unsustainable debt' shows. Additionally, the evolution of debt and fiscal policy is also discussed when looking at 'debt restructuring', which is a

⁸⁹ Olli Rehn, 'Foundations for sustainable growth and job creation: safeguarding financial stability and reinforcing economic governance in Europe', European Parliament Plenary Session, 19 May 2010, European Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH 10 246; Olli Rehn, 'Reinforced economic policy cooperation in Europe', Joint press conference with the President José Manuel Barroso, 12 May 2010, European Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH 10 237

Commission, retrieved March https://ec.europa.eu/commission/presscorner/detail/en/SPEECH 10 350; Olli Rehn, 'Reinforcing economic confidence in Europe', ECON Committee - European Parliament, 5 July 2010, European Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech 10 359; Olli Rehn, 'Why EU Policy Co-ordination has failed, and how to fix it', The 2010 Ludwig Erhard Lecture, 26 October 2010, European Commission, retrieved 20 March 2021. https://ec.europa.eu/commission/presscorner/detail/en/SPEECH 10 590; Olli Rehn. 'Reinforcing EU Economic Governance: relevance for Ireland', Institute for International and European Affairs, 9 November European Commission, retrieved March 20 https://ec.europa.eu/commission/presscorner/detail/en/SPEECH 10 632; Olli Rehn, 'Key economic policy challenges: learning the lessons, thinking ahead', Arc 2010, 22 November 2010, European Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH 10 667

concept that is deemed unfit for solving the crisis⁹¹, or the role that Eurobonds could play in solving the debt crisis.⁹² In 2012, 'debt' is used in similar contexts as in the previous years. There is a generally negative view on debt as the mentions that there is a need to "tackle the question of sovereign debt" to strengthen economic governance in the Eurozone⁹³ and that "we can never have sustainable growth as long as we have unsustainable debt" show. The view on debt is negative here because the need to reduce it is clearly expressed, together with the impression that it is unsustainable for the whole economy. In 2013, the number of clusters available for the analysis is too small to give precise indications on the views on debt, but the focus is still on public and sovereign debt, with private debt also gaining importance. In 2014, the number of evidences is again low, but the several mentions of 'excessive debt' hints that the views on debt are still quite negative.

From 2015 onwards, the number of clusters is reduced, making it difficult to have a complete analysis based on these. The only information that is taken from the results in 2015 is that the discourses often mention 'public debt' and 'debt levels'. In 2016, again we can only say that 'debt levels' and 'debt-to-GDP ratio' are mentioned at different occasions, but nothing about the sentiments linked to debt can be said. In 2017, only 'public debt' is found in the clusters' analysis. In 2018, the number of clusters is still very low, but the mentions

⁹¹ José Manuel Barroso, 'A European economy fit for the future', Brussels Economic Forum, 18 May 2011, European Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech_11_347; Olli Rehn, 'The Regulatory & Supervisory Reform of EU Financial Institutions: What next?', COM/ECB conference: Strengthening the Foundations of Integrated and Stable Financial Markets, 2 May 2011, European Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech_11_298

⁹² Olli Rehn, 'Economic outlook and governance in the euro area', Extraordinary ECON Meeting – European Parliament, August 2011, European Commission, retrieved https://ec.europa.eu/commission/presscorner/detail/en/SPEECH 11 543; Olli Rehn, Economic Crisis in Greece and Europe', "Reset Greece" - ALDE Seminar, 7 September 2011, European 20 Commission, retrieved March https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_11_555; Olli Rehn, 'The Roadmap to a new Stability Culture in Europe', Bundestag, 27 October 2011, European Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech 11 716

⁹³ José Manuel Barroso, 'A story of European endurance and perseverance', Euro campaign event launch, 15 February 2012, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech 12 99; José Manuel Barroso, 'A EU-US partnership for growth and jobs', AECA, 26 April 2012, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_12_305; José Manuel Barroso, 'The EU and China – a crucial partnership', EU-China Business Summit, 14 February 2012, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech_12_95

⁹⁴ Olli Rehn, 'Europe's action plan for growth, employment and investment', European Parliament, 22 May 2012, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_12_378; José Manuel Barroso, 'European Union: An indispensable partner', Princeton University/Princeton, 27 September 2012, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_12_650

of 'debt criterion' indicate that there are discussions about how to manage debt. These discussions are again about 'public debt', and how to reduce debt burdens. These clusters do not give precise information about the feelings around debt, but the fact that it is so much focused on debt management suggests that the views are still on the negative side because it is something that has to be managed carefully. In 2019, there is again not enough information to determine the feelings about debt, the only conclusion that can be made is that the discourses still have a strong focus on 'high public debt' and 'debt-to-GDP ratio'. Finally, in 2020, there is again not much information given by the clusters, but the frequent mentions of 'debt measures' and 'public debt' propose that there are discussions about the way to manage debt, which is probably linked to discussions about the Covid-19 crisis.

For the Commission discourses, looking at the clusters does not add much information to what was found when analysing the collocates. Additionally, the low number of clusters in the later years makes it difficult to make valuable conclusions based on the speeches of the speakers in the later years. We still see that from 2010 until 2014 there is a relatively negative view on debt. After that, the low use of 'debt' in the discourses makes it difficult to determine the impressions on debt. In 2018 and 2020, there is a focus on debt management.

By looking at the collocates and the clusters around the 'debt' in the discourses given by Commission officials, we know in which environment the word is used, which also gives an idea about the way the institution sees debt. From the analysis of the collocates, we find that the view on debt is predominantly negative from 2010 until 2014. This negative view is confirmed by the analysis of the clusters around 'debt', even if the results are less obvious. From 2015, the analysis of the collocates shows that the discourse is becoming more neutral, but still seeing the debt levels as high so keeping some negativity. This neutrality cannot be confirmed by the analysis of the clusters because it does not give sufficient information. The analysis of the collocates also shows that in 2018 and 2020, there seems to have been two evaluations. In 2018, about the current and past years and the effectiveness of the measures that were taken during those years, and in 2020, about the measures that will be taken to respond to the Covid-19 crisis. This finding is confirmed by the analysis of the clusters, which shows that these two years focused on debt management. In short, the discourse about debt in the Commission has a clear negative view on it from 2010 until 2014, then becoming more neutral until 2020.

The finding that the views on debt are clearly negative at the beginning of the study and then becoming more neutral, but still being somehow negative, is confirmed by the evidence collected during an interview with Moscovici. Indeed, he mentioned that debt sustainability is always an important matter that has to be considered and that the Commission was always focused on that until the Covid-19 crisis. 95 In this sense he claims that when he was the ECFIN Commissioner, the Commission was "always respecting the rules, but" that they "were always interpreting them with the idea that some flexibility should be given to countries which situation was borderline or needed to be negotiated". 96 He concludes by saying that the Juncker Commission led to "change" in the discourse, "maybe the degree", but still they "did not change the paradigm" while "the crisis has changed the paradigm". 97 These remarks show that the view on debt remained quite negative over the years but that the degree of negativity linked to it decreased in 2015, after the Juncker Commission replaced the Barroso Commission, because of the introduction of flexibility in the rules. 98 This finding proves that in this case, DI is proved because the speakers influenced the speeches. It is partially Moscovici's socialist background and his persuasiveness that led to the introduction of the flexibility in the implementation of the rules⁹⁹, which led to the changes in the discourses.

3.2.1.2 Views on debt in the ECB

As for the analysis of the Commission discourses, the results of the collocates analysis presented in tables A25 to A35 are first discussed. From the results for 2010, we see that there is a strong focus on public debt in the discourses. There is also often a link between debt and 'markets' and 'securities' that is made. The fact that 'overhang', 'excessive' and 'unsustainable' are frequently mentioned shows that debt levels are seen mostly negatively and as problematic in these discourses. In 2011, the focus on 'public' debt is still present, in line with the frequency of discussion about the 'sovereign' debt 'crisis'. Sustainability is also often discussed. Regarding the feelings, the mentions of 'contagion' and 'inappropriate', for example, in close proximity to 'debt' suggest that it is viewed mostly negatively. In 2012, 'public' debt and the sovereign debt crisis are still often discussed, but now 'private' debt is also receiving attention. The links with the 'markets' and 'financial' implications are also often mentioned. However, 'sustainable' appears less often, which

95 Interview Moscovici.

⁹⁶ Ibid.

⁹⁷ Ibid.

⁹⁸ European Commission Timeline.

⁹⁹ Interview Moscovici.

could imply that the focus on sustainability is reduced. Not much information is available to assess the sentiments linked to debt here, but the general feeling seems to be quite neutral. In 2013, the same findings appear again: the focus is on 'sovereign' debt 'crisis' and 'public' debt 'levels', links are made between debt and 'markets' and the 'financial' sector, the sustainability question is asked but both 'sustainable' and 'unsustainable' appear on several occasions. Still, it is again difficult to decide on the general feeling about debt here, it seems to be neutral but leaning towards negativity as the mentions of 'excessive' around 'debt' suggest.

The findings remain similar in 2014. The focus is on sovereign debt crisis, but the notions of debt 'overhang' and 'high' debt are mentioned more frequently again. Here, the focus seems to be on the public but also on the private sector while the question of sustainability remains important in the discourses. The links with financial sector can again be made and the idea of debt 'restructuring' starts to be discussed. Still, the mentions of 'high' and 'overhang' can lead to the conclusion that the feeling about debt is quite negative. The results for 2015 are similar to the ones for 2014, with a focus on sovereign, public and private debt and the notion of debt 'overhang' appearing again. The links with financial sectors, as 'financial', 'equity', 'dynamics' show, is still made and the question of sustainability and debt 'restructuring' are also still present. Additionally, the economic impacts of debt seem to be considered as the mentions of 'economic', 'income', 'growth' and 'households' show. Even if it is again not totally clear, it seems that the emotion linked to debt is still quite negative, especially because of the mentions of 'excessive' debt and debt 'overhang'. The same feeling is concluded for the discourses in 2016, which show similar results to the ones in 2015. The same can also be said for 2017, where the main focus is on sovereign debt, the sustainability of debt, the financial links, and the effects on households. In 2018, the results are also similar and leading to the conclusion that the general feeling about debt is between neutral and negative again. In 2019, the main focus are sovereign debt, its sustainability, and the links with the financial sector. These results imply that the view on debt is neutral and not necessarily tending towards the negative side, despite some 'concerns'. Finally, in 2020, the focus is on 'public' debt 'levels' while the question of sustainability is again very important and the possibility of 'concerns' is raised, mostly the 'financial' and 'economic' ones. Still, the general view on debt in this year remains quite neutral because no terms suggest a strong negativity.

The distinction of the shift in the discourses is less easy to make here than for the Commission. The overall impression about debt in the speeches is also more difficult to grasp, being seen as quite negative in 2010 - 2011 and then becoming quite neutral until 2020, with some negativity detected in some years. Some ideas, such as the sustainability and the links with the financial sector remain in the discourses over the years.

We now focus on the clusters around 'debt' in the discourses by ECB officials. The results are presented in tables A36 to A46. Starting in 2010, we see that the focus is mostly on 'debt markets' and 'debt securities', while the 'debt-to-GDP ratio' is also important. When debt is mentioned, it is most of the time related to the 'public debt', 'sovereign debt', or 'government debt'. The level of these debts is also often discussed and qualified as high, which is linked to the frequent mentions of 'debt overhang'. The undesirability and problems linked with these high levels of debt are underlined when Trichet mentions the need for "ambitious targets for the reduction of public debt towards the 60% ceiling" and the need to "strengthen the surveillance of fiscal policies to prevent excessive deficits and unsustainable public debt". 101 In these speeches, it is clear that debts are seen negatively, due to their qualification as high and unsustainable and the fact that ways to reduce or prevent these levels are discussed. The main solution to the problems of debt in this case is then to reduce the amount of public debt. In 2011, the results are similar. The discussions are mainly about 'public debt', 'sovereign debt', '(euro area) government debt', but the levels of private debt are also discussed and qualified as high. The high levels of public and private debt are linked on several occasions to large current account deficits and losses of competitiveness 102, increasing the negative feeling surrounding 'debt'. There is also still a strong focus on the 'debt crisis', the 'debt levels', the 'debt markets' and the 'debt problems'. This last term

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¹⁰⁰ Jean-Claude Trichet, 'Lessons from the crisis', European American Press Club, 3 December 2010, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2010/html/sp101203.en.html; Jean-Claude Trichet, 'Europe's frameworks for macro-prudential oversight and economic governance', Economic of New York, 12 October 2010, ECB, retrieved 20 March https://www.ecb.europa.eu/press/key/date/2010/html/sp101012.en.html; Jean-Claude Trichet, 'Reflections on EMU', Evangelische Akademie Tutzing, 13 November 2010, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2010/html/sp101113 1.en.html

Trichet 11/10 'Reflections on EMU', loc. cit.; Trichet 10/10 'Europe's frameworks...', loc. cit., Trichet 12/10 'Lessons from the crisis', loc. cit.

Vítor Constâncio, 'Strengthening European economic governance — surveillance of fiscal and macroeconomic imbalances, Brussels Economic Forum, 18 May 2011, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2011/html/sp110518_l.en.html; Jean-Claude Trichet, 'Monetary policy in uncertain times', Bank of Finland 200th Anniversary Conference, 5 May 2011, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2011/html/sp110505.en.html; Jean-Claude Trichet, 'Reforming EMU: time for bold decisions', conference of the Group of the Progressive Alliance of Socialists and Democrats in the European Parliament "What future for the euro?", 18 March 2011, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2011/html/sp110318_l.en.html

again confirming the negative views on debt, especially when the previous "debt-financed booms in domestic demand" are considered. The concepts of 'debt sustainability', 'debt reduction' and 'debt instruments' are often discussed, and fiscal sustainability is linked to a reduction of government debt levels. ¹⁰⁴ In these discourses, debt is again seen as problematic and has to be reduced in some ways.

From 2012 onwards, the number of clusters identified in the discourses is reduced. This decreased number of evidences makes it difficult to have concrete conclusions, but some things can still be said. In 2012, the focus is still on the same concepts as before, namely 'debt crisis', 'debt levels', 'debt markets', 'sovereign debt', 'public debt', and 'government debt'. 'Private debts' are also again mentioned and gaining importance in the discourses. Constâncio also discussed the 'evolution of public debt levels' when discussing the financial crisis. ¹⁰⁵ This mention highlights the importance of debt for a country's stability. Still, the information given by the clusters in this case are not sufficient to determine the feeling about debt. In 2013, the same type of information as in 2012 is found. Still, an additional focus is given to the role of 'external debt' in the Eurozone crisis and its evolution in some countries. ¹⁰⁶ The low amount of information available again makes it complicated to decide on the sentiment linked to debt in these discourses, but since no negative or positive elements are linked to 'debt', it is determined to be quite neutral. In 2014, the focus is still on similar concepts, but with some concepts reappearing or appearing. 'Debt overhang' and 'debt sustainability' again appear in many speeches even though they

¹⁰³ Vítor Constâncio, 'The macroeconomic and financial landscape in the aftermath of the 2007 crisis: new challenges and perspectives', High Level Policy Seminar - European University Institute, 7 June 2011, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2011/html/sp110607.en.html; Vítor Constâncio, 'Economic governance and financial stability'. Meeting of the Contact Committee of the Heads of the Supreme Audit

https://www.ecb.europa.eu/press/key/date/2011/html/sp110607.en.html; Vítor Constâncio, 'Economic governance and financial stability', Meeting of the Contact Committee of the Heads of the Supreme Audit Institutions (SAIs) of the European Union, 13 October 2011, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2011/html/sp111013_1.en.html; Jean-Claude Trichet, 'Competitiveness and the smooth functioning of EMU', Lecture at the University of Liège, 23 February 2011, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2011/html/sp110223.en.html

¹⁰⁴ Jean-Claude Trichet, 'The ECB's response to the crisis', WDR Europa-Forum, 26 May 2011, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2011/html/sp110526.en.html; Constâncio 10/11 'Economic governance and financial stability', loc. cit.; Constâncio 06/11 'The macroeconomic and financial landscape...', loc. cit..

¹⁰⁵ Vítor Constâncio, 'Towards a European Banking Union', Lecture held at the start of the academic year of the Duisenberg School of Finance, 7 September 2012, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2012/html/sp120907.en.html

¹⁰⁶ Mario Draghi, 'The role of monetary policy in addressing the crisis in the euro area', "Room for discussion" of the Study Association SEFA and the Faculty of Economics and Business,15 April 2013, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2013/html/sp130415.en.html; Mario Draghi, 'Keynote address at the Süddeutsche Zeitung Führungstreffen Wirtschaft 2013', Führungstreffen Wirtschaft "Strategies for more growth" organised by Süddeutsche Zeitung, 21 November 2013, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2013/html/sp131121.en.html

were not very important in the previous years. Additionally, there is a new focus on 'debt restructuring' and the possibility of 'debt deflation'. The low amount of information still complicates the evaluation of the sentiments linked to debt, but 'burden of the debt', 'debt overhang' and 'debt deflation' suggest that the general feeling about debt is negative. The analysis of the discourses in 2015 still gives a negative impression on debt. 'Debt overhang' is mentioned by Draghi to be linked to weak demand and the "fragile private sector confidence" to explain low investments in the euro area. ¹⁰⁷

In 2016, there are still discussions about 'debt overhang', 'debt securities', and 'debt crisis'. The two types of debt are considered: the sovereign and public debt but also the private debt, such as corporate debts. No qualification of these debt levels is given, hindering an informed decision on the overall feeling around debt in these discourses. In 2017, both public and private, more precisely: 'corporate' and 'household', debts are again discussed. The sustainability of these debts is important, and debt 'crises' are discussed. Except for the notion of crises that gives a negative feeling, 'debt' is not really qualified in these discourses, hinting that the general emotion is neutral. One difference between the discourses in 2018 and 2017 is the fact that 'debt overhang' and 'debt restructuring' are mentioned more often. However, the results given by the clusters analysis do not allow to decide on the feelings linked to debt in that year. In 2019, the focus goes back to mainly public debt and leaving private debt aside. 'Debt sustainability concerns' and their possible negative impacts on the financial sector are discussed by de Guindos. 108 This focus on sustainability is then also linked to 'debt crisis' discussions. From the small amount of evidence, it can be determined that the sentiment about debt is going towards negativity. Finally, in 2020, the number of clusters is again very low, but we can see that there is a clear focus on 'public debt' and the 'debt levels'. Additionally, the potential effects of the Covid-19 crisis are also discussed and it is determined that "debt sustainability issues or concerns" could arise due to the "deteriorating economic conditions" 109 or "additional debt" 110. From these clusters, the general feeling about debt is not directly obvious, but the discussions seem to be negative.

¹⁰⁷ Mario Draghi, 'Monetary policy and structural reforms in the euro area', Prometeia40, 14 December 2015, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2015/html/sp151214.en.html ¹⁰⁸ Luis de Guindos, 'Challenges for bank profitability', OMFIF City Lecture, 1 May 2019, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190501~7733ecc1a9.en.html 109 Luis de Guindos, 'Euro area: economic outlook and financial stability during the pandemic crisis', Institute June ECB. International and European, 10 2020. retrieved March https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200610 1~64efe479b2.en.html; Luis de Guindos, 'Financial stability and the pandemic crisis', Frankfurt Finance Summit, 22 June 2020, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200622~422531a969.en.html 110 de Guindos 06/20 'Euro area: economic outlook...', loc. cit..

It is again difficult to identify a clear evolution and clear discourse shift in the discourses of the ECB. Throughout the whole period analysed, the focus is mostly on sovereign debt, as time goes the private debt becomes more important. In the early years, there is a clear discussion about mechanisms that can be used to reduce debt, and hence increase the fiscal sustainability. This discussion suggests a relatively negative view about debts. This discussion might still be present in the later years, but it is not that important because it does not show up in the clusters results. The emotion linked to debt is not easily observable. In the early years, it seems to be mostly negative, in the later years, it seems to become more between negative and neutral, but the low amount of information does not allow to have precise results about that. The notion of debt overhang is present in different speeches in almost every year, which could signify that the levels of debt are always deemed to be too high, implying a negative view on debt.

In conclusion for the views on debt in the ECB discourses, it is more difficult to see a clear evolution and shift in the discourse. In both cases, it is difficult to see the feeling about debt. In the collocates analysis, there seems to be some negativity in 2010 and 2011 while the remaining years until 2020 seem to be more neutral, with some negativity. This finding is linked to the fact that in the analysis of the clusters, the first years show a real focus on mechanisms for decreasing the level of debt, indirectly implying that debt is viewed negatively. The low amount of information given for the clusters in the remaining years does not allow to draw very strong conclusions about the later years. In the analysis of the collocates, we see that there is a focus on sustainability and the links with the financial sector over the years. This focus is also detected when analysing the clusters, but again, only the results for the first years of the study give enough information to determine this. One aspect that is more clearly seen in the analysis of the clusters is the fact that 'debt overhang' is often used in the discourses in many years. This finding shows that the level of debt is always seen as high, this has a negative connotation, which could confirm the first findings that even if the views on debt become more neutral, they remain slightly negative. In the analysis of the collocates, there seems to be an increased focus on restructuring from 2014 onwards, this is not seen in the clusters analysis. In short, the only conclusion that can be given is that there seems to be a slight shift from negative view on debt to a more neutral, but still somehow negative, one, but no real shift can be identified.

By putting together the results for the Commission and the ECB, we can draw general conclusions for the discourses about debt. The discourses in the two institutions show that the view on debt at the beginning of the period analysed here was quite negative. In the following years and until 2020, this view seems to have become more neutral, with still some negativity. The discourses in the Commission show a shift in the views in 2015, reinforced by the outbreak of the crisis. In the ECB, a clear shift is not visible. For the Commission, the findings are in line with the evidence collected during an interview with Moscovici. However, in the ECB discourses, the evidence collected during interviews with ECB officials are more difficult to see. They acknowledged that there was a clear evolution in the views about debt¹¹¹, which is not seen here.

3.2.2 Fiscal

3.2.2.1 'Fiscal' environment in the Commission discourses

The analysis of the environment of 'fiscal' to learn more about the views on debt in the Commission discourses starts with the discussion of the collocates of 'fiscal' in those discourses. These results are presented in tables A47 to A57. For the first years, from 2010 until 2015, one general observation can be made. In those years a lot of attention is devoted to fiscal 'consolidation'. This general focus, linked to the will to reduce debt accumulation, suggests that during this period, the view on debt was quite negative. Over the years, some other concepts were also mentioned. In 2010, fiscal 'surveillance' was often mentioned, together with 'sustainability', 'rules' and 'reforms'. These references show that the discourse insisted on the need for rules in the fiscal conditions. Additionally, 'economic' and 'growth' are among the words that are often found around 'fiscal', suggesting that the effect of fiscal policies and situations on the economy is also important in the discourses. In 2011, the content of the discourses is still comparable, with a focus on rules and stability when talking about 'fiscal'. Surprisingly, 'stimulus' is also found on several occasions around 'fiscal', but no implications can be made here because there is not enough information. In 2012, the focus is on the same concepts as those addressed in 2010 and 2011. Starting in 2012, talks about the Fiscal Compact treaty are continued in 2013. The focus is still otherwise the same as in the previous years. In 2014, the talks remain about 'reforms' and 'rules' and are accompanied by the concepts of 'responsibility' and 'credibility' while the focus on fiscal 'consolidation' is fading. In 2015 however, fiscal 'consolidation' is back at the centre of attention, together

¹¹¹ Interview Official 1; Interview Glöckler.

with the need for reforms to increase 'transparency' and 'sustainability' in the fiscal situations.

In 2016, the discourses do not mention fiscal consolidation anymore, even if talks about 'reforms' and 'policies' remain important. The lower focus on consolidation implies that the need to reduce debt accumulation is reduced and hence that the views on debts are becoming less negative. The same is true for the discourses in 2017, 'prudent' and 'neutral' fiscal rules are discussed together with the Fiscal Compact treaty, but there is no more strong emphasis on consolidation itself. In 2018, the number of collocates is decreased, giving less information, but still we see that the fiscal 'stance' of the member states is often discussed. In these discourses, fiscal 'policies' also have an important roles and setting 'targets' could be an example of these. The speeches given in 2019 seem to focus on similar topics to the ones addressed in 2018, with an additional focus on fiscal 'surveillance'. During those years, fiscal 'consolidation' is not mentioned regularly, but the focus is still on having strict rules and reforms about fiscal conditions. This finding shows that even though the discourse is not about reduction debt accumulation directly, the levels of debt are still carefully monitored. Finally, in 2020, the first change to notice is that the number of collocates for 'debt' increases again, showing the importance of fiscal actions for responding to the Covid-19 crisis expressed by the Commission in the speeches. By recognizing that this is an 'unprecedented' situation, the Commission acknowledges the 'need' for 'sizeable' and 'supportive' actions, which should be 'discretionary' - so not leaving the automatic stabilizer work by itself. Fiscal talks are linked to the stability of confidence and the fact that they have to help in the recovery. Here there is a clear focus on the importance of fiscal action to respond to the crisis and there seems to be no talk about controls of debt accumulations at all. These arguments hence suggest that there is an important change in the Commission discourses because of the crisis, leading to asking for fiscal actions to be taken and not implementing a strong control of debt levels.

By analysing the collocates of 'debt' in the Commission discourses, we have first seen that the idea of fiscal consolidation is often present in the discourses given by the Commission from 2010 until 2015. This idea involves a need for policies to decrease the accumulation of debts by the governments, which is possible in different ways. This idea is very central until 2013, then becomes less central but is still present until 2015. Until 2015, it is then clear that, even if the idea of fiscal stimulus is sometimes mentioned, the main goal is to reduce the accumulation of debt, which suggest that debt is viewed negatively. From

2016 onwards, this idea does not appear on a regular basis in the discourses anymore. There are still talks about fiscal rules and the need for structural reforms, but it is not directly about decreasing the accumulation of debt anymore. In this case, a clear control of debt levels is still advocated, but the views on debt seem to have become a bit less negative because there is not direct focus on consolidation. In 2020, the analysis of the collocates shows that the discourses are centred on the response to the Covid-19 crisis, mentioning the fact that this is an unprecedented situation, as well as the need for supportive fiscal policies. The discourses in 2020 about the response to the Covid-19 crisis hence show the potential that using fiscal policies has, and there is no mention about limitation of debts. The discourse about fiscal policies shifted between 2010 and 2020. In 2010, the Commission was really careful about debt and asked for fiscal consolidation to reduce their accumulation. In 2020, no real mention about limits on debt is made, but fiscal policies are seen as needed to respond to the Covid-19 crisis because of their supportive role. A first change is seen between 2015 and 2016, when views become slightly less negative. However, the real shift is in 2020, when no debt controls are mentioned anymore and views become even more neutral.

The results for the analysis of the clusters around 'fiscal' in the Commission discourses are presented in tables A58 to A68. The first observation, and one of the most important one for this study, is that 'fiscal consolidation' appears frequently in the discourses from 2010 until 2015. From 2016 onwards, the term 'fiscal consolidation' is not regularly present in the discourses. This observation does not mean that fiscal consolidation was not part of the Commission strategy regarding fiscal stances of the member states and that they did not care about debt anymore, but it shows that the focus is not on hard fiscal consolidation anymore. When fiscal consolidation is really the focus, the view on debt is clearly negative. Once the focus on fiscal consolidation is not that strong anymore, the views on debt might become less negative. This possibility is investigated by looking at the other results. In 2010, when talking about fiscal consolidation, its need is highlighted, but also, the fact that because of the Eurozone crisis "twenty years of fiscal consolidation have been wiped out in two years" putting "the financial stability of the Euro area as a whole at risk". ¹¹² Overall, there is a clear focus on 'fiscal sustainability' and 'fiscal surveillance' as the "minimum requirements for national fiscal frameworks". ¹¹³ aiming at making sure that member states

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¹¹² Rehn, 05/10 'Reinforced economic policy cooperation in Europe', loc. cit.; Olli Rehn, 'Reinforcing economic governance in Europe', European Policy Centre, 15 April 2010, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech 10 160

¹¹³ José Manuel Barroso, 'Opening remarks by President Barroso on economic governance', Joint press conference with Commissioner Olli Rehn, 29 September 2010, *European Commission*, retrieved 20 March

debt levels are within the limits of the treaty and the reinforcement of "economic governance" by "coordinating fiscal policy in advance". 114 There is a strong focus on setting limits to debt and achieving sustainable fiscal situations, partially via fiscal consolidation and the reduction of the accumulation of debt, which is negatively viewed.

In 2011, the same concepts and concerns appear again. There are talks about 'fiscal surveillance and policy coordination', 'fiscal discipline' and 'fiscal sustainability' but fiscal policies have to be strengthened while being 'rigorous' and 'smart'. Here again, the focus is on the sustainability of fiscal positions, attained mostly via fiscal consolidation. In 2012, the discourses continue to talk about the same matters, with an important addition. The role of 'fiscal stimulus' for "growth-oriented measures" ¹¹⁵ and to "tackle the crisis" ¹¹⁶ is highlighted, but at the same time, it is recognized that not all the member states have the fiscal space to implement these. ¹¹⁷ Here, the efficacy of fiscal actions is recognized, but the main focus remains on fiscal consolidation, and debt reduction. The results for 2013 are similar to the results for 2012. The fiscal actions and their coordination with economic policies are discussed, while still being very focused on the rules set for these actions. In 2014, the concepts of 'fiscal responsibility' and 'fiscal credibility' appear. In its discourses, the Commission still focuses on fiscal consolidation and the need to be responsible when making decisions and opt for growth-friendly actions.

In 2015, there is still a strong focus on 'fiscal consolidation' as well as responsibility, sustainability and transparency. However, Moscovici mentions on many occasions the need for "neutral fiscal stance" in the member states and argues that "after several years of

^{2021, &}lt;a href="https://ec.europa.eu/commission/presscorner/detail/en/speech_10_494">https://ec.europa.eu/commission/presscorner/detail/en/speech_10_494; Olli Rehn, 'Euro Changeover Conference Tallinn, 20 September 2010, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_10_464

¹¹⁴ Rehn 05/10 'Reinforced economic policy cooperation in Europe', loc. cit.; Rehn 05/10 'Foundations for sustainable growth...', loc. cit.

¹¹⁵ José Manuel Durão Barroso, 'European Governance and the Community Method', Conference on the Community Method, 28 February 2012, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech_12_129

Olli Rehn, 'Restoring growth in Europe: confidence, reforms and investment', Institute of European Studies - Vrije Universiteit Brussel, 5 May 2012, European Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_12_330; Olli Rehn, 'Eurobonds: Stability and Growth for the Euro Area', ALDE New Year Seminar, 10 January 2012, European Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_12_1

¹¹⁷ Barroso 02/12, 'European Governance and the Community Method', loc. cit.; Olli Rehn, 'A new stability culture in Europe', Europe House Lecture, 2 February 2012, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH 12 62

¹¹⁸ Pierre Moscovici, 'Opening remarks at the press conference launching the 2016 European Semester', Brussels, 26 November 2015, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech 15 6180; Pierre Moscovici, '2015 Spring Economic Forecast', Brussels, 5 May 2015, *European Commission*, retrieved 20 March 2021,

fiscal consolidation, fiscal policy is set to remain broadly neutral – in other words, neither tightening nor loosening" 119. The last point shows that even if there is still a strong focus on debt control, the discourse is slightly moving away from pure fiscal consolidation. From 2016 onwards, the number of clusters available for the analysis is reduced, making it more difficult to draw conclusions. Still, fiscal consolidation is not present as frequently in the discourses as before, but the 'fiscal situation' of the member states is still closely monitored, showing that there is an important control on debt. In 2017, the 'Fiscal Compact' treaty is mentioned several times, there is a strong focus on 'fiscal policies' and 'fiscal capacities' and the policies are again qualified as neutral and prudent, showing that fiscal actions are still closely monitored. In 2018, the discussion focuses on 'fiscal targets', showing again that even if there is no focus on fiscal consolidation anymore, the member states still have to follow strict rules. In 2019, the same focus is still present for 'fiscal policies', 'fiscal rules' and 'fiscal surveillance'. What the discourse about debt means in these last years is that there is not a strong focus on fiscal consolidation and debt reduction anymore, but fiscal rules remain strict. The implications for the views on debt are that it is still viewed negatively, as something that has to be controlled, but not as much as before, as something that has to be reduced. In 2020, there is a strong focus on the fact that fiscal policies are necessary to counter the crisis. At different occasions, the measures are qualified as "sizeable discretionary fiscal measures". ¹²⁰ There is an important role to be played by fiscal policies in the response to the crisis and these measures have to be of an important size. The implications are that we do not see a focus on decreasing debt accumulation anymore, but more on using fiscal measures to support economies in these tough times.

From 2010 until 2015, many discourses discuss fiscal consolidation and the need for sustainability of the fiscal situation. The focus on fiscal consolidation shows that there is a need, following the discourses, to reduce government deficits and debt accumulation. This

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https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_15_4912; Pierre Moscovici, 'Remarks at the Eurogroup press conference', Brussels, 9 November 2015, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech_15_6032

¹¹⁹ Moscovici, '2015 Autumn Economic Forecast', Brussels, 5 November 2015, *European Commission*, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_15_5997

¹²⁰ Paolo Gentiloni, 'Remarks by Commissioner Gentiloni', Eurogroup press conference, 16 March 2020, Commission, retrieved European March https://ec.europa.eu/commission/presscorner/detail/en/speech 20 478; Paolo Gentiloni, 'Remarks by Commissioner Gentiloni', press conference on the Spring 2020 Economic Forecast, 6 May 2020, European retrieved Commission. March 2021. https://ec.europa.eu/commission/presscorner/detail/en/SPEECH 20 822; Paolo Gentiloni, 'Remarks by Commissioner Gentiloni', press conference on the Autumn 2020 Economic Forecast, 5 November 2020, Commission, retrieved 20 March 2021, https://ec.europa.eu/commission/presscorner/detail/en/speech 20 2040

focus implies a negative view on debt. In 2015, the need for neutral fiscal policies appears, moving away from pure fiscal consolidation. From 2016 onwards, fiscal consolidation is not at all central for the speeches given by the Commission officials. This focus is replaced by a simple focus on fiscal policies and the rules that have to be applied, decreasing the negative feeling linked to debt but still not erasing it. In 2020, the discourses engage more with fiscal policies, indicating their convenience for responding to the Covid-19 crisis, but do not present elements regarding fiscal consolidation, showing that there is no real focus on decreasing the debt accumulation. The fact that there is also no real focus on sustainability or rules implies that the sentiment linked to debt becomes even more neutral than before.

The analysis of the collocates and clusters for 'fiscal' in the discourses given by Commission officials give very similar results. First, in both cases, we see a focus on fiscal consolidation from 2010 until 2015, disappearing from 2016 onwards. From 2016 until 2019, the talks mostly regard the fiscal rules. In 2020, the importance of fiscal policies is highlighted and no real measures regarding limits on the accumulation of debt are mentioned. We see that the discourse in the Commission first changes in 2016, from a focus on having to decrease the accumulation of debt – implying negative views on debt, to a focus on having to control debt but not necessarily reduce it – still implying negativity but to a lower degree. In 2020, there is a clear shift in the discourses with the views on debts becoming more neutral because their utility is highlighted and no controls are discussed, still the view is not positive because debt remains something that is not desired – but it is accepted in this case. 121 These findings are in line with the evidence presented by Moscovici when he says that the discourse first only changed to some degree but that the crisis brought a shift in paradigm in the discourses. 122 The first changes were due to the introduction of flexibility in the rules applied and moving away from pure consolidation, but the idea of fiscal consolidation was always present until 2019. 123 In 2020, the priority is to do everything possible to solve the crises, but somehow the debate on debt sustainability will come back. 124

3.2.2.2 'Fiscal' environment in the ECB discourses

After studying the environment of 'fiscal' in the Commission discourses and finding implications for the views on debt, we now turn to the environment in the ECB discourses. The first results to be analysed are the collocates of 'fiscal' and are presented in tables A69

¹²¹ Interview Moscovici.

¹²² Ibid.

¹²³ Ibid.

¹²⁴ Ibid.

to A79. Starting in 2010, we see that the idea of fiscal 'consolidation' is frequently mentioned in the discourses. Fiscal 'policies' and their 'sustainability' and the 'surveillance linked to these are also often present. Regarding fiscal actions, fiscal 'stimulus' and 'expansion' are mentioned, but fiscal 'contraction' as well. These actions are opposite and give mixed evidence regarding the views on debt. Still, the focus on fiscal 'consolidation' is clear, meaning that there is a strong will to decrease the accumulation of debt and giving a negative impression on debt. In 2011, the talks additionally highlight the link between fiscal 'policies' and a country's 'macroeconomic' situation. At that moment, talks about the Fiscal Compact treaty and fiscal 'adjustments' also appear while discussions about fiscal 'consolidation', 'surveillance' and 'sustainability' remain. In general, the negative view on debt given by the focus on fiscal consolidation seems to still prevail. In 2012, the same topics are again approached, so fiscal 'consolidation' and 'sustainability' remain important. In addition, 'structural reforms' and 'measures' are also discussed and linked with 'imbalances' in the fiscal situation of the member states. Additionally, 'monetary' often appears around 'fiscal', meaning that these two types of policies are often discussed together. Still, regarding the views on debt, the focus on fiscal consolidation remains the most significant and implies a negative view. The discourses given in 2013 are focused on the same concepts as the previous years again, with still a link made to the other sectors of the economy, such as the 'banking' and 'financial' sectors. However, regarding the views on debt, they remain mostly negative due to the focus on fiscal 'consolidation'. In 2014 and 2015, the same focus remains and debt is still viewed negatively due to the will to decrease the accumulation linked to the importance of fiscal 'consolidation'.

In 2016, we see a change in the focus of the discourses. Even though they still mention fiscal 'policies', 'structural reforms', and the impact on other sectors, fiscal 'consolidation' per se is not discussed anymore. The 'support' that fiscal policies can give, and their role in a 'recovery' via a 'stimulus' is even discussed. Here, we see that the 'sustainability' of fiscal stances is still very important, meaning that debt is still closely controlled, but the discourses do not insist directly on fiscal consolidation and the reduction of debts anymore. Debt is starting to be viewed less negatively than before. In 2017, the same ideas about 'fiscal' are discussed. Fiscal 'policies', their 'role' and 'sustainability' are important topics. So again, the feeling is that debts do not have to be avoided for sure and they can play an important role, as the focus on fiscal 'stimulus' shows, but they still have to be controlled. The overall feeling about debt is less negative than before. In 2018, the

views on debt are more mixed. The idea of fiscal 'consolidation' is again frequently mentioned in the discourses, while the 'need' for fiscal 'policies' and actions is still acknowledged. Additionally, both fiscal 'tightening' and 'expansion' are discussed, again giving opposite signals about the views on debt. In 2019, frequent talks about fiscal 'consolidation' are again absent while the 'role' of fiscal policies in the 'stabilization' of the economy and the fact that they complement 'monetary' policies are again discussed. Additionally, fiscal 'expansion' and 'expansionary' fiscal policies are frequent in these discourses. The role of fiscal policies for the economy is again clearly acknowledged and fiscal expansions are considered to be possible solutions. The views on debt are again clearly less negative than at the beginning of the period studied. In the 2020 discourses, which are mostly about the reactions to the Covid-19 crisis, fiscal 'policies' are again often mentioned. The link between them and 'monetary' policies is emphasized and their supportive role in stabilizing the economy is clearly expressed. Next to these discussions, there is no clear mentions of controls or reduction that have to be applied for debt. In this case, the important role of fiscal policies is clearly expressed, and debts are seen as more acceptable because of this, making the views on these even less negative than before.

In sum, from 2010 until 2015, the discourses involving fiscal policies remain similar. They are focused on fiscal policies, their sustainability, and the need to have fiscal consolidation. Debt is then seen negatively because its accumulation has to be decreased. From 2016 onwards, the focus on fiscal sustainability is still present, but fiscal consolidation is less often addressed in the speeches, meaning that there is a less important pressure to decrease the accumulation of debts, hence giving a less negative view on them. In the 2020 discourses, there are clear indications that fiscal policies have to be used to counter the effects of the Covid-19 crisis, in combination with the monetary policies of the ECB. The usefulness of fiscal policies is hence acknowledged, and no explicit limits are mentioned. The discourse about fiscal policies in the ECB changed between 2010 and 2020, going from a discourse stressing the importance of fiscal consolidation and hence the reduction of debts - giving a quite negative view on debt - to a discourse acknowledging the importance of fiscal policies for stabilizing the economy in times of crisis – reducing the negativity linked to debt. The first changes happen between 2015 and 2016, when fiscal consolidation becomes less important, while the crisis marks another change where the focus is really on using fiscal policies to respond to the crisis.

We now study the clusters results for 'fiscal' in the ECB discourses. These results are presented in tables A80 to A90. In 2010, 'fiscal consolidation' has an important place in the discourses. The additional focus on 'fiscal policies', 'fiscal imbalances', 'fiscal surveillance', 'fiscal sustainability' and 'fiscal targets' shows that the fiscal situation of the member states is closely monitored. The general view on debts is negative because 'fiscal consolidation' calls for a reduction of their accumulation. This negative view on debt is confirmed by Trichet's insistence on the need for "surveillance of fiscal policies to prevent excessive deficits and unsustainable public debt". 125 In 2011, the focus on 'fiscal consolidation' remains. Additionally, the complementarity between 'fiscal policies' and '(macro)economic policies' is expressed, and a link between 'fiscal sustainability and reducing government debt levels' is made. Constâncio highlights this link by claiming that changes made to the SGP strengthened it "to focus more on fiscal sustainability and reducing government debt levels". 126 Trichet also acknowledged this point by saying that "the new focus on fiscal sustainability and reducing government debt levels, backed by more effective sanctions" is going "in the right direction" regarding the efficacy of the SGP. 127 It is then clear that debts are viewed negatively because their reduction is linked to a more sustainable fiscal situation. In 2012, 'fiscal consolidation' and 'structural reforms' are still important in the discourses. At different times, Draghi mentioned the importance of "fiscal consolidation" and structural reforms" and often makes a link with competitiveness. 128 The link between fiscal consolidation and structural reforms is also stated by Constâncio, especially when

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¹²⁵ Trichet 10/10 'Europe's frameworks for macro-prudential oversight and economic governance', loc. cit.; Trichet 11/10 'Reflections on EMU', loc. cit.

¹²⁶ Vítor Constâncio, 'The Governance of Financial Stability in the euro area', "ECB and its Watchers XIII" conference, 10 June 2011, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2011/html/sp110610_1.en.html; Constâncio 06/11 'The macroeconomic and financial landscape...', loc. cit.; Constâncio 10/11 'Economic governance and financial stability', loc. cit.

¹²⁷ Trichet 05/11 'The ECB's response to the crisis', loc. cit.; Jean-Claude Trichet, 'The monetary policy of the ECB during the financial crisis', Montreal, 6 June 2011, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2011/html/sp110606_1.en.html

¹²⁸ Mario Draghi, 'Competitiveness of the euro area and within the euro area', colloquium "Les défis de la compétitivité", 13 March 2012, ECB, retrieved March https://www.ecb.europa.eu/press/key/date/2012/html/sp120313.en.html; Mario Draghi, 'Hearing at the Committee on Economic and Monetary Affairs of the European Parliament', Brussels, 9 October 2012, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2012/html/sp121009.en.html; Mario Draghi, 'Competitiveness: the key to balanced growth in monetary union', Treasury Talks 'A European strategy for growth and integration with solidarity', 30 November 2012, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2012/html/sp121130.en.html; Mario Draghi, 'The monetary policy of the European Central Bank and its transmission in the euro area', Opening of the academic year 2012-November 2012, ECB, retrieved March 2021, https://www.ecb.europa.eu/press/key/date/2012/html/sp121115 1.en.html

talking about the response to the sovereign debt crisis. ¹²⁹ Fiscal consolidation and sustainability are then still important in the discourses, showing that the views on debt remain negative. In 2013, the usual focus on 'fiscal consolidation' and 'fiscal sustainability' is accompanied by discussions about the 'Fiscal Compact' treaty and 'fiscal adjustments'. The general view on debt hence remains relatively negative. In 2014, 'fiscal consolidation' remains a central concept in the discourses and is again linked to 'structural reforms'. The discourses now discuss the fact that the member states have made progress concerning these measures, probably following the calls given in the discourses in 2012 and the positive effects that they have on growth. ¹³⁰ Here, the focus is still on fiscal consolidation and its advantages, maintaining the negative views on debt.

In 2015, the focus on 'fiscal consolidation' persists, but at the same time, it is discussed that "fiscal policies should support economic growth and its recovery", while still ensuring debt sustainability. ¹³¹ The focus is on "growth-friendly fiscal consolidation", reaching "debt sustainability on one hand, but also support to the recovery on the other". ¹³² These findings show that there is still a strong focus on fiscal consolidation, and hence the reaching of a sustainable level of debt through debt accumulation reduction, but it is also acknowledged that fiscal policies can be beneficial for supporting the economy. This use of fiscal policies for supporting growth was already mentioned in some of the speeches in the preceding years but it is now more obvious. Adding up these findings implies that the views on debt are still negative, but less because of the acknowledgement of the positive effects for growth. In 2016, we see a change in the discourses because the focus on fiscal consolidation is not present anymore. Instead, there is advocacy for "a more growth-friendly

¹²⁹ Vítor Constâncio, 'Presentation of the ECB Annual Report 2011 to the Committee on Economic and Monetary Affairs of the European Parliament, Brussels, 25 April 2012, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2012/html/sp120425 1.en.html

¹³⁰ Mario Draghi, 'Euro area economic outlook, the ECB's monetary policy and current policy challenges', twenty-ninth meeting of the International Monetary and Financial Committee, 10 April 2014, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2014/html/sp140410 2.en.html; Mario Draghi, 'Introductory remarks at the EP's Economic and Monetary Affairs Committee', 17 November 2014, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2014/html/sp141117_2.en.html; Mario Draghi, 'Hearing at the Committee on Economic and Monetary Affairs of the European Parliament', Strasbourg, 14 July 2014, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2014/html/sp140714.en.html

¹³¹ Vítor Constâncio, 'Presentation of the ECB Annual Report 2014 to the Committee on Economic and Monetary Affairs of the European Parliament', 20 April 2015, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2015/html/sp150420.en.html; Draghi 03/15 'Hearing at the European Parliament's...'; Mario Draghi, 'Euro area economic outlook, the ECB's monetary policy and current policy challenges', thirty-second meeting of the International Monetary and Financial Committee, 9 October 2015, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2015/html/sp151009.en.html

¹³² Mario Draghi 03/15 'Hearing at the European Parliament...', loc. cit.

composition of fiscal policies" which could boost growth by "prioritizing public investments and reducing the tax burden on labour". ¹³³ Another important topic in these speeches is the confidence in the 'fiscal framework' of the EU. This confidence can be maintained through the implementation of the SGP. ¹³⁴ Here, the fiscal policies are then considered to be used for boosting growth, but sill in following the rules set by the SGP to maintain confidence in the fiscal framework and debt sustainability. Debts are not seen as negatively as before because they have an important role to play for the economy, but they are still carefully controlled. In 2017, there is no special focus in the discourses, apart from the acknowledgement that 'fiscal deficits' have been reduced in the member states thanks to different measures such as fiscal consolidation. ¹³⁵ With the low amount of information given here, it is difficult to determine the general views on debt, but they seem to still be quite negative since the utility of decreasing the debt accumulation – through fiscal consolidation – is highlighted.

In 2018, the implications of 'counter-cyclical fiscal' policies are discussed. Next to that, 'fiscal consolidation' appears again in the discourses to assess its effectiveness. It is discussed that the fiscal consolidation measures implemented in 2010 had some positive effects, such as helping the countries to regain competitiveness and make high-debt countries less vulnerable, but also some negative effects, such as its partial role in the causes of the "second recession of 2012-2013". So here, the views on debt are similar to the views in

Annual Report 2015', Strasbourg, 21 November 2016, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2016/html/sp161121_1.en.html; Mario Draghi, 'IMFC Statement', thirty-third meeting of the International Monetary and Financial Committee, 15 April 2016, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2016/html/sp160415.en.html; Mario Draghi, 'IMFC Statement', thirty-fourth meeting of the International Monetary and Financial Committee, 7 October 2016, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2016/html/sp161007.en.html; Mario Draghi, 'European Parliament plenary debate on the ECB Annual Report for 2014', Strasbourg, 1 February 2016, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2016/html/sp160201_1.en.html

¹³⁴ Draghi 04/16 'IMFC Statement', loc. cit.; Draghi 02/16 'European Parliament plenary debate on the ECB Annual Report for 2014', loc. cit.; Draghi 10/16 'IMFC Statement', loc. cit.; Mario Draghi, 'Hearing at the European Parliament's Economic and Monetary Affairs Committee', Brussels, 15 February 2016, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2016/html/sp160215.en.html

¹³⁵ Vítor Constâncio, 'The evolving risk landscape in the euro area', Banco de Portugal Conference on Financial Stability, 17 October 2017, ECB, retrieved March https://www.ecb.europa.eu/press/key/date/2017/html/ecb.sp171017.en.html; Vítor Constâncio, adjustment and resilience in the euro area', Forum Villa d'Este, 1 September 2017, ECB, retrieved 20 March https://www.ecb.europa.eu/press/key/date/2017/html/ecb.sp170901.en.html; Vítor 'Economic recovery and the new phase of monetary policy', Opening Conference 20th Euro Finance Week, November 2017, ECB, retrieved 20 March https://www.ecb.europa.eu/press/key/date/2017/html/ecb.sp171113.en.html

Witor Constâncio, 'Financial stability risks and macroprudential policy in the euro area', ECB and Its Watchers XIX Conference, 14 March 2018, ECB, retrieved 20 March 2021,

the previous years, and the fact that some negative effects of fiscal consolidation are emphasized shows that obliging a reduction of debt accumulation is not always the right solution, showing that debts are not that bad for the economy. In 2019, the talks about fiscal consolidation are again gone and 'fiscal expansion' is frequently discussed. It is recognized that these measures can be effective when the economy is "operating below potential", "leading to positive effects on aggregate demand and inflation". ¹³⁷ Moreover, the implementation of a fiscal expansion in one member states could have "small positive spillover effects on the other member states" ¹³⁸, but the full efficiency of the fiscal expansion measures would be reached if the fiscal decisions were centralized. ¹³⁹ This positive evaluation of expansionary fiscal policies shows that they could be useful, since these policies are linked with an increase in debt levels, it implies that debts are not seen negatively anymore, but more neutrally. In 2020, and the discourses about the response to the Covid-19 crisis, fiscal policies are often mentioned together with the monetary policies ¹⁴⁰, and the

https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180314_3.en.html; Luis de Guindos, 'Investment, technological transformation and skills', joint EIB-ECB conference on investment, technological transformation and skills, 28 November 2018, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181128_1.en.html

Vítor Constâncio, 'Completing the Odyssean journey of the European monetary union', ECB Colloquium on "The Future of Central Banking", 16-17 May 2018, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180517.en.html; Mario Draghi, 'The outlook for the euro area economy', Frankfurt European Banking Congress, 16 November 2018, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp181116.en.html; Vítor Constâncio, 'Past and future of the ECB monetary policy', Conference on "Central Banks in Historical Perspective: What Changed After the Financial Crisis?", 4 May 2018, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180504.en.html

¹³⁷ Luis de Guindos, 'Improving macroeconomic stabilisation in the euro area', Global Interdependence Center Central Banking Series conference, 3 October 2019, *ECB*, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp191003~bd60483a70.en.html

¹³⁸ de Guindos 10/19 'Improving macroeconomic stabilisation in the euro area'.

¹³⁹ Mario Draghi, 'Twenty Years of the ECB's monetary policy', ECB Forum on Central Banking, 18 June ECB. retrieved March https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190618~ec4cd2443b.en.html; Draghi, 'IMFC Statement', fortieth meeting of the International Monetary and Financial Committee, 18 October 2019, retrieved March 2021. https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp191018~30bef7bc14.en.html; Mario Draghi, 'IMFC Statement', thirty-ninth meeting of the International Monetary and Financial Committee, 12 April 2019, retrieved 20 March https://www.ecb.europa.eu/press/key/date/2019/html/ecb.sp190412~8acda1aa03.en.html

¹⁴⁰ de Guindos 06/20 'Euro area: economic outlook and financial stability ...', loc. cit.; de Guindos 06/20 'Financial stability and the pandemic crisis', loc. cit.; Luis de Guindos, 'The euro area financial sector in the pandemic crisis', 23rd EURO FINANCE WEEK, 16 November 2020, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201116~36fba64064.en.html; Christine Lagarde, 'The monetary policy strategy review: some preliminary considerations', "ECB and Its Watchers XXI" conference, 30 September 2020. ECB. retrieved 20 March 2021. https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200930~169abb1202.en.html; Christine Lagarde, 'IMFC Statement', forty-second meeting of the International Monetary and Financial Committee, 15 October retrieved ECB. 20 March 2021, https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201015~1cb2135e70.en.html

fiscal support is often highlighted for its positive effects on the economy.¹⁴¹ Here, it is clear that fiscal support plays a key role in responding to the Covid-19 crisis, implying that debts are not seen as negatively as before because we are ready to support the economies as much as possible through fiscal measures.

By analysing the clusters of 'fiscal' we see that there is a strong focus on fiscal consolidation in the speeches from 2010 until 2015, but in 2015, the potential benefits of fiscal policies for growth are already acknowledged. This finding means that until 2015 there is a focus on decreasing debt accumulation, implying that debt is viewed negatively during those years. The fact that in 2015, the potential benefits of fiscal policies are already discussed shows that the negative view starts to decrease. From 2016 onwards, fiscal measures are seen as efficient for boosting growth. In 2019, the positive impacts of fiscal expansions are also highlighted, showing that debts are not seen negatively anymore, and fiscal measures implying debts can be useful. In 2020, these findings are confirmed because fiscal measures are considered to be key in responding to the Covid-19 crisis, together with other policies such as monetary policies. In short, there is a shift in the discourses of the ECB. The views on debt in these speeches goes from negative, due to the importance of fiscal consolidation, to less negative and maybe even slightly positive, due to the recognition that fiscal actions can sometimes be beneficial for economic growth. This shift happens between 2015 and 2016 but is becoming even more evident from 2019 onwards.

The analysis of the collocates and clusters for the word fiscal in the ECB speeches both give the same results. From 2010 until 2015, there is a strong – declining – focus on fiscal consolidation, and hence on the reduction of debt accumulation by governments, indicating that the views on debt are negative during that period, but becoming less negative over time. From 2016 onwards, the lower focus on fiscal consolidation and the positive views about expansionary fiscal policies – linked to an increase of debts – show that the view

¹⁴¹ Luis de Guindos 11/20 'The euro area financial sector in the pandemic crisis'; Christine Lagarde, 'Remarks at the G30 International Banking Seminar, session "Rebuilding and Sustaining Growth", 18 October 2020, retrieved 20 March https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201018~03cc2e7ce5.en.html; Christine Lagarde, 'Opening remarks at the EUI's State of the Union event', Online Edition of The State of the Union conference organised by the European University Institute, 8 May 2020, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200508~81cd924af6.en.html; Luis de Guindos, 'Banking Union and Capital Markets Union after COVID-19', CIRSF online Annual International Conference 2020 on Major Trends in Financial Regulation, 12 November 2020, ECB, retrieved 20 March 2021, https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201112~0913fc32f3.en.html; Christine Lagarde, 'Monetary policy in a pandemic emergency', ECB Forum on Central Banking, 11 November 2020, ECB, 20 March 2021, https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp201111~d01e03eb9c.en.html

on debt becomes less negative. The focus on fiscal policies to respond to the Covid-19 crisis also shows that these measures are needed and that the level of debt is not considered in these responses. There is a shift in the ECB discourses in 2016, going from a negative view on debt to a neutral one, by going from a focus on fiscal consolidation to a focus on the utility of fiscal policies and specifically on the growth-friendly composition of public expenditure. These findings are in line with the evidence collected during an interview with an ECB official, who said that even though debt always has a negative side because of the constraints it involves, the "flip side" of debt and the fact that it is "just the reflection of more expenditure and potentially good macro policies and policies that stabilize the economy" is becoming more important and leading to the conclusion that "on balance, this is the right thing to do". 142 Glöckler similarly justifies this change in the discourses by saying that it is now a matter of what we invest in that is important when talking about debt. 143 Additionally, he points out the fact that the low interest rates conditions make debt less 'scary' because servicing the debt is more affordable, justifying that debt, especially if accumulated to fight severe crises, is also more acceptable today and hence viewed less negatively. 144 Additionally, he also pointed out that from 2014 onwards, the importance of fiscal policies to work in the same direction as the monetary policies of the ECB to stabilize the economy and also help the ECB achieve its inflation objective was clearly acknowledged to be crucial by Draghi. 145 This need for fiscal-monetary cooperation hence remained over the years and is even more obvious today. 146

In conclusion, by analysing the environment of 'fiscal', we see that the discourses in the two institutions are similar. Both have a strong focus on fiscal consolidation, and hence the reduction of debt accumulation and a negative impression on debt, from 2010 until 2015. With the focus declining over the years. From 2016, the discourses do not focus on fiscal consolidation anymore, meaning that the reduction of debts is less important and debts are hence seen less negatively. Still, until 2019, the discussions about the levels of debt concentrate on controls. In the ECB, there is even a feeling that debts can be seen neutrally, as the focus on potential benefits offered by fiscal expansion shows. In both cases, it is also

¹⁴² Interview Official 1.

¹⁴³ Interview Glöckler.

¹⁴⁴ Ibid.

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

clear that fiscal policies have an important role to play in responding to the Covid-19 crisis, 2020 hence marking the moment where debts are really viewed as something needed for recovering from the crisis and not talking about the limits. In both cases, these findings are in line with the evidence collected through interviews.

4 The evolution of the views on debt in the policy discourses

The analysis of the quantitative results shows the evolution of the views on debt in the policy discourses. First, we see that by looking at the frequency at which a word appears in the speeches, we can already notice a change. The two most important results for this study are linked to the use of 'debt' and 'fiscal'. Regarding 'debt', we see that its importance in the discourses, as represented by the frequency at which it is mentioned, decreases over time. This finding implies that the speakers concentrate less on debt over the years, in both institutions. Then, regarding 'fiscal', the term that is most easily linked to debt is 'fiscal consolidation' and we see that its importance decreases as well over time. The use of 'fiscal' also shows a diminution over time, but it is less significant. These findings imply that 'fiscal consolidation' is less often discussed in the speeches while other 'fiscal' concepts are still often discussed. All together these findings show that the focus on debt is decreased over time, proving that there is a change in the views on debts, or at least their importance, in the discourses. Regarding the links with discursive institutionalism, it was not proven in these findings and analysis.

Looking at the environment of 'debt' and 'fiscal' in the discourses, we have more precise indications about the way the views on debt are changing, the timing of these changes, and some possible explanations. When looking at the discourses in the Commission, we see that there is indeed a shift in the discourses. This shift is clearer when investigating 'fiscal' but in both cases, the view on debt goes from negative to neutral. When looking at these two terms, we see that a first change appears around 2014-2015, which is the moment where the negativity linked to 'debt' starts to decrease. In both cases, we also see that the outbreak of the Covid-19 crisis again changed the views on debt, and they are now deemed needed for responding to the crisis. The bigger change in the discourses is then mostly explained by the crisis, the change of President and ECFIN Commissioner in 2019 is only a minor part of the explanation for this change, if at all. However, the first changes in the discourses happening over time but becoming clearer from 2014-2015 onwards can be linked to the change in Commission members. Indeed, in 2014, Juncker replaced Barroso as President of the Commission while Moscovici replaced Rehn¹⁴⁷ as ECFIN Commissioner. The second change is especially important because in addition to changing the person in

¹⁴⁷ Šemeta and Katainen were also Commissioners replaced by Moscovici but it is found in the analysis of the discourses that Rehn was the most important one, so we focus on him for a matter of simplicity.

charge of this role, there was also a change of political group linked to this position. Rehn's centre-right views were replaced by Moscovici's left views. The left views brought by Moscovici as ECFIN Commissioner can indeed explain the change in the discourses and the views on debt. Moscovici explained during an interview that from the beginning of his mandate, the Commission "decided that there should not be a strict implementation of the rules" and that they "should try to induce some flexibility inside the implementation of the Stability and Growth Pact to avoid that some countries be sanctioned for not respecting 'à la lettre' the rules of the game". ¹⁴⁸ This means that they were "always respecting the rules but always interpreting them with the idea that some flexibility should be given to countries which situation was borderline or needed to be negotiated". ¹⁴⁹ These claims show that Moscovici managed to convince the rest of the Commission to follow his ideas based on socialist politics to bring some change in the decisions. This finding is in line with DI which claims that ideas are very important in explaining institutional changes. This theory and the role of ideas and discourses can hence explain the first changes in the discourses of the Commission and the decrease of the negativity in the views on debt.

The investigation of the ECB discourses also shows that there is a shift, again more visible when investigating 'fiscal' than 'debt'. When looking at 'debt', there is a low amount of information available, which is also quite unclear, so no conclusion can be made from these results. However, when looking at 'fiscal', we see that the change again goes from a negative to a neutral view on debt, with even some positivity in cases where the benefits of fiscal expansions are discussed. The decrease in negativity linked to 'debt' is taking place over time but 2015-2016 is the period where the changes become most obvious because of the declining focus on fiscal consolidation and increasing focus on the potential benefits from fiscal policies and the issuance of debt linked to these. Again, the outbreak of the Covid-19 crisis reinforces the views that fiscal policies are needed for a stable economy even more, and fiscal expansions are often discussed. The gradual changes in the view on debt in these discourses can be linked to different connected factors. First, there is evidence that the low interest rates in the economy are making debt more acceptable and leading to a more neutral view on them. ¹⁵⁰ Second, the role of fiscal policies, also amplified by the low interest rates, and the importance of the investments for which debt is issued became more

¹⁴⁸ Interview Moscovici.

¹⁴⁹ Ibid.

¹⁵⁰ Interview Glöckler.

recognized by policymakers and citizens, again making debt more acceptable. 151 Third, and in line with the previous point, discursive institutionalism plays a role in this case because Draghi's ideas, the fact that he often engaged with politicians and his discourses about the importance of fiscal policies to also help reach the ECB's objectives in 2014 had an important effect on the views on debt in the ECB and outside. 152 Additionally, DI can explain the important use of 'fiscal consolidation' in the discourses at the beginning of the period studied. The goal of the focus on consolidation was partly to "signal to the markets that fiscal policy makers are responsible". 153 This again shows the power of discourses. An interesting point regarding the results for the ECB, and the comparison between the 'quantitative' analysis results and the interview replies is that in the interviews, it was said that the change in the discourses already started in 2012, with Draghi's "whatever it takes" ¹⁵⁴ while in the analysis, the changes are clearly seen only from 2015-2016 onwards. The fact that the change only clearly appears later in the analysis could be explained by a lack of clarity of the discourses. One recommendation regarding communication in the ECB would be to make the discourses clearer to ensure that the ideas that want to be transmitted are well-defined and easily detectable.

Finally, by putting the results for both institutions together, it is possible to determine the evolution of the overall EU discourse. The conclusion is that the discourse about debt has changed over the years between 2010 and 2020. In the beginning, the views about debt expressed in the discourses were negative because debts were seen as something that has to be avoided. Over the years, this negative feeling faded and the views on debts became more neutral because, even if they are still seen as something negative that has to be controlled, some positive effects are also linked to them, especially in moments where the economy is not doing well. Furthermore, the low interest rates present in the economy for the last years has decreased the effectiveness of ECB monetary policies to achieve its inflation goal, which asks for the use of fiscal policies to support these. ¹⁵⁵ The link between monetary and fiscal policies is then more obvious today than it was in 2010. ¹⁵⁶ The outbreak of the Covid-19 crisis led to a change in paradigm in the discourses and debt is now viewed as something that has to be used to react to the crisis and support the economy by doing valuable

¹⁵¹ Interview Glöckler; interview Official 1

¹⁵² Interview Glöckler.

¹⁵³ Ibid.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

investments, while not being practically limited. ¹⁵⁷ It is still important to note that the conditions that are observed today, the low interest rates and the crisis conditions, are only temporary and will change at some point in the future, which should lead to a new change in the discourses and views on debt, coming back to them being carefully controlled. ¹⁵⁸ Some economists have expressed their doubts about the huge fiscal expansions used to respond to the Covid-19 crisis and their potential negative long-term impacts, ¹⁵⁹ which could recall the oil crisis of 1970s, but these risks do not seem to be taken into account in the current discourses.

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¹⁵⁷ Interview Moscovici.

¹⁵⁸ Ibid

¹⁵⁹ Martin Wolf, *Larry Summers: 'I'm concerned that what is being done is substantially excessive'*, Financial Times, 2021, retrieved 12 April 2021, https://www.ft.com/content/380ea811-e927-4fe1-aa5b-d213816e9073

5 Conclusion

This study looked into the discourses given by ECB or Commission officials between 2010 and 2020 to assess whether there was a change in the way debt is viewed in these discourses, which could explain the difference between the reaction to the Eurozone and to the Covid-19 crises. To conclude, the different questions that it aimed to answer are presented again with their hypothesis. The conclusions drawn from the analysis are used to answer these questions and confirm the hypotheses or not. Additionally, some remarks about the limitations of this study are made and followed by ideas for future research.

The first question is "To what extent do we see a shift in the policy discourses about debt in the EU?" and the hypothesis for this question was that "there is a shift in the discourses about debt". The analysis of the different results confirms this hypothesis. Already from looking at the number of times certain terms appear in the corpus of speeches, we can identify a shift in the discourses. However, these first results only show that the importance of 'debt' generally decreases over time in the discourses. By looking at the environment of 'debt' and 'fiscal', we get a confirmation that there is a shift in the discourses about debts, and especially the feelings about them. So indeed, there is a shift in the discourses about debt in the EU, or at least in the ECB and the Commission.

Since a shift is identified, we can also answer the other questions. The hypothesis for the second question, "When does the shift in the discourses appear?", was that "the shift occurs after the Eurozone crisis but before the start of the Covid-19 crisis". This hypothesis is partially confirmed by the findings. Indeed, we see that there is a gradual change in the discourses in the Commission and the ECB but that this change becomes most apparent in the discourses around 2015-2016, when the strong focus on fiscal consolidation disappears. However, in those years, at least in the Commission, we cannot identify a real shift in the discourses yet, only a change of perception due to the introduction of flexibility in the implementation of the rules. The real shift in paradigm, where there is no more strong focus on the control of the debt levels happens with the outbreak of the Covid-19 crisis and is visible in the discourses given in 2020. Concerning the ECB, the change is already visible in 2015-2016 but is reinforced with the outbreak of the crisis. In short, we see that there is a gradual change in the discourses clearly visible from 2015 onwards and reinforced in 2020.

Regarding the third question, "How do the discourses change?", the hypothesis was that "in the discourses, the view on debt changes from negative to positive". This hypothesis

is again partially confirmed by the findings. It is found that the view on debt in the discourses at the beginning of the period studied is quite negative. This is especially proven by the fact that there is a strong focus on fiscal consolidation and hence on the reduction of debt accumulation. Additionally, debt levels are often deemed to be too high in the first years. As time goes, the focus on fiscal consolidation fades, implying a decrease in the negativity linked to debt. In the Commission, although the focus on consolidation is not directly visible in the discourses anymore, we see that the control of debt remains very important, implying that the view on debt is still negative. This is also true in the ECB to some extent, even though the importance of fiscal policies to have a stable economy is more clearly acknowledged, leading to a more neutral view on debt. In 2020, the shift becomes even more obvious, leading to a view on debt that is neutral in both institutions. The views do not become positive because in both institutions, although fiscal policies are seen as needed and efficient for responding to the crisis, the issuance of debt is still not seen as desirable, it is simply seen as acceptable, because it is acknowledged that there are also constraints linked to debt.

The fourth question is "What are possible explanations for the shift?". The hypothesis was that "the change in the economic situation and institutions of the EU can explain this shift". Again, this hypothesis is partially confirmed by the findings of this research. In the ECB, the change of view on debt is indeed partially explained by the changes in the economic situation of the EU. The low interest rates are making debt more affordable and hence acceptable 160, but they are also making fiscal policies more efficient compared to monetary policies which again influences the acceptance for debt. Another explanation for the change in the ECB discourses is the fact more growth-friendly investments are made and are the explanation for debt. The fact that these investments are valuable again influences positively the acceptance for debt. In the Commission, the first changes of perspectives in the discourse are indirectly linked to the economic situation and the low interest rates, but the most important explanation is the fact that the change of speaker, Moscovici taking over from Rehn, also included a change in political ideas in the discourses. The new political ideas led to the introduction of more flexibility in the implementation of the rules, and hence to slight changes in perceptions. This explanation is linked to discursive institutionalism, which highlights the role of ideas and discourses. Surely, the actual shift in the discourses

¹⁶⁰ This is an idea that can be linked to Blanchard's arguments (Blanchard 2019).

happening in 2020 is exclusively linked to the economic situation in the EU, and around the world.

From these findings, it is possible to say that there was indeed a change in the way debt is viewed in the EU, at least in the ECB and the Commission. Debt is now viewed less negatively than in 2010, and fiscal policies and the monetary-fiscal cooperation are now deemed essential for responding to the crisis. These changes in the discourses are then part of the explanation for the difference between the reactions to the Eurozone and Covid-19 crises.

Some limitations to this study have to be acknowledged. First, regarding the terms studied, a choice of less precise words would have given more results. Second, not all the words having to do with debt directly or indirectly could be included, 'excessive debt' could have been added to the study for example. Third, this study concentrates on only two EU institutions, meaning that even when results are put together, this does not give a complete view of the EU debate because the other institutions are not considered. Similarly, only some actors in the institutions have been chosen, while others such as other Executive Board members for the ECB also probably play an important role for the discourses and views on debt. Likewise, adding economists' discourses to this analysis would have added value to the results.

These limitations invite for possible future research. It could be interesting to look at more institutions and more speakers, and add economists and finance ministers to the list of speakers for example. Additionally, the focus in this study is on the public debt, but adding a link to private debt could be very informative. Also, DI shows that there are sometimes "disconnects between what EU leaders say to one another in the 'coordinative discourse' at the EU level and what they say about those agreements to the markets and to the people in the 'communicative discourse'" ¹⁶¹ but this is not tested here because discourses in the institutions and to the general public are treated together, it would then be interesting to conduct the same type of study while differentiating between the two types of discourses to see whether the results are different in the two groups.

¹⁶¹ Schmidt 2014, op. cit., p.188.

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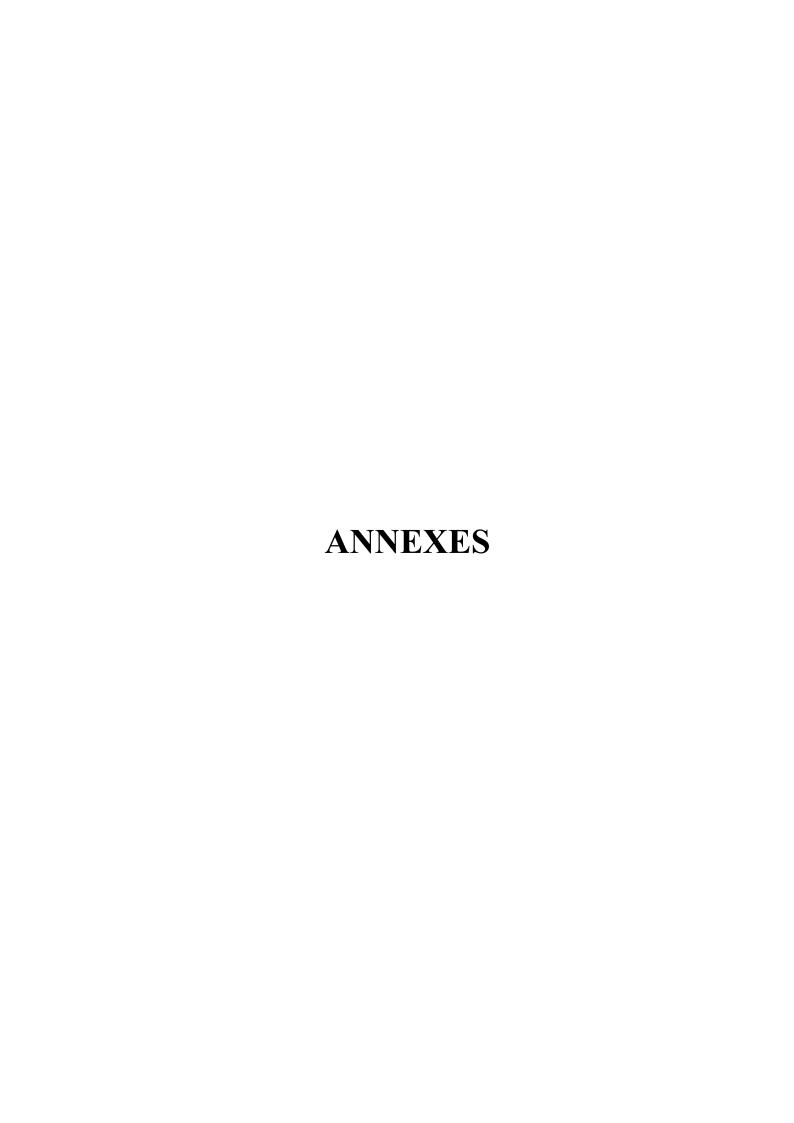
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Translated work

Wiebe, Frank, Geld- und Finanzpolitik sollten einen Dialog auf Augenhöhe führen, trans. Claire Soupart (using DeepL), Handelsblatt, 2021.



ANNEX I – Speeches databases

Table A 1 European Commission speeches

Years	Presidents	# of speeches	Link to the database	ECFIN Commissioners	# of speeches	Link to the database
2010	Barroso	33	Barroso speeches	Rehn/Šemeta	36	Rehn speeches Šemeta speeches
2011	Barroso	37	Barroso speeches	Rehn/Šemeta	47	Rehn speeches Šemeta speeches
2012	Barroso	44	Barroso speeches	Rehn/Šemeta	34	Rehn speeches Šemeta speeches
2013	Barroso	21	Barroso speeches	Rehn/Šemeta	24	Rehn speeches Šemeta speeches
2014	Barroso	19	Barroso speeches	Rehn/Šemeta/Katainen	21	Rehn speeches <u>Šemeta speeches</u> <u>Katainen speeches</u>
2014	Juncker	4	Juncker speeches	Moscovici	7	Moscovici speeches
2015	Juncker	10	Juncker speeches	Moscovici	22	Moscovici speeches
2016	Juncker	10	Juncker speeches	Moscovici	23	Moscovici speeches
2017	Juncker	10	Juncker speeches	Moscovici	19	Moscovici speeches
2018	Juncker	9	Juncker speeches	Moscovici	24	Moscovici speeches
2019	Juncker	5	Juncker speeches	Moscovici	13	Moscovici speeches
2019	Von der Leyen	6	von der Leyen speeches	Gentiloni	2	Gentiloni speeches
2020	Von der Leyen	24	von der Leyen speeches	Gentiloni	29	Gentiloni speeches
TOTAL		232			301	
						Total: 533

Notes: The term 'ECFIN Commissioner' is used to qualify all the Commissioners with a portfolio linked to Economy, more details about each spearker's portfolio can be found in the main text.

Table A 2 ECB speeches

Years	President	# of speeches	Link to the database	Vice-president	# of speeches	Link to the database
2010	Trichet	33	Presidents speeches	Papademos	4	Vice-Presidents speeches
2010				Constâncio	8	Vice-Presidents speeches
2011	Trichet	29	Presidents speeches	Constâncio	12	Vice-Presidents speeches
2011	Draghi	4	Presidents speeches			
2012	Draghi	22	Presidents speeches	Constâncio	11	Vice-Presidents speeches
2013	Draghi	26	Presidents speeches	Constâncio	11	Vice-Presidents speeches
2014	Draghi	21	Presidents speeches	Constâncio	20	Vice-Presidents speeches
2015	Draghi	20	Presidents speeches	Constâncio	15	Vice-Presidents speeches
2016	Draghi	23	Presidents speeches	Constâncio	14	Vice-Presidents speeches
2017	Draghi	21	Presidents speeches	Constâncio	18	Vice-Presidents speeches
2018	Draghi	17	Presidents speeches	Constâncio	5	Vice-Presidents speeches
2018				de Guindos	12	Vice-Presidents speeches
2019	Draghi	14	Presidents speeches	de Guindos	28	Vice-Presidents speeches
2019	Lagarde	2	Presidents speeches			
2020	Lagarde	17	Presidents speeches	de Guindos	11	Vice-Presidents speeches
TOTAL		249			169	
						Total: 418

ANNEX II – Debt collocates for the Commission

Table A 3 - Debt collocates, Commission 2010

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
86	the	5	recent	3	second
55	of	5	problems	3	restructuring
38	and	5	pact	3	resolution
36	to	5	pace	3	ratios
28	sovereign	5	money	3	problem
26	in	5	markets	3	policy
26	a	5	imbalances	3	our
22	on	5	high	3	neglected
20	public	5	euro	3	market
20	is	4	were	3	level
14	this	4	we	3	indeed
13	that	4	was	3	increasing
13	be	4	such	3	if
12	more	4	some	3	i
12	has	4	social	3	greece
11	not	4	S	3	gdp
11	member	4	needs	3	from
10	states	4	macroeconomic	3	financing
10	crisis	4	its	3	financial
10	an	4	eu	3	earlier
9	reduction	4	equal	3	dynamics
9	excessive	4	during	3	deficits
9	deficit	4	damaging	3	default
8	will	4	criterion	3	current
8	for	4	at	3	by
8	debt	4	are	3	but
8	as	4	anti	3	budgetary
6	with	4	action	3	before
6	satisfactory	3	year	3	also
6	levels	3	which	3	addressed
6	have	3	used		
6	fiscal	3	than		
6	basis	3	tensions		
5	you	3	tax		
5	sustainability	3	should		
5	reduce	3	short		

Table A 4 - Debt collocates, Commission 2011

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
145	the	6	into	4	been
60	of	6	help	4	at
53	sovereign	6	for	3	would
48	to	6	even	3	while
47	and	6	economic	3	which
46	crisis	6	deficits	3	way
41	in	5	when	3	vulnerable
39	a	5	us	3	vicious
27	public	5	unsustainable	3	they
22	is	5	this	3	these
18	on	5	sustainability	3	their
15	that	5	service	3	than
14	be	5	pooling	3	structural
12	we	5	over	3	stability
12	debt	5	or	3	restructuring
12	are	5	issuance	3	reforms
11	will	5	government	3	reduction
11	more	5	gdp	3	ratios
11	euro	5	eurobonds	3	psi
11	as	5	can	3	our
10	market	4	up	3	now
10	high	4	turbulence	3	need
10	have	4	through	3	namely
10	has	4	three	3	must
10	by	4	tensions	3	management
10	area	4	still	3	low
10	also	4	states	3	level
9	with	4	solve	3	imbalances
9	levels	4	sector	3	if
8	private	4	redemption	3	had
8	it	4	put	3	growing
8	growth	4	no	3	greece
8	europe	4	net	3	general
8	could	4	its	3	fund
7	problem	4	impact	3	european
7	financial	4	i	3	eu
7	countries	4	gross	3	deficit
6	there	4	greek	3	current
6	not	4	further	3	continue
6	member	4	from	3	ceiling
6	markets	4	but	3	capacity

3 buy	3 banking	3 an
3 based	3 back	3 about

Table A 5 - Debt collocates, Commission 2012

Frequency	Collocate	6	states	4	gdp
81	the	6	joint	4	down
57	of	6	it	4	countries
41	and	6	high	4	confidence
39	to	6	fiscal	4	are
27	a	6	but	3	without
26	in	5	with	3	up
25	sovereign	5	which	3	tackle
22	crisis	5	redemption	3	so
18	is	5	private	3	shown
16	we	5	not	3	question
16	public	5	mutualisation	3	or
12	that	5	its	3	must
11	euro	5	can	3	markets
10	for	5	by	3	market
9	on	5	banking	3	long
9	issuance	5	at	3	levels
8	have	5	also	3	housing
8	has	4	very	3	fuelled
7	sustainability	4	time	3	from
7	sector	4	this	3	external
7	member	4	sustainable	3	europe
7	growth	4	servicing	3	deficits
7	as	4	reduce	3	deficit
6	would	4	ratio	3	burden
6	unsustainable	4	greek	3	bring
6	their	4	greece	3	been

Table A 6 - Debt collocates, Commission 2013

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
40	the	7	by	3	this
22	of	6	sovereign	3	S
20	and	6	on	3	or
17	public	6	growth	3	irresponsible
15	in	5	high	3	if
12	to	5	be	3	have
10	is	5	are	3	from
8	that	4	not	3	fact
8	private	4	has	3	european
8	debt	4	fuelled	3	but
7	will	4	between	3	at
7	we	4	bank	3	as
7	levels	3	unsustainable	3	a
		1			

Table A 7 - Debt collocates, Commission 2014

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
36	the	6	not	4	growth
30	and	5	we	4	economic
20	of	5	still	3	with
18	public	5	sovereign	3	was
16	in	5	deficit	3	reduction
14	high	5	but	3	on
13	to	5	at	3	level
12	debt	5	are	3	italy
11	levels	4	will	3	it
9	crisis	4	this	3	europe
8	excessive	4	our	3	course
7	is	4	or	3	countries
7	financial	4	national	3	by
7	a	4	must	3	be
6	private	4	many		

Table A 8 - Debt collocates, Commission 2015

Collocate	Frequency	Collocate	Frequency	Collocate
the	6	is	3	will
and	6	a	3	we
to	5	level	3	sustainability
of	4	reduce	3	S
in	4	private	3	ratio
public	4	on	3	gdp
high	4	as	3	are
levels	3	with	3	also
	the and to of in public high	the 6 and 6 to 5 of 4 in 4 public 4 high 4	the 6 is 6 a to 5 level 4 reduce in 4 private public 4 on 4 as	the 6 is 3 and 6 a 3 to 5 level 3 of 4 reduce 3 in 4 private 3 public 4 on 3 high 4 as 3

Table A 9 - Debt collocates, Commission 2016

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
17	the	4	ratio	3	is
13	in	4	gdp	3	high
13	and	3	this	3	euro
12	to	3	public	3	deficit
6	of	3	private	3	area
6	levels	3	on	3	are
				3	a

Source: Author, AntConc results for collocate considering 5 words to the left and to the right and minimum frequency of 3, ranked based on the frequency.

Table A 10 - Debt collocates, Commission 2017

Frequency	Collocate
10	to
9	the
7	and
6	is
5	public
4	of
4	in
3	S
3	high
3	a

Table A 11 - Debt collocates, Commission 2018

Frequency	Collocate	Frequency	Collocate	I	Frequency	Collocate
21	the	5	public		3	this
13	to	5	its		3	not
10	of	5	greece		3	meaningfully
10	is	4	will		3	lighten
9	in	4	which		3	levels
9	and	4	ratio		3	italy
6	with	4	high		3	if
6	S	4	criterion		3	deficit
5	we	4	as		3	burden
5	that	4	a		3	be
					3	also

Table A 12 - Debt collocates, Commission 2019

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
15	the	6	area	3	3 s
13	and	6	a	3	3 ratio
12	to	5	gdp	3	3 private
11	public	5	for	3	outstandin
8	is	4	on	3	3 о
8	high	4	of	3	3 not
8	debt	4	deficit	3	3 its
6	in	3	with	3	B have
6	euro	3	that	3	countries
		3	set	3	3 as

Table A 13 - Debt collocates, Commission 2020

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
23	the	6	debt	3	was
20	of	5	in	3	us
15	and	4	you	3	this
13	to	4	that	3	S
12	is	4	on	3	ratio
7	high	4	next	3	our
7	a	4	measures	3	million
6	public	3	worth	3	but
		3	with	3	an

ANNEX III – Debt clusters for the Commission

Table A 14 - Debt clusters, Commission 2010

Frequency	Range	Cluster 2-10L
8	6	debt is
6	6	debt and
6	4	debt crisis
6	5	debt reduction
4	3	debt has
4	4	debt in
4	4	debt problems
4	4	debt sustainability
3	3	debt criterion
3	3	debt dynamics
3	3	debt is money
3	3	debt levels
3	3	debt markets
3	3	debt problems will
3	3	debt ratios
3	2	debt restructuring
3	3	debt was
3	3	debt. the
Frequency	Range	Cluster 2-10R
Frequency 26	Range 16	Cluster 2-10R sovereign debt
26	16	sovereign debt
26 15	16 13	sovereign debt public debt
26 15 14	16 13 11	sovereign debt public debt of debt
26 15 14 9	16 13 11 7	sovereign debt public debt of debt the sovereign debt
26 15 14 9 8	16 13 11 7 8	sovereign debt public debt of debt the sovereign debt excessive debt
26 15 14 9 8	16 13 11 7 8 7	sovereign debt public debt of debt the sovereign debt excessive debt the debt
26 15 14 9 8 8	16 13 11 7 8 7 6	sovereign debt public debt of debt the sovereign debt excessive debt the debt and debt
26 15 14 9 8 8 6 5	16 13 11 7 8 7 6 5	sovereign debt public debt of debt the sovereign debt excessive debt the debt and debt of sovereign debt
26 15 14 9 8 8 6 5 5	16 13 11 7 8 7 6 5	sovereign debt public debt of debt the sovereign debt excessive debt the debt and debt of sovereign debt pace of debt satisfactory pace of debt a satisfactory pace of debt
26 15 14 9 8 8 6 5 5	16 13 11 7 8 7 6 5 5 5	sovereign debt public debt of debt the sovereign debt excessive debt the debt and debt of sovereign debt pace of debt satisfactory pace of debt
26 15 14 9 8 8 6 5 5 5	16 13 11 7 8 7 6 5 5 5	sovereign debt public debt of debt the sovereign debt excessive debt the debt and debt of sovereign debt pace of debt satisfactory pace of debt a satisfactory pace of debt
26 15 14 9 8 8 6 5 5 5 4 4	16 13 11 7 8 7 6 5 5 4 4	sovereign debt public debt of debt the sovereign debt excessive debt the debt and debt of sovereign debt pace of debt satisfactory pace of debt a satisfactory pace of debt and excessive debt on debt an equal basis. debt
26 15 14 9 8 8 6 5 5 5 4 4	16 13 11 7 8 7 6 5 5 5 4 4 4	sovereign debt public debt of debt the sovereign debt excessive debt the debt and debt of sovereign debt pace of debt satisfactory pace of debt a satisfactory pace of debt and excessive debt on debt an equal basis. debt
26 15 14 9 8 8 6 5 5 5 4 4 4 4 3	16 13 11 7 8 7 6 5 5 4 4 4 3	sovereign debt public debt of debt the sovereign debt excessive debt the debt and debt of sovereign debt pace of debt satisfactory pace of debt a satisfactory pace of debt and excessive debt on debt an equal basis. debt
26 15 14 9 8 8 6 5 5 5 4 4 4 4 3 3	16 13 11 7 8 7 6 5 5 5 4 4 4 4 3 3	sovereign debt public debt of debt the sovereign debt excessive debt the debt and debt of sovereign debt pace of debt satisfactory pace of debt a satisfactory pace of debt and excessive debt on debt an equal basis. debt

3	3	in the sovereign debt
3	3	not used to reduce public debt
3	3	on an equal basis. debt
3	3	reduce public debt
3	3	the public debt
3	3	times were not used to reduce public debt
3	3	to reduce public debt
3	3	used to reduce public debt
3	3	were not used to reduce public debt

Table A 15 - Debt clusters, Commission 2011

Frequency	Range	Cluster 2-10L
41	22	debt crisis
8	6	debt market
6	4	debt and
5	3	debt levels
5	4	debt sustainability
4	4	debt crisis and
4	4	debt crisis in
4	3	debt in
4	4	debt. the
3	3	debt crisis by
3	2	debt in the
3	3	debt market is
3	3	debt markets
3	2	debt restructuring
3	3	debt will
Frequency	Range	Cluster 2-10R
50	26	sovereign debt
30	18	the sovereign debt
21	13	public debt
19	12	the debt
9	8	of debt
7	7	in the sovereign debt
5	5	a sovereign debt
5	4	high debt
5	3	of the sovereign debt

4	4	government debt
4	4	of unsustainable debt
4	3	private debt
4	4	unsustainable debt
3	3	could help solve the debt
3	3	eurobonds could help solve the debt
3	3	help solve the debt
3	3	how eurobonds could help solve the debt
3	1	net debt
3	2	of public debt
3	3	of sovereign debt
3	3	solve the debt
3	3	tensions in the sovereign debt
3	3	to the debt

Table A 16 - Debt clusters, Commission 2012

Frequency	Range	Cluster 2-10L
18	11	debt crisis
10	8	debt and
5	4	debt in
4	4	debt is
4	4	debt is a
4	3	debt redemption
3	3	debt burden
3	2	debt crisis and
3	3	debt is a euro
3	3	debt would
3	1	debt-to
3	1	debt-to-gdp
3	1	debt-to-gdp ratio
3	3	debt. we
Frequency	Range	Cluster 2-10R
25	12	sovereign debt
14	10	public debt
12	6	the sovereign debt
10	9	the debt
9	6	of debt

6	6	of sovereign debt
5	3	of public debt
5	4	of the sovereign debt
4	3	a debt
4	3	their debt
3	3	as long as we have unsustainable debt
3	3	as we have unsustainable debt
3	3	growth as long as we have unsustainable debt
3	3	have sustainable growth as long as we have unsustainable debt
$\begin{bmatrix} 3 \\ 3 \end{bmatrix}$	_	have unsustainable debt
	3	
3	3	issuance of debt
3	3	joint issuance of debt
3	3	long as we have unsustainable debt
3	3	mutualisation of debt
3	3	question of sovereign debt
3	3	sustainable growth as long as we have unsustainable debt
3	3	tackle the question of sovereign debt
3	3	that debt
3	3	the question of sovereign debt
3	3	to tackle the question of sovereign debt
3	3	unsustainable debt
3	3	we have unsustainable debt

Table A 17 - Debt clusters, Commission 2013

Frequency	Range	Cluster 2-10L
5	5	debt is
4	4	debt and
3	3	debt in
3	3	debt in the
3	2	debt levels
Frequency	Range	Cluster 2-10R
12	10	public debt
5	4	private debt
5	4	sovereign debt
5	5	the debt
3	2	of debt
3	3	of public debt

3 on debt

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 18 - Debt clusters, Commission 2014

Frequency	Range	Cluster 2-10L	
10	7	debt levels	
8	6	debt crisis	
4	3	debt and	
3	2	debt levels in	
Frequency	Range	Cluster 2-10R	
13	7	public debt	
7	5	and debt	
5	4	sovereign debt	
3	3	excessive debt	
3	1	financial and debt	
3	3	high debt	
3	2	high public debt	
3	2	of public debt	
3	2	private debt	
3	3	the sovereign debt	

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 19 - Debt clusters, Commission 2015

Frequency	Range	Cluster 2-10L	
3	2	debt and	
3	3	debt levels	
Frequency	Range	Cluster 2-10R	
11	6	public debt	
5	3	the debt	
3	3	of debt	
3	3	of public debt	

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 20 - Debt clusters, Commission 2016

Frequency	Range	Cluster 2-10L	
5	3	debt levels	
3	3	debt-to	
3	3	debt-to-gdp	
3	3	debt-to-gdp ratio	
Frequency	Range	Cluster 2-10R	
4	4	the debt	
3	3	on debt	

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 21 - Debt clusters, Commission 2017

Frequency	Range	Cluster 2-10R
4	3	public debt

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. No left clusters for the minimum frequency of 3, so only right clusters are presented.

Table A 22 - Debt clusters, Commission 2018

Frequency	Range	Cluster 2-10L	
4	2	debt criterion	
3	3	debt burden	
Frequency	Range	Cluster 2-10R	
7	4	the debt	
5	5	public debt	
5	4	s debt	
4	3	greece's debt	

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Table A 23 - Debt clusters, Commission 2019

Frequency	Range	Cluster 2-10L	
3	3	debt is	
3	2	debt-to	
3	2	debt-to-gdp	
Frequency	Range	Cluster 2-10R	
9	5	public debt	
4	2	high public debt	

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 24 - Debt clusters, Commission 2020

Frequency	Range	Cluster 2-10L	
5	1	debt and	
3	3	debt measures	
Frequency	Range	Cluster 2-10R	
8	5	of debt	
5	5	public debt	
3	3	the debt	

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

ANNEX IV – Debt collocates for the ECB

Table A 25 - Debt collocates, ECB 2010

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
97	the	6	which	3	towards
62	of	6	reduction	3	those
46	in	6	on	3	tensions
39	and	6	have	3	some
34	to	6	countries	3	solution
24	a	6	be	3	should
16	public	5	these	3	reducing
16	markets	5	ratio	3	reduce
16	for	5	more	3	private
15	with	5	it	3	partly
15	securities	5	growth	3	or
15	levels	4	year	3	option
15	government	4	very	3	non
14	overhang	4	not	3	needed
12	sovereign	4	most	3	living
12	gdp	4	losses	3	increase
12	as	4	level	3	has
10	S	4	its	3	governments
9	that	4	growing	3	foreign
9	area	4	from	3	financial
8	this	4	fiscal	3	finally
8	ratios	4	debt	3	european
8	is	4	crisis	3	economies
8	high	4	by	3	competitiveness
8	euro	4	advanced	3	ceiling
8	deficits	3	we	3	burden
8	are	3	was	3	after
7	excessive	3	unsustainable	3	address
				3	accumulation

Table A 26 - Debt collocates, ECB 2011

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
119	the	6	was	3	when
67	and	6	S	3	well
53	sovereign	6	reducing	3	we
52	of	6	market	3	value
46	in	6	demand	3	their
45	to	6	challenges	3	sovereigns
28	crisis	5	will	3	smp
25	for	5	were	3	sector
23	a	5	ratios	3	rule
22	government	5	policies	3	regards
20	euro	5	now	3	reduce
16	on	5	me	3	points
16	area	5	let	3	only
15	public	5	from	3	macroeconomic
15	levels	5	external	3	limits
15	as	5	european	3	it
14	with	5	developments	3	into
14	fiscal	5	country	3	individual
13	by	5	but	3	increases
12	that	5	are	3	increase
11	sustainability	4	which	3	inappropriate
11	markets	4	turn	3	high
10	this	4	states	3	financed
10	private	4	start	3	equity
10	i	4	ratio	3	ecb
9	ongoing	4	or	3	domestic
8	securities	4	national	3	defined
8	reduction	4	more	3	countries
8	deficit	4	member	3	could
8	contagion	4	holdings	3	can
7	problems	4	have	3	border
7	is	4	growth	3	booms
7	instruments	4	down	3	benchmark
7	gdp	4	debt	3	august
7	financial	4	current	3	an
7	between	4	cross	3	ambitious
7	be	4	bring	3	also
7	banks	3	would	3	accumulation
·					

Table A 27 - Debt collocates, ECB 2012

	ite	Frequency	Collocate		Frequency	Collocate
the		5	was		4	an
of		5	that		4	a
in		5	has		3	with
to		5	financial		3	will
and		5	deficit		3	which
public		5	area		3	they
sovere	gn	4	value		3	sustainable
levels		4	this		3	ratio
private		4	some		3	on
not		4	slide		3	negative
crisis		4	overall		3	increase
from		4	much		3	held
countr	ies	4	is		3	financing
by		4	government		3	exposures
are		4	gdp		3	evolution
marke	ts	4	domestic		3	central
euro		4	banks		3	been
					3	bank
	of in to and public soverei levels private not crisis from countri by are market	of in to and public sovereign levels private not crisis from countries by are markets	of 5 in 5 to 5 and 5 public 5 sovereign 4 levels 4 private not 4 crisis 6 from 4 countries by are 4 markets 4	of 5 that in 5 has to 5 financial and 5 deficit public 5 area sovereign 4 value levels 4 this private 1 some not 4 slide crisis 4 overall from 4 much countries 5 by 4 government are 4 gdp markets 4 domestic	of 5 that in 5 has to 5 financial and 5 deficit public 5 area sovereign 4 value levels 4 this private 4 some not 4 slide crisis 4 overall from 4 much countries 5 that 5 has 5 financial 6 deficit 7 value 7 value 8 value 9 deficit 9 deficit 9 value 9 deficit 9 deficit 9 value 9 deficit 9	of 5 that 4 in 5 has 3 to 5 financial 3 and 5 deficit 3 public 5 area 3 sovereign 4 value 3 levels 4 this 3 private 4 some 3 not 4 slide 3 crisis 4 overall 3 from 4 much 3 countries 4 is 3 by 4 government 3 are 4 gdp 3 markets 4 domestic 3 euro 4 banks 3

Table A 28 - Debt collocates, ECB 2013

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
87	the	13	by	7	government
54	in	13	area	7	financial
51	to	12	a	6	sector
45	of	11	this	6	on
39	and	11	have	6	increase
37	sovereign	10	that	6	banks
30	public	9	increased	5	was
20	crisis	9	from	5	no
19	levels	9	but	5	it
19	gdp	8	for	5	be
18	ratio	8	countries	5	bank
18	private	7	were	5	as
14	euro	7	ratios	5	around
13	markets	7	has	4	which
13	is	7	growth	4	versus

F		1			
4	sustainable	3	two	3	fiscal
4	rise	3	sustainability	3	external
4	percentage	3	spreads	3	excessive
4	level	3	spain	3	emu
4	increasing	3	policies	3	deficits
4	high	3	overall	3	cases
4	fell	3	or	3	capital
4	declined	3	not	3	been
4	debt	3	lower	3	banking
3	would	3	its	3	average
3	without	3	interventions	3	are
3	while	3	instance	3	almost
3	we	3	higher	3	about
3	unsustainable	3	future		
		I I			

Table A 29 - Debt collocates, ECB 2014

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
114	the	8	government	5	can
63	of	8	as	5	be
62	and	8	are	5	based
44	in	7	was	4	unemployment
42	to	7	sustainability	4	sustainable
41	sovereign	7	is	4	such
41	crisis	7	financial	4	short
28	a	7	burden	4	real
18	that	7	banks	4	quickly
16	overhang	6	their	4	more
15	this	6	it	4	low
14	on	6	has	4	i
13	euro	6	growth	4	households
12	high	6	equity	4	from
11	with	6	by	4	european
11	ratios	6	also	4	debt
11	public	5	value	4	cost
11	for	5	term	4	concerns
10	private	5	over	4	both
10	area	5	markets	4	bank
8	or	5	lending	3	would
8	levels	5	increase	3	were
8	income	5	have	3	up

3	under	3	much	3	dynamics
3	too	3	meant	3	down
3	through	3	inflation	3	deleveraging
3	these	3	implicit	3	deflation
3	should	3	however	3	countries
3	service	3	governments	3	capital
3	risks	3	funding	3	but
3	restructuring	3	fiscal	3	been
3	reduce	3	firms	3	aggregate
3	process	3	excessive		
3	policy	3	economies		

Table A 30 - Debt collocates, ECB 2015

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
115	the	8	ratio	5	gdp
76	of	8	banks	5	fiscal
65	and	7	value	5	firms
59	to	7	not	5	credit
46	in	7	levels	5	cost
28	a	7	increased	5	at
24	sovereign	7	euro	5	as
22	public	7	burden	4	when
18	high	7	between	4	we
16	ratios	7	be	4	through
13	with	6	loan	4	symposium
12	that	6	debt	4	still
12	on	6	country	4	securities
12	for	6	area	4	S
11	is	6	are	4	risk
11	economic	5	would	4	restructuring
10	from	5	while	4	reduction
10	crisis	5	up	4	reducing
10	countries	5	this	4	need
10	by	5	sustainability	4	more
9	private	5	should	4	its
9	overhang	5	real	4	it
9	or	5	market	4	households
9	income	5	increase	4	fragile
9	growth	5	have	4	excessive
8	which	5	global	4	effects

	4	dti	3	sector	3	institute
	4	deleveraging	3	secondary	3	holdings
	4	corporate	3	reduce	3	has
	4	confidence	3	present	3	financial
	4	but	3	political	3	finance
	4	both	3	over	3	equity
	4	borrowers	3	much	3	dynamics
	4	also	3	moral	3	difference
	4	all	3	mckinsey	3	declined
	3	whereas	3	markets	3	consequences
	3	were	3	ltv	3	burdens
	3	was	3	low	3	an
	3	they	3	level	3	about
	3	service	3	large		
1						

Table A 31 - Debt collocates, ECB 2016

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
57	the	6	are	3	this
34	of	5	would	3	third
31	and	5	which	3	sustainability
29	to	5	their	3	service
15	in	5	markets	3	real
11	sovereign	5	at	3	rated
8	that	5	all	3	out
8	overhang	4	where	3	not
8	euro	4	residual	3	non
8	crisis	4	reduce	3	loan
8	a	4	ratio	3	holdings
7	public	4	private	3	grow
7	for	4	or	3	government
7	by	4	issuance	3	from
6	securities	4	higher	3	financial
6	on	4	corporate	3	currency
6	it	4	average	3	credit
6	is	4	also	3	can
6	income	3	we	3	be
6	area	3	was	3	asset
				3	as

Table A 32 - Debt collocates, ECB 2017

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
60	the	8	be	4	also
45	and	8	area	3	which
43	of	7	with	3	was
37	in	7	enforcement	3	such
30	to	7	by	3	some
17	a	6	growth	3	reduce
16	sovereign	5	these	3	recent
14	crisis	5	outstanding	3	ratio
13	term	5	from	3	procedures
12	or	5	financial	3	on
11	short	5	excessive	3	not
11	is	5	credit	3	more
11	as	4	through	3	markets
10	public	4	this	3	it
10	household	4	system	3	into
10	for	4	sustainability	3	higher
9	that	4	ratios	3	framework
9	private	4	have	3	down
9	levels	4	has	3	distressed
9	countries	4	had	3	developments
9	corporate	4	gdp	3	creation
8	high	4	crises	3	both
8	euro	4	been	3	bail
		4	at	3	are

Table A 33 - Debt collocates, ECB 2018

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
80	the	6	would	4	at
71	of	6	not	4	an
57	and	6	markets	4	also
45	in	6	gdp	3	which
33	to	6	as	3	way
30	a	6	area	3	this
19	sovereign	5	was	3	they
19	public	5	such	3	tensions
15	countries	5	securities	3	still
14	with	5	restructuring	3	some
14	private	5	increase	3	several
14	high	5	both	3	ratios
12	levels	5	are	3	over
12	is	5	all	3	only
11	that	4	where	3	member
11	by	4	total	3	liquidity
10	equity	4	should	3	legacy
9	or	4	reduction	3	issuance
9	financial	4	reduce	3	income
8	sector	4	ratio	3	if
8	risk	4	more	3	has
8	on	4	monetary	3	financing
8	government	4	market	3	domestic
8	for	4	loans	3	declined
8	fiscal	4	level	3	country
8	crisis	4	issued	3	could
7	their	4	important	3	corporate
7	sustainability	4	help	3	concerns
7	overhang	4	have	3	can
7	national	4	finance	3	burdens
7	euro	4	default	3	bias
7	be	4	debt	3	banks
				3	bank

Table A 34 - Debt collocates, ECB 2019

Frequency Collocate		Frequency	Collocate	Frequency	Collocate
39	the	6	euro	4	markets
27	and	6	by	4	investment
25	in	5	would	4	can
17	sovereign	5	which	4	bank
17	of	5	that	4	area
14	to	5	is	3	where
12	crisis	5	government	3	up
10	a	5	for	3	securities
9	sustainability	5	financial	3	risk
9	public	5	equity	3	low
7	high	5	be	3	have
7	countries	4	with	3	growth
7	concerns	4	their	3	global
				3	bias
				J 	

Table A 35 - Debt collocates, ECB 2020

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
18	the	5	to	3	term
13	and	5	sustainability	3	medium
10	of	4	rise	3	issuance
8	public	4	may	3	financial
7	in	4	increase	3	economic
6	levels	4	give	3	concerns
		4	euro	3	by

ANNEX V – Debt clusters for the ECB

Table A 36 - Debt clusters, ECB 2010

Frequency	Range	Cluster 2-10L
13	8	debt securities
12	2	debt overhang
10	8	debt levels
9	7	debt markets
7	2	debt-to
7	2	debt-to-gdp
6	5	debt securities markets
4	3	debt ratios
4	2	debt-to-gdp ratio
3	3	debt and
3	3	debt crisis
3	3	debt towards
3	3	debt towards the
3	1	debt-to-gdp ratios
Frequency	Range	Cluster 2-10R
19	6	the debt
13	6	public debt
12	8	sovereign debt
11	6	government debt
6	4	high debt
6	3	of debt
5	4	and debt
5	5	the sovereign debt
4	3	a debt
4	4	of public debt
4	4	s debt
4	1	with the debt
3	3	ambitious targets for the reduction of public debt
3	3	and unsustainable public debt
3	3	area's debt
3	3	deficits and unsustainable public debt
3	3	euro area's debt
3	3	excessive debt
3	3	excessive deficits and unsustainable public debt
3	3	fiscal policies to prevent excessive deficits and unsustainable public debt
3	3	for the reduction of public debt
3	3	in debt
3	1	living with the debt

3	3	of the sovereign debt
3	3	policies to prevent excessive deficits and unsustainable public debt
3	3	prevent excessive deficits and unsustainable public debt
3	1	reducing the debt
3	3	reduction of public debt
3	3	targets for the reduction of public debt
3	3	the euro area's debt
3	3	the reduction of public debt
3	3	to prevent excessive deficits and unsustainable public debt
3	3	unsustainable public debt

Table A 37 - Debt clusters, ECB 2011

Frequency	Range	Cluster 2-10L
25	13	debt crisis
10	9	debt levels
6	6	debt and
6	4	debt instruments
6	4	debt markets
6	5	debt sustainability
5	3	debt developments
5	3	debt securities
4	4	debt market
3	2	debt problems
3	3	debt crisis of
3	3	debt crisis of the
3	3	debt in
3	3	debt ratios
3	3	debt reduction
3	3	debt-financed
3	3	debt-financed booms
3	3	debt-financed booms in
3	3	debt-financed booms in domestic
3	2	debt. for
Frequency	Range	Cluster 2-10R
49	19	sovereign debt
18	10	government debt
10	9	and debt

10	7	the sovereign debt	
7	5	public debt	
5	2	area government debt	
5	4	deficit and debt	
5	2	euro area government debt	
4	4	and private debt	
4	4	and reducing government debt	
4	3	of debt	
4	4	of sovereign debt	
4	4	ongoing debt	
4	4	private debt	
4	4	public and private debt	
4	4	reducing government debt	
4	4	sustainability and reducing government debt	
4	3	the debt	
3	3	a debt	
3	3	and high levels of public and private debt	
3	3	and sovereign debt	
3	3	area debt	
3	3	competitiveness and high levels of public and private debt	
3	2	current sovereign debt	
3	3	euro area debt	
3	3	european sovereign debt	
3	1	external debt	
3	3	fiscal sustainability and reducing government debt	
3	3	focus more on fiscal sustainability and reducing government debt	
3	3	high levels of public and private debt	
3	3	holdings of sovereign debt	
3	3	levels of public and private debt	
3	3	macroeconomic policies and debt	
3	3	more on fiscal sustainability and reducing government debt	
3	3	of competitiveness and high levels of public and private debt	
3	3	of public and private debt	
3	3	on fiscal sustainability and reducing government debt	
3	3	policies and debt	
3	1	private debt	
3	2	the current sovereign debt	
3	1	the euro area government debt	
3	3	the european sovereign debt	
3	3	to focus more on fiscal sustainability and reducing government debt	

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 38 - Debt clusters, ECB 2012

Frequency	Range	Cluster 2-10L
8	7	debt crisis
7	3	debt levels
5	4	debt markets
3	3	debt from
3	2	debt held
3	2	debt held by
3	2	debt to
3	2	debt with
Frequency	Range	Cluster 2-10R
19	11	sovereign debt
18	5	public debt
8	6	the sovereign debt
6	2	of public debt
6	3	private debt
4	4	government debt
4	4	of the sovereign debt
4	4	the debt
3	1	evolution of public debt
3	2	of private debt

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Table A 39 - Debt clusters, ECB 2013

Frequency	Range	Cluster 2-10L
12	8	debt crisis
10	7	debt levels
10	4	debt ratio
9	6	debt markets
9	4	debt to
7	3	debt to gdp
5	4	debt ratios
4	4	debt and

4	3	debt markets have
3	3	debt has
3	3	debt of
3	3	debt ratio to
3	3	debt ratio to gdp
3	3	debt ratios to
3	3	debt to gdp in
3	3	debt to gdp in emu
3	3	debt to gdp in emu declined
3	3	debt to gdp in emu declined on
Frequency	Range	Cluster 2-10R
34	14	sovereign debt
25	9	public debt
11	4	private debt
10	6	the sovereign debt
7	6	government debt
7	4	of public debt
6	3	sector debt
4	4	and sovereign debt
4	4	in sovereign debt
4	3	of the sovereign debt
4	2	private sector debt
3	2	external debt
3	1	in public debt
3	1	levels of public debt
3	2	of private debt
3	2	of private sector debt
3	2	ratio of private sector debt
3	3	ratio of public debt
3	3	the debt
3	3	the private debt
3	3	the public debt
Notation Francisco de de	2	the ratio of private sector debt

Table A 40 - Debt clusters, ECB 2014

Frequency	Range	Cluster 2-10L
30	12	debt crisis
14	10	debt overhang
7	3	debt levels
7	5	debt sustainability
6	6	debt ratios
5	4	debt and
5	3	debt crisis in
4	3	debt markets
4	4	debt-to
3	2	debt crisis in the
3	2	debt crisis in the euro
3	2	debt crisis in the euro area
3	2	debt deflation
3	2	debt restructuring
3	1	debt service
3	1	debt service-to
3	1	debt service-to-income
3	1	debt service-to-income ratios
3	3	debt-to-income
3	3	debt. in
Frequency	Range	Cluster 2-10R
38	12	sovereign debt
16	8	the sovereign debt
15	11	the debt
11	6	of debt
8	7	of the debt
6	3	a debt
6	5	and debt
6	6	government debt
6	6	public debt
5	5	private debt
4	2	european sovereign debt
4	4	or debt
3	1	bank debt
3	3	burden of the debt
3	2	the european sovereign debt
3	2	to debt

3 to the sovereign debt

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Table A 41 - Debt clusters, ECB 2015

Frequency	Range	Cluster 2-10L
12	5	debt and
9	3	debt overhang
8	2	debt ratios
6	6	debt crisis
6	5	debt-to
5	4	debt burden
4	3	debt in
4	3	debt of
4	1	debt ratio
4	3	debt securities
4	3	debt sustainability
3	1	debt and (not
3	1	debt and (not much
3	1	debt and (not much) deleveraging
3	2	debt burden of
3	1	debt overhang and
3	1	debt overhang and fragile
3	2	debt restructuring
3	2	debt-to-income
Frequency	Range	Cluster 2-10R
21	10	sovereign debt
20	8	the debt
19	4	public debt
11	6	of debt
7	4	high debt
7	4	private debt
5	5	or debt
5	5	the sovereign debt
4	2	on debt
4	2	the public debt
3	1	global institute (2015) "debt
3	1	institute (2015) "debt
3	2	its debt

3	3	ltv) or debt
3	1	mckinsey global institute (2015) "debt
3	1	of public debt
3	2	real debt
3	1	symposium on debt
3	3	to-value (ltv) or debt
3	3	value (ltv) or debt
3	2	with debt

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 42 - Debt clusters, ECB 2016

Frequency	Range	Cluster 2-10L	
7	7	debt overhang	
6	4	debt securities	
5	5	debt crisis	
Frequency	Range	Cluster 2-10R	
9	7	sovereign debt	
7	6	of debt	
4	4	and debt	
4	3	corporate debt	
4	4	the debt	
3	3	of public debt	
3	2	private debt	
3	3	public debt	
3	2	their debt	

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Table A 43 - Debt clusters, ECB 2017

Frequency	Range	Cluster 2-10L	
8	6	debt and	
7	6	debt crisis	
5	5	debt levels	
4	2	debt enforcement	
3	3	debt sustainability	
3	3	debt as	
3	2	debt crises	
3	3	debt has	
3	2	debt is	
Frequency	Range	Cluster 2-10R	
16	8	sovereign debt	
10	2	term debt	
8	4	household debt	
7	2	corporate debt	
7	5	public debt	
6	2	short-term debt	
5	5	the debt	
4	3	private debt	
4	4	the sovereign debt	
3	3	a sovereign debt	
3	2	or debt	

Table A 44 - Debt clusters, ECB 2018

Frequency	Range	Cluster 2-10L
8	6	debt and
6	4	debt overhang
6	6	debt sustainability
5	4	debt levels
5	1	debt restructuring
4	4	debt crisis
4	1	debt in
4	3	debt securities
4	3	debt-to
3	3	debt and equity
3	3	debt is

3	3	debt level
3	3	debt markets
3	3	debt over
Frequency	Range	Cluster 2-10R
17	8	sovereign debt
14	8	public debt
9	7	of debt
7	7	government debt
6	3	the debt
5	4	and debt
5	4	private debt
4	3	private sector debt
4	3	sector debt
4	4	the sovereign debt
4	3	total debt
3	2	high-debt
3	3	in sovereign debt
3	2	of total debt
3	3	their debt

Table A 45 - Debt clusters, ECB 2019

Frequency	Range	Cluster 2-10L
10	7	debt crisis
6	3	debt sustainability
4	3	debt markets
3	3	debt is
3	2	debt sustainability concerns
Frequency	Range	Cluster 2-10R
15	7	sovereign debt
7	5	public debt
7	5	the sovereign debt
4	4	the debt
3	3	and debt
3	3	countries where government debt
3	3	government debt
3	3	high public debt
3	2	the sovereign debt

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 46 - Debt clusters, ECB 2020

Frequency	Range	Cluster 2-10L	
4	4	debt levels	
Frequency	Range	Cluster 2-10R	
5	4	public debt	
3	2	give rise to debt	
3	2	may give rise to debt	
3	2	rise to debt	
3	2	to debt	

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

ANNEX VI – Fiscal collocates for the Commission

Table A 47 - Fiscal collocates, Commission 2010

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
151	the	10	not	6	efforts
99	and	10	must	6	debt
87	to	10	more	6	crisis
84	of	10	framework	6	coordination
78	consolidation	9	their	6	coordinate
69	in	9	sustainability	6	been
37	that	9	stance	6	at
34	policy	9	reform	6	alone
33	economic	9	our	6	adjustment
30	a	9	imbalances	5	which
29	is	9	by	5	unsustainable
28	with	8	but	5	strategy
25	we	8	accelerate	5	start
22	should	7	would	5	S
20	on	7	these	5	requirements
19	for	7	reforms	5	put
19	be	7	prudent	5	public
17	surveillance	7	other	5	propose
17	policies	7	order	5	pact
17	growth	7	measures	5	necessary
17	as	7	make	5	many
17	are	7	it	5	maintain
16	space	7	governance	5	macroeconomic
15	states	7	financial	5	from
15	have	7	discipline	5	frameworks
15	eu	7	an	5	finances
14	will	7	also	5	exit
14	structural	6	those	5	europe
14	fiscal	6	sustainable	5	differentiated
13	member	6	stimulus	5	credibility
12	while	6	stability	5	budgetary
12	countries	6	programme	5	between
12	better	6	no	4	year
11	rules	6	new	4	words
11	need	6	minimum	4	what
11	national	6	making	4	they
10	this	6	little	4	than
10	or	6	ensure	4	take

4	system	3	urgent		3	however
4	sgp	3	up		3	heavily
4	severe	3	twenty		3	has
4	second	3	track		3	friendly
4	restrictive	3	there		3	european
4	reflect	3	sure		3	estonia
4	pursue	3	stronger		3	especially
4	prevent	3	sound		3	enhance
4	overall	3	situation		3	elements
4	needs	3	scope		3	during
4	macro	3	same		3	developments
4	less	3	right		3	course
4	immediately	3	prudence		3	convincing
4	governments	3	programmes		3	concept
4	can	3	point		3	commitment
4	beyond	3	out		3	commission
4	ambitious	3	others		3	combination
4	advance	3	only		3	clearly
4	accompanied	3	non		3	challenges
4	about	3	most		3	become
3	years	3	matters		3	all
3	wiped	3	limited		3	agreed
3	where	3	its			
3	when	3	increase			
		1		1 1		

Table A 48 - Fiscal collocates, Commission 2011

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
113	and	8	programme	5	been
104	the	8	or	5	all
94	consolidation	8	financial	5	about
78	to	8	both	4	unprecedented
51	in	8	be	4	time
46	of	8	as	4	tax
40	is	7	was	4	tackle
39	a	7	states	4	substantially
34	for	7	reform	4	strengthening
32	we	7	put	4	strengthen
31	structural	7	member	4	some
25	have	7	measures	4	should
25	economic	7	its	4	same
23	this	7	euro	4	S
21	that	7	coordination	4	room
21	surveillance	6	would	4	rigorous
21	policy	6	will	4	reinforced
20	on	6	smart	4	recovery
19	but	6	rules	4	pursuing
18	with	6	no	4	positions
18	reforms	6	new	4	much
18	not	6	necessary	4	more
18	growth	6	national	4	market
17	by	6	must	4	key
17	are	6	macro	4	implications
16	need	6	first	4	if
15	policies	6	determined	4	expansion
14	fiscal	6	confidence	4	european
11	stimulus	6	area	4	europe
11	stability	6	also	4	enhancing
11	our	5	without	4	crisis
10	their	5	term	4	course
10	it	5	sovereignty	4	can
10	discipline	5	order	4	because
10	countries	5	macroeconomic	4	avoid
9	which	5	implementation	4	areas
9	i	5	imbalances	4	ambitious
9	at	5	has	4	action
8	very	5	eu	3	you
8	sustainability	5	calls	3	what

3	us	3	prudence	3	forward
3	union	3	programmes	3	especially
3	unavoidable	3	plans	3	ensure
3	through	3	pact	3	enhance
3	these	3	one	3	end
3	there	3	medium	3	efforts
3	than	3	means	3	culture
3	support	3	into	3	crucial
3	such	3	intensified	3	correcting
3	strong	3	indispensible	3	continue
3	strategy	3	indeed	3	competitiveness
3	step	3	improved	3	between
3	space	3	houses	3	banking
3	simply	3	hand	3	any
3	significant	3	given	3	an
3	said	3	further	3	allow
3	restructuring	3	from	3	accompanied

Table A 49 - Fiscal collocates, Commission 2012

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
143	the	18	not	9	policy
117	and	16	this	9	or
81	consolidation	16	compact	9	necessary
76	of	16	are	9	more
61	in	15	reforms	9	its
59	to	14	have	9	by
51	is	14	be	9	as
50	a	13	states	8	their
34	we	13	space	8	has
30	growth	13	but	8	greece
30	for	12	will	8	financial
29	structural	12	policies	8	ensure
28	on	12	our	8	banking
27	union	12	member	8	about
25	with	12	also	7	treaty
25	that	11	integration	7	there
24	economic	10	reform	7	rules
21	need	10	european	7	new
19	it	9	would	7	measures

7	imbalances	5	agreed		3	use
7	eu	4	year		3	together
7	coordination	4	without		3	through
7	been	4	when		3	terms
7	at	4	what		3	target
7	all	4	well		3	takes
6	sustainability	4	way		3	tackle
6	stability	4	was		3	sustainable
6	smart	4	up		3	strategy
6	must	4	time		3	sound
6	hand	4	tax		3	side
6	further	4	surveillance		3	saying
6	from	4	so		3	require
6	framework	4	reinforced		3	progress
6	discipline	4	public		3	out
6	deficits	4	other		3	order
6	debt	4	one		3	only
5	while	4	needs		3	major
5	which	4	much		3	macro
5	very	4	macroeconomic		3	little
5	towards	4	level		3	ladies
5	these	4	investment		3	into
5	stimulus	4	i		3	important
5	should	4	go		3	development
5	now	4	first		3	debate
5	national	4	efforts		3	convergence
5	monetary	4	crisis		3	combine
5	made	4	conditions		3	called
5	just	4	competitiveness		3	boosting
5	europe	4	can		3	between
5	deeper	4	based		3	already
5	capacity	4	approach		3	agreement
5	both	3	yet		3	actions
5	an	3	yes		3	according
			-			

Table A 50 - Fiscal collocates, Commission 2013

the	_			
	7	it	4	but
and	7	as	3	well
in	7	also	3	rules
of	6	with	3	not
consolidation	5	have	3	no
to	5	financial	3	important
is	4	will	3	i
a	4	this	3	from
policy	4	stimulus	3	europe
on	4	pace	3	deficit
that	4	our	3	crisis
we	4	national	3	commission
economic	4	more	3	both
for	4	integration	3	be
structural	4	consistent	3	backstops
reforms	4	by	3	are
			3	about
	of consolidation to is a policy on that we economic for structural	of consolidation 5 to 5 is 4 a 4 policy 4 on 4 that 4 we 4 economic 4 for 4 structural 4	of consolidation 5 have 5 have 5 financial is 4 will a 4 this policy 4 stimulus on 4 pace that 4 our we 4 national economic for 4 integration structural 6 with 6 w	of 6 with 3 consolidation 5 have 3 to 5 financial 3 is 4 will 3 a 4 this 3 policy 4 stimulus 3 on 4 pace 3 that 4 our 3 we 4 national 3 economic 4 integration 3 for 4 integration 3 structural 4 consistent 3 reforms 4 by 3

Table A 51 - Fiscal collocates, Commission 2014

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
45	and	7	stance	4	through
37	the	7	on	4	public
23	to	7	are	4	neutral
22	of	6	union	4	more
20	in	6	this	4	have
18	reforms	6	reform	4	further
16	structural	6	is	4	from
14	a	6	growth	4	fiscal
13	consolidation	6	also	4	exploitation
9	we	5	states	4	deficit
9	for	5	space	4	an
9	economic	5	responsibility	3	will
8	with	5	our	3	while
8	that	5	member	3	some
8	policy	5	investment	3	significant
8	policies	5	adjustment	3	rules

3]	prudent	3	maintaining	3	credibility
3	other	3	macro	3	between
3 1	not	3	important	3	be
3 1	need	3	has	3	at
3 1	measures	3	friendly	<u> </u>	

Table A 52 - Fiscal collocates, Commission 2015

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
31	the	6	responsibility	4	i
25	and	5	with	4	fiscal
15	is	5	which	3	that
14	to	5	stance	3	taxation
13	in	5	reforms	3	rules
9	a	5	for	3	remains
8	this	4	we	3	outlook
8	policy	4	transparency	3	o
8	consolidation	4	sustainability	3	neutral
7	of	4	our	3	investment
7	as	4	on	3	are

Source: Author, AntConc results for collocate considering 5 words to the left and to the right and minimum frequency of 3, ranked based on the frequency.

Table A 53 - Fiscal collocates, Commission 2016

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
17	the	4	with	3	monetar
16	and	4	situation	3	le
9	to	4	reforms	3	1
9	in	4	en	3	had
8	policy	4	as	3	for
6	we	4	a	3	euro
6	on	3	which	3	est
6	of	3	stance	3	economic
5	structural	3	space	3	be
5	is	3	need	3	area

Table A 54 - Fiscal collocates, Commission 2017

Frequency	Collocate	Frequency	Collocate		Frequency	Collocate
44	the	5	le		3	states
19	to	4	space		3	pursue
16	and	4	should		3	policy
13	that	4	rules		3	now
13	a	4	prudent		3	national
10	of	4	neutral		3	more
8	policies	4	need		3	member
8	our	4	euro		3	improving
7	we	4	compact		3	i
7	stance	4	by		3	have
7	in	4	be		3	front
6	on	4	at		3	economic
6	is	4	area		3	as
6	for	3	union		3	appropriate
6	capacity	3	those		3	an
		3	still		3	all
L				- -		

Table A 55 - Fiscal collocates, Commission 2018

Frequency	Collocate	Freque	ency	Collocate	Frequency	Collocate
22	the		5	stance	4	a
14	and		5	on	3	us
9	in		4	structural	3	targets
7	to		4	policy	3	member
6	of		4	policies	3	into
			4	fiscal	3	be

Table A 56 - Fiscal collocates, Commission 2019

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
19	the	6	and	4	area
10	to	5	stance	4	a
8	in	4	rules	3	we
6	on	4	policies	3	that
6	of	4	for	3	surveilland
		4	euro	3	our

Table A 57 - Fiscal collocates, Commission 2020

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
59	the	7	be	4	area
29	and	6	will	4	are
28	to	6	states	3	they
28	in	6	for	3	space
24	of	6	by	3	sizeable
14	a	5	unprecedented	3	recovery
12	policy	5	should	3	put
12	measures	5	growth	3	overall
10	policies	5	euro	3	or
9	is	5	continue	3	need
8	that	5	at	3	it
8	support	4	with	3	gdp
8	on	4	this	3	expected
8	have	4	supportive	3	coordination
7	we	4	set	3	confidence
7	stance	4	see	3	both
7	our	4	rules	3	been
7	member	4	discretionary	3	also
				3	aggregate

ANNEX VII – Fiscal clusters for the Commission

Table A 58 - Fiscal clusters, Commission 2010

Frequency	Range	Cluster 2-10L
68	31	fiscal consolidation
26	16	fiscal policy
14	11	fiscal policies
13	6	fiscal space
10	6	fiscal consolidation and
9	5	fiscal and
9	8	fiscal rules
7	4	fiscal and economic
7	6	fiscal discipline
7	6	fiscal sustainability
6	5	fiscal framework
6	5	fiscal imbalances
6	4	fiscal stance
6	5	fiscal stimulus
5	2	fiscal adjustment
5	4	fiscal consolidation should
5	5	fiscal frameworks
5	2	fiscal policy making
4	4	fiscal consolidation in
4	4	fiscal consolidation is
4	3	fiscal space should
4	4	fiscal stability
4	3	fiscal surveillance
3	2	fiscal consolidation and structural
3	3	fiscal consolidation have
3	3	fiscal consolidation have been
3	3	fiscal consolidation have been wiped
3	3	fiscal consolidation have been wiped out
3	3	fiscal consolidation have been wiped out in
3	3	fiscal consolidation have been wiped out in two
3	3	fiscal consolidation have been wiped out in two years
3	2	fiscal consolidation should be
3	3	fiscal exit
3	3	fiscal frameworks to
3	3	fiscal frameworks to make
3	3	fiscal frameworks to make sure
3	3	fiscal policy in
3	3	fiscal policy in advance

3	3	fiscal policy in advance, in
3	3	fiscal policy in advance, in order
3	3	fiscal policy in advance, in order to
3	3	fiscal policy in advance, in order to
3	3	fiscal policy in advance, in order to ensure that
3	3	fiscal policy in advance, in order to ensure that national
3	3	fiscal policy stance
3	3	fiscal situation
	Range	Cluster 2-10R
Frequency 29	21	of fiscal
29 20	11	the fiscal
15	11	and fiscal
9	7	national fiscal
	•	economic and fiscal
8	7	
7	7	that fiscal with fiscal
7	6	
6	4	prudent fiscal
5	4	better fiscal
5	5	eu fiscal
5	5	of the fiscal
5	5	to fiscal
5	5	unsustainable fiscal
4	4	accelerate fiscal
4	4	countries with no or little fiscal
4	4	little fiscal
4	4	measures of fiscal
4	4	no or little fiscal
4	4	or little fiscal
4	3	s fiscal
4	4	with better fiscal
4	4	with no or little fiscal
3	3	coordinate fiscal
3	3	economic governance is to coordinate fiscal
3	2	for fiscal
3	3	for national fiscal
3	3	governance is to coordinate fiscal
3	3	is to coordinate fiscal
3	3	minimum requirements for national fiscal
3	3	more fiscal
3	3	more severe: twenty years of fiscal
3	3	of the eu fiscal
3	3	our fiscal
3	3	prevent unsustainable fiscal

3	3	requirements for national fiscal
3	3	severe: twenty years of fiscal
3	3	the eu fiscal
3	3	their fiscal
3	3	to coordinate fiscal
3	3	to prevent unsustainable fiscal
3	3	twenty years of fiscal
3	3	years of fiscal

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of

Table A 59 - Fiscal clusters, Commission 2011

Frequency	Range	Cluster 2-10L
87	41	fiscal consolidation
18	13	fiscal consolidation and
12	9	fiscal and
12	10	fiscal surveillance
10	9	fiscal policies
10	8	fiscal stimulus
9	6	fiscal policy
8	8	fiscal discipline
7	5	fiscal surveillance and
6	6	fiscal sustainability
5	5	fiscal and structural
5	4	fiscal sovereignty
4	4	fiscal consolidation is
4	4	fiscal discipline and
4	2	fiscal expansion
4	3	fiscal rules
4	4	fiscal sovereignty, which
4	4	fiscal sovereignty, which calls
4	4	fiscal sovereignty, which calls for
4	4	fiscal sovereignty, which calls for a
4	4	fiscal sovereignty, which calls for a substantive
4	4	fiscal sovereignty, which calls for a substantive debate
4	4	fiscal sovereignty, which calls for a substantive debate in
4	4	fiscal surveillance and policy
4	4	fiscal surveillance and policy coordination
3	3	fiscal consolidation and to
3	3	fiscal consolidation is a

3	3	fiscal consolidation, and
3	2	fiscal consolidation. this
3	3	fiscal houses
3	3	fiscal houses in
3	3	fiscal houses in order
3	3	fiscal prudence
3	3	fiscal sovereignty, which calls for a substantive debate in euro
3	3	fiscal space
3	3	fiscal stimulus and
3	3	fiscal surveillance and policy coordination as
3	3	fiscal surveillance and policy coordination as an
3	3	fiscal surveillance and policy coordination as an essential
3	3	fiscal surveillance and policy coordination as an essential counterpart
3	3	fiscal surveillance and policy coordination as an essential counterpart, so
3	3	fiscal sustainability and
Frequency	Range	Cluster 2-10R
18	16	of fiscal
14	11	and fiscal
13	9	the fiscal
12	10	for fiscal
7	7	in fiscal
7	6	to fiscal
5	4	economic and fiscal
5	5	that fiscal
4	4	a substantially reinforced fiscal
4	4	about fiscal
4	4	both fiscal
4	4	by a substantially reinforced fiscal
4	4	determined fiscal
4	4	implications for fiscal
4	3	national fiscal
4	4	our fiscal
4	4	reinforced fiscal
4	4	substantially reinforced fiscal
4	4	their fiscal
3	3	accompanied by a substantially reinforced fiscal
3	3	be accompanied by a substantially reinforced fiscal
3	3	have to be accompanied by a substantially reinforced fiscal
3	3	on fiscal
3	3	rigorous fiscal
3	3	smart fiscal
3	3	strengthen fiscal
3	3	to be accompanied by a substantially reinforced fiscal

3 would have to be accompanied by a substantially reinforced fiscal

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Table A 60 - Fiscal clusters, Commission 2012

Frequency	Range	Cluster 2-10L
77	39	fiscal consolidation
18	13	fiscal and
16	11	fiscal compact
14	11	fiscal consolidation and
13	11	fiscal space
11	5	fiscal union
6	6	fiscal and economic
6	6	fiscal consolidation is
6	5	fiscal discipline
6	4	fiscal integration
6	6	fiscal policy
5	4	fiscal and structural
5	2	fiscal capacity
5	4	fiscal deficits
5	5	fiscal policies
5	5	fiscal sustainability
4	4	fiscal compact treaty
4	4	fiscal consolidation and growth
4	4	fiscal consolidation with
4	3	fiscal deficits in
4	3	fiscal deficits in the
4	1	fiscal imbalances
4	4	fiscal space and
4	4	fiscal stimulus
3	3	fiscal consolidation but
3	3	fiscal consolidation it
3	2	fiscal deficits in the european
3	2	fiscal deficits in the european union
3	3	fiscal space and macroeconomic
3	3	fiscal space and macroeconomic conditions
3	3	fiscal space for
3	3	fiscal space in
3	3	fiscal surveillance

Frequency	Range	Cluster 2-10R
25	18	the fiscal
19	14	of fiscal
13	12	and fiscal
10	9	a fiscal
9	7	of the fiscal
8	7	on fiscal
6	6	that fiscal
5	5	economic and fiscal
5	5	to fiscal
4	3	about fiscal
4	4	both fiscal
4	4	for fiscal
4	4	its fiscal
4	4	necessary fiscal
4	4	need fiscal
4	4	smart fiscal
4	4	their fiscal
4	4	we need fiscal
4	4	with fiscal
3	3	deeper fiscal
3	3	in fiscal
3	3	in terms of fiscal
3	3	is little fiscal
3	3	little fiscal
3	2	more fiscal
3	2	new fiscal
3	3	sound fiscal
3	3	terms of fiscal
3	3	the necessary fiscal
3	3	there is little fiscal
3	3	while fiscal

Table A 61 - Fiscal clusters, Commission 2013

Frequency	Range	Cluster 2-10L
21	14	fiscal consolidation
10	5	fiscal policy
4	2	fiscal stimulus
3	2	fiscal backstops
3	3	fiscal consolidation, and
3	2	fiscal rules
3	3	fiscal, economic
3	3	fiscal, economic and
3	3	fiscal, economic and also
Frequency	Range	Cluster 2-10R
11	9	of fiscal
5	3	and fiscal
4	3	economic and fiscal
4	4	pace of fiscal
4	4	the fiscal
4	4	to fiscal
3	3	financial, fiscal
3	2	in fiscal
3	3	in the financial, fiscal
3	2	on fiscal
3	3	the financial, fiscal

Table A 62 - Fiscal clusters, Commission 2014

Frequency	Range	Cluster 2-10L
12	8	fiscal consolidation
7	7	fiscal policies
7	7	fiscal policy
5	5	fiscal adjustment
5	4	fiscal responsibility
5	3	fiscal stance
4	4	fiscal policies and
4	4	fiscal space
4	3	fiscal union
3	3	fiscal and
3	2	fiscal credibility
3	2	fiscal credibility and
3	3	fiscal deficit
3	3	fiscal responsibility and
3	3	fiscal rules
Frequency	Range	Cluster 2-10R
10	8	the fiscal
7	6	and fiscal
4	3	reforms and fiscal
3	3	friendly fiscal
3	3	growth-friendly fiscal
3	3	of fiscal
3	3	of the fiscal
3	3	our fiscal
3	3	prudent fiscal

Table A 63 - Fiscal clusters, Commission 2015

Frequency	Range	Cluster 2-10L	
7	5	fiscal consolidation	
7	2	fiscal policy	
6	4	fiscal responsibility	
4	3	fiscal stance	
3	1	fiscal policy and	
3	1	fiscal policy and taxation	
3	3	fiscal rules	
3	2	fiscal sustainability	
3	1	fiscal transparency	
Frequency	Range	Cluster 2-10R	
6	6	the fiscal	
3	2	and fiscal	
3	3	neutral fiscal	

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 64 - Fiscal clusters, Commission 2016

Frequency	Range	Cluster 2-10L		
5	4	fiscal policy		
3	3	fiscal situation		
3	3	fiscal space		
3	3	fiscal stance		
Frequency	Range	Cluster 2-10R		
7	6	the fiscal		
3	3	and fiscal		

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Table A 65 - Fiscal clusters, Commission 2017

Frequency	Range	Cluster 2-10L
7	5	fiscal policies
6	3	fiscal stance
5	3	fiscal capacity
4	2	fiscal compact
4	3	fiscal space
3	3	fiscal front
3	3	fiscal policy
3	2	fiscal rules
Frequency	Range	Cluster 2-10R
8	7	the fiscal
4	3	our fiscal
3	2	a fiscal
3	3	national fiscal
3	2	neutral fiscal
3	3	of fiscal
3	3	on the fiscal
3	3	prudent fiscal

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 66 - Fiscal clusters, Commission 2018

Frequency	Range	Cluster 2-10L
4	3	fiscal policy
4	2	fiscal stance
3	3	fiscal targets
Frequency	Range	Cluster 2-10R
3	3	and fiscal

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Table A 67 - Fiscal clusters, Commission 2019

Frequency	Range	Cluster 2-10L	
5	3	fiscal stance	
4	3	fiscal policies	
4	1	fiscal rules	
3	2	fiscal surveillance	
Frequency	Range	Cluster 2-10R	
6	4	the fiscal	

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 68 - Fiscal clusters, Commission 2020

Frequency	Range		Cluster 2-10L
	11	7	fiscal measures
	11	8	fiscal policy
	8	7	fiscal policies
	7	7	fiscal stance
	4	4	fiscal and
	4	4	fiscal stance in
	3	3	fiscal rules
	3	3	fiscal space
	3	3	fiscal support
Frequency	Range		Cluster 2-10R
	13	7	the fiscal
	4	4	and fiscal
	4	3	discretionary fiscal
	4	3	of fiscal
	3	2	aggregate fiscal
	3	3	area fiscal
	3	3	euro area fiscal
	3	2	on fiscal
	3	3	our fiscal
	3	2	sizeable discretionary fiscal
	3	2	the aggregate fiscal
	3	3	the euro area fiscal

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

ANNEX VIII – Fiscal collocates for the ECB

Table A 69 - Fiscal collocates, ECB 2010

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
184	the	10	financial	5	targets
123	and	10	ensure	5	sizeable
97	of	10	economic	5	S
89	to	10	deficits	5	rules
84	in	10	by	5	reinforce
47	a	9	which	5	need
45	policies	9	sustainable	5	must
44	consolidation	9	structural	5	meet
33	policy	9	more	5	may
32	surveillance	9	governments	5	many
31	that	9	an	5	hand
29	for	9	adjustment	5	growth
28	is	8	sound	5	frameworks
26	have	8	i	5	effective
25	area	8	has	5	developments
23	measures	8	first	5	deficit
22	be	8	been	5	credible
21	as	8	also	5	confidence
20	euro	8	all	5	budgetary
19	with	7	reform	5	accelerate
19	imbalances	7	or	4	years
19	are	7	it	4	well
17	will	7	implementation	4	union
16	this	7	both	4	those
16	on	6	through	4	third
16	macroeconomic	6	support	4	term
14	sustainability	6	stimulus	4	situation
14	national	6	stability	4	several
14	countries	6	some	4	reforms
13	positions	6	public	4	prevent
13	not	6	positive	4	independent
12	fiscal	6	number	4	governance
11	we	6	its	4	expenditure
11	monetary	6	government	4	excessive
10	would	6	but	4	economy
10	their	6	authorities	4	discipline
10	needed	6	additional	4	debt
10	framework	5	within	4	conducting

4	concerns	3	programmes	3	important
4	can	3	procedures	3	if
4	appropriate	3	position	3	greek
3	year	3	planned	3	from
3	while	3	pillar	3	expansion
3	when	3	particular	3	european
3	were	3	origins	3	europe
3	wage	3	often	3	eu
3	view	3	now	3	ensuring
3	very	3	new	3	domestic
3	trend	3	needs	3	difficult
3	towards	3	necessary	3	crisis
3	time	3	moreover	3	costs
3	throughout	3	means	3	contraction
3	taken	3	makers	3	comprehensive
3	system	3	loss	3	commission
3	should	3	level	3	charged
3	second	3	large	3	based
3	risks	3	key	3	at
3	return	3	into	3	assessment
3	regime	3	including	3	ambitious
3	pursue	3	improvement		

Table A 70 - Fiscal collocates, ECB 2011

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
168	the	21	area	14	debt
153	and	20	that	14	be
105	of	19	governance	13	union
79	policies	19	are	13	by
65	to	18	policy	12	structural
59	in	18	national	12	compact
46	a	18	euro	10	not
41	for	17	sound	10	broader
36	economic	17	imbalances	9	which
33	macroeconomic	16	rules	9	this
32	is	16	countries	9	their
30	on	16	as	9	stability
27	consolidation	14	sustainability	9	should
26	surveillance	14	monetary	9	more
23	with	14	have	9	financial

9	at	4	up	3	restatement
8	need	4	times	3	requirements
8	government	4	three	3	reinforcement
8	ambitious	4	there	3	reforms
7	we	4	such	3	recession
7	regards	4	strengthening	3	quality
7	other	4	statistics	3	problems
7	it	4	some	3	private
7	framework	4	significant	3	pact
7	focus	4	sgp	3	one
7	can	4	reinforced	3	now
7	been	4	public	3	measures
7	an	4	production	3	long
6	years	4	particular	3	large
6	were	4	order	3	issues
6	very	4	needed	3	integration
6	time	4	markets	3	institutions
6	situation	4	independent	3	institutional
6	S	4	implementation	3	indispensable
6	reducing	4	had	3	implement
6	new	4	growth	3	house
6	i	4	governments	3	has
6	fiscal	4	frameworks	3	hand
6	essential	4	finally	3	good
6	deficit	4	european	3	gdp
6	competitiveness	4	ensure	3	fundamental
6	challenges	4	economies	3	from
	both	4	consistent	3	foundations
5	yet	4	called	3	finances
5	would	4	between	3	ecb
5	will	4	began	3	domestic
5	term	4	all	3	discipline
5	states	4	adjustment	3	design
5	remain	3	when	3	decentralised
5	our	3	what	3	current
5	or	3	was	3	country
5	level	3	two	3	costs
5	largely	3	turning	3	correction
5	incentives	3	these	3	coordination
5	eu	3	stronger	3	condition
5	correct	3	strong	3	competence
5	but	3	second	3	coming
4	well	3	same	3	collegial
+	VV C11		Barric		conogiai

3 cases	3 benchmarks	3 appropriate
3 cannot	3 being	3 any
3 best	3 become	3 analysis

Table A 71 - Fiscal collocates, ECB 2012

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
100	the	7	measures	4	actions
72	and	7	imbalances	3	within
47	to	7	as	3	where
41	of	6	sound	3	these
33	policies	6	growth	3	then
30	in	6	but	3	system
28	union	5	which	3	sustainable
27	a	5	towards	3	strengthened
22	for	5	macroeconomic	3	should
21	economic	5	important	3	S
20	financial	5	governance	3	positions
20	are	5	can	3	pillar
19	that	5	be	3	our
18	consolidation	4	will	3	other
18	compact	4	were	3	only
17	with	4	their	3	one
15	policy	4	stability	3	need
14	is	4	some	3	national
13	structural	4	second	3	more
10	was	4	reform	3	let
10	rules	4	pillars	3	it
10	fiscal	4	not	3	has
9	on	4	necessary	3	fully
9	euro	4	level	3	from
9	countries	4	including	3	four
9	by	4	implementation	3	efforts
8	we	4	governments	3	credibility
8	this	4	government	3	challenges
8	sustainability	4	framework	3	building
8	monetary	4	ensure	3	been
8	area	4	discipline	3	because
8	an	4	brake	3	banking
7	reforms	4	adjustments	3	authorities

3 at	3 also	3 about

Table A 72 - Fiscal collocates, ECB 2013

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
106	the	8	adjustment	4	prevent
68	and	7	would	4	over
56	to	7	should	4	national
51	of	7	are	4	framework
40	a	6	their	4	european
39	in	6	not	4	eu
36	policies	6	monetary	4	deficit
24	that	6	market	4	credible
22	union	6	macroeconomic	4	common
18	economic	6	imbalances	4	certainly
16	is	6	governments	4	brake
16	consolidation	6	from	4	authorities
15	have	6	ensure	4	any
14	it	6	crisis	4	also
14	as	6	can	4	all
13	for	6	backstop	3	where
12	policy	5	we	3	undertaken
12	fiscal	5	strengthened	3	these
12	be	5	states	3	surveillance
11	structural	5	stability	3	substantial
11	on	5	role	3	sovereigns
11	euro	5	reforms	3	sovereign
11	by	5	positions	3	sound
11	banking	5	mostly	3	since
11	area	5	member	3	sector
10	with	5	made	3	reducing
10	rules	5	if	3	only
10	has	5	growth	3	need
9	was	5	an	3	more
9	financial	4	were	3	measures
9	countries	4	term	3	into
9	been	4	support	3	implications
8	which	4	such	3	however
8	this	4	single	3	hence
8	sustainability	4	primary	3	governance

3 facilitate	3 discipline	3 could
3 effectively	3 deficits	3 conditions
3 effective	3 debt	3 compact

Table A 73 - Fiscal collocates, ECB 2014

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
127	the	9	more	4	without
75	and	9	but	4	within
67	of	8	their	4	where
53	policy	8	not	4	well
45	to	8	governance	4	use
43	in	8	by	4	those
43	a	8	also	4	these
29	that	7	or	4	term
28	policies	7	national	4	sustainability
27	is	7	has	4	strong
26	monetary	7	economic	4	strengthening
21	on	7	countries	4	stimulus
20	it	6	there	4	still
20	consolidation	6	support	4	stability
18	fiscal	6	stabilisation	4	role
18	as	6	so	4	risk
17	space	6	rules	4	regards
17	for	6	progress	4	our
16	with	6	made	4	means
16	structural	6	if	4	macroeconomic
16	be	6	friendly	4	limited
16	area	6	at	4	its
15	can	5	transfers	4	first
14	union	5	towards	4	designed
14	have	5	through	4	create
13	growth	5	should	4	counter
13	euro	5	reforms	4	could
12	stance	5	pact	4	composition
12	framework	5	overall	4	aggregate
11	was	5	over	3	yet
10	this	5	governments	3	work
9	would	5	from	3	will
9	no	5	demand	3	while

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Table A 74 - Fiscal collocates, ECB 2015

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
72	the	8	has	5	been
51	and	8	both	4	which
37	in	8	area	4	where
36	to	7	with	4	this
33	policy	7	on	4	take
23	of	7	countries	4	sustainability
23	is	7	by	4	such
20	a	6	we	4	sound
18	that	6	monetary	4	side
16	policies	6	it	4	short
14	for	6	fiscal	4	overall
13	as	6	financial	4	our
12	consolidation	6	be	4	or
11	economic	5	union	4	macroeconomic
9	structural	5	there	4	from
9	space	5	term	4	friendly
9	reforms	5	support	4	european
9	not	5	stabilisation	3	without
9	have	5	other	3	use
9	growth	5	no	3	up
9	are	5	example	3	transfers
8	should	5	debt	3	they

3 stance	3 euro	3 can
3 significant	3 ensures	3 build
3 rules	3 effects	3 at
3 national	3 economies	3 an
3 member	3 discipline	3 also
3 important	3 convergence	3 accommodative
3 framework	3 confidence	

Source: Author, AntConc results for collocate considering 5 words to the left and to the right and minimum frequency of 3, ranked based on the frequency.

Table A 75 - Fiscal collocates, ECB 2016

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
58	the	7	by	4	role
44	and	7	area	4	from
37	of	6	support	4	also
32	policies	6	rules	3	will
31	to	6	are	3	while
30	policy	5	union	3	which
25	in	5	there	3	they
20	a	5	their	3	sustainability
15	growth	5	space	3	stance
13	is	5	reforms	3	single
12	that	5	recovery	3	public
10	structural	5	on	3	or
10	should	5	have	3	not
9	with	5	framework	3	it
9	more	5	european	3	investment
9	for	5	euro	3	has
8	monetary	5	confidence	3	financial
8	friendly	5	can	3	do
8	economic	4	we	3	demand
8	as	4	this	3	countries
7	composition	4	stimulus	3	both

Source: Author, AntConc results for collocate considering 5 words to the left and to the right and minimum frequency of 3, ranked based on the frequency.

Table A 76 - Fiscal collocates, ECB 2017

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
45	the	5	has	3	sustainability
32	and	5	financial	3	structural
21	to	5	economic	3	stimulus
18	in	5	as	3	stance
17	of	5	area	3	sound
12	policies	4	that	3	significant
11	have	4	space	3	reduced
10	policy	4	scope	3	positions
10	fiscal	4	role	3	now
8	deficits	4	it	3	incentives
8	countries	4	ensure	3	growth
8	a	4	been	3	framework
6	was	4	balance	3	eu
6	for	4	at	3	cycles
6	euro	3	with	3	compliance
5	public	3	while	3	broadly
5	on	3	use	3	be
5	more	3	this	3	available
				3	an

Source: Author, AntConc results for collocate considering 5 words to the left and to the right and minimum frequency of 3, ranked based on the frequency.

Table A 77 - Fiscal collocates, ECB 2018

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
77	the	7	are	3	while
72	and	7	also	3	tightening
56	to	6	stabilisation	3	these
43	a	6	sound	3	term
36	of	6	have	3	sustainable
34	policy	6	euro	3	sustainability
34	in	6	countries	3	states
22	policies	5	was	3	stability
20	for	5	union	3	stabilise
14	is	5	there	3	spheres
13	with	5	their	3	single
13	this	5	such	3	result
13	that	5	or	3	provide
13	be	5	not	3	price
12	space	5	needed	3	positions
12	need	5	maintain	3	path
12	economic	5	from	3	our
11	monetary	5	crisis	3	no
11	it	5	convergence	3	necessary
10	we	5	buffers	3	more
10	consolidation	5	authorities	3	member
9	would	4	which	3	main
9	by	4	well	3	long
9	as	4	they	3	levels
8	so	4	significant	3	led
8	should	4	restore	3	its
8	rules	4	reforms	3	has
8	on	4	political	3	function
8	national	4	low	3	fully
8	instrument	4	instruments	3	focus
8	growth	4	framework	3	expansion
8	debt	4	eu	3	european
8	an	4	cyclical	3	emu
7	structural	4	critical	3	during
7	lack	4	counter	3	due
7	financial	4	conditions	3	coordination
7	capacity	4	but	3	both
7	can	4	between	3	banks
7	area	4	banking	3	at
		3	without		

Table A 78 - Fiscal collocates, ECB 2019

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
75	the	7	has	4	current
62	a	6	where	4	countercyclical
61	policy	6	this	4	common
49	and	6	shocks	4	buffers
44	in	6	rules	4	an
37	to	6	role	4	adequate
28	of	6	play	3	which
24	for	6	mildly	3	up
23	area	6	instrument	3	united
21	with	6	expansionary	3	trust
21	euro	6	can	3	towards
17	policies	6	at	3	time
17	is	6	also	3	therefore
16	that	5	should	3	there
16	on	5	potential	3	sustainability
15	space	5	need	3	spillovers
15	more	5	low	3	size
13	capacity	5	if	3	s
12	stance	5	greater	3	pro
12	monetary	5	from	3	played
12	it	5	expansion	3	over
11	stabilisation	5	been	3	our
11	not	5	act	3	one
11	have	4	will	3	mix
11	framework	4	union	3	may
11	are	4	support	3	making
10	be	4	states	3	macroeconomic
9	would	4	so	3	long
9	economic	4	side	3	little
9	countries	4	public	3	higher
9	by	4	other	3	future
9	but	4	had	3	european
8	structural	4	given	3	effects
8	national	4	eu	3	eased
8	fiscal	4	effective	3	confidence
8	central	4	data	3	both
8	as	4	cyclical	3	based

3 assessment	3 aligned
3 appropriate	3 aggregate

Source: Author, AntConc results for collocate considering 5 words to the left and to the right and minimum frequency of 3, ranked based on the frequency.

Table A 79 - Fiscal collocates, ECB 2020

Frequency	Collocate	Frequency	Collocate	Frequency	Collocate
57	and	8	are	4	already
55	the	7	responses	4	accommodative
47	policy	7	prudential	3	which
34	monetary	7	have	3	supported
22	to	7	can	3	states
20	policies	7	at	3	stability
20	of	6	has	3	space
20	in	6	financial	3	shock
14	support	6	area	3	S
13	by	5	first	3	rules
12	measures	4	will	3	public
10	on	4	when	3	our
9	with	4	were	3	limited
9	response	4	this	3	interaction
9	more	4	structural	3	households
9	is	4	sides	3	higher
9	euro	4	role	3	governments
9	a	4	hand	3	firms
8	that	4	from	3	effective
8	national	4	forceful	3	economies
8	for	4	crisis	3	countries
8	both	4	coronavirus	3	coordinated
8	be	4	an	3	continue
8	authorities	4	ambitious	3	central
		4	also	3	aligned

Source: Author, AntConc results for collocate considering 5 words to the left and to the right and minimum frequency of 3, ranked based on the frequency.

ANNEX IX – Fiscal clusters for the ECB

Table A 80 - Fiscal clusters, ECB 2010

Frequency	Range	Cluster 2-10L
38	18	fiscal consolidation
30	15	fiscal policies
23	13	fiscal policy
22	15	fiscal and
17	8	fiscal imbalances
14	10	fiscal surveillance
12	8	fiscal positions
9	6	fiscal and macroeconomic
9	5	fiscal policies in
9	7	fiscal sustainability
7	5	fiscal consolidation and
6	5	fiscal and macroeconomic surveillance
6	4	fiscal deficits
5	4	fiscal adjustment
5	5	fiscal targets
4	3	fiscal and economic
4	4	fiscal authorities
4	4	fiscal consolidation is
4	4	fiscal rules
4	4	fiscal stimulus
4	4	fiscal surveillance for
4	4	fiscal surveillance for the
4	4	fiscal surveillance for the euro
4	4	fiscal surveillance for the euro area
3	3	fiscal and macroeconomic policies
3	3	fiscal and structural
3	3	fiscal and structural policies
3	2	fiscal consolidation measures
3	3	fiscal deficit
3	3	fiscal developments
3	3	fiscal expansion
3	3	fiscal frameworks
3	3	fiscal imbalances in
3	3	fiscal policies to
3	3	fiscal policies to prevent
3	3	fiscal policies to prevent excessive
3	3	fiscal policies to prevent excessive deficits
3	3	fiscal policies to prevent excessive deficits and

3	3	fiscal policies to prevent excessive deficits and unsustainable
3	3	
		fiscal policies to prevent excessive deficits and unsustainable public
$\begin{bmatrix} 3 \\ 2 \end{bmatrix}$	3	fiscal policies to prevent excessive deficits and unsustainable public debt
3	2	fiscal policy and
3	3	fiscal policy in
3	3	fiscal position
3	3	fiscal situation
3	3	fiscal surveillance for the euro area be
3	3	fiscal surveillance for the euro area be sufficiently
3	3	fiscal surveillance for the euro area be sufficiently independent
3	3	fiscal surveillance for the euro area be sufficiently independent, ideally
3	3	fiscal targets this
3	3	fiscal targets this year
3	3	fiscal targets this year and
3	3	fiscal targets this year and the
3	3	fiscal targets this year and the years
3	3	fiscal targets this year and the years ahead
Frequency	Range	Cluster 2-10R
32	15	of fiscal
25	17	the fiscal
8	6	and fiscal
8	6	national fiscal
7	7	surveillance of fiscal
7	7	sustainable fiscal
7	6	to fiscal
6	6	that fiscal
5	5	accelerate fiscal
5	5	for fiscal
5	4	macroeconomic and fiscal
4	4	and sustainable fiscal
4	4	conducting macroeconomic and fiscal
4	3	in fiscal
4	4	of the fiscal
4	4	on fiscal
4	4	sound and sustainable fiscal
4	4	their fiscal
4	4	to accelerate fiscal
4	4	with fiscal
3	3	charged with conducting macroeconomic and fiscal
3	3	commission services charged with conducting macroeconomic and fiscal
3	3	ensure fiscal
3	3	large fiscal
3	2	monetary and fiscal
		montaining wife moon

3	3	of national fiscal
3	3	positive fiscal
3	3	services charged with conducting macroeconomic and fiscal
3	3	sizeable fiscal
3	3	that the commission services charged with conducting macroeconomic and fiscal
3	3	the commission services charged with conducting macroeconomic and fiscal
3	3	with conducting macroeconomic and fiscal
3	3	years, fiscal

Table A 81 - Fiscal clusters, ECB 2011

Frequency	Range	Cluster 2-10L
44	21	fiscal and
41	22	fiscal policies
25	10	fiscal consolidation
13	10	fiscal and economic
11	9	fiscal surveillance
10	5	fiscal and broader
10	7	fiscal and macroeconomic
10	3	fiscal compact
10	9	fiscal policies and
10	9	fiscal policy
8	5	fiscal and broader macroeconomic
8	7	fiscal and economic policies
8	8	fiscal sustainability
7	7	fiscal governance
7	6	fiscal rules
6	5	fiscal imbalances
5	5	fiscal and macroeconomic policies
5	5	fiscal challenges
5	3	fiscal consolidation and
5	5	fiscal deficit
4	3	fiscal sustainability
4	3	fiscal sustainability and
3	3	fiscal sustainability and reducing
3	3	fiscal sustainability and reducing government
3	3	fiscal sustainability and reducing government debt
3	3	fiscal sustainability and reducing government debt levels
3	2	fiscal and macroeconomic

3	3	fiscal and broader macroeconomic imbalances
3	3	fiscal and broader macroeconomic policies
3	3	fiscal and macroeconomic policies is
3	3	fiscal and macroeconomic policies is best
3	3	fiscal and macroeconomic policies is best ensured
3	3	fiscal and macroeconomic policies is best ensured if
3	3	fiscal and macroeconomic policies is best ensured if these
3	3	fiscal and macroeconomic policies is best ensured if these are
3	3	fiscal and other
3	3	fiscal and other macroeconomic
3	3	fiscal and other macroeconomic policies
3	3	fiscal and other macroeconomic policies should
3	3	fiscal and other macroeconomic policies should be
3	3	fiscal and other macroeconomic policies should be more
3	3	fiscal and other macroeconomic policies should be more ambitious
3	3	fiscal and other macroeconomic policies should be more ambitious. to
3	3	fiscal and structural
3	1	fiscal compact would
3	1	fiscal consolidation and monetary
3	1	fiscal consolidation and monetary policy
3	3	fiscal consolidation in
3	3	fiscal consolidation is
3	3	fiscal discipline
3	3	fiscal framework
3	3	fiscal frameworks
3	3	fiscal policies and competitiveness
3	3	fiscal policies and competitiveness policies
3	3	fiscal policies remain
3	3	fiscal policies remain largely
3	3	fiscal policies remain largely the
3	3	fiscal policies remain largely the competence
3	3	fiscal policies remain largely the competence of
3	3	fiscal policies remain largely the competence of national
3	3	fiscal policies remain largely the competence of national governments
3	3	fiscal policies to
3	3	fiscal policies were
3	3	fiscal situation
3	3	fiscal statistics
3	3	fiscal surveillance of
3	3	fiscal surveillance of the
3	3	fiscal surveillance of the stability
3	3	fiscal surveillance of the stability and
3	3	fiscal surveillance of the stability and growth

3	3	fiscal surveillance of the stability and growth pact
3	3	fiscal surveillance of the stability and growth pact and
3	3	fiscal surveillance of the stability and growth pact and for
3	3	fiscal surveillance, ambitious
3	3	fiscal surveillance, ambitious benchmarks
3	3	fiscal surveillance, ambitious benchmarks are
3	3	fiscal surveillance, ambitious benchmarks are needed
3	3	fiscal surveillance, ambitious benchmarks are needed when
3	3	fiscal sustainability and
Frequency	Range	Cluster 2-10R
29	17	of fiscal
20	12	the fiscal
17	13	for fiscal
12	10	sound fiscal
11	8	national fiscal
10	9	and fiscal
8	7	of the fiscal
7	7	on fiscal
6	6	economic and fiscal
6	5	surveillance of fiscal
6	6	their fiscal
5	5	a fiscal
5	5	to fiscal
4	4	both fiscal
4	2	new fiscal
4	4	of sound fiscal
4	4	regards fiscal
4	4	s fiscal
3	1	a new fiscal
3	3	a very significant reinforcement of the fiscal
3	3	as regards fiscal
3	2	correction of fiscal
3	2	eu fiscal
3	3	focus more on fiscal
3	3	for a very significant reinforcement of the fiscal
3	2	for sound fiscal
3	3	implementation of sound fiscal
3	3	more on fiscal
3	3	need for fiscal
3	3	of both fiscal
3	3	production of fiscal
3	3	reinforcement of the fiscal
3	3	requirements for a very significant reinforcement of the fiscal

3	3	significant reinforcement of the fiscal
3	3	surveillance of both fiscal
3	3	the implementation of sound fiscal
3	3	the need for fiscal
3	3	the requirements for a very significant reinforcement of the fiscal
3	3	to focus more on fiscal
3	3	very significant reinforcement of the fiscal

Table A 82 - Fiscal clusters, ECB 2012

Frequency	Range	Cluster 2-10L
20	7	fiscal policies
16	10	fiscal consolidation
14	12	fiscal compact
12	9	fiscal and
12	9	fiscal union
7	4	fiscal policy
6	5	fiscal consolidation and
6	6	fiscal rules
5	5	fiscal consolidation and structural
5	3	fiscal, economic
5	3	fiscal, economic and
5	3	fiscal, economic and financial
4	4	fiscal and macroeconomic
4	4	fiscal and structural
4	4	fiscal consolidation and structural reforms
4	3	fiscal, economic and financial policies
3	1	fiscal brake
3	2	fiscal policies in
3	3	fiscal positions
3	3	fiscal sustainability
3	3	fiscal union that
3	3	fiscal, financial
3	3	fiscal, financial and
Frequency	Range	Cluster 2-10R
19	12	the fiscal
13	9	of fiscal
7	6	a fiscal

7	6	and fiscal
4	4	for fiscal
4	3	sound fiscal
3	2	of the fiscal
3	3	union, fiscal
3	2	with fiscal

Table A 83 - Fiscal clusters, ECB 2013

Frequency	Range	Cluster 2-10L
25	12	fiscal policies
14	13	fiscal consolidation
13	8	fiscal and
9	5	fiscal rules
8	6	fiscal sustainability
6	6	fiscal union
5	4	fiscal and macroeconomic
5	4	fiscal policy
4	4	fiscal adjustment
4	3	fiscal and structural
4	3	fiscal backstop
4	3	fiscal brake
4	3	fiscal positions
3	2	fiscal and economic
3	2	fiscal and economic policies
3	2	fiscal and macroeconomic imbalances
3	3	fiscal authorities
3	3	fiscal compact
3	3	fiscal deficit
3	3	fiscal discipline
3	3	fiscal sustainability and
Frequency	Range	Cluster 2-10R
20	11	the fiscal
11	6	of fiscal
9	8	a fiscal
5	5	and fiscal
4	3	that fiscal
4	4	their fiscal

4	3	i	to fiscal
3	3		sound fiscal
3	3		union, a fiscal

Table A 84 - Fiscal clusters, ECB 2014

Frequency	Range	Cluster 2-10L
34	11	fiscal policy
20	10	fiscal policies
18	11	fiscal consolidation
14	7	fiscal space
11	7	fiscal stance
10	7	fiscal and
7	3	fiscal governance
6	3	fiscal governance framework
6	3	fiscal union
5	4	fiscal and monetary
5	4	fiscal consolidation and
5	2	fiscal policy can
5	4	fiscal rules
5	2	fiscal transfers
4	3	fiscal and structural
4	3	fiscal framework
4	4	fiscal stance of
3	2	fiscal and structural policies
3	2	fiscal authorities
3	3	fiscal consolidation and structural
3	3	fiscal consolidation and structural reforms
3	2	fiscal consolidation in
3	2	fiscal policy and
3	1	fiscal policy as
3	1	fiscal policy as a
3	2	fiscal positions
3	3	fiscal stance of the
3	3	fiscal stance of the euro
3	3	fiscal stance of the euro area
3	2	fiscal strategies
3	2	fiscal sustainability

Frequency	Range	Cluster 2-10R
21	13	the fiscal
20	12	of fiscal
8	7	and fiscal
7	4	of the fiscal
6	3	national fiscal
6	4	that fiscal
5	5	a fiscal
4	3	for fiscal
3	3	aggregate fiscal
3	3	as regards fiscal
3	3	composition of fiscal
3	2	economic and fiscal
3	1	have fiscal
3	3	in fiscal
3	3	made in fiscal
3	2	over fiscal
3	2	overall fiscal
3	3	progress made in fiscal
3	3	regards fiscal
3	1	strong fiscal
3	3	the aggregate fiscal
3	2	their fiscal
3	3	to fiscal

Table A 85 - Fiscal clusters, ECB 2015

Frequency	Range	Cluster 2-10L
22	9	fiscal policy
12	7	fiscal policies
9	5	fiscal consolidation
7	4	fiscal space
5	5	fiscal and
4	4	fiscal policy in
3	1	fiscal area
3	3	fiscal framework
3	3	fiscal policies should
3	3	fiscal policies should support

3	3	fiscal rules
3	2	fiscal transfers
3	2	fiscal union
Frequency	Range	Cluster 2-10R
12	4	the fiscal
11	8	of fiscal
6	2	and fiscal
5	5	in fiscal
4	4	both fiscal
4	3	sound fiscal
3	1	friendly fiscal
3	1	in the fiscal
3	3	national fiscal
3	3	no fiscal
3	1	on the fiscal
3	1	overall fiscal
3	1	reforms and fiscal

Table A 86 - Fiscal clusters, ECB 2016

Frequency	Range	Cluster 2-10L
25	10	fiscal policy
22	12	fiscal policies
7	7	fiscal and
6	6	fiscal policies should
5	5	fiscal framework
4	4	fiscal and structural
4	4	fiscal and structural policies
4	4	fiscal rules
3	3	fiscal framework and
3	2	fiscal policy is
3	3	fiscal policy to
3	3	fiscal space
3	3	fiscal stance
3	2	fiscal stimulus
Frequency	Range	Cluster 2-10R
11	9	and fiscal
9	8	of fiscal

8	8	the fiscal
5	5	composition of fiscal
5	4	monetary and fiscal
5	4	that fiscal
4	4	a more growth-friendly composition of fiscal
4	4	friendly composition of fiscal
4	3	friendly fiscal
4	4	growth-friendly composition of fiscal
4	4	more growth-friendly composition of fiscal
3	3	confidence in the fiscal
3	2	economic and fiscal
3	2	growth friendly fiscal
3	3	in the fiscal
3	3	their fiscal

Source: Author, AntConc results for clusters considering a size of 2 - 10 words and minimum frequency of 3, ranked based on the frequency. Left clusters are presented in the top panel and right clusters in the bottom panel.

Table A 87 - Fiscal clusters, ECB 2017

Frequency	Range	Cluster 2-10L	
9	5	fiscal policies	
6	3	fiscal deficits	
6	4	fiscal policy	
5	5	fiscal and	
3	3	fiscal framework	
3	3	fiscal framework and	
3	2	fiscal space	
Frequency	Range	Cluster 2-10R	
9	8	the fiscal	
5	4	of fiscal	
4	4	and fiscal	
3	3	for fiscal	
3	2	sound fiscal	

Notes: Frequency is the total number of times the cluster appears in the corpus, range is the total number of speeches in which it appears.

Table A 88 - Fiscal clusters, ECB 2018

Frequency	Range	Cluster 2-10L
23	9	fiscal policy
16	8	fiscal policies
10	5	fiscal space
9	6	fiscal consolidation
8	5	fiscal rules
5	4	fiscal and
5	4	fiscal capacity
5	4	fiscal instrument
4	3	fiscal and economic
4	2	fiscal authorities
4	3	fiscal buffers
4	2	fiscal space and
3	3	fiscal buffers to
3	2	fiscal instruments
3	3	fiscal path
3	3	fiscal policy and
3	3	fiscal positions
3	3	fiscal sustainability
Frequency	Range	Cluster 2-10R
9	6	a fiscal
9	7	and fiscal
9	6	of fiscal
9	5	the fiscal
6	5	for fiscal
5	4	national fiscal
5	3	with fiscal
4	3	counter-cyclical fiscal
4	3	cyclical fiscal
4	3	lack of fiscal
4	3	monetary and fiscal
3	3	area fiscal
3	3	sustainable fiscal

Table A 89 - Fiscal clusters, ECB 2019

Frequency	Range	Cluster 2-10L
45	8	fiscal policy
12	5	fiscal capacity
12	6	fiscal space
10	5	fiscal policies
10	7	fiscal stance
8	7	fiscal and
6	5	fiscal framework
6	4	fiscal policy in
5	4	fiscal instrument
4	2	fiscal expansion
4	4	fiscal policy has
4	4	fiscal policy in the
4	3	fiscal rules
4	3	fiscal stabilisation
3	2	fiscal and structural
3	3	fiscal buffers
3	2	fiscal capacity would
3	1	fiscal data
3	3	fiscal instrument to
3	3	fiscal instrument to act
3	3	fiscal policy in the euro
3	3	fiscal policy in the euro area
3	2	fiscal policy to
Frequency	Range	Cluster 2-10R
15	8	and fiscal
8	5	area fiscal
8	5	euro area fiscal
8	7	the fiscal
7	5	a central fiscal
7	5	central fiscal
7	4	monetary and fiscal
6	4	a fiscal
5	3	for fiscal
5	4	that fiscal
5	4	where fiscal
5	4	with fiscal
4	4	economic and fiscal
4	3	national fiscal
3	2	a euro area fiscal
3	2	cyclical fiscal

3	2	european fiscal
3	2	expansionary euro area fiscal
3	2	from fiscal
3	3	in our economic and fiscal
3	2	mildly expansionary euro area fiscal
3	3	of monetary and fiscal
3	2	on fiscal
3	3	our economic and fiscal
3	3	rekindle trust in our economic and fiscal
3	2	the mildly expansionary euro area fiscal
3	3	to fiscal
3	3	trust in our economic and fiscal

Table A 90 - Fiscal clusters, ECB 2020

Frequency	Range	Cluster 2-10L
27	9	fiscal policy
14	8	fiscal policies
10	8	fiscal and
7	6	fiscal support
6	5	fiscal measures
5	3	fiscal policy can
4	4	fiscal and monetary
4	2	fiscal policy has
3	3	fiscal and monetary policy
3	3	fiscal and prudential
3	3	fiscal and structural
3	2	fiscal authorities
3	3	fiscal response
3	3	fiscal space
Frequency	Range	Cluster 2-10R
17	9	and fiscal
10	5	monetary and fiscal
7	5	the fiscal
4	3	accommodative monetary and fiscal
3	3	by monetary, fiscal
3	3	forceful fiscal
3	3	limited fiscal

3	2	monetary policy and fiscal
3	3	monetary, fiscal
3	2	national fiscal
3	2	policy and fiscal