

Wehrheim, Lino

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## The sound of silence: On the (in)visibility of economists in the media

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*On the (In)visibility of Economists in the Media*

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Koordinatoren: Alexander Nützenadel, Jochen Streb

Assistent der Koordinatoren: Ingo Köhler

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# The Sound of Silence

## On the (In)visibility of Economists in the Media

Lino Wehrheim\*

April 9, 2021

### Abstract

One way for economists to influence economic policy and society as a whole is to shape what Robert Shiller has called “economic narratives”. This, in turn, puts the media in their role as professional storytellers in a central position. In this paper, I investigate how economists have been covered by the media in a long-term perspective. Particularly, I address two questions: How has the quantitative visibility of economists in the media developed over time? And how can news stories covering economists be characterized in terms of their content? I answer these questions in two steps. First, I provide a comparison of economists’ quantitative media visibility in international newspapers. Second, building on a corpus of more than 12,000 newspaper articles, I conduct a case study on the German Council of Economic Experts. Using various text mining approaches, I survey four features of newspaper coverage: topics, tonality, temporal perspective, and the role of individuals. Finally, based on extensive close reading, I briefly discuss two key turning points in the media history of economists, namely the 1980s and the late 1990s/early 2000s. The main finding is that economists have indeed become silent compared to their heyday of economic expertise in the 1960s, but that they have not been as silent as is often claimed.

*Keywords:* economic experts, economic narratives, media analysis, topic modelling, sentiment analysis

*JEL-Codes:* N01, P16, Z13

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\* University of Regensburg, History Department. Contact: lino.wehrheim@ur.de.

*“What unites people? Armies, gold, flags? Stories. There is nothing in the world more powerful than a good story. Nothing can stop it. No enemy can defeat it.”*

Tyrion Lannister<sup>1</sup>

## 1. Introduction<sup>2</sup>

There are several ways in which economists can influence economic policy and, thus, fulfill John Maynard Keynes’ famous appraisal that “[p]ractical men who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist.”<sup>3</sup> They might offer their expertise directly to decision-makers; this is best described by using Alvin Roth’s metaphor of economists “whispering in the ears of princes”<sup>4</sup> in the back rooms of politics. Alternatively, they might step out of the dark and into the (lime-)light, taking part in public discourse and trying to convince the general public that certain economic ideas are preferable to others, thus influencing decision-makers through the pressure of public opinion.<sup>5</sup> Although the first approach is, ideally, more direct,<sup>6</sup> the effect of the latter should not be underrated. After all, this latter approach involves economists not only reaching out to decision makers but also influencing public discourse as whole by shaping economic narratives. These narratives can, in turn, be very influential, a fact which is addressed by Robert Shiller, among others. Shiller states that “[p]opular thinking often drives decisions that ultimately affect decisions, such as how and where to invest, how much to spend or save, and whether to go to college or take a certain job.”<sup>7</sup> Although the causal relationship between “popular thinking”, that is, economic stories, and economic outcomes is less clear, there is no doubt that narratives can shape people’s thoughts, feelings, and, eventually, their behavior. If we accept the fact that stories are, indeed, an efficacious method of influencing and persuading also at an economic

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<sup>1</sup> Game of Thrones, season eight, episode six.

<sup>2</sup> The main conclusions given in this paper result from my doctoral thesis presented at the University of Regensburg in November 2020.

<sup>3</sup> Keynes (2018, 340). In 1902, Irving Fisher had come to the opposite conclusion that “economists have altogether too little influence; they are too silent on public questions, and when they do speak their opinion commands less respects than it deserves.” Bernstein (2001, 15).

<sup>4</sup> Roth (1986, 246).

<sup>5</sup> Hirschman and Berman (2014) provide a comprehensive overview of the various ways in which economists can become influential. See also, e.g., Backhouse (2005), Backhouse and Cherrier (2017), Popp Berman (2017).

<sup>6</sup> A problem connected to direct policy advice, at least in democratic societies, is that it is generally not sufficient to convince individual politicians as there always needs to be a political majority to actually implement economic ideas.

<sup>7</sup> Shiller (2019, 3). See also Shiller (2017) and Akerlof and Shiller (2009). At this point, it is worth referring to Deidre McCloskey who, in a 1991 article, quotes Peter Brooks: “Our lives are ceaselessly intertwined with narrative, with the stories that we tell, all of which are reworked in that story of our own lives that we narrate to ourselves [...] We are immersed in narrative.” Brooks (1992, 3) as quoted in McCloskey (1991, 7). Indeed, Shiller’s “Narrative Economics” can be compared to the concept of “humanomics”, see McCloskey (2016).

level, the next step is to take a closer look at these stories and the players who, in a professional way, assume the role of storytellers.<sup>8</sup> This brings us back to the “Econ tribe”,<sup>9</sup> whose members also communicate through stories, both with their peers and with the public. As Deidre McCloskey puts it:

“Plainly and routinely, ninety per cent of what economists do is such storytelling. Yet even in the other ten per cent, in the part more obviously dominated by models and metaphors, the economist tells stories [...] Economics is saturated with narration.”<sup>10</sup>

Adam Smiths’ invisible hand, presumably the most famous economic metaphor, is just one obvious example of this kind of storytelling. Other popular metaphors used by economists refer, for instance, to diseases or natural disasters.<sup>11</sup> Persuasive storytelling is particularly important for economists who are engaged in the business of policy advice.<sup>12</sup> If we take the German Council of Economic Experts (GCEE) as an example, we find that its annual reports are written not only in a technical, strictly scientific but also in a rather literary style.<sup>13</sup>

In this paper, however, I want to focus on a different group of (economic) narrators: the media, or, more precisely, print media.<sup>14</sup> The media can be regarded as the central agency in shaping public discourse during the 20<sup>th</sup> century; they might be regarded, in the words of Shiller, as

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<sup>8</sup> According to Shiller (2019, 3), stories “spread through word of mouth, the news media, and social media”.

<sup>9</sup> Leijonhufvud (1973). In terms of their propensity to reach out through the media, Alex Millmow and Jerry Courvisanos differentiate between two tribes of the Econ. See below.

<sup>10</sup> McCloskey (1991, 9), see also McCloskey (2016; 1990).

<sup>11</sup> Pühringer and Hirte (2015).

<sup>12</sup> See, e.g., Pinto (2014).

<sup>13</sup> It is difficult for non-German speakers to check this point, but large parts of the Council’s reports, especially those from the 1970s, are formulated in a rather narrative style. See also Strätling (2001, 290)

<sup>14</sup> I focus on print media mainly because I am interested in the long-term perspective, for which other types of media data are not or are only partially available. To be sure, there has been a tremendous increase in the variety and use of different types of media. The shift towards the “new media” has undeniably reduced the impact of traditional print outlets, a process which had already started in the 1970s and 1980s when a first wave of newspaper consolidation took place. Before the internet, it was the advent of television which caused people to spend less time reading newspapers. For example, in 1964, Germans spent an average of 35 minutes a day reading newspapers, which dropped to a mere 23 minutes by 2015. For figures on media consumption, see Krupp and Breunig (2016). For a more general account of the development of German media, see Pürer (2015) and Wilke (1999). In the following, I will use the terms “media”, “press”, and “newspapers” synonymously. There are, of course, also other kinds of storytellers that could be considered in the context of this paper, such as politicians, consultants, and advertisers. Of less interest to the historian but nevertheless important from a contemporary perspective are those new storytellers that have emerged from the social media revolution. Indeed, social media provide the chance for anyone to become a storyteller by means of a YouTube channel or a Twitter account, or, to use a more fashionable term, anyone can be an “influencer”. The growing relevance of this group of storytellers is, among other things, reflected in their economic potential. According to a survey conducted by the “Influencer Marketing Hub”, the global market for influencer marketing amounted to 6.5 billion US-dollars in 2019. See Influencer Marketing Hub (2020).

“super-spreaders”<sup>15</sup> of economic stories. This is not only because economists rely on the media to promote their ideas, for example in guest features and interviews. The media are even more important as, just as the meaning of the word indicates, they presumably are the major channel through which an economic idea is transmitted to the lay public once it has left an economist’s head. In other words, ordinary people do not normally tend to read articles published in the *American Economic Review*, but they might pick up an economic idea while reading their favorite *New York Times* column at breakfast. In this way, (economic) news can indeed shape the economy, as, for example, research on the impact of news sentiment on financial markets has shown.<sup>16</sup> It must be noted, though, that journalists do not simply carry economic stories from economists to their audience, but also shape these stories, providing opinion alongside objective news. As gatekeepers,<sup>17</sup> they decide which economist and which economic idea is forwarded to the public and which is not, thus shaping economists’ public image.<sup>18</sup>

But what do we know about the characteristics of media stories that include references to economists? The short answer is: not much. The long answer is: Although there is a considerable amount of literature on the relationship between media output and the economy, particularly relating to financial markets, and, to a lesser degree, relating to the historical impact of business and financial journalism,<sup>19</sup> there has been surprisingly little research on the media visibility of specific economists or economic institutions, at least in Germany.<sup>20</sup> The common narrative here is that the media visibility of economists has been in decline since the 1970s, as expressed, for example, by Michael Bernstein, who states “that economists today enjoy great amounts of power and influence, even prestige in some circles. But they do so in private, and increasingly

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<sup>15</sup> Shiller (2019, 20).

<sup>16</sup> Here, the literature on investor sentiment following the seminal work by Tetlock (2007) is particularly noteworthy. See Raimondo (2019) for an overview.

<sup>17</sup> For an account of the journalistic gatekeeper metaphor and others metaphors, see Tandoc Jr. (2018). Tandoc rightly points out that the gatekeeper metaphor has become less suitable in times of communication via digital platforms.

<sup>18</sup> Indeed, the reputation of economists has been tainted in recent years. For example, in a 2017 survey of Britons performed by the data analytics firm YouGov, 44 percent of respondents answered the question “Of the following, whose opinions do you tend to trust when they talk about their fields of expertise?” by stating that they did not trust economists, whereas only 25 percent said that they trusted them (the remaining 31 percent did not know). Historians, for example, received much better figures: 71 percent of respondents said that they trusted them, and only ten percent said they did not. Journalists themselves also seem to suffer from a lack of trust. In another British survey in 2020, more than half of respondents stated that they have either not much or no trust at all in “upmarket” newspaper journalists such as those working for newspaper like *The Times*. See Smith (2017) and Ibbetson (2020).

<sup>19</sup> See, e.g., Campbell, Turner, and Walker (2012), Hanna, Turner, and Walker (2020), Daniel, Neubert, and Orban (2018), Turner, Ye, and Walker (2017).

<sup>20</sup> See Knauß (2016) and Rieder and Theine (2019). Instructive pieces on the general history of German business and financial journalism include Kutzner (2019), Nützenadel (2008), and Radu (2017).

in silence.”<sup>21</sup> But, to my best knowledge, there is no study that actually measures economists’ media visibility in a long-term perspective.<sup>22</sup> In other words, we do not have empirical evidence about whether economists have *de facto* become silent – or invisible for that matter – or whether this claim is, to exaggerate the point, just the biased view of some economists who feel ignored.

In this paper, I will address this topic by focusing on two aspects of economists’ media visibility: first, the quantitative amount of visibility in the media; second, some formal and content-related characteristics of this specific news coverage, which might help to explain fluctuations in the quantitative amount of media visibility. Particularly, I will provide answers to the following two questions: How much attention have economists received from the media and how has this attention evolved over time? How can we characterize news stories that refer to economists? In short, I am interested in quantifying and characterizing the media stories associated with economists. To this aim, I will proceed in two steps. After discussing the data and methods in Section 2, I will provide a comparison of economists’ quantitative media visibility in various newspapers published in Germany, the US, and the UK in Section 3. The results suggest that economists have shared a common fate in these countries in terms of media attention, although there is a somewhat particular development for Germany around the year 2000. The results of this comparison, however, do not (and cannot) reveal anything about the actual content of the articles mentioning economists. This second aspect will be covered in a case study on the GCEE in Section 4, in which I will focus on four dimensions of newspaper content which can be regarded as defining aspects of (economic) stories: topics (4.1), tonality (4.2), temporal perspective (4.3), and the role of individuals (4.4).<sup>23</sup> The first and presumably most important dimension relates to the content of the articles, or, in other words, to the question: “What are the articles that mention the GCEE about?” In the literature on the GCEE, one finds the claim that journalists mainly report on the Council’s economic forecast,<sup>24</sup> but is this really the case? Are there other topics related to the GCEE that attract media attention? The second dimension relates to the tonality of articles that mention the GCEE. One might hypothesize that, in general,

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<sup>21</sup> Bernstein (2001, 144). See also Sent (2005). This narrative of decline is shared by many German journalists particularly concerning the GCEE. See, e.g., Nienhaus und Schulz (2016).

<sup>22</sup> Of course, popular rankings such as the ranking of Germany’s most influential economists conducted by the *Frankfurter Allgemeine Zeitung* provide information on how often certain economists are cited by the media. This data, however, is available only for recent years and does not cover mentions of economic institutions such as research institutes.

<sup>23</sup> Naturally, there are more aspects that could be addressed, for example relating to formal aspects of media coverage, such as authorship or journalistic genres. The study of these aspects, however, requires data – or rather metadata – which, at time of writing, is not available for most German newspapers and/or is too costly to obtain.

<sup>24</sup> Schanetzky (2007, 79).



economists are most frequently quoted by journalists in times of turmoil and crisis when the lay public is in particular need of economic expertise. This would suggest that the tone of such articles is rather negative. It is, however, also possible that the opposite is the case and that economists are cited to emphasize economic success stories. Both hypotheses suggest that measuring general tonality of articles might be revealing, especially because media sentiment influences the sales figures of news magazines, that is, the demand for media output.<sup>25</sup> The third dimension covers the temporal perspective of newspaper coverage. In particular, it is of interest whether journalists refer to economists in stories concerning the future, the present, or the past. As the example of the GCEE shows, economists provide expertise for the past, the present, and the future, although the common narrative mentioned above implies that journalists mainly focus on the present and the (near) future. But, again, there is no empirical evidence indicating whether this is actually the case, which necessitates a quantitative assessment of articles' temporal perspective. Whereas the main part of the analysis covers the Council as an institution, the last dimension touches upon the issue of personal media attention. The GCEE, just like any institution that advises policy, is also visible through its members. Actually, one might hypothesize that, as a result of the media's increasing focus on individuals since the 1990s,<sup>26</sup> the media presence of individual members has also become more important. As each dimension provides sufficient material to fill a paper of its own, I will only briefly outline their respective developments. In order to contextualize the quantitative findings, I will conclude this section with a brief look at two particularly important periods: the 1980s and early 2000s (Section 4.5). Section 5 will summarize the main findings.

## **2. Data and Methods**

Drawing from several digital newspaper archives, I collected two sets of newspaper data, each corresponding to a distinct level of abstraction. The comparative perspective provided in Section 3 is based on data that can, directly or indirectly, be derived from the newspaper archives themselves. Essentially, I conducted a count search of articles containing the keyword "economist" and then, to provide a comparison, repeated the process for both "historian" and "scientist". The results are standardized by dividing the number of articles identified by the overall

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<sup>25</sup> Arango-Kure, Garz, and Rott (2014).

<sup>26</sup> Hachmeister and Siering (2002, 16).

number of articles published in the newspaper under investigation.<sup>27</sup> In other words, the results are proportions of the number of articles containing at least one occurrence of the search term.

The second kind of data used in Section 4, is somewhat different. Here, the analysis concentrates on the actual newspaper content and covers four dimensions: article topics, tonality, temporal perspective, and focus on people. Contrary to the bird's eye view taken in Section 3, this kind of data affords a more detailed picture of the news stories associated with economists. For this close-up picture, I manually selected a corpus of articles containing references to the GCEE. Some descriptive statistics of this corpus are presented in Table 1. In total, the corpus includes 12,553 articles from five leading German newspapers and magazines and amounts to more than 9.9 million words. As the *Frankfurter Allgemeine Zeitung (FAZ)* is the only daily newspaper covered throughout the whole investigation period, it naturally takes up a considerable proportion of the corpus.<sup>28</sup> All articles contain at least one explicit reference to the Council, either with the official term “*Sachverständigenrat*” (council) or “*Wirtschaftsweise*” (wise men), the German nickname for its members.<sup>29</sup> The selection of these particular outlets was driven by the availability of digital archives spanning a longer time period, as well as local access to these archives. For the *Handelsblatt* and *Wirtschaftswoche*, the digital archive was only available from the mid-1980s onwards, which is why I consulted printed tables of content for the time before 1984 for the latter publication.<sup>30</sup> Overall, the selection can be regarded as being quite representative of the political spectrum, spanning from the conservative *FAZ* to the liberal *Zeit*.<sup>31</sup>

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<sup>27</sup> This step is necessary in order to control for potential changes in newspaper size or changes in the archive structure.

<sup>28</sup> For readers not familiar with the German newspaper market, some remarks on the selection seem appropriate. All five outlets have nationwide outreach and can be regarded as leading newspapers, at least for most of the period that is being investigated. While *Handelsblatt* and *Wirtschaftswoche* mainly focus on economic/business-related topics, the remaining three also cover other topics.

<sup>29</sup> Articles referring to other councils such as the *Sachverständigenrat für Umweltfragen* were removed after review of each article.

<sup>30</sup> A manual screening of the daily *Handelsblatt* was not feasible.

<sup>31</sup> Hoeres (2019, 421–31), Eilders, Neidhardt, and Pfetsch (2004), Kepplinger (2000, 42–46).

**Table 1 GCEE Corpus**

	Publication frequency	# Articles	Proportion	Token	Proportion	# References per article
Frankfurter Allgemeine Zeitung (FAZ)	daily	5,011	39.9%	3,151,865	31.5%	2.8
Handelsblatt (HB) <sup>a)</sup>	daily	3,778	30.1	2,324,999	23.3	2.8
Spiegel	weekly	638	5.1	1,178,803	11.8	3.0
Volkswirt / Wirtschaftswoche <sup>b)</sup>	weekly	1,846	14.7	1,939,339	19.4	3.7
Die Zeit	weekly	1,280	10.2	1,396,502	14.0	4.1
Total		12,553	100.0	9,991,508	100.0	3.1

<sup>a)</sup> Starting 07/01/1986. <sup>b)</sup> Renamed into *Wirtschaftswoche* in 1973. Sources: author's own calculations.

I applied several text mining approaches on this corpus to capture the topics, tonality, temporal perspective, and focus on people of the articles. The first two aspects were investigated using topic modelling and sentiment analysis, for which there are numerous introductory pieces,<sup>32</sup> which is why I only explain the specific application of both approaches in this paper. Regarding the topic model, following several trials I set the number of topics to 95, as this number resulted in a satisfactory compromise between topics either becoming too general or too specific and redundant.<sup>33</sup> In order to keep the scope of the paper manageable and to provide a more general picture of the topical structure, I aggregated the 95 individual topics into 15 categories according to their topical similarity. These “main topics” can be regarded as more general themes, with individual topics representing specific aspects of those themes. For example, the main topic *Labor Market* includes topics associated with unemployment and labor unions. Regarding corpus preprocessing, I removed common but meaningless words based on a stop word list customized to the corpus vocabulary.<sup>34</sup> Additionally, I removed short articles, as they do not normally contain significant content. Specifically, I removed all articles with less than 400 tokens, thus leaving 8,084 articles to go into the model. The model itself was created using MALLET<sup>35</sup> with the built-in hyperparameter optimization applied and 2,000 iterations performed.<sup>36</sup>

<sup>32</sup> For methodological accounts on topic modelling and sentiment analysis, see Blei (2012), Feldman (2013), Kearny and Liu (2014), Liu (2015), Wehrheim (2019a).

<sup>33</sup> For an overview of all 95 topics, see the online appendix.

<sup>34</sup> Stop words are terms such as “the”, “and”, “or” and so on. I removed all terms which appeared in at least 1,000 instances, although allowing some central terms to be considered.

<sup>35</sup> McCallum (2002).

<sup>36</sup> I learned only after completing the model that MALLET provides the option to specify a seed number, which allows the model to be replicated. On the issue of replicability, which is a major issue in topic modelling, see e.g. Maier et al. (2018).

While, from a technical standpoint, it is easy to infer the topic or topics of a text, it is much more difficult to automatically determine the way these topics are described in terms of tonality or, to use the more common term, sentiment. While there are sentences with clear and explicit (positive or negative) sentiment, such as “company X has performed poorly”, other sentiment expressions are more implicit and, therefore, more difficult to detect. This is aggravated by comparative expressions, for example “Germany is doing a lot better than France”, and other problems such as figurative speech or irony. Furthermore, one must also account for the fact that the sentiment attached to a word depends on its context, which is particularly important for economic descriptions. For example, “unemployment” may carry positive, negative, or neutral sentiment, depending on signal words such as “increasing”, “decreasing”, or “constant”.<sup>37</sup> Despite the manifold challenges, there is a growing number of applications of this type of analysis, especially in the field of economics and finance.<sup>38</sup> To measure the textual sentiment of GCEE-related news coverage, I applied a sentiment dictionary containing a predefined list of sentiment bearing words.<sup>39</sup> Based on this dictionary, the number of positive and negative words in a given document are counted and then divided by the overall number of words. For this approach, it is particularly important to use context specific dictionaries as many words carry different sentiment in different settings. Again, “unemployment” is negative in most documents, but may also carry neutral or even positive sentiment in an economic context.<sup>40</sup> For the German language, there is a dictionary specifically designed for a business context and which comes closest to the language used in the corpus studied in this paper.<sup>41</sup> Applying this dictionary can, naturally, only yield an approximation as it was not created for this particular corpus. Therefore, results were compared to another, more general German sentiment dictionary, the *Sentiment Wortschatz* (*SentiWS*).<sup>42</sup> However, in light of the limitations described so far, it must be noted that the results of the sentiment analysis are only estimations of the general tonality of documents and do not reveal sentiment in relation to specific entities or topics.<sup>43</sup>

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<sup>37</sup> Malo et al. (2014).

<sup>38</sup> See the overviews provided by Kearney and Liu (2014) and Raimondo (2019).

<sup>39</sup> The other main approach to measuring textual sentiment, which is based on machine learning, could not be applied in this project due to lack of training data.

<sup>40</sup> Loughran and McDonald (2011).

<sup>41</sup> Bannier, Pauls, and Walter (2019). This dictionary is based on a translation from the English finance dictionary provided by Loughran and McDonald (2011).

<sup>42</sup> Remus, Quasthoff, and Heyer (2010). The current version of SentiWS was published in 2018.

<sup>43</sup> Balahur and Steinberger (2009, 3f) summarize this problem as follows: “[D]ocument level sentiment analysis does not make the necessary distinction between a number of different possible targets. Furthermore, it does not distinguish good or bad news from good or bad sentiment expressed in the article.”

The third dimension – temporal perspective – is captured by two indices, both of which, in essence, build on term frequencies. For the first index, I searched the corpus for all four-digit numbers ranging between 1,800 and 2,100 using regular expressions, working on the assumption that most of the resulting figures would refer to years. Subsequently, I applied a simple if-then rule. If the search result mentioned in a document was smaller than, greater than, or equal to the document’s publication year, this single unit received the label “past”, “future”, or “present”, respectively. This procedure, however, has its weaknesses. After checking the results it became obvious that some search hits do not refer to a year, for example “2,100 Euro”, or if they do, they may not represent a date, for instance, in references to Gerhard Schröder’s “Agenda 2010”.<sup>44</sup> Furthermore, journalists regularly refer to time without using specific dates.<sup>45</sup> This is why I applied a second approach by building a corpus-based dictionary of common German time references such as “*bald*” (soon) or “*jahrelang*” (for years). The first step was to compile a list of time-references based on the corpus vocabulary by screening the 2,500 most frequent words,<sup>46</sup> as well as the 1,000 most frequent bi- and trigrams, respectively, in order to account for expressions such as “*nächstes Jahr*” (next year). The second step was to extend the wordlist by including inflections and common variations of the entries identified in step one, for example “*nächsten zehn Jahre*” (next ten years). It is important to note that this time dictionary includes different word classes, such as temporal adverbs, nouns, adjectives, and ngram combinations of the various word classes. While compiling the list, it became obvious that it has similar limitations to a sentiment dictionary. For example, many time references can theoretically relate to different temporal perspectives in different contexts or they can (explicitly or implicitly) refer to more than one temporal perspective at a time, as is the case in temporal comparisons such as “*der SVR ist heute optimistischer als im Vorjahr*” (today, the GCEE is more optimistic than last year).<sup>47</sup> For every entry, the specific context was checked before it was included in the dictionary, resulting in 93 future- and 220-past-related-terms (basic forms).<sup>48</sup> Finally, to study the references to individual Council members, I searched the corpus

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<sup>44</sup> All identifiable instances of such false positives were removed.

<sup>45</sup> Another potential problem relates to OCR quality, which, in general, is sufficiently high, but which might be less sufficient when it comes to numbers.

<sup>46</sup> That is, terms that account for at least 0.04 percent of the corpus.

<sup>47</sup> Comparisons can also be implicit, such as “*inzwischen hat sich die Situation gebessert*” (in the meantime, the situation has improved), which implicitly refers to the past while explicitly referring to the present.

<sup>48</sup> The list is available upon request. A more precise but also much more complex approach would be to capture word tenses.

for the surnames of current and former Council members, checking the results for false positives due to common names such as “Kurt Schmidt”.<sup>49</sup>

### 3. The Macro Level: Economists in (Inter-)National Press Coverage

Before we immerse ourselves in the details of the news coverage about the GCEE, this section will consider a more general, comparative perspective. In Figure 1, the proportion of international newspaper articles mentioning economists is compared to the proportion of articles mentioning historians and scientists.<sup>50</sup> In general, we can observe a steady increase for all three groups after World War II, reflecting the growing importance of scientific expertise in “knowledgeable society”.<sup>51</sup> Although it is difficult to compare the *absolute level* of coverage between newspapers due to differences in their databases,<sup>52</sup> we can still observe differences in the *diachronic development* of coverage. While economists outpaced historians in *The New York Times* (NYT) and *The Washington Post* (WP) quite early on in the 1960s, this happened only recently in the *Frankfurter Allgemeine Zeitung* (FAZ) and *Die Zeit*. Economists and historians received nearly the same level of media attention in *The Guardian* and *The Times*. Both of these papers display, in general, more constant levels of references to economists, historians, and scientists. Taken together, the overall impression is that economists rapidly gained attention in the middle of the 20<sup>th</sup> century, although this development was not, as the results for historians and scientists indicate, a feature specific to economists. Rather, the development is a general one that reflects society’s growing dependence on experts.<sup>53</sup>

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<sup>49</sup> In other words, this measured how often the GCEE is mentioned together with one or several of its current or former members. Naturally, the question then arises as to how often Council members are mentioned without any reference to the Council. It would be interesting to know whether the frequency of references to individuals change after their appointment to the GCEE. Unfortunately, this information could not be collected as checking whole newspaper collections for false positives was not feasible.

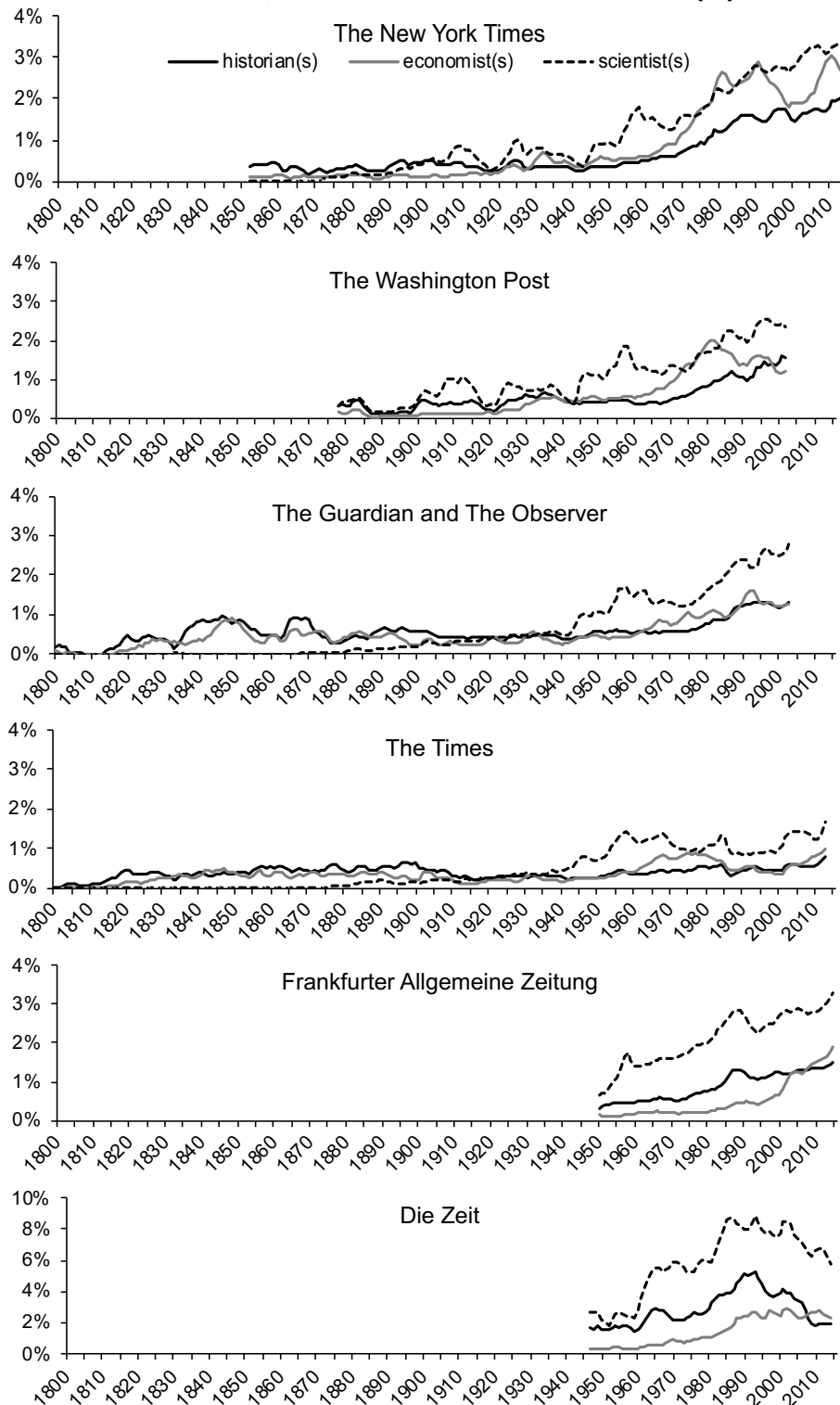
<sup>50</sup> The search term “economist” might include references to the weekly newspaper. In a 2015 article, the *New York Times* journalist Justin Wolfers performed a similar comparison. See Wolfers (2015).

<sup>51</sup> Lane (1966).

<sup>52</sup> There might be differences in the way providers have digitized the newspapers. For example, some providers include items such as advertisements, while others do not. Consequently, when calculating the proportions of articles containing a search term, the reference values might vary.

<sup>53</sup> See, e.g., Eyal (2019) and Weingart (2005).

**Figure 1 Economists, historians, and scientists in international newspapers**



Percentage of articles containing at least one occurrence of the terms “historian” / “Historiker”, “economist” / “Volkswirt” / “Ökonom”, and “scientist” / “Wissenschaftler”, including inflections. German keywords also include compositions such as “Diplomvolkswirt” and female equivalents. Three-year centered moving averages. Sources: author’s own calculations based on data from FAZ Biblionet, Digitales Wörterbuch der Deutschen Sprache, Gale, and ProQuest.

Of course, a simple reference to “economists” or “historians” is a rather crude measure of their visibility, as, for the most part, it probably only shows how often journalists refer to these groups in an abstract way.<sup>54</sup> If, instead, we focus on specific economic institutions and think tanks (see Figure 2), we get a more detailed picture that looks significantly different to the one depicted in Figure 1. For the US, both the Council of Economic Advisers (CEA) and the National Bureau of Economic Research (NBER) experienced a dramatic increase in newspaper coverage after the 1950s. This reflected the tremendous success of economists becoming the “queen of the social sciences” after World War II in a period that has sometimes been called “the economists’ hour”.<sup>55</sup> However, journalists focused less on the CEA and the NBER during the late 1970s/early 1980s, at least in the case of *NYT* and *WP*.<sup>56</sup> For economic institutions in Germany, there is a strikingly similar development. If we look at the proportion of articles mentioning one of the major economic research institutes, namely the *Deutsches Institut für Wirtschaftsforschung* (DIW), the *ifo Institut* (ifo), the *Institut für Weltwirtschaft* (IfW), or the *Leibniz-Institut für Wirtschaftsforschung* (RWI, formerly *Rheinisch-Westfälisches Institut für Wirtschaftsforschung*), we can observe a similar pattern which also replicates at the level of individual newspapers, in this case *FAZ* and *Zeit*. Regarding individual institutes, the ifo clearly takes the lead, showing both the greatest increase and the strongest decline in media attention. Nevertheless, the three other institutes show a similar though less pronounced development. The GCEE, which was founded in 1963 during the heyday of economic policy advice,<sup>57</sup> also experienced a steady decline in media attention from the 1980s onwards. However, just like the research institutes, the Council experienced a renewed media interest around the year 2000,<sup>58</sup> which I will discuss later in this paper. In general, the decline is much more gradual in Germany than in the US.<sup>59</sup> At this point, however, it seems fair to say that, in contrast to the abstract references to economists, mentions of specific economic policy institutions had disappeared

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<sup>54</sup> Then again, the keyword search for both terms might also include references to specific individuals, such as in “the economist Milton Friedman claims that...”.

<sup>55</sup> There are two books carrying this title, one in English and one in German. See Appelbaum (2019) and Nützenadel (2005).

<sup>56</sup> The UK based *Times* naturally mentioned both institutions to a much lesser extent.

<sup>57</sup> Nützenadel (2002), Helmstädter (1988), Metzler (2004; 2002), Schanetzky (2007).

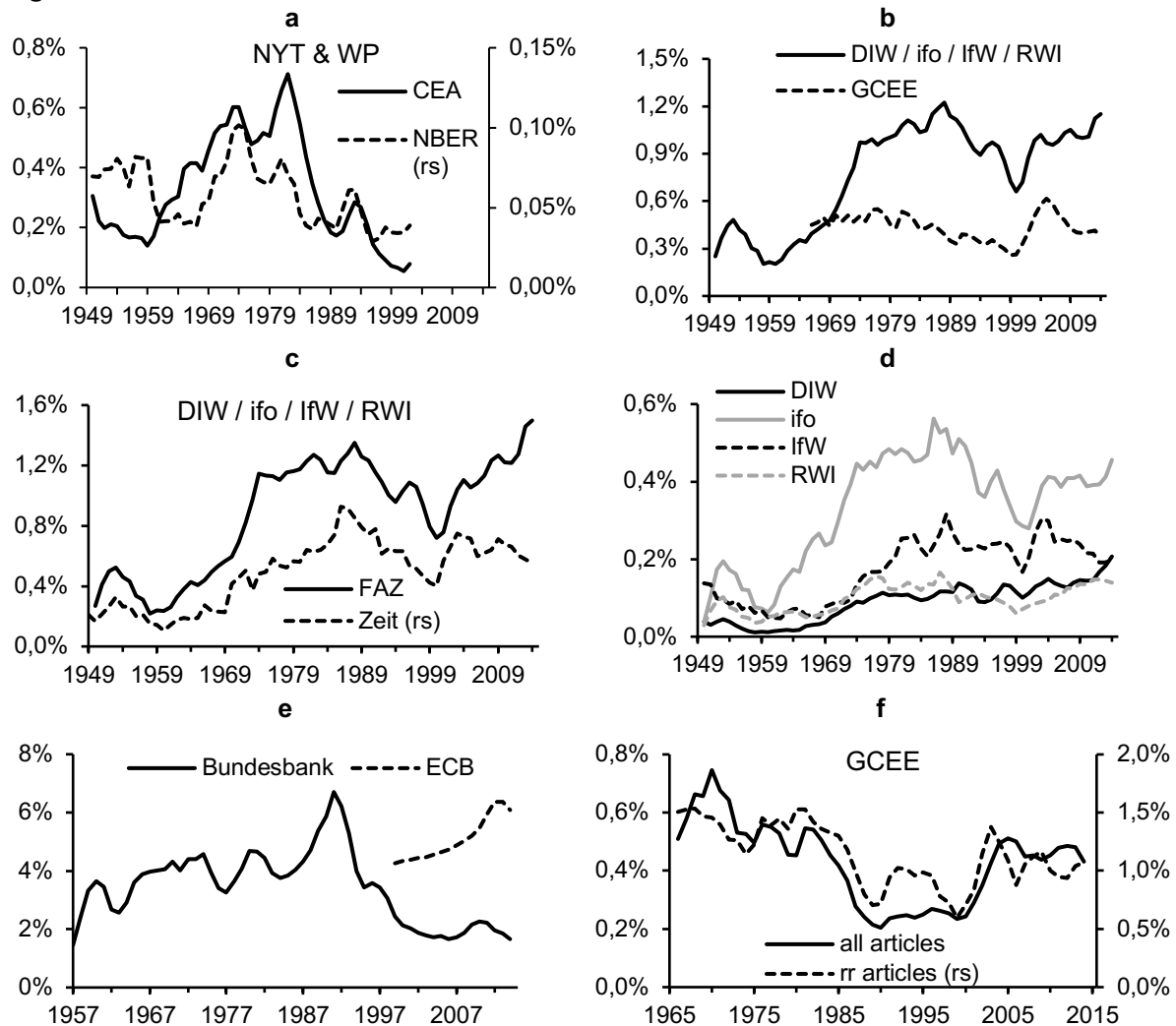
<sup>58</sup> For *WP*, data is available until the year 2003. In the case of *NYT*, which provides data until 2015, a comeback cannot be observed.

<sup>59</sup> Things are somewhat different for Germany’s central bank. The Deutsche Bundesbank has a constant level of high media coverage, with a spike in the early 1990s, which can be attributed to the establishment of the European Monetary Union. Afterwards, references to the Bundesbank start to fall, with the European Central Bank taking its place both in terms of political influence and of in terms of media attention.



from newspapers by the 1980s, although there was a distinct revival in the German media around the year 2000.

**Figure 2 Economic institutions**



Notes: a-e: Percentage of articles containing at least one reference to the institution in question, including both full names and abbreviations. a: *New York Times* and *Washington Post*; b – e: *Frankfurter Allgemeine Zeitung* and *Die Zeit*; b: slash equals OR operator; c and d: articles mentioning DIW, ifo, IfW, or RWI; f: articles from Table 1, rr = report-related articles, i.e. articles published in a three-week-window after publication of a GCEE annual report. Three-year centered moving averages. Sources: author's own calculations based on data from GALE, FAZ Biblionet, and Digitales Wörterbuch der Deutschen Sprache, Handelsblatt, Spiegel, and Wirtschaftswoche.

How can this difference between references to economists in general (type 1) and to specific economic research institutions (type 2) be explained? First of all, the increase in type 1 references coincides with the sharp decline of type 2 references. In other words, during the 1970s and 1980s, we can observe a shift from very specific references to concrete institutions of economic expertise towards a more diffused style of referring to economists, which confirms the pessimistic perspective on economists' diminished influence after the 1970s as expressed, for

example, by Michael Bernstein.<sup>60</sup> But what does the increase in type 1 references actually imply? To answer this question, it might be helpful to contemplate what the subject of type 1 references might actually be. They most likely relate either to an amorphous group of economists or to specific individuals, as in “Economists are warning that...” (type 1.a), or to specific individuals, as in “As Adam Smith, chief economist at Royal Bank of Edinburgh, pointed out...” (type 1.b). In the second case, one must also consider the difference between academic and non-academic economists, with the latter working, for example, in the finance industry. In the case of Australia, Alex Millmow and Jerry Courvisanos found that it is indeed the second group of economists which is most visible in the media, whereas academic economists are rather reluctant in this regard.<sup>61</sup> If we assume this “division of labor” also applies to the countries studied in this paper, we come to the following hypothesis: Depending on which type of reference (1.a or 1.b) predominates, the shift from type 2 to type 1 implies that references have either become more superficial or that specific individuals, especially those working in the private sector, have become more important. Without access to the full texts of those articles containing type 1 references, however, it is difficult to reach a definitive conclusion. Based on the evidence provided in the case study that follows, however, it seems fair to say that news stories have become both more superficial and more focused on individual economists.

To sum-up at this point, we can say that the success story of post-war economics was connected to the high level of media visibility specific bodies of economic expertise, such as the CEA in the US and the GCEE in Germany, enjoyed during this period. During the 1970s and 1980s, these institutions suffered a sharp decrease in visibility; the media started to refer to unspecific “economists”, a fact supporting Bernstein’s observation that economists “find themselves once again being ignored”<sup>62</sup>, at least by the media. However, three questions, if not more, remain to be answered: What are the specifics of the news stories hidden behind the aforementioned figures? What happened during the 1970s and 1980s that could explain the change in media perception of economists? And what happened during the early 2000s in Germany, when the media once again paid more attention to economists?

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<sup>60</sup> Bernstein (2001). For Germany, a similarly pessimistic perspective is provided by Schanetzky (2007).

<sup>61</sup> Millmow and Courvisanos (2007).

<sup>62</sup> Bernstein (2001, 191).

## 4. The Micro Level: The Case of the GCEE

The evidence presented in Figures 1 and 2 shows some clear long-term similarities between Germany and the US, suggesting that during the late 1970s and the early 1980s, public attitude towards economists changed in both countries. Yet, these figures demand a closer examination, for at least two reasons: first, these results are based on the analysis of just two newspapers for each respective country; second, they tell us nothing about the actual newspaper content. To gain a more detailed understanding of the stories connected to economists, I will concentrate on the GCEE in the remainder of this paper. To this end, I both broadened the data base and intensified the analysis by focusing on newspaper content. The first step was to analyze the newspaper corpus presented in Table 1. Its development over time is presented in Figure 2.f. (above). In this case, the 1980s and the late 1990s stand out again as periods of change. This concerns both the general news coverage of the GCEE, as well as those articles which are published in the three-week window after the release of a GCEE annual report (referred to as rr-articles in the following).

### 4.1 Topics

Applying a topic model to the GCEE corpus gives us an impression of the content of newspaper coverage of the GCEE. As described in Section 2, I created a model consisting of 95 topics, most of which exhibit a high degree of coherence. Only five topics do not generate any interpretable meaning and were therefore dropped in the further analysis. The other 90 topics were labeled and then aggregated into 15 higher-level categories which I have called “main topics”. An overview of all relevant individual and main topics is presented as a treemap in Figure 3, with box sizes corresponding to how frequently a topic appeared in the corpus, that is, the respective topic share.

**Figure 3 Topic Overview**



- Notes: Box sizes correspond to topic shares. I realigned topic numbers, which are assigned arbitrarily by the model, in order to provide a better overview. Topics 91-95 were identified as not containing interpretable meaning.

This figure clearly illustrates that media coverage of the GCEE consists of a variety of topics, not just economic development or forecast. This latter subject, which falls under the main topic *Economic Development*, is indeed rather important and accounts for 9.7 percent of the corpus.

However, the model identified a high number of other topics, many of which are equally significant. For example, *Monetary Policy* amounts to almost the same topic share (9.6 percent), with *Job Market* (8.2 percent) and *Public Finance* (7.1 percent) following close behind. As opposed to these content-related main topics, two of the largest main topics – *News Speak* and *Policy Speak* – consist of topics which represent the use of a certain type of language specific to news and politics, respectively. The category *Policy Speak* together with the main topic *Politics* (4.9 percent) illustrate that coverage of the GCEE takes place frequently in a political context and often mentions the Federal Government explicitly. In fact, the term “*Bundesregierung*” (Federal Government) can be found in 38 percent of all articles, suggesting that journalists perceive the Council’s expertise to be directed primarily at the Federal Government, a fact which is also reflected in common expressions such as “*Der Sachverständigenrat der Bundesregierung*” (the government’s council).<sup>63</sup> The main topic *Single Topics* is a residual category and consists of those topics which could not be assigned to any of the other main topics. This main topic, alongside other main topics, shows that journalists referred to the GCEE not only in terms of broad economic themes but also relating to rather particular issues. Interestingly, topics related to international subjects only account for a rather small amount of the corpus (4.2 percent), at least when compared to the other main topics. *Economics* is the umbrella title for topics relating to the discipline, including topics on economic theories and reviews (topic 58) and on the opinions of certain “star economists” (topic 57), to provide just two examples. *People* (2.8 percent) groups together articles on biographical topics, reporting, for example, on an appointment to a certain committee. Topics which touch the Council itself fall into the category *GCEE* (3.8 percent). These topics mostly consist of references to well-known Council members, such as Bert Rürup, Olaf Sievert, and Wolfgang Stützel. Here, we can observe the importance of individual economists, a topic which will be addressed explicitly later on. There is also a special topic on female Council members (topic 79), the first mention of which coincided with Beatrice Weder di Mauro being appointed as the first woman on the Council in 2004. The remaining main topics – *Financial Crisis*, *Social Security*, and *Eastern / Western Germany* – only account

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<sup>63</sup> Although the Council members are nominated by the Federal Government, there are at least two reasons why this perception is nevertheless biased. First, in contrast to the CEA, the GCEE is fully independent of any political guidelines. Second, the Federal Government is merely one part of the Council’s target audience, which is defined rather broadly as “all authorities responsible for economic policy as well as the general public” (Article 1 Act on the Appointment of a Council of Experts on Economic Development). Information on how the Council is organized can be found on its website <https://www.sachverstaendigenrat-wirtschaft.de/en/about-us/objectives.html> (last accessed January 20, 2021).

for rather low proportions of the corpus (3.0, 2.6, and 1.2 percent, respectively). This is due to the fact that all three topics are, due to their content, only prevalent for relatively short periods.

Having gained an impression of which topics feature in news coverage of the GCEE, the next logical question is how these main topics have developed over time. To answer this question, I analyzed the mean topic shares for all articles published in a given year at the main topic level (Figure 4). These time series show that newspaper coverage has changed tremendously over the years. In the first decade, *Monetary Policy* was the dominant theme, which coincides with the turmoil of the Bretton Woods system in the late 1960s and early 1970s, as well as the high inflation rates during these years. The decrease in the rate of inflation from the mid 1970s made this topic obviously less attractive to journalists, at least in their reports on the GCEE. For *Job Market*, we can also observe that the topic shows a similar development to that of its corresponding macroeconomic variable. When unemployment started to rise after the first oil price shock, this topic became more important, and more or less follows the fluctuations in the unemployment rate in the following decades. Compared to its peak in the 1970s, however, the prevalence of this topic falls to a lower level during the 1980s and 1990s, which is particularly surprising in light of the fact that unemployment became a persistent problem in these decades. Indeed, the decline in media visibility during these decades can be directly linked to this topic. As I will discuss in Section 4.5, many journalists came to view the GCEE as obsolete in these years as it was seen as being unable to provide solutions for the most pressing topic of the time.<sup>64</sup> Simultaneously, *Economic Development* shows a continuous increase until the late 1980s, reaching a maximum of a 20 percent topic share in 1986. Apparently, journalists were still inclined to report on the Councils' assessments of the economic situation despite their rather negative view of the GCEE. During the 1990s and 2000s, though, the interest in this main topic decreased continuously, in the end amounting to just seven percent in 2015. The category *Politics* closely follows the general development of the Council's media attention, suggesting that the latter correlates with the political constellations in government; generally speaking, media attention was highest at times when the Federal Government was led by the Social Democrats. For *Public Finance*, we can observe a continuous increase, which accelerated between 2001 und 2005 when persistent German budget deficits culminated in an excessive deficit procedure against the Federal Republic.<sup>65</sup> When deficits started to decline after 2005, mentions of the main topic dropped rapidly, suggesting that interest in public finance waned. As the main

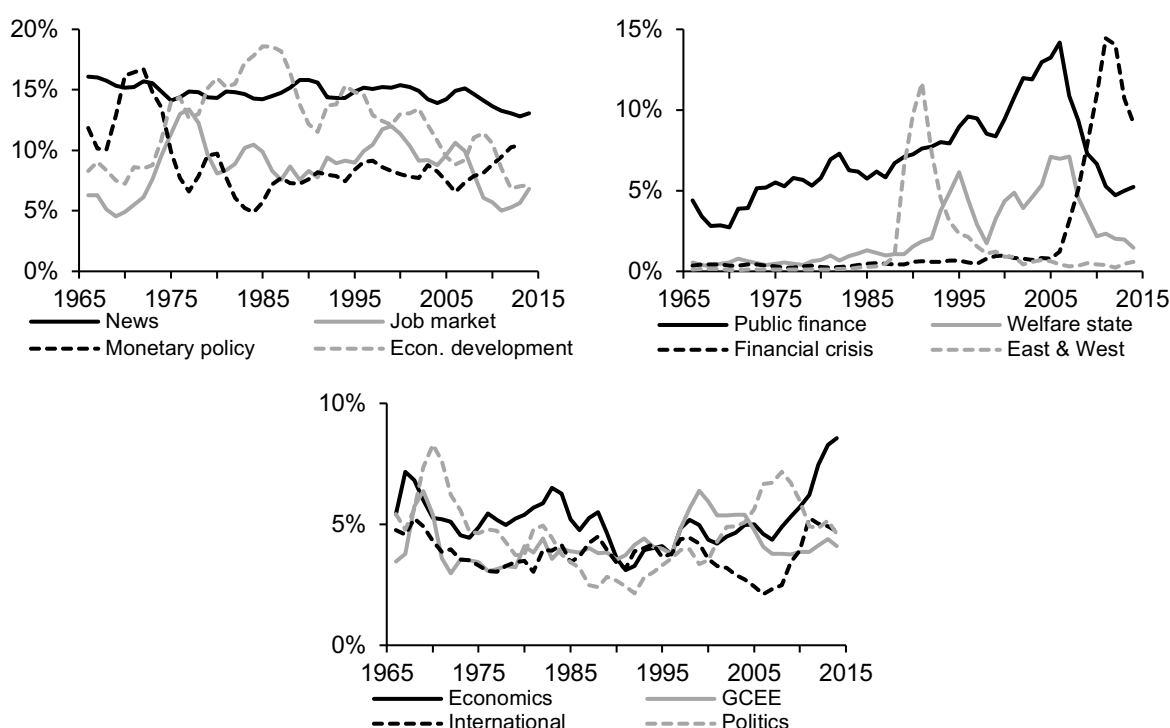
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<sup>64</sup> See below.

<sup>65</sup> Buchmüller and Marte (2004) and Ullmann (2005).

topic *Social Security* is connected to the subject of public finance, it shows a similar development, although to a lesser extent. Moreover, this main topic only appears after the mid-1990s, as it was only then that the Council started to regularly include the social security system in its reports. The main topic *GCEE* shows a similar development to the general media visibility, which is plausible as this topic can be regarded as an indicator of the extent to which news reports deal with the Council. German Reunification, which falls under the main topic *Eastern & Western Germany*, obviously caught the attention of journalists only for a short time, at least as far as articles mentioning the GCEE are concerned. This is somewhat surprising, as the Council studied the economic development of the former GDR well into the early 2000s.<sup>66</sup> Additionally, it must be noted that, at the main topic level, press coverage closely follows the Council's agenda.<sup>67</sup> In turn, both the Council and its news coverage mirror the dominant economic topics of the time. This becomes particularly evident in the main topic *Financial Crisis*, which covers both the financial crisis of 2007/2008 and the eurozone's subsequent debt crisis.

**Figure 4 Topic Development**



Notes: three-year centered moving averages. Source: author's own calculations.

<sup>66</sup> See, e.g., GCEE annual report 2004/2005.

<sup>67</sup> In a different paper I use a topic model to analyze the GCEE's reports also. See Wehrheim (2019b).

## 4.2 Sentiment

This brief outline of news topics shows that the coverage of the GCEE largely follows the main current events, but also includes some rather specific topics. But what can we say about the way these topics are framed, or, more generally, about the tone of articles referring to the GCEE? Regarding news sentiment in this particular case, both a negative and a positive tonality seem equally plausible, although it is likely that journalists refer to the Council when there is a problem for which economic expertise is needed, thus leading to a higher prevalence of negative sentiment.<sup>68</sup> To shed light on this aspect, I conducted a dictionary-based sentiment analysis on the GCEE corpus, differentiating between general articles and rr-articles, that is, articles published in the three-week-window following the publication of a GCEE annual report. For this analysis, I relied on the sentiment dictionary provided by Bannier et al. (hereafter BPW). This dictionary was created for finance-related documents, a field with close parallels to the articles studied in this paper. To provide a comparison, I also applied the more general language dictionary by Remus et al. (hereafter SentiWS).<sup>69</sup> If we compute the overall sentiment score for the whole GCEE corpus, we have a slightly negative value of -0.7 for BPW and a positive value of 3.9 for SentiWS, which confirms Bannier et al.’s observation that SentiWS produces overly positive sentiment scores in a business-related context. Both sentiment scores, despite their different absolute level, show a similar development over time (Pearson correlation: 0.64), again confirming a similar result to that described by Bannier et al. In other words, although both dictionaries produce different absolute levels of tonality, the development over time is similar. As the BPW dictionary is more context specific and the resulting negative sentiment more plausible in this particular setting, I will rely on the BPW results in the following.<sup>70</sup>

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<sup>68</sup> Furthermore, negative events such as natural disasters, terrorist attacks, scandals, or commercial frauds seem to have higher news value than positive stories, which would, in general, suggest a higher prevalence of negative tonality in the news.

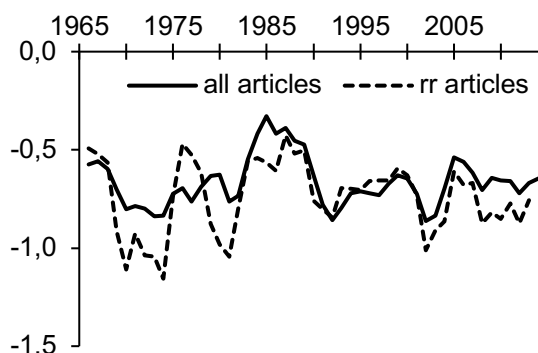
<sup>69</sup> Bannier, Pauls, and Walter (2019), Remus, Quasthoff, and Heyer (2010). To allow for a more direct comparison of both dictionaries, I transformed the continuous SentiWS sentiment values into a binary scale. In both cases, the sentiment score  $s$  of document  $d$  was calculated as:  $s_d = \frac{p_d + n_d}{t_d} * 100$  where  $p_d$  is the sum of all positive terms,  $n_d$  is the sum of all negative terms, and  $t_d$  is the overall number of tokens in document  $d$ . In order to fine tune the results of the dictionary approach, one could include so-called valence shifters and intensifiers, that is, words that alter the a priori sentiment values of a term. For example, the word “good” might have the a priori score of +1, which could be changed into -1 in case of “not good” or +2 in case of “very good”. Including such terms only had a marginal impact on the sentiment scores, which is why I have only provided the results from the baseline analysis.

<sup>70</sup> The BPW dictionary also provides a means to measure the degree of uncertainty expressed in a text. Applying this sub-dictionary on the GCEE corpus reveals a slight decrease in the proportion of uncertainty-related words from the late 1970s until around 2005, with a slight increase afterwards. At only 0.4 percentage points, the range between minimum and maximum is rather small, however, suggesting that change in the level of uncertainty expressed in the corpus is only minimal.



**Figure 5 Sentiment Scores**

Panel A:



Panel B:

Main topic	Score	Main topic	Score
Financial Crisis	-10,4	Policy Speak	-6,8
News Speak	-9,7	International	-4,5
Politics	-9,0	Single Topics	-4,4
Social Security	-9,0	Economics	-4,2
Job Market	-8,6	GCEE	-4,1
Eastern & Western Germany	-8,3	Economic Development	-3,8
Public Finance	-7,4	People	-1,4
Monetary Policy	-7,3		

Notes: sentiment scores based on the dictionary by Bannier et. al (2018). Panel A: all articles = complete corpus as described in Table 1; rr = report-related articles, i.e. articles published in a three-week-window after the publication of a GCEE annual report. Three-year centered moving averages. Panel B: sentiment scores according to procedure described in footnote 71. Sources: author's own calculations.

We can make several observations about the sentiment development depicted in Panel A in Figure 5. First, rr-articles seem to exhibit a slightly more negative tone than the overall corpus, especially up until the mid-1980s and after the year 2000. Furthermore, sentiment in these articles is more volatile than in the overall corpus, with high volatility persisting even after applying moving averages. Second, the sentiment score seems to develop in waves, especially for the total corpus. Between the early 1970s and early 1980s, articles are more negative in tone, becoming more positive during the 1980s. This is plausible: as we have seen in the previous section, the media mainly focused on economic development in this period, which was rather positive, at least in terms of GDP growth. This is confirmed if we look at the sentiment scores of the main topics *Economic Development* in Figure 5 Panel B. As the dominant topic in the 1980s, its sentiment score is almost the least negative.<sup>71</sup> After 1990, sentiment becomes increasingly negative until the early 2000s, which suits the rather depressed general economic climate of this period.<sup>72</sup> Here, in particular, the effect of the economic and social burdens of German Reunification is clear and is mirrored in the rather negative sentiment score for the main topic *Eastern & Western Germany*. Generally, this negative tonality can be regarded as one explanation for the relatively low media attention the GCEE received during this period. The increase

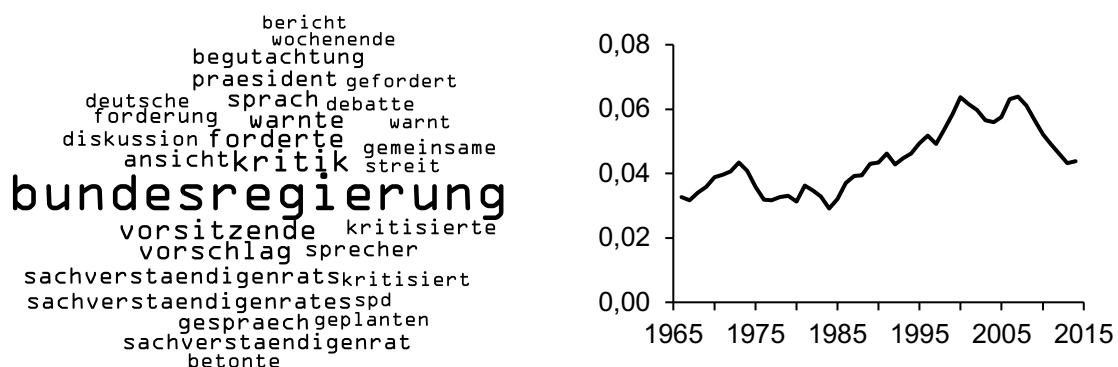
<sup>71</sup> Main topic sentiment was calculated in a two-step approach. First, articles were grouped according to their largest main topic. Then, sentiment scores were determined for each of these groups. Theoretically, sentiment can also be implemented directly in the topic modelling process. See, e.g., Nguyen and Shirai (2015).

<sup>72</sup> Berghoff (2019), Czada (2002). For example, many of the business climate indices provided by the ifo institute show a significant decline up until the early 2000s. The same holds true for the “*Neujahrsumfrage*” (new year survey) conducted by the *Institut für Demoskopie Allensbach*, which measures how many people are optimistic about the upcoming year.

in media attention after 2002 is accompanied by the articles again becoming more positive. After 2007, however, sentiment turned negative once more. This is directly linked to the financial crisis, and it is unsurprising that the corresponding main topic has the most negative sentiment score.

Finally, it is necessary to explain the rather negative sentiment score of the main topic *News Speak*. The three individual topics grouped under this main topic all demonstrate fairly abstract language patterns, which are characteristic for a certain journalistic style of writing. The somewhat negative sentiment can be explained by the results of topic 3 (see Figure 6). At a first glance, it can be difficult to understand what this topic is about, but upon closer inspection, it becomes evident that the words contained in this topic belong to a language pattern that is used to describe someone's critical attitude towards something or someone else. The high incidence of the term *Bundesregierung* suggests that this topic was generated as a result from news stories reporting on a conflict between the Federal Government and some other third party, in particular the GCEE. Interestingly, there is a more or less continuous increase in the prevalence of this topic between the mid-1980s and the late 2000s, indicating that this kind of conflict-related news story became increasingly popular. In general, conflicts between the GCEE and the Federal Government, whether they are real or just conjecture, seem to have a much higher news value than cases where the Council approves of the government's course of action or policies.

**Figure 6 Topic 3**



Notes: three-year centered moving averages. Sources: author's own calculations.

#### 4.3 Temporal Orientation

Economists provide expertise on the past, the present, and the future, for example on topics such as general economic development, unemployment, or foreign trade. But which temporal perspective is taken up by the media? As both panels in Figure 7 indicate, the answer is typical

for economists: it depends. The two panels in Figure 7 show two different approaches to measuring the temporal perspective of the articles. While Panel A depicts the prevalence of numerical year references, for example “in 1967, GDP grew by 2.5 percent”, Panel B represents verbal time references, such as “last year, GDP grew by 2.5 percent”.<sup>73</sup> If we take numerical dates as a basis, we find that 53 percent of all dates in the overall corpus refer to the past. Only 28 percent and 18 percent relate to the future and present, respectively. In rr-articles, on the other hand, 50 percent of all time references are to the future, whilst 31 percent are to the past and 19 percent are to the present. As far as the news stories about these reports are concerned, journalists seem to be more interested in what is to come than in what has already happened. The observation that rr-articles are more future-oriented than the overall corpus is also confirmed by an analysis of verbal time references. In this case, there is a 57/43 percent split between past- and future-related terms in the total corpus, and a 50/50 split for rr-articles.

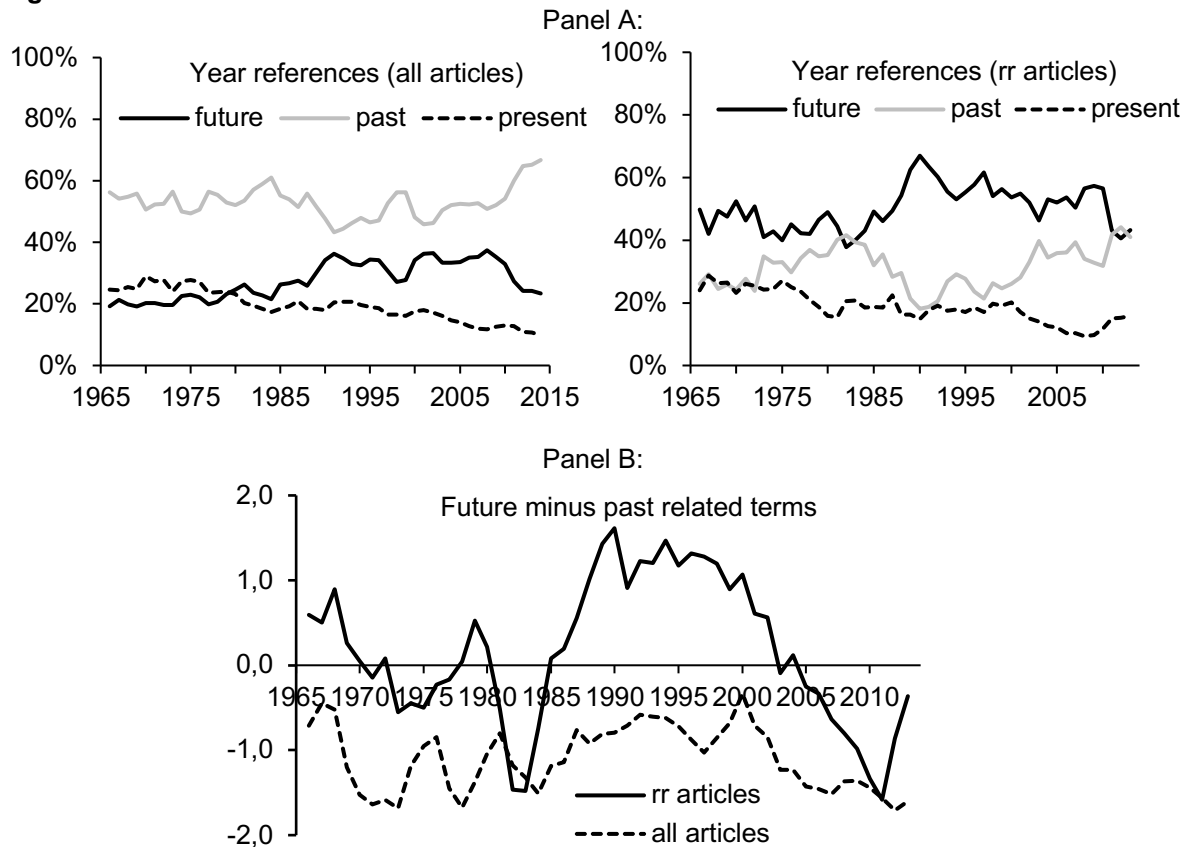
Furthermore, both indices show similar developments over time, which aligns with the general development of the GCEE’s visibility in the media. When media attention dropped in the 1980s, coverage started to concentrate on topics related to general economic development, which was accompanied by a shift towards the future, particularly for news pieces on GCEE reports but also for general coverage. As a result, news coverage in the 1980s focused increasingly on economic development, was less negative in tone, and was more aligned to the future than before. When media attention started to increase shortly after the year 2000, the opposite process occurred, resulting in quite a pronounced shift towards the past. Interestingly, time references to the present, that is, the year when an article was published, show a constant decline, both for the entire corpus and for rr-articles.<sup>74</sup>

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<sup>73</sup> Positive values in Panel B indicate that articles contain more future-related than past-related terms, whilst negative values indicate that articles contain less future-related than past-related terms.

<sup>74</sup> It should be noted that, while the number of verbal time references per article is generally constant (8.7 words per 1,000 tokens for the overall corpus; 9.7 for rr-articles), the number of numerical year references declined. Between 1965 and 1974 there were, on average, 4.4 year references per 1,000 tokens for the overall corpus (4.6 for rr-articles), dropping to 3.2 (2.7) references between 2005 and 2014.

**Figure 7 Time References**



Notes: all articles = complete corpus as described in Table 1; rr = report-related articles, i.e. articles published in a three-week-window after the publication of a GCEE annual report. Three-year centered moving averages. Sources: author's own calculations.

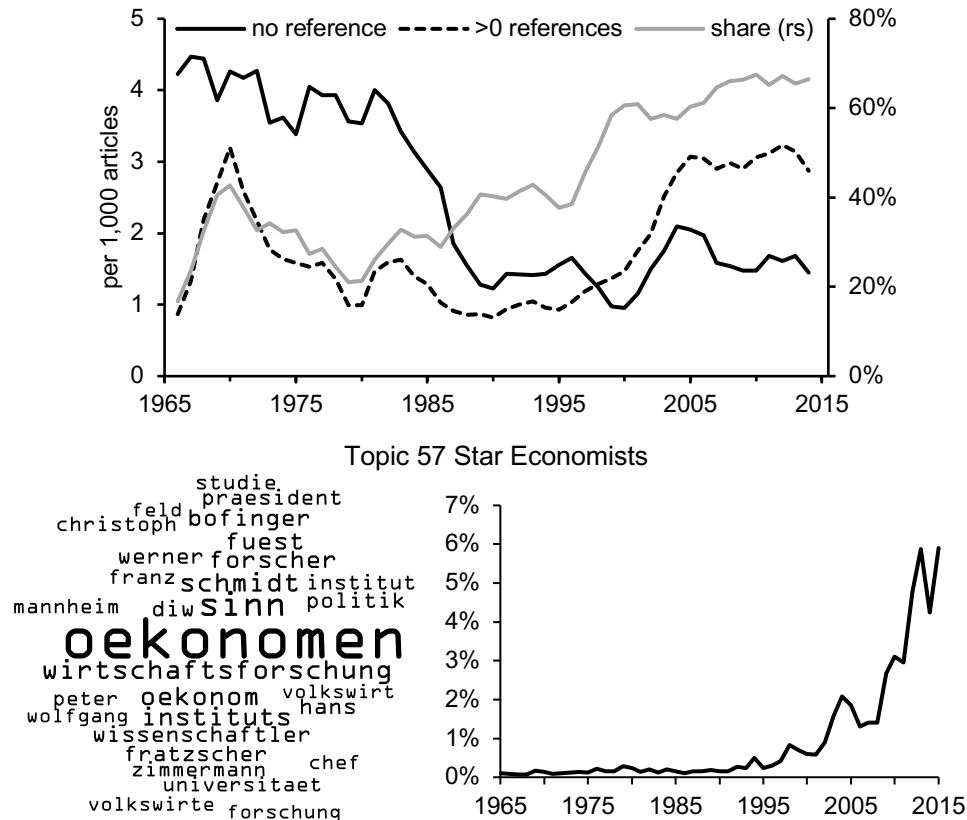
#### 4.4 Individuals

Any good story must have either a compelling or an unappealing protagonist. So far, the analysis has treated the GCEE as the main protagonist, but the newspaper corpus studied in this section also includes articles which only mention individual Council members.<sup>75</sup> To quantify the role of these individuals, I searched the corpus for names of – active or former – members. In total, 49 percent of all articles contain a reference to at least one Council member, while 51 percent contain no mention whatsoever. If we look at the development of these percentages, we can see that the number of articles with no references (black line in Figure 8) declines steeply during the 1980s, while those containing at least one name (dotted line) develop rather differently. Here, the spike in mentions of individual Council members at the end of the 1960s can

<sup>75</sup> In these cases, references to the GCEE regularly take the form of “Professor X, member of the GCEE, said that...”. The role of individual members is also stressed by Bernstein, according to whom the CEA’s high public reputation during the early 1960s is also explained by the prominence of its members, in this case, Kermit Gordon, Walter Heller, and James Tobin. See Bernstein (2001).

be explained by an internal dispute involving several Council members, which was widely discussed by the media. Indeed, the GCEE's history is also a history of its internal conflicts, which were regularly taken up by the media and each of which tarnished the Councils' reputation to varying degrees.<sup>76</sup>

**Figure 8 Name References**



Note: articles with/without references to current or former GCEE members by name, per 1,000 GCEE articles. Articles containing at least one reference as a proportion of all GCEE articles. Three-year centered moving averages. Sources: author's own calculations.

As we have already seen, the GCEE, as well as other bodies of economic expertise, experienced something of a “comeback” in the late 1990s and early 2000s. This revival was accompanied, or was maybe caused by, an increasing media interest in individual economists. Although all three lines in Figure 8 increase at the time in question, the rise in the number of “personalized”

<sup>76</sup> The media furor surrounding Wolfgang Stützel, who resigned after internal quarrels regarding the question whether the D-Mark should be revalued, was the first of a sequence of disputes between Council members. After his resignation, Stützel and other Council members continued their dispute via guest articles in different newspapers, causing negative publicity. This first scandal is also reflected in topic 77. There is no room here to describe all of these conflicts in detail. Aside from the conflicts mentioned above and below, which are the scandals that had the largest impact on the GCEE's reputation, there have been at least two more media furors. In both cases, members – Werner Glastetter in 1981 and Ernst Helmstädter in 1988 – left the Council due to strained relations with their peers.

stories is much greater than of the number of no-reference articles. This finding is particularly obvious if we look at the proportion of articles mentioning a member (grey line in Figure 7), which increases continuously from the 1980s onwards and surges in the period around the year 2000. This indicates that the media became more interested in individual Council members, an interest which is reflected in journalists frequently writing portraits of Council members in which their backgrounds and their viewpoints, such as on their favorite books, are described.<sup>77</sup> Of the GCEE members, this hype surrounding economists primarily concerned Bert Rürup, who acted as chairman between 2005 and 2009 and who can, arguably, be regarded as the Council's media star. With almost 27 percent of all articles mentioning the GCEE that were published during his term of office (2000-2009) also mentioning Rürup, the "man on all channels"<sup>78</sup> is by far the most frequently referenced member of the GCEE. For comparison, the Council member in second place is Herbert Giersch, with mentions in "only" 15.7 percent of all GCEE articles published during his term of office (1964-1970).<sup>79</sup> Likewise, other Council members in the post-2000 years, namely, Peter Bofinger, Wolfgang Franz, Beatrice Weder di Mauro, and Wolfgang Wiegard, attracted high levels of media attention, in part but not solely because of frictions between individuals occurring in the public eye. Indeed, this conflict, which culminated in early 2005, marked the end of the Council's media comeback and resulted once again in rather negative publicity which, as opposed to the negative publicity about previous conflicts, tarnished the Council's reputation for several years.<sup>80</sup> Finally, in addition to the aforementioned topics, this focus on individuals is also mirrored in topic 57, which likewise indicates a growing importance of individual (star) economists.

#### 4.5 Turning points

Based on the findings I have described so far, two periods stand out: the late 1970s/early 1980s and the early 2000s. Both periods concern the GCEE's media history and economists' media visibility in general. Although there is no room for a detailed account, I want at least to make

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<sup>77</sup> Bröll (2005). Another vivid example of this interest in individual economists is provided by Braunberger (2005).

<sup>78</sup> "Der Mann auf allen Kanälen" was the title of a portrait published in the *FAZ*. See Germis (2002).

<sup>79</sup> If we take into account the fact that the media paid, in general, less attention to "celebrities" before the 1990s, we must regard Herbert Giersch – one of the GCEE's founding members who was later appointed president of the *Kiel Institute for the World Economy* – as an early media star who regularly spoke through the media. See, e.g., his collected *Wirtschaftswoche* columns, which are published in Giersch (1986). Reference figures for all GCEE members (until 2015) can be found in the online appendix.

<sup>80</sup> This internal conflict arose after Bofinger's appointment in 2004 and led to Wiegard publicly announcing his resignation from Council chair. See, e.g., Fickinger (2004), Fischer (2005), Neubacher (2005), Storbeck (2005), Welter (2005).

serval brief observations that add a little to the literature on these turning points and go beyond the arguments I have made so far. Essentially, both turning points mark fundamental shifts in how experts are perceived, and this shift also transfers to bodies of economic expertise such as the GCEE. To explain the first shift, I hypothesize that there was, apart from a general decline in public reception of expert authority,<sup>81</sup> a problem that specifically concerned economists and that, among other reasons, caused the changes that I have described above. Based on extensive close reading of the articles contained in the GCEE corpus, it seems to me that the crucial point is that economists in general and the GCEE in particular were perceived as being incapable of providing solutions for the dominant economic problem of the time – unemployment – which led to a general distrust of economic expertise.<sup>82</sup> While the economy slowly recovered from the second oil price shock, unemployment turned into a structural problem, with the number of unemployed persons surpassing the two-million level for the first time in 1983.<sup>83</sup> This was accompanied by a rather pessimistic overall sentiment, both at the level of the economy and society in general, at least at the beginning of the 1980s.<sup>84</sup> All in all, this resulted in a rather critical attitude towards economists, which was expressed in numerous articles, many of which use terms such as “*Ratlosigkeit*”, “*Hilflosigkeit*”, or “*Resignation*” (helplessness, resignation) when describing economic experts.<sup>85</sup> As the *Spiegel* put it:

“The *helplessness* of the legions of economists can be seen in the fact that the solutions offered by economic professionals are based either on the 200-year-old findings of the classical economists or the 50-year-old findings of the English Lord Keynes.”<sup>86</sup>

This critical attitude towards economic experts, especially concerning the GCEE, became particularly evident during the dispute on the reduction in working time in 1984/1985 (“35-Stunden-Woche”), as many journalists who had supported the Council on this topic in the late 1970s now criticized the GCEE for its firm rejection of a reduction in working time.<sup>87</sup>

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<sup>81</sup> See, e.g., Weingart (2005; 1983).

<sup>82</sup> The following considerations are restricted to Germany, although they might, at least partially, also apply to economists in other countries.

<sup>83</sup> On the topic of unemployment in Germany during the 1970s and 1980s, see Raithel and Schlemmer (2009).

<sup>84</sup> Hesse (2016, 475f), Esposito (2014), Radkau (2017, 335–42). A good example of this pessimism at the turn of the decade can be found in a series of *Spiegel* articles published in 1980 which were titled “*Die fetten Jahre sind vorbei*” (the good years are over).

<sup>85</sup> See, e.g., Kaden (1985), Kampe (1988; 1985), Piel (1982), Schmid (1987; 1985).

<sup>86</sup> *Der Spiegel* (1980); own translation, italics added.

<sup>87</sup> See *Der Spiegel* (1984a; 1984b; 1984c), Krüger (1984), Michaels (1984), Schmidt (1985).

Unemployment, however, was not the only reason why economists were perceived as lacking in competence. Rather, economics in general was, as the quote cited above shows, considered to be out-of-date. This general bashing of economists is particularly well-illustrated by two articles, the first of which was published in 1983 in the *Wirtschaftswoche*, and the second in 1984 in the *Spiegel*.<sup>88</sup> Both articles basically claimed that the then current state economics was obsolete, a narrative with some parallels to the discussion on the usefulness of economics which ignited after the financial crisis of 2007/2008, particularly in its reference the Great Depression of the 1930s. Although it is difficult to prove a clear causal relationship, it seems rather plausible that this negative image of economics as a discipline led to the decrease in the number of stories referring to economists observed in Section 3.<sup>89</sup>

After approximately two decades of keeping aloof from the public eye and, in a sense, “working undercover”, economists once again stepped into the limelight at around the year 2000. Again, a shift in the general assessment of experts *per se*, coinciding with some specific economy-related topics, might explain this shift in economists’ public image. The first point can be attributed to a new policy style which was practiced by the new Schröder administration and particularly by the chancellor himself, who ensured he was frequently on stage with various experts.<sup>90</sup> This policy style was characterized by a heavy reliance on publicly visible expert commissions, such as the Hartz, Rürup or Süßmuth committees. This process of – allegedly – delegating the identification of solutions to political issues to experts did not imply that these experts actually had more influence on politics, but rather that politicians gained the opportunity to justify their decisions. The number of advisory bodies actually declined, but, due to politicians claiming to base their decisions on external expertise, media attention directed towards these experts grew rapidly, reaching a peak in the year 2000.<sup>91</sup> Apparently, economists also profited from this increased awareness of institutions that advise policy, which also sparked a

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<sup>88</sup> See *Wirtschaftswoche* (1983), Baron (1984).

<sup>89</sup> This argument is generally in line with Michael Bernstein’s, as well as Tim Schanetzky’s assessments, although they both tend to stress economists’ (perceived) failure to manage the economy and, thereby, their (perceived) failure in what Bernstein refers to as “statecraft” after the first oil price shock and the subsequent period of stagflation, which prevailing Keynesian economics had troubles explaining. See Bernstein (2001), Schanetzky (2007). Surely, this is a valid point which, together with the unsolved issue of unemployment, tarnished the reputation of economists. Yet we have to keep in mind that, in terms of political influence, economists, especially those promoting the free market, were still quite influential, especially in the US and the UK.

<sup>90</sup> For a more detailed description of this topic, see Murswieck (2003), Thunert (2004), Siefken (2019; 2007), and Patzwald (2008).

<sup>91</sup> Siefken (2019).



large amount of research on the policy advice of economists and other experts.<sup>92</sup> This specific policy style of reliance on experts boosted economists' media visibility even more, as it was primarily targeted at a political field which fell into economists' area of competence. After years of political stagnation, which are summarized by the German word "*Reformstau*" (reform backlog), the Schröder administration launched several far-reaching reforms, known as *Agenda 2010*, which aimed at fundamentally restructuring the welfare state. These reforms especially targeted the labor market and social security, and were intended to break up labor market rigidities, to overcome persistent unemployment, and to trigger economic growth. Accordingly, economic topics, such as social security, unemployment, and public finance, moved into the public eye, which, as we saw at the beginning of this section, was rather beneficial for the GCEE's and other economists' media visibility.

## 5. Conclusion

The aim of this paper was to study the visibility of economists in the media, in order to evaluate whether economists, as it is sometimes claimed,<sup>93</sup> actually have become silent in public discourse. To this aim, I conducted a systematic review of (print) media coverage of economists, both in terms of their quantitative media visibility and the specific features of news stories mentioning economists. First, I conducted a comparison of economists' quantitative media visibility in international newspapers. Second, I presented a case study on the GCEE to provide a more close-up perspective of the characteristics of the way in which this institution is covered by the press. To sum up the main findings, I come to the following three conclusions: 1) Economists' media visibility increased rapidly after World War II. Specific bodies of economic expertise, such as the CEA, the GCEE, and the NBER enjoyed increasing levels of media coverage. In the 1970s and early 1980s, however, the media visibility of these institutions decreased significantly, while the media started to refer more generally to "economists". In case of Germany, we can observe a comeback for economists in the late 1990s and early 2000s, when institutions such as the GCEE once again experienced higher media visibility. 2) Regarding the coverage of the GCEE, we have seen that the way in which journalists write about the Council has changed considerably since it was founded in the 1960s. Although news coverage touched

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<sup>92</sup> The economic literature on this topic that was published in the early 2000s, however, was mostly based on anecdotal evidence from practitioners. One exception from this general observation is the work by Susanne Cassel. Recently, this topic has been taken up primarily by Justus Haucap. See, e.g., Cassel (2001), Haucap and Mödl (2013).

<sup>93</sup> Bernstein (2001).

on a wide range of topics, it predominantly followed the prevailing economic problems. The decrease in media visibility in the 1980s coincided with an increasing focus on economic development, whereas the increase in media visibility at around the year 2000 was mainly associated with news stories on public finance and the social security system. Both turning points also had an impact on news sentiment and temporal perspective. In short, articles became less pessimistic and more future-oriented during the 1980s and somewhat more pessimistic and more past-oriented after 2000. Furthermore, the increase in media visibility in the late 1990s was also driven by a growing focus on individual Council members. 3) Both the turning point of the 1980s and the turning point of the late 1990s can be regarded as broader shifts in how economic experts and experts in general are appraised, which resulted from changes in the perception of how competent experts are at solving major societal issues. In general, the evidence provided in this paper does indeed support the claim that economists have become more silent than they were in the heyday of economic statecraft during the 1960s. The results, however, also show that the narrative of “everything was better in the old days” must be dismissed as too pessimistic. After all, if we accuse someone of being overly silent, we should first ask ourselves whether we are willing to listen in the first place.

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## Appendix

Table A-1 Topics

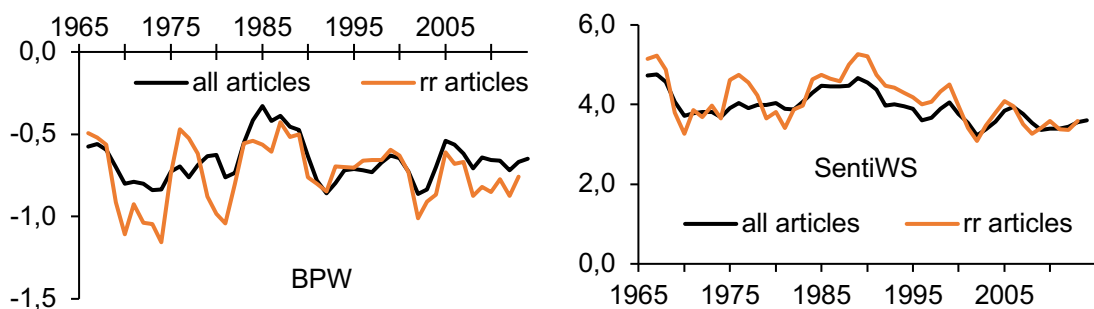
Topic	Share (%)	Main topic	Top 10 terms
1: News Speak 1	5,5	News Speak	gesamtwirtschaftlichen massnahmen sachverstaendigenrat begutachtung oeffentlichen diskussion sachverstaendigenrates moeglichkeit hilfe system
2: News Speak 2	5,1	News Speak	deutsche politiker erfolg alte kampf politik republik geschichte stunde wahrheit
3: News Speak 3	3,7	News Speak	bundesregierung kritik vorsitzende forderte vorschlag warnte sprach ansicht sachverstaendigenrats sachverstaendigenrates
4: Stability Policy	1,9	Single Topics	bundesregierung regierung wirtschaftspolitik massnahmen bundesrepublik sachverstaendigenrates sachverstaendigen wirtschaftspolitischen stabilitaet wirtschafts
5: Industrial Policy	1,5	Single Topics	unternehmen wettbewerb markt industrie internationalen subventionen maerkte staatliche zukunft strukturwandel
6: Businesses 1	1,3	Single Topics	unternehmen firmen mitarbeiter branche industrie arbeitsplaetze manager kunden unternehmer beschaeftigten
7: Economy & Society	0,9	Single Topics	menschen gesellschaft sozialen freiheit bundesrepublik ordnung soziale demokratie solidaritaet system
8: Fiscal Stimuli	0,8	Single Topics	investitionen programm oeffentlichen massnahmen bundesregierung foerderung staatliche private konjunkturprogramm oeffentliche
9: Konzertierte Aktion	0,7	Single Topics	aktion gewerkschaften konzertierten konzertierte dgb schiller unternehmer vetter gruppen arbeitgeber
10: Capital Markets	0,6	Single Topics	aktien anleger boerse bank anleihen aktie kurse markt deutsche boersen
11: Inequality	0,6	Single Topics	einkommen vermoegen gesellschaft ungleichheit soziale armut reichen verteilung bevoelkerung menschen
12: Energy	0,5	Single Topics	kohle energien energie strom energiewende kernenergie energiepolitik bergbau erneuerbaren eeg
13: Higher Education	0,4	Single Topics	studenten hochschulen universitaeten universitaet forschung studiengebuehren studium professoren bwl fakultaet
14: Law	0,4	Single Topics	richter bundesverfassungsgericht grundgesetz urteil verfassung monopolkommission gesetze gericht karlsruhe grundgesetzes
15: Families	0,3	Single Topics	kinder eltern kindern familien frauen kind leyen bildung schueler schulen
16: Environment	0,3	Single Topics	umwelt umweltpolitik oekologische oekologischen umweltschutz oekosteuer wachstum bip wohlstand nachhaltigkeit
17: Real Estate Market	0,3	Single Topics	wohnungen wohnungsbau bau investoren mieten immobilien wohnung markt preise nachfrage
18: Public Opinion	0,3	Single Topics	arbeitnehmer bevoelkerung vermoegensbildung hoffnungen investivlohn stimmung beteiligung allensbacher sparfoerderung vermoegenspolitik
19: Reregulation	0,2	Single Topics	sowjetunion verkehr bahn bundesrepublik nsu moskau bonner kilometer bundesbahn tonnen
20: General Politics	8,5	Policy Speak	politik politische sachverstaendigenrat politischen aufgabe zukunft politisch diskussion meinung FALSCH
21: Reform Speak	2,0	Policy Speak	politik reformen regierung reform bundesregierung wachstum buerger koalition arbeitsmarkt agenda
22: Overall Development 1	3,9	Economic Development	wachstum sachverstaendigenrat investitionen konjunktur rueckgang privaten nachfrage unternehmen prognose real
23: Crisis	2,6	Economic Development	konjunktur wachstum rezession krise deutsche usa unternehmen oekonomen regierung experten
24: Overall Development 2	1,0	Economic Development	oekonomen deutsche bip volkswirte huether chefvolkswirt michael duesseldorf franz hess
25: Industry	0,9	Economic Development	industrie gewerbe produktion unternehmen maschinenbau ausland einzelhandel auftragseingaenge bundesbank auftraege

<b>26: Businesses 2</b>	0,6	Economic Development	unternehmen investitionen gewinne kapital privaten gewinn unternehmer sparen investieren ertrage
<b>27: Organizations</b>	0,5	Economic Development	stoltenberg industrie bdi bangemann rexrodt bundesverband roth deutsche bundeswirtschaftsminister diht
<b>28: Statistics</b>	0,3	Economic Development	statistik statistischen statistische bundesamt volkswirtschaftlichen gesamtrechnung statistiken informationen amtlichen volkswirtschaftliche
<b>29: Money</b>	3,2	Monetary Policy	geld buerger steuern menschen bezahlen sparen regierung bofinger finanzieren peter
<b>30: Inflation</b>	1,3	Monetary Policy	inflation preise bundesbank stabilitaet preisstiegerungen rezession konjunktur konjunkturpolitik nachfrage preis
<b>31: ECB</b>	1,0	Monetary Policy	ezb zentralbank geldpolitik inflation europaeischen notenbank europaeische zinsen issing draghi
<b>32: Bundesbank</b>	0,8	Monetary Policy	bundesbank geldpolitik geldmenge zinsen geld notenbank monetisieren pohl banken zentralbankgeldmenge
<b>33: Currency</b>	0,8	Monetary Policy	dollar wechselkurse waehrung d-mark waehrungen aufwertung internationalen wechsellkurs abwertung waehrungssystem
<b>34: EMU</b>	0,7	Monetary Policy	waehrungsunion europaeischen stabilitaetspakt sanktionen defizit laender stabilitaets pakt kriterien regeln
<b>35: People 1</b>	0,6	Monetary Policy	bundesbank weber weidmann axel praesident bundesbankpraesident jens frankfurt poehl geldpolitik
<b>36: Consumer Prices</b>	0,5	Monetary Policy	preise verbraucher lebenshaltung landwirtschaft teurer agrarpolitik bauern verbraucherpreise nahrungsmittel ertl
<b>37: Oil Price</b>	0,4	Monetary Policy	dollar oel oelpreis preise preis energie oelpreise opec barrel oelkrise
<b>38: Monetary Theory</b>	0,3	Monetary Policy	koehler friedman schwankungen kreditpolitik monetary gesamtsindikator oekonometrischen aktiva claus policy
<b>39: Unemployment</b>	1,6	Job Market	arbeitslosigkeit arbeitsplaetze beschaeftigung arbeit unternehmen arbeitsmarkt loehne nachfrage arbeitslosen produktivitaet
<b>40: Wage Policy</b>	1,2	Job Market	lohnpolitik gewerkschaften loehne arbeitnehmer loohnerhoehungen lohn unternehmen produktivitaet tarifparteien sachverständigenrat
<b>41: Unions</b>	1,1	Job Market	metall arbeitgeber gewerkschaften gewerkschaft tarifrunde streik forderung tarifpolitik gesamtmittel metallindustrie
<b>42: Reforms</b>	1,1	Job Market	arbeit arbeitslosengeld sozialhilfe arbeitsmarkt hartz jobs franz arbeitslose arbeitslosen menschen
<b>43: Unemployment Statistics</b>	0,7	Job Market	arbeit arbeitsmarkt arbeitslosen arbeitslosigkeit bundesanstalt arbeitslose arbeitslosenzahl arbeitsmarktpolitik kurzarbeit nurnberger
<b>44: Social Partners</b>	0,7	Job Market	unternehmen arbeitnehmer gewerkschaften tarifautonomie kundensschutz franz tarifvertrag arbeitgeber tarifparteien regelungen
<b>45: Employees</b>	0,7	Job Market	menschen arbeiten ausbildung jungen wandel arbeit junge aelteren unternehmen frauen
<b>46: Wage Disputes</b>	0,6	Job Market	unternehmer bundesrepublik gewerkschaften arbeitnehmer loderer unternehmern arbeiter gewinne arbeitslosigkeit westdeutschen
<b>47: Minimum Wage</b>	0,4	Job Market	mindestlohn mindestloehne mindestlohns gesetzlichen arbeitnehmer stunde mindestloehnen einfuehrung loehne branche
<b>48: Working Time</b>	0,3	Job Market	arbeitszeitverkuerzung arbeitszeit stunden stunden-woche lohnausgleich verkuerzung wochenarbeitszeit arbeiten arbeitszeiten lücke
<b>49: National Debt</b>	1,8	Public Finance	ausgaben oeffentlichen bund schulden finanzpolitik haushalte investitionen neuverschuldung konsolidierung verschuldung
<b>50: Fiscal Policy 1</b>	1,4	Public Finance	steuern einkommen mehrwertsteuer einkommensteuer steuerreform steuer buerger subventionen steuersenkungen steuerzahler

<b>51: Corporate Taxation</b>	1,1 Public Finance	unternehmen einkommensteuer reform gewinne koerperschaftsteuer kapitalgesellschaften gewerbesteuer besteuern unternehmensbesteuerung steuern
<b>52: Public Budget</b>	1,0 Public Finance	eichel finanzminister waigel bund haushalt steuerschaetzung hans steuereinnahmen bundesfinanzminister einnahmen
<b>53: Federalism</b>	0,7 Public Finance	laender bund laendern bundeslaender bayern finanzausgleich reform baden-wuerttemberg laenderfinanzausgleich finanzkraft
<b>54: Fiscal Policy 2</b>	0,5 Public Finance	besteuerung steuer erbschaftsteuer peffekoven fiskus einkommen besteuert steuerfrei steuerlich erben
<b>55: Public Service</b>	0,4 Public Finance	oeffentlichen dienst beamten post beamte bund dienstes oeffentliche angestellten kluncker
<b>56: Municipalities</b>	0,3 Public Finance	kommunen gemeinden gewerbesteuer staedte kommunalen kommunale bund einkommensteuer staedtetag laender
<b>57: Star Economists</b>	1,3 Economics	oekonomen sinn wirtschaftsforschung schmidt oekonom forschender fuest bofinger instituts diw
<b>58: Theory / Reviews</b>	1,0 Economics	theorie buch oekonomie verlag wissenschaft oekonomischen wirtschaftspolitik autoren oekonomische praxis
<b>59: Research Institutes</b>	0,9 Economics	institut prognosen institute wirtschaftsforschung diw prognose kieler instituts weltwirtschaft ifw
<b>60: Soziale Marktwirtschaft</b>	0,7 Economics	marktwirtschaft erhard ludwig markt wirtschaftspolitik wettbewerb sozialen soziale hickel eucken
<b>61: Demand Policy</b>	0,7 Economics	wirtschaftspolitik nachfrage keynes angebotspolitik flassbeck geldpolitik arbeitslosigkeit politik nachfragepolitik konjunkturpolitik
<b>62: Economics</b>	0,6 Economics	wachstum bundesrepublik wachstums wirtschaftspolitik sozialprodukt wachstumsrate vollbeschaeftigung wirtschaftswachstum volkswirtschaftlichen sozialprodukts
<b>63: Policy Advice</b>	0,6 Economics	beratung wissenschaftlichen beirat wissenschaft wissenschaftlicher wissenschaftliche politikberatung politik politischen politik
<b>64: Merkel</b>	1,6 Politics	spd merkel union cdu koalition steinbrueck fdp angela csu regierung
<b>65: Schröder</b>	1,0 Politics	schroeder spd kanzler gerhard lafontaine regierung bundeskanzler gruenen partei clement
<b>66: Schmidt/Kohl</b>	1,0 Politics	schmidt lambsdorff fdp spd kohl bonner helmut kanzler koalition bundeskanzler
<b>67: Schiller/Strauß</b>	0,7 Politics	schiller strauss karl schillers wirtschaftsminister aufwertung brandt erhard kanzler minister
<b>68: Bundestag</b>	0,6 Politics	bundestag spd opposition koalition bundesrat bundesregierung fdp parlament regierung cdu
<b>69: The World</b>	1,3 International	usa bundesrepublik staaten deutsche laendern laender internationalen vereinigten japan frankreich
<b>70: European Integration</b>	1,0 International	europaeischen europa europaeische wachrungsunion gemeinsame union nationalen gemeinschaft laender mitgliedstaaten
<b>71: US</b>	0,7 International	usa dollar staaten amerikanischen amerikanische amerikaner vereinigten washington praesident amerika
<b>72: Foreign Trade</b>	0,5 International	ausland bundesrepublik aufwertung internationalen zahlungsbilanz auslaendischen inland aussenwirtschaftlichen absicherung aussenwirtschaftliche
<b>73: France</b>	0,4 International	frankreich franzoesischen franzoesische paris frankreichs franzosen praesident hollande bruessel gipfel
<b>74: Switzerland</b>	0,3 International	schweiz schweizer fluechtlinge feld franken deutsche buerger oesterreich zuerich waehrungsreform
<b>75: Council</b>	1,3 GCEE	rat sachverstaendigenrat gutachten sachverstaendigen rates professoren gesamtwirtschaftlichen wiegard begutachtung wirtschaftsweisen
<b>76: Individuals</b>	1,0 GCEE	universitaet professor giersch mitglied herbert donges hax koeln instituts juergen

<b>77: Stützel</b>	0,4 GCEE	professor sievert stuetzel schaefer kloten giersch bauer olaf mitglied glastetter
<b>78: Siebert</b>	0,4 GCEE	siebert horst weltwirtschaft politik instituts praesident mitglied kiel volkswirtschaft kieler
<b>79: Female Members</b>	0,4 GCEE	mauro frauen buch beatrice frau manager claudia fuehrungskraefte schnabel aufsichtsrat
<b>80: Rürup</b>	0,4 GCEE	ruerup bert maschmeyer awd ruerups kommission darmstadt darmstaedter carsten berater
<b>81: Euro Crisis</b>	1,6 Financial Crisis	griechenland schulden spanien laender staaten europa krise italien staatsanleihen euro-zone
<b>82: Banking Crisis</b>	1,0 Financial Crisis	banken krise finanzkrise bank kredite bankenaufsicht finanzmaerkte aufsicht regulierung eigenkapital
<b>83: Financial Institutes</b>	0,4 Financial Crisis	bank banken sparkassen landesbanken deutsche frankfurt commerzbank bargeld dresdner kreditinstitute
<b>84: People 2</b>	2,0 People	mitarbeiter amt frau arbeit chef berater politik kollegen jaehrige nachfolger
<b>85: People 3</b>	0,8 People	hans praesident vorsitzender cdu karl vorstandsmitglied gmbh geschaeftsfuehrer chef dieter
<b>86: Pension Insurance</b>	1,3 Social Security	rente rentenversicherung rentner alter gesetzlichen altersvorsorge beitraege ruerup riester arbeitnehmer
<b>87: Health Insurance</b>	0,8 Social Security	kassen krankenversicherung krankenkassen versicherten gesetzlichen buergerversicherung schmidt beitraege reform patienten
<b>88: Nursing Insurance</b>	0,5 Social Security	pflegeversicherung leistungen bluem arbeitslosenversicherung beitraege sozialversicherung arbeitnehmer pflege sozialen arbeitgeber
<b>89: Relations</b>	0,8 Eastern /Western Germany	osten ostdeutschland westen bundeslaendern ost ostdeutschen westdeutschland laendern westdeutschen einheit
<b>90: Monetary Union</b>	0,4 Eastern / Western Germany	ddr bundesrepublik waehrungsunion schneider d-mark einheit wirtschafts kohl marktwirtschaft pohl
<b>91: Unknown 1</b>	0,4 Unknown	staatssekretaer wirtschaftsministerium ministerium airbus minister wirtschaftsminister industrie baden nordrhein spaeth
<b>92: Unknown 2</b>	0,3 Unknown	opel chef ausblick lufthansa franz bahn peter insolvenz guttenberg porsche
<b>93: Unknown 3</b>	0,3 Unknown	stadt region handwerk frankfurt darmstadt handwerksordnung landesregierung stuttgart ihk handwerks
<b>94: Unknown 4</b>	0,2 Unknown	vereine anda buehne verbaende springer journalisten schauspieler urlaub landeswirtschaftsministerium chefredakteur
<b>95: Unknown 5</b>	0,2 Unknown	meyer dahrendorf planung phillips indexklauseln indexierung forstwirtschaft bestimmung privaten sparerschutzgemeinschaft

**Figure A-1 Sentiment scores**



Notes: rr articles = articles published in a three-week window after the publication of a GCEE annual report. Three-year centered moving averages. Author's own calculations based on dictionaries by Bannier et. al (2018), Remus et al. (2010).

**Table A-2 References to Council Members in GCEE Corpus (1965-2015)**

Member	Term of office	# Articles mentioning member X		
		Total <sup>a)</sup>	During term of office <sup>b)</sup>	After term of office
Rürup, Bert*	2000-09	1.273 (10,1%)	989 (26,9%)	261
Giersch, Herbert	1964-70	383 (3,1)	127 (15,7)	256
Feld, Lars P.	since 2011	235(1,9)	225 (14,3)	-
Köhler, Claus	1969-74	164 (1,3)	112 (13,5)	47
Bofinger, Peter	2004-19	650 (5,2)	612 (13,5)	-
Franz, Wolfgang 2*	2003-13	735 (5,9)	536 (13,1)	21
Kloten, Norbert*	1969-76	192 (1,5)	153 (12,1)	34
Krupp, Hans-Jürgen	1982-84	98 (0,8)	35 (12,0)	50
Schneider, Hans Karl*	1982-92	240 (1,9)	192 (11,0)	47
Pohl, Rüdiger	1986-94	242 (1,9)	175 (10,7)	62
Schäfer, Manfred	1968-70	88 (0,7)	50 (10,5)	36
Meyer, Fritz W.	1964-66	30 (0,2)	12 (10,4)	18
Wiegard, Wolfgang*	2001-11	453 (3,6)	426 (10,4)	17
Siebert, Horst	1991-03	411 (3,3)	325 (9,6)	65
Buch, Claudia	2012-14	91 (0,7)	74 (9,1)	7
Franz, Wolfgang 1	1994-99	735 (5,9)	110 (8,9)	66 <sup>c)</sup>
Schmidt, Christoph M.*	2009-2020	204 (1,6)	195 (8,5)	-
Hax, Herbert*	1989-00	256 (2,0)	220 (8,3)	31
Peffekoven, Rolf	1991-01	278 (2,2)	199 (7,8)	77
Wieland, Volker	since 2013	110 (0,9)	62 (7,8)	-
Mertens, Dieter	1984-86	54 (0,4)	22 (7,6)	14
Schnabel, Isabel	2014-2019	42 (0,3)	28 (7,2)	-
Bauer, Wilhelm*	1964-74	121 (1,0)	112 (6,9)	9
Weder di Mauro, Beatrice	2004-12	282 (2,2)	215 (6,9)	54
Donges, Juergen B.*	1992-02	274 (2,2)	182 (6,8)	76
Glastetter, Werner	1979-81	62 (0,5)	17 (6,7)	41
Gutowski, Armin	1970-78	121 (1,0)	80 (6,4)	34
Sievert, Olaf*	1970-85	260 (2,1)	148 (6,4)	101
Issing, Otmar	1988-90	148 (1,2)	26 (6,0)	113
Helmstädter, Ernst	1983-88	122 (1,0)	48 (5,9)	67
Kromphardt, Jürgen	1999-04	141 (1,1)	99 (5,8)	18
Koch, Harald	1964-69	64 (0,5)	36 (5,7)	28
Fels, Gerhard	1976-82	103 (0,8)	47 (5,5)	54
Stützel, Wolfgang	1966-68	144 (1,1)	20 (5,1)	124
Albach, Horst	1978-83	56 (0,4)	30 (4,2)	22
Binder, Paul	1964-68	29 (0,2)	18 (4,1)	11
Weber, Axel	2002-04	206 (1,6)	34 (4,0)	167
Scherhorn, Gerhard	1974-79	40 (0,3)	25 (3,3)	12
Hesse, Helmut	1985-88	47 (0,4)	21 (2,9)	24
Pohmer, Dieter	1984-91	49 (0,4)	36 (2,9)	11
Schmidt, Kurt	1974-84	57 (0,5)	40 (2,7)	15

Notes: <sup>a)</sup> Numbers in parentheses = proportion in all articles; <sup>b)</sup> Period of office between 1965 and 2015, numbers in parentheses = proportion in all articles published during period of office; <sup>c)</sup> Articles published between first and second term of office.; \* chairman. Source: own survey.