

A draft prepared for presentation at the LSEUPR Annual
Undergraduate Conference 2021

When is the Supreme Constitutional Court stepping in? Investigating patterns of judicial response in Germany.

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Abstract: I suggest that the German Federal Constitutional Court supported a broad public debate catalyzed by recent European crises by processing selected constitutional complaints in the Senate. Since the GFCC cannot pass and enforce its bills *de jure*, it must maintain a high reputation to have a continuous impact on political affairs *de facto* (Dothan, 2015). Ergo, by bringing selected cases to public notice, the Court can demonstrate its proactive engagement with critical social concerns and maintain its prestige. I employ a cutting-edge methodology – dynamic keyword-assisted topic models by Eshima, Imai, and Sasaki (2020) – to investigate this proposition. I discover increased likelihood of micro- and macro-economic issues during the global economic crisis and the European refugee crisis. I also observe a higher probability of cybersecurity issues around the crisis time. So, this work's key finding posits that the supreme judicial institution in Germany appears responsive to major international

cooperation failures, which casts a new glance on reciprocal relationships among judiciaries, citizens, and policymakers.

Keywords: Law & Politics, Constitutional Courts, Public Opinion, keyATM

Introduction

Do salient international events change the substance of issues that are dealt with in constitutional courts? From 2000 on, European societies were benchmarked by two rapid socio-economic developments – the economic crisis of 2008 and the European refugee crisis – that continue shaping the main players' behavior on the European political stage and echo in public opinion. The German Federal Constitutional Court (GFCC), one of the most powerful judicial institutions in Europe, could not remain on the sidelines of these processes and leave the public opinion shifts in Germany to go unrecognized, fearing high reputational costs otherwise.

The proposed responsiveness should be viewed as a quantified Court's reaction to salient social issues rather than the plaintiffs' demands in a numerical sense. As the GFCC does not release annual statistics on received complaints by topic, I could not estimate the exact number of complaints and determine the shares of claims related to distinct issue profiles. So, since no data is currently available on how many constitutional complaints were entering the Court each year, I rely on a *restrictive definition* of responsiveness in this work.

I suggest that the GFCC supported a broad public debate catalyzed by recent European crises by processing selected constitutional complaints in the Senate. Since the GFCC – the Supreme Constitutional Court in a limited-power political system – cannot pass

and enforce its bills de jure, it must maintain high social renown to have a continuous impact on political affairs de facto (Dothan, 2015). And like democratic governments, which ought to respond to the electorate's changing demands with political actions, *a responsive Constitutional Court serves its citizens by reacting to the public sentiment with available legal instruments.*

In its institutional design, the Federal Constitutional Court in Germany significantly differs from the Supreme Court in the United States since the former does not officially take over the docket control (Hönnige & Gschwend, 2010). Instead, the GFCC often acts strategically, i.e., it carefully selects cases to call for public attention via press releases, undertakes decisions in Senates rather than chambers, and schedules oral hearings to enforce its proposals (Kranenpohl, 2010). Thus, by turning the spotlight on constitutional complaints, which address salient public issues, the GFCC can demonstrate its engagement with the most well-pronounced fundamental rights' issues and, consequently, reduce the gap between jurisdiction and law implementation without having a political lever.

During severe international crises, the Court will likely emphasize relevant constitutional complaints and schedule the most notable ones for further discussion in the Senate. Constitutional complaints, which have landed in the Senate for additional debates, subsequently receive considerable political and media attention, nurturing the Court's reputation as a trustee and a loyal protector of its citizens' prime interests.

Theoretical and empirical literature, however, does not grant this particular linkage with special attention, focusing either on the interactions between Courts and governments (Tsebelis' veto-player school; separation-of-power models (Tsebelis, 2011)) or national

audiences and policymakers (Putnam's two-level bargaining approach (Putnam 1988)) but not among three actors simultaneously. The latter seems, though, especially relevant in light of recent European economic and migration crises, as many German residents felt personally affected by the critical situation at that time and sought protection of their perceived endangered fundamental rights in the Supreme Constitutional Court, e.g., personal freedoms and security, reduction of government assistance (Wike et al., 2016). Ergo, issues that have emerged during those climacteric events for the German society can come up as distinguished topics in the Court's self-selected cases, i.e., Senate-processed complaints. I will employ a cutting-edge methodology – *dynamic keyword-assisted topic models* from Eshima, Imai, and Sasaki (2020) – to investigate this proposition.

Looking into the topic composition and so understanding the material substance of constitutional complaints will, on the one hand, cast *a novel perspective on the linkage between Constitutional Courts and public opinion*. On the other hand, using *international crises as random shocks for causal identification* via topic models will extend the methodological pool of tools available for the empirical assessment of reciprocal relationships among citizens, law, and politics.

Constitutional Complaints not Only About the Constitution

Even though constitutional complaints are by far the most common judicial procedure carried out by the German Federal Constitutional Court, they have not yet received much attention from political scientists. The official Commentary to the German Constitution (*Grundgesetz*) assigns a specific value to constitutional complaints both in *subjective-individual* and *objective-juridical* senses (Commentary to the Art. 93 GG,

Schmidt-Bleibtreu et al., 2011). While the former refers to the immediate protection of the individual's basic rights by the Court, the latter introduces a larger-scale phenomenon rooted in constitutional complaints – the *general education effect* – that has broader political implications (see § 78 S. 2 BVerfGG). The *general education effect* denotes the Court's endeavor to "educate" or guide the addressee of an admitted complaint, i.e., the German Federal government, in the direction indicated by the plaintiff (see § 78 S. 2 BVerfGG). Put differently, through the GFCC German residents can indirectly inform the incumbent government about specific policy areas where the present state actions are unsatisfactory, so regularly update the agenda.

The GFCC directly influences what will be communicated with constitutional complaints by executing the formal examination procedure for every reported case. It is carried out as follows: the GFCC first conducts the concrete review of statutes, which consists of *admission* and *substantiation checks*, in its chambers; then, if no unanimous verdict can be internally reached, the respective complaints are transferred to the Senate where all eight constitutional judges must come to a mutual agreement (Commentary to the Art. 93 GG, Schmidt-Bleibtreu et al., 2011). By this means, *the Court self-selects the most controversial constitutional complaints and brings them to public notice*, publishing press releases on the official website of the GFCC.

Apart from a sophisticated decision-making procedure and a remarkably low success rate of approximately 2%, constitutional complaints represent a special type of Court proceedings because any person independent of their nationality can lodge a constitutional complaint *to assert their fundamental rights vis-à-vis the state*, according to the official statement of the GFCC. Such a no-limit policy was proven to create various

incentives for the plaintiffs – an issue, which was brought up quite recently by Thierse (2020). Thierse proposes that four motivations guide the complainants in their decision to approach the GFCC: interest communication, conflict regulation, mobilization of law, and the *desire to change or protect the status quo depending on individual preferences* (Thierse, 2020; Hilson, 2002; McCown, 2005; McCann, 2016).

The principal incentive behind the submission of constitutional complaints *does not add up to producing relevant political decisions from scratch but rather supplementing existing political strategies* that distinct groups of citizens commonly use to articulate their preferences, e.g., protesting or lobbying (Thierse, 2020). The GFCC's room for maneuver is thus sufficiently constrained by the checks-and-balances mechanism that safeguards German politics from *judicialization* (Hönnige & Gschwend, 2010). Consequently, the Federal Constitutional Court in Germany, like many Constitutional Courts in the limited-power political systems, must rely solely on influence through maintaining a high reputation (Vaubel, 2009). The importance of prestige for Constitutional Courts was cultivated in the economic strand of literature, e.g., the European Court of Justice's *supreme and vested interests* towards political centralization (Vaubel, 2009).

The *reputational argument* from Vaubel et al. is backed by Stefan Thierse who argues that not only the prestige in the eyes of national governments shapes the behavior of the GFCC but also *public opinion* (Thierse, 2020). Thus, for the constitutional complaints submitted in the last twenty years, it appears pivotal to have extensive public support that paves the way into the Senate. Should this requirement be satisfied, *ample public support will foster political mobilization and enforcement of laws* debated in the GFCC (Thierse, 2020). So, as the enormous fluctuations of the public response to two of

Europe's most salient crises of the 21st century were acknowledged by foreign observers (see Peter Hall's review "The Euro Crisis and the Future of European Integration" (2016) for a more detailed analysis), they could not remain unnoticed by the German Federal Constitutional Court as well.

We further learned from Wlezien's *thermostatic model* that the issue coverage on the political stage always remains dynamic, changing with shifts in public sentiment and policy (Wlezien, 1995; Stimson et al., 1995). Wlezien's crucial finding remains that *citizens respond to the perceived international changes in the direction of desired policies* but the entire chain of responsiveness – citizens respond to political developments, the Court reacts to public opinion shifts, and the government receives impulses from the national judiciary – has neither been theoretically conceptualized nor empirically addressed yet. I will address this issue and construct a sound theoretical framework for assessing the linkage between public opinion changes and the judicial response system. Second, I will incorporate the dynamic nature of public sentiment into topic models based on the keywords associated with major social issues both in the EU and Germany, drawing a parallel with Eshima et al. (2020) and their methodological approach to the Supreme Court in the United States.

The GFCC as a Social Mirror: Concepts and Definitions

The protection of citizens' primary interests vis-à-vis the German state belongs to the Supreme Constitutional Court's foremost priority. During severe crises directly affecting distinct social groups, the protectionist function of the GFCC gains additional importance for the citizens while the public concerns about social and economic security rise. As the state fails to smooth negative externalities for everybody, the most

concerned German residents decide to demand direct protection from the GFCC. Thus the Court receives more constitutional complaints, which reflect social insecurities exacerbated by crises, and responds by granting relevant public issues with a special attention credit in the Senate. Hence, *the GFCC consciously processes more issues related to ongoing crises in the Senate than other topics, emphasizing the salience of urgent public concerns*. The Court actively engages with the most salient social problems and appears responsive towards citizens. The GFCC also shows participation in political affairs and can maintain a high social reputation and influence.

The above theoretical construct applies if three critical assumptions are made about the relationship between the GFCC and German residents.

Collective Actor Assumption The German Federal Constitutional Court is viewed as a collective actor, so I do not consider the Senate decisions upon constitutional complaints a result of individual choices of constitutional judges based on their preferences. Instead, by scheduling selected complaints for further discussion in the Senate, the GFCC rather expresses a collective preference, which consists of maintaining a high reputation in the eyes of citizens and the government.

Generalization of Means The specific type of a constitutional complaint – individual or organizational (mass) – will be neglected in the proposed theoretical framework. This assumption is necessary because the plaintiffs who manage to reach the Senate are expected to address broader social attitudes at the submission time rather than individual situational concerns. Thus, it does not seem plausible to explicitly differentiate between constitutional complaints submitted by individuals and those filed by interest groups or firms since all of them belong to the public opinion.

Binary Response Assumption Lastly, as already mentioned before, I assume that the GFCC can respond to salient social concerns rather than the complainants' demands. So, the GFCC's response to the public opinion shifts during the immediate outbreak and in the aftermath of critical international events – manifestations of cooperation failures – is a dichotomous concept, i.e., either the Court reacts by scheduling more complaints dealing with salient social issues to the Senate or it does not. The increased response will translate into higher posterior topic probabilities in the topic modeling framework, but I will elaborate on it in the next section.

Following the assumptions specified above, I argue that the GFCC will prioritize expressed social insecurities related to major international events at the time or shortly after they emerge in the broader public. Therefore, *we are more likely to observe security issues processed in the Senate in the outbreak of a major crisis rather than during relatively stable periods (Hypothesis 1).*

Further, I expect German residents to stress economic issues during crises, as the economy represents a crucial dimension of responsiveness that governments are held accountable for (Kayser & Wlezien, 2011). Specifically, during the European refugee crisis, citizens perceived more terrorism and severe economic fears, e.g., financial instability (Wike et al., 2016; Ivanov & Stavrinoudis, 2018). In a nutshell, *given that European economic and refugee crises put the economic welfare of German citizens in danger, we are more likely to observe economic issues in constitutional complaints around crisis time, as compared to relatively stable periods (Hypothesis 2).*

In addition to the very natural need for more economical protection, citizens might feel privately insecure during crises. Personal fears are particularly relevant for the

public opinion towards the recent migration crisis because refugees' perceived identity was negatively influenced by their belittling portrayals in German social media and radical political right-wing (Rettberg & Gajjala, 2016), leading to multiple integration problems and complaints (Bash, 2006). Thus, *given the perceived threat of cultural and integration barriers during the European refugee crisis, we are more likely to observe migration issues in constitutional complaints around crisis time, as compared to relatively stable periods (Hypothesis 3).*

In sum, while Hypothesis 1 frames the general pattern of the Court's responsiveness to salient social issues, Hypotheses 2-3 reveal the content of issues, which I expect to discover in the complaints' texts. Thus, the probability of each topic identified in the complaints must be analyzed along the time dimension to show that either the GFCC is more likely to process respective issues in the Senate around the crisis time or it remains indifferent to public opinion shifts during social turmoil.

Obtaining Data from the German Federal Constitutional Court

As the GFCC does not release information upon all constitutional complaints, including non-admitted submissions, I could access only Senate decisions. So, I utilized the data set from Engst et al. (2019), containing Senate-processed complaints from 1958-2017 and subsetting it for all Senate decisions upon constitutional complaints submitted to the German Federal Constitutional Court 2000-2017. All decisions stored in the data set *at least entered the admission review procedure and did not reach a unanimous verdict by constitutional judges in the respective Court chamber.* As argued earlier, such complaints are theorized to reflect the most salient and controversial social issues, which were intentionally made public by the GFCC to show responsiveness and maintain prestige.

So, I will analyze 254 original texts, which will be restructured to a corpus, and split into single words, using the “quanteda” R-package for quantitative text analysis. I will further exclude an extended list of German stopwords, i.e., auxiliary words that do not add meaning to the sentence alone (Pradana & Hayaty, 2019). Neither do they significantly affect model performance (Pradana & Hayaty, 2019). Regarding the stopwords, please refer to Appendix I to access the complete list of stopwords that I defined additionally to the standard German filler words from the “quanteda” R-package. Also, note that German special characters, i.e., *ä*, *ö*, *ü*, *ß* were replaced by their two-letter equivalents *ae*, *ao*, *au*, *ss* to overcome the encoding issues. Lastly, the final data set is structured as follows: a unique id (from one to 254), the decision date (in the ascending format DD-MM-YYYY), and the substantive decision text, which starts after the preamble “the decision formula is:”.

Designing a KeyATM to Explore the Substance of Constitutional Complaints

The empirical review of my hypotheses is organized as follows: first, I will introduce and design extended topic models, which enable incorporating theoretical expectations as keywords, to test whether economic and socio-cultural concerns of German residents appear as most frequent words found in the complaints’ texts. I will then assess the hypothesized causal relationship between the submission time and covered issues in the analysis section.

As mentioned earlier, I choose a dynamic topic model from Eshima et al. (2020) that casts a glance into the material substance of issues processed in the Court’s Senate

2000-2017. Topic models as an empirical instrument for quantifying textual data are primarily designed to *enhance the substantive understanding of human-made documents* (Blei et al., 2003), which in this paper are the constitutional complaints landed in the Court's Senate. However, most yet implemented topic-modeling strategies appear sub-optimal for conducting unified validity checks because they lack scalability and so, objectivity (Eshima et al., 2020).

The crucial innovation of keyword-assisted topic models proposed by Eshima et al. (2020) is the *model's ability to specify keywords derived from hypotheses prior to the empirical analysis*, which helps to avoid speculation and post hoc labeling of topics by the researcher. For this reason, the authors explicitly differentiate between topics K , which contain a set of keywords L_k defined by using substantive theoretical knowledge and those, which do not and, therefore, have less impact on the final prediction (Eshima et al., 2020). Consequently, the *no-keyword topics* are based on a distribution with positive probabilities for all words, while the *keyword topics* are sampled from a distribution with positive probabilities only for the keywords (Eshima et al., 2020). So, instead of using one statistical distribution for all topics and giving up control over the topic assignment, the keyATMs allow for *more focused research by framing the topics with keywords*.

Further, I define the keywords as broadly as possible, following Eshima et al. (2020) who choose between two and three keywords in their model setup manual for R. These keywords should *only hint at the direction for a topic but not ad hoc reveal its content*, which would sufficiently limit the objectivity of results. As I am interested in particular social concerns mobilized by crises, I define four keyword topics \tilde{K} (keywords are displayed

in *italic*):

1. Security: *danger, person*
2. Economy of the European Union: *euro, union*
3. Economy of firms: *firm, protection*
4. Population Mobility: *placement, extradition*

Keywords in topic one are derived from the first hypothesis, which anticipates more perceived social insecurities during crises and, in general, a higher probability of security issues in constitutional complaints around that time. Topics 2-3 are designed to test the second hypothesis concerning mobilized economic issues due to European crises. Thus, the likelihood of topic 2 – Economy of the European Union – should increase after 2008-2009 with the global economic crisis and peak again around 2015 with the European refugee crisis outbreak. Topic 3 grasps economic issues at the micro-level and checks whether German producers and service deliveries follow a similar pattern in their crisis response. Topic 4 hints towards entree regulation and migration politics, which might support hypothesis 3, suggesting that the public demanded a change in this policy area. Again, the keywords were derived as Eshima et al. (2020) recommend “to carefully select relevant keywords that occur in the corpus of interest at a reasonable frequency”, so are not too specific but convey a substantive direction of a topic.

I also allow for nine no-keyword topics K that can occur in the text of constitutional complaints, even though this number does not significantly affect the model performance for the keyword topics (Eshima et al., 2020). The ATM’s relative insensitivity

towards the quantity of non-keyword topics originates from two distinct distributions mentioned above. The overall number of topics (13) also builds on the “Allocation of competences within the Senates”, which names thirteen specific cases for constitutional complaints. Since each of four anticipated topics already has a label, there should be no need to post-hoc interpret the topics. Also recap that I use a dynamic extension of the keyword-assisted topic model and define four periods t , where each constitutional complaint d belongs to one of these periods $t[d] \in \{1, \dots, 4\}$:

- 2000-2007 (before the economic crisis);

→ *transition 1*

- 2008-2009 (global economic crisis);

→ *transition 2*

- 2010-2014 (in-between time);

→ *transition 3*

- 2015-2017 (European refugee crisis).

no transition, considered ongoing

I determine periods to take account of the public opinion dynamics and changing socio-economic constellation along the time dimension. I follow Eshima et al. (2020) and also allow for *one-step forward transition*, i.e., four aforementioned periods are linked to each other through three transitions denoted by r . The transition step is pivotal for acknowledging that *the probability of each hypothesized topic in a constitutional complaint evolves over time*. Consequently, the likelihood of transition is distributed

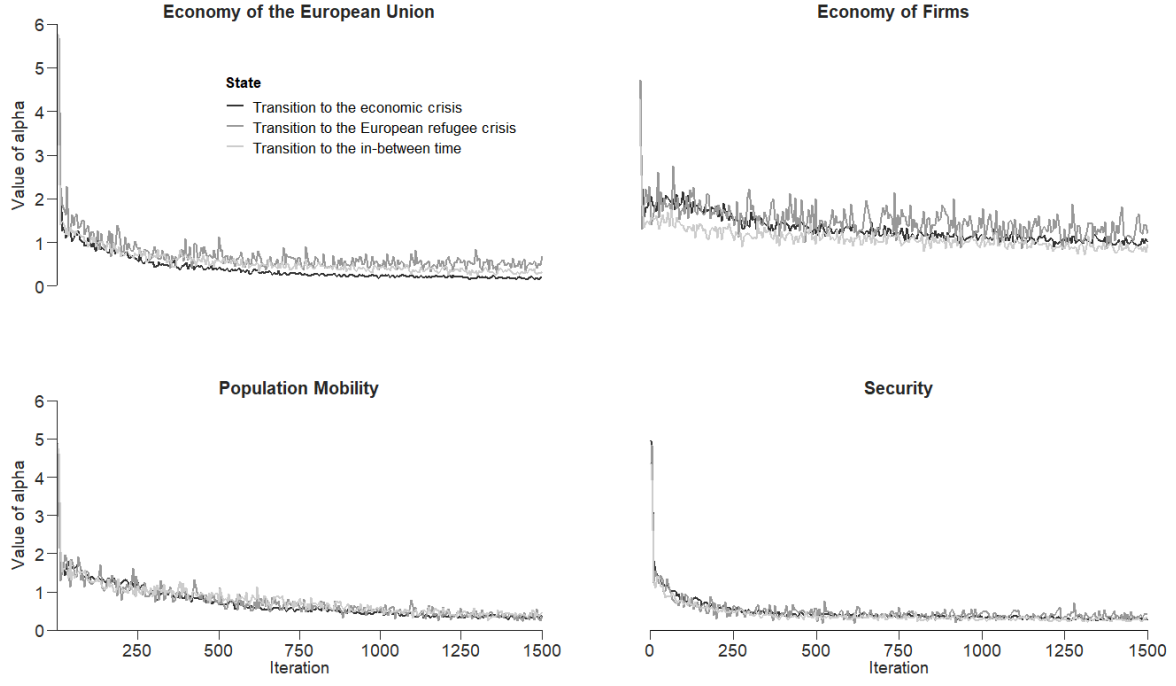


Figure 1: Variation of α for detected keyword topics in three latent states

uniformly, i.e., either zero for no-keyword topics or one for keyword topics, which will be later reflected by the η parameters. Time variability leads us to the following (selected) equations that explain computation of the posterior mean of document-level topic proportion (following Eshima et al., 2020):

$$\alpha \stackrel{i.i.d.}{\sim} \Gamma(\eta_1, \eta_2) \quad (1)$$

$$\mathbf{E}(\theta_{dk}|\mathbf{w}) = \mathbf{E} \left[\frac{\alpha_{h_t[d],k} + \eta_{dk}}{\sum_{k=1}^K \alpha_{h_t[d],k} + \eta_{dk}} \middle| \mathbf{w} \right] \quad (2)$$

$$\frac{1}{N_t} \sum_{D \in d_t} \mathbf{E}(\theta_{dk}|\mathbf{w}) \quad (3)$$

From equation (1), one can infer that θ_{dk} changes over time, as α varies over the total

of latent states or transition points $R = 3$. The priors η_1 and η_2 represent parameter vectors over words for each topic (or *topic-word distribution*), which we will need to approximate α . Equation (2) describes the calculation of an expected posterior document-topic distribution θ_{dk} for each constitutional complaint conditional on words \mathbf{w} belonging to the topics (\mathbf{w} was calculated before using the collapsed Gibbs sampler). Lastly, equation (3) tackles the mean θ_{dk} per year, so incorporating the dynamic trends that I am primarily interested in. Note that equation (3) simply calculates an average θ_{dk} defined on each time point t , i.e., the year of submission. D_t represents the set of complaints submitted during year t and $N_t = |D_t|$ is the annual quantity of complaints. Resulting from the above equations, the posterior probabilities of particular issues in constitutional complaints can evolve with critical international events in line with my theory, which I will show in the next section.

What Can We Learn about the GFCC from the Posterior Topic Probabilities?

As introduced earlier, I investigate the Court's response patterns to major crises in a dynamic keyword-assisted ATM framework from Eshima et al. (2020). I first check whether my assumptions hold in Figure 1 and explore the average model predictions for the document-level topic distribution θ_{dk} in Figure 2. I then discuss whether my theoretical expectations are supported by the empirics so that *the likelihood of four keyword topics to come up in constitutional complaints increases as the crisis breaks out*.

If topic prevalence does change over time, we should observe a high variance of α among three different latent states so that, e.g., estimated prevalence of topic "Economy

of firms” before the economic crisis and relative to all the documents in the GFCC corpus sufficiently deviates from comparable estimates during more stable in-between time. Figure 1 supports this crucial assumption, showing that topic prevalence, indeed, fluctuates around different states since three lines depicting latent states do not approximate each other. The importance of defining a time-sensitive prior α before computing the posterior topic probabilities θ_{dk} is especially visible in the upper-right panel of Figure 1 that represents micro-economic issues addressed in constitutional complaints. Hence, looking at cross-temporal deviations of topic prevalence in Figure 1 allows drawing a preliminary conclusion that *a dynamic time-dependent framework represents a more appropriate choice to model the Court’s Senate decisions upon constitutional complaints than other time-agnostic models*. After I have shown that modeling legal texts requires a dynamic time component, I turn to the content of four topics identified by the keyword-assisted ATM. I present ten most frequent words translated into English for each keyword topic that I derived from Senate decisions upon constitutional complaints during 2000-2017 in Table 1. However, it is worth mentioning that the most common words from discovered topics *only provide the first descriptive overview of their substance*, which is strongly influenced by the context of given keywords.

For instance, the topic “Security” in constitutional complaints already deviates from its conventional interpretation – personal or private security – towards the information protection, so a much narrower definition of security predominantly in the virtual space.

	Economy of the EU	Economy of firms	Population mobility	Security
1	European (pl.)	protection	STGB (en. "The Penal Code")	data
2	union	legal	preventive custody	STPO (en. "German Code of Criminal Procedure")
3	member states	firm	placement	danger
4	euro	lawmaker	resolution	crimes
5	German (pl.)	persons	imprisonment	affected
6	AEUV (en. "Treaty on the Functioning of the European Union")	private	penalty	information
7	European (sing.)	attacked	handling	actions
8	Court of Justice	health insurance	decision	BKAG (en. "Federal Criminal Police Office Act")
9	Germany	ban	verdict	requirements
10	article	public	arrangement	person

Table 1: The most frequent words in Senate decisions

Another intriguing case that one can infer from Table 1 is the topic "Population mobility", from which I expected to cover issues related to the immediate transfer of refugees. The most common words attributed to this topic, however, rather indicate a broader link to the penalty regulation and movement restrictions (imprisonment) than specific migration issues. Nonetheless, the topic "Economy of the EU" is dominated by the judicial and economic connections between Germany and the European Union as anticipated. Lastly, the topic "Economy of firms" goes in the hypothesized direction and likely covers issues related to legal protection of domestic firms or international firms operating in Germany, private and public services, including the health insurance providers.

Overall, from the topics' most frequently used terms conveyed in Table 1, I infer that the keywords defined earlier in this paper still leave much space for interpretation and

unanticipated dependencies, which constitutes a significant limitation of this work. So, I proceed with the dynamic analysis of predicted issue likelihood to explore more straightforward trends.

I present the mean posterior topic probabilities per year calculated, as shown in equation (3) in Figure 2. I view Figure 2 as the *prime graphical evidence that reveals both strengths and weaknesses* of my theoretical approach. I further distinguish between two types of areas in the plot legend: dark-shaded regions, which depict the exact crisis time, and light-shaded areas, which incorporate salient international events other than the global economic crisis of 2008-2009 and the European refugee crisis. I also included dashed lines to depict relevant European developments that lasted less than a year, e.g., implementing a particular law that might have induced the Court's response. Thus, Figure 2 incorporates both the *immediate results of hypothesis testing concerning two specific crises* (dark-shaded areas) and *an extended proposition of the GFCC' response patterns to salient international issues* (light-shaded areas and vertical lines). Regarding three hypotheses of the Court's response to crises formulated earlier in this paper, I report the following trends:

1. The likelihood of observing security issues (lower-right panel of Figure 2) in Senate-processed constitutional complaints peaks in 2008, which correlates with the economic crisis outbreak. The predicted average topic probability starts increasing again in 2015 and peaks in 2016 during the European refugee crisis. These findings *support the first hypothesis of prioritized security issues during crises but under a very narrow definition of security – safety in cyberspace.*
2. The likelihood of the topic "Economy of firms" (upper-right panel of Figure

- 2) starts increasing around 2007 and reaches its maximum in 2009 during the economic crisis. It also shows a continuous increase since 2015, accompanied by the migration crisis. Again, *positive trends in posterior probabilities seem to complement the second hypothesis, but I do observe other peaks as well.* Hence, two specific crises do not solely determine the likelihood of observing economic issues at the micro-level.
3. At the macro-economic level (upper-left panel of Figure 2), one can note that European affairs started gaining the Court's attention in 2008 and peaked in 2010, following the economic crisis of 2008-2009. In 2015, the likelihood of macroeconomic issues started increasing again and hit its maximum in 2016-2017 – in the middle of the European refugee crisis. Thus, *the second hypothesis of more credit to economically motivated constitutional complaints during crises is underpinned by evidence at the macro-level.*
4. Lastly, as the topic "Population mobility" (lower-left panel of Figure 2) does not seem to reflect refugee issues but broader public concerns over criminality, *I do not find support for the third hypothesis of prevalent social and cultural issues during crises.*

Nevertheless, I argue that the public discussion over issues dealing with personal freedoms and penalties (lower-left panel of Figure 2) is still subject to judicial response at distinct periods. For instance, we observe a local maximum in 2004, probably resulting from the European Union's enlargement and two more peaks in 2011 and 2013, which might be fueled by executing European entry arrangements. These implications

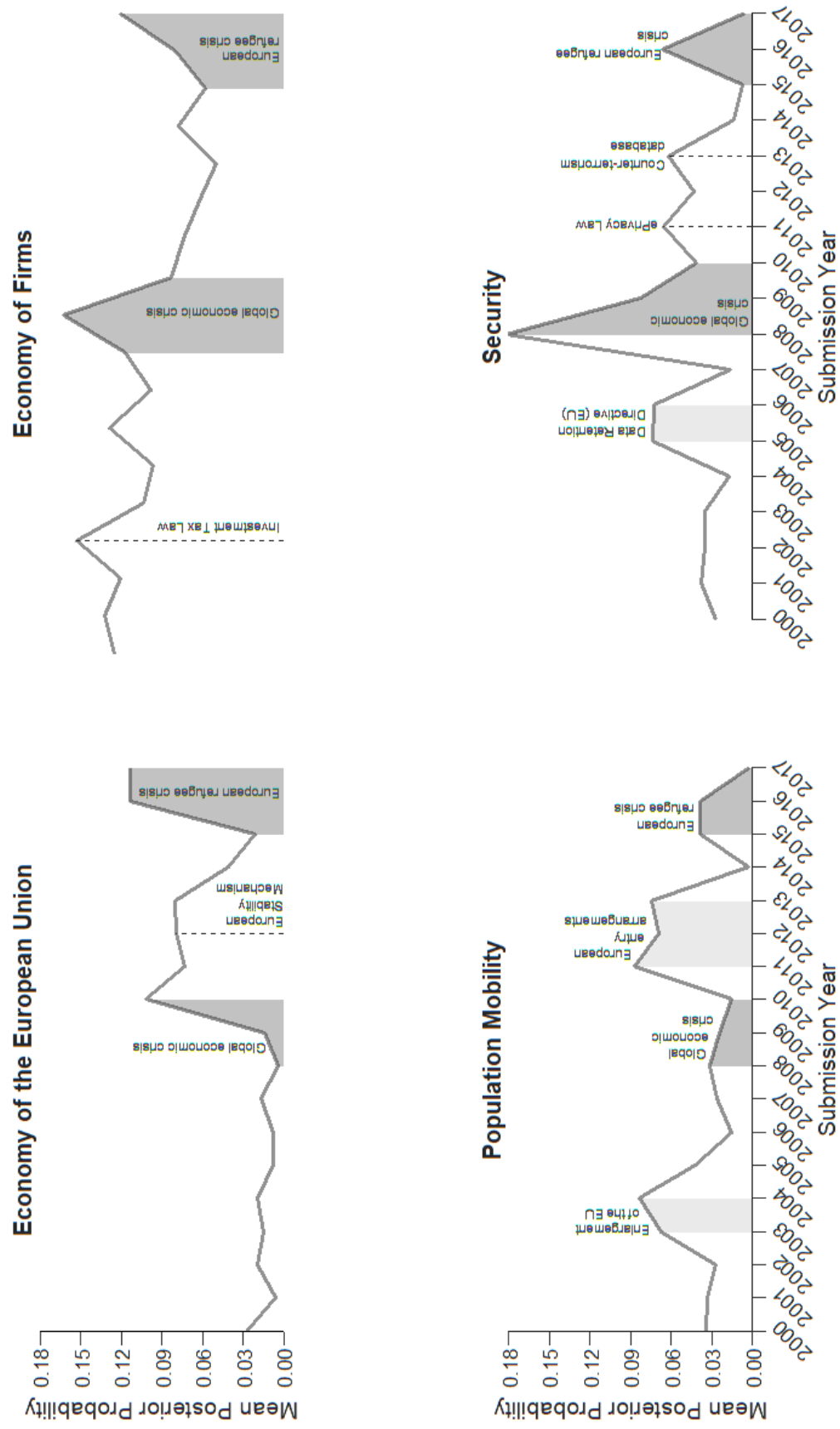


Figure 2: Mean posterior probabilities per year for the keyword topics

do not directly follow from my hypotheses but complement a general theoretical expectation of the Court's reaction to salient international events.

I conclude my analysis by mentioning some alternative explanations for not yet covered probability peaks from Figure 2, which, however, do not contradict my theory of an issue-based judicial response. For instance, the implementation of the European Stability Mechanism in 2012 might shed light on high probabilities of macroeconomic issues in constitutional complaints during 2011-2013 (see the upper-left panel of Figure 2). Three local maxima identified in the "Security" topic during 2005-2006, 2011, and 2013 might reflect the introduction of European cybersecurity measures that echoed in German public: The EU Data Retention Directive, The ePrivacy Law, and The Counter-Terrorism Database, respectively. Lastly, The Investment Tax Law of 2003 possibly explains the increased probability of the topic "Economy of firms" around that time.

Conclusion

In this paper, I argued that the German Federal Constitutional Court becomes responsive to public opinion shifts fueled by major international crises. The Court was expected to react to public demands for protection during crises by processing respective constitutional complaints in the Senate where they receive special media attention. By bringing selected cases to public notice, the GFCC can demonstrate its proactive engagement for critical social concerns and maintain a high reputation in citizens' eyes. Such responsive behavior benefits the Court's image perceived by the German government and, therefore, can potentially extend its political influence. I further proposed that the hypothesized response patterns can be empirically assessed with topic models and translate into higher predicted probabilities of particular issues

during the economic crisis of 2008-2009 and the recent European refugee crisis.

After setting up time-sensitive topic models from Eshima et al. (2020) based on a priori specified keywords, I discovered evidence in favor of an increased likelihood of micro- and macro-economic issues around the time of the aforementioned critical events. I also observed a higher probability of cybersecurity issues during both crises, which supported my theoretical expectations. However, the evidence delivered by dynamic keyword-assisted topic models did not reveal the entire mechanism of judicial responsiveness, which sufficiently limits this work's explanatory power.

Moreover, I did not find evidence favoring the prevalence of socio-cultural issues attributed to the European refugee crisis because the keywords associated with this topic must be phrased otherwise or investigated under a different causal lens. So, personal fears related to the migration crisis are possibly communicated via other (non-judicial) channels, which are less costly than submitting constitutional complaints, e.g., demonstrations, hate speeches, or individual violence. As most means mentioned above instead rely on emotions, lacking objective argumentation required in the Court, it seems plausible that the GFCC does not "buy" poorly justified claims and speculations, refusing to present them to the broader public. Thus, finding a better way to measure critical international events' impact on perceived cultural fears and integration problems frames a promising future research prospect.

Lastly, despite the absence of unequivocal empirical evidence, this paper opens a new page in studies on the judiciary and public opinion. A key finding of this work posits that Germany's supreme judicial institution appears responsive to major international events from the past. Even though the response to plaintiffs' claims cannot be empiri-

cally assessed due to data availability issues, increased Court's activity in particular areas, which is very unusual for constitutional courts dealing with fundamental rights' issues, points towards an underlying causal mechanism. Therefore, we might see the German Federal Constitutional Court in action again very soon in light of approaching post-Corona economic and social downturns.

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Appendix I: A Short Note on Data Pre-Processing

Before setting up a keyword-assisted dynamic topic model, I pre-processed my data by removing German stopwords from the “quanteda” R-package, trimming all words consisting of less than four characters, and defining several additional filler words that I present below.

List of supplementary stopwords: “beschwerdefuehrer”, “beschwerdefuehrerin”, “beschwerdefuehrerinnen”, “beschwerdefuehrers”, “verfassungsbeschwerde”, “bverfge”,

"bundesverfassungsgericht", "satz", "senat", "senats", "dass", "davon", "fuer", "ueber",
 "wegen", "sowie", "soweit", "wegen", "deshalb", "daher", "aufgrund", "insoweit",
 "haetten", "muessen", "beim", "schon", "worden", "wurde", "wird", "wurden", "sei",
 "seien", "dabei", "jedoch", "jeweils", "koennen", "koenne", "koennte", "koennten",
 "waehrend", "wuerde", "wuerden", "dafuer", "darauf", "allerdings", "sinne", "bereits",
 "etwa", "zudem", "gerade", "lediglich", "deren", "denen", "gemaess", "jedenfalls",
 "mehr", "hinsichtlich", "hinaus", "insbesondere", "vielmehr", "waere", "ebenfalls",
 "darueber", "dadurch", "gegenueber", "gilt."

I also followed the good practice in topic modeling and removed all numbers, punctuation marks, URL-characters, and other non-textual symbols that would distort the model performance.

Appendix II: Robustness Checks for Cooperation Events

Throughout the paper, European crises were viewed as major international events that demonstrate the states' inability to cope with economic or social policy issues, so cooperation failures. Consequently, the proposed framework of judicial responsiveness is expected to apply only for non-cooperative constellations, such as economic or European refugee crises. To show (1) the robustness of identified trends in posterior probabilities depicted in Figure 2 and (2) the applicability of my findings solely within the non-cooperative framework, I introduce the fifth keyword topic "Cooperation."

I incorporate the "Cooperation" topic into my baseline model with four keyword topics, adding two keywords: *international* and *cooperation*. As supporting evidence discussed in the conclusion was discovered for three topics – "Economy of the EU", "Economy of Firms", and "Security" – I leave out "Population Mobility," substituting it

for "Cooperation" in Figure 4.

In line with my expectations, Figure 4 reveals that trends from Figure 2 were preserved after introducing an additional keyword topic, keeping the overall number of topics (13) constant. I still observe probability peaks associated with micro-, macroeconomic, and security issues during salient international events.

Secondly, as anticipated, I do not find any peaks in posterior "Cooperation" topic probabilities around the crisis time. The absence of a statistical relationship between international crises and the prevalence of cooperation issues in constitutional complaints implies that *a different empirical framework is necessary to study international cooperation based on judicial texts.*

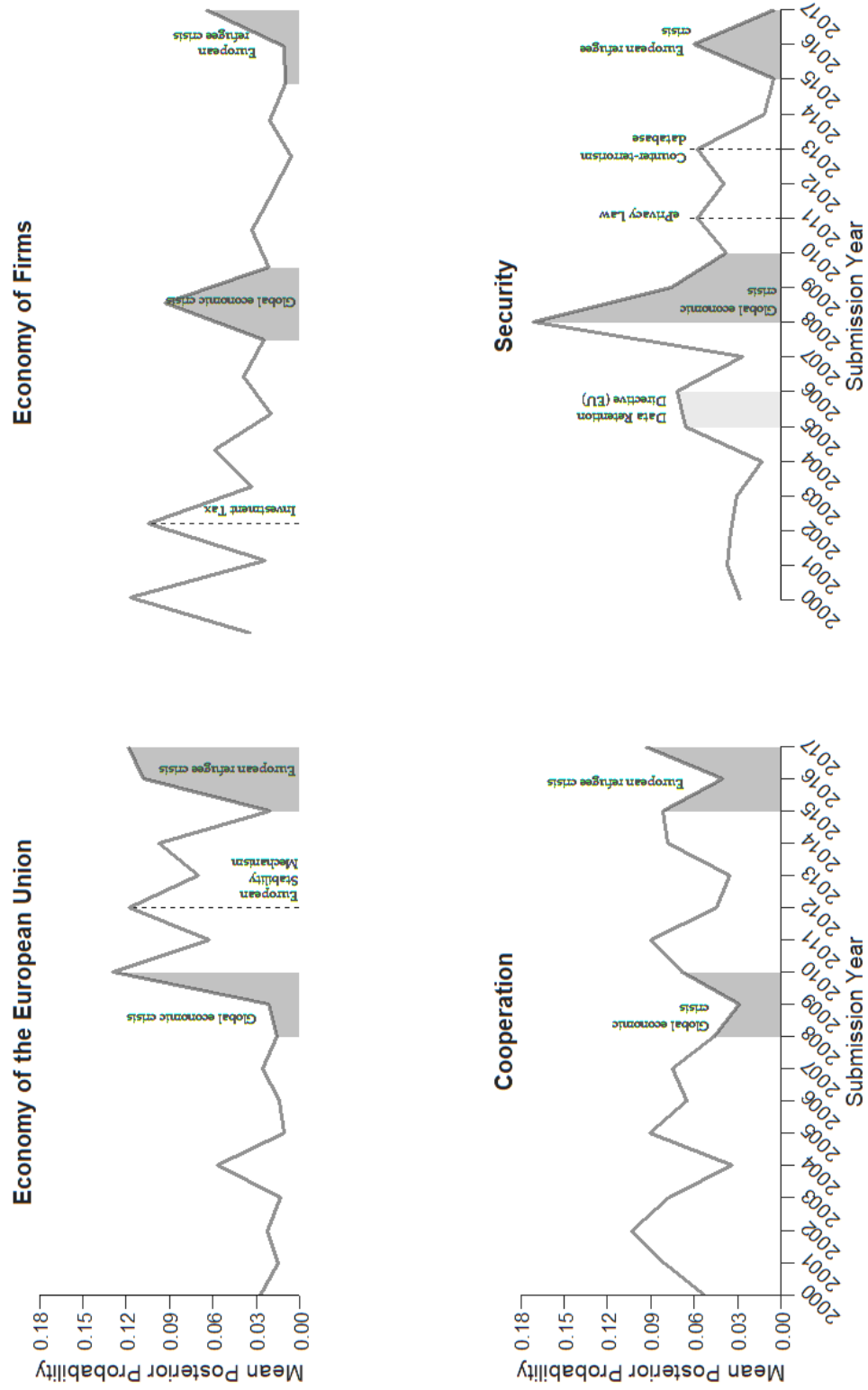


Figure 4: Mean posterior probabilities in a cooperative framework