# The Constitutional Court Database
## Conceptualizing a relational database

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**Abstract.** To what extent is a constitutional court an integral (political) actor in the system of checks and balances? The challenge to answer this question is the scarcity of data sources that systematically connect legislative and societal processes to judicial decision-making. This is why we present the novel Constitutional Court Database (CCDB), which links (1) 2,006 senate decisions, (2) 3,284 different proceedings referred to the German Federal Constitutional Court (GFCC) between 1972 and 2010, (3) legislative data and information from the political environment, as well as (4) public opinion data. The relational structure of the multi-layered database is well suited to connect information across the four layers in flexible ways. This allows for taking different perspectives on the GFCC as a legal, political, or societal actor and as a representative case of a highest court exercising constitutional review. An example illustrates how to use the database to address novel research questions such as the effect of the length of the legislative process on the probability of a bill being referred to a constitutional court. The CCDB will be available in an online repository in formats comprehensive to data-innocent users, scholars working empirically, and tech-savvy experts.

# 1. Introduction

To what extent is a constitutional court an integral (political) actor in the system of checks and balances? To evaluate this question, we need to link information across different political institutions and account for contextual and societal factors within a political system. This leads to a number of theoretical and empirical challenges before being able to answer a question that addresses fundamentals of democracy. The theoretical challenge is that we need to combine insights from law and different subfields of political science, especially from judicial politics, legislative research, and political sociology. The empirical challenge is that data tracing organizational behavior across institutions rarely exist even within the same political system. Both challenges are present in research on European highest courts and also in studies on the US Supreme Court and congressional decision-making, albeit to a lesser extent. In the following we seek to address some of the challenges, which allows us to study highest courts as integral actors within a political system. In particular, we present the *Constitutional Court Database* (CCDB; Hönnige et al. 2015) as a tool to engage in large-scale research on the German Federal Constitutional Court (GFCC).

Research on European constitutional courts lags behind research on the US Supreme Court with regard to theory, data, and methods (Hönnige, 2011; Dyevre, 2010; Vanberg, 2015). Scholarship focusing on the latter can rely on the Supreme Court Database (Spaeth et al., 2017). This database – albeit being designed as a dataset rather than as a database – is an established tool available to scholars who work quantitatively on the decision-making by the US Supreme Court and serves as a role model for comparable database projects, e.g., the Israeli Supreme Court Database (Weinshall, Epstein and Worms, 2018). Nevertheless, a similar tool is missing for constitutional courts in Europe. There are only a few studies that provide small datasets, often designed to serve one particular research interest and to address one or only a few questions (e.g., Hönnige, 2009; Brouard, 2009; Dyevre, 2010; Magalhães, 2003; Santoni

and Zucchini, 2004; Hanretty, 2012, 2014; Bagashka and Tiede, 2018; Grendstad, Shaffer and Waltenburg, 2015; Hamann, 2019; Garoupa, 2016). A true relational database integrating judicial decision-making by a constitutional court with other political institutions – especially the legislature – and the societal context would contribute to our efforts to understand inner-court behavior and intra-institutional interaction beyond the legal domain.

In what follows, we make a database accessible that allows us to assess the inner-court behavior of the GFCC and the court's interaction with the political branches as well as society. Moreover, the relational nature of the database enables us to analyze the reverse interaction to better understand the behavior of the political branches *vis-à-vis* the judiciary. Our database combines information on four layers: The first two layers comprise variables on judicial decision-making. One layer focuses on the cases decided by the court and the other on the proceedings referred by petitioners. The third layer allows for linking the information on laws addressed in judicial decisions to the existing GESTA/DIP dataset on the German legislature (Manow and Burkhart, 2008), which includes the legislative process of all German bills. Therefore, we can use our database to combine legislative processes and judicial action more systematically. The final layer allows for connecting existing data on the broader political and societal context – such as public opinion – to the judicial process. Especially the latter two layers are an added value compared to the US and Israeli Supreme Court Databases. The layers make it possible to unify data on the German political process and to analyze the GFCC from different angles.

The GFCC is a prominent and strong, yet archetypal, constitutional court established as one of the first constitutional courts following the Austrian-German model of constitutional review (Kelsen, 1931, 1942; Epstein, Knight and Shvetsova, 2001*b*). Analyzing this court provides important insights into the system of constitutional review in contrast to the widely studied system of judicial review. Although archetypal, the GFCC is

not a special but rather a typical case – representative of many constitutional courts in newly established democracies (Hönnige, 2008; Kneip, 2008; Engst, 2018).

The dynamic, relational CCDB comprises all 2,006 decisions made by the two senates of the GFCC from 1972 to 2010. The court addresses 3,284 proceedings referred by 4,087 petitioners of different types and directed towards 6,790 constitutional issues in these decisions. The decisions are linked to background information on 105 judges serving at the court, 7,482 bills considered in the legislature, and various monthly polling data.

To present the CCDB, we first discuss the necessity of the novel data structure. We then introduce theoretical, conceptual, and methodological challenges when designing the database. Finally, we outline the technical implementation of the database, delineate how we facilitate access to the database, and present a use case to show the power of the CCDB.

## 2. Highest courts do not play alone

### 2.1. Highest courts in democracies

In modern democracies, highest courts with constitutional review powers are commonly separated into two groups: courts designed following the Anglo-American supreme court model and courts designed following the Austrian-German constitutional court model (Kelsen 1942, Epstein, Knight and Shvetsova 2001*b*, 120-123). In countries that follow the former tradition, the supreme court is the highest appellate court in the regular legal hierarchy. The court reviews constitutional cases and decides on disputes between parties. On the contrary, in the Austrian-German constitutional court model, constitutional courts are empowered to exercise constitutional review only. They do not decide on substantial issues raised in petitioners' referrals and are positioned somewhat separate to the regular appellate courts. Nevertheless, supreme and constitutional courts are empowered to review legislation based on constitutional norms and are able

to nullify legislative acts (Epstein, Knight and Shvetsova, 2001*a*). From this perspective, the highest courts become negative legislators. They are not empowered to make laws but they can nullify them, which strongly influences political decision-making. The role of courts as negative legislators has been a dominate paradigm in research on constitutional courts in Europe (e.g., Tate and Vallinder, 1995; Hirschl, 2002, 2008; Hönnige, 2011; Dyevre, 2011).

However, what constitutional courts do, how they do it, and whom they address is far more complex. We should therefore extend the research agenda on European constitutional courts (Dyevre, 2010; Hönnige, 2011). Scholarship on the US Supreme Court increasingly encourages scholars on European constitutional courts to go beyond established paradigms. In particular, we need to more systematically assess the relationship between (1) inner-court decision-making and (2) intra-institutional interaction of courts with the political branches as well as with the society at large (Hönnige, 2011; Hönnige and Gschwend, 2010).

Inner-court decision-making is not fully understood yet. The lowest common denominator is that policy preferences of justices seem to influence judicial behavior (Segal and Spaeth, 1993, 2002). This has been studied extensively in the context of the US Supreme Court, which publishes individual judicial votes and documents of the decision-making process (Epstein and Knight, 1998; Hammond, Bonneau and Sheehan, 2005). However, research on European constitutional courts is often forced to understand courts as collective actors (Dyevre, 2011; Magalhães, 2003; Hönnige, 2009). Individual judicial votes are rarely published or are available only in the form of a few separate opinions (Raffaelli, 2012; Wittig, 2016; Engst et al., 2017; Kelemen, 2013).

Moreover, highest courts do not play alone but are integrated in a political system (Epstein and Knight, 1998). Court decisions do not only affect petitioners but also governments, legislators, and the public at large. Scholarship on European constitutional courts accounts for this perspective to a certain extent. On the one hand, public

support has proven essential to the functioning of highest courts. The courts anticipate public support for the legal and political branches to ensure the implementation of decisions (Gibson, Caldeira and Baird, 1998; Vanberg, 2001, 2005; Sternberg et al., 2015). On the other hand, the ideological location of the government *vis-à-vis* the court may influence judicial decision-making (Brouard, 2009; Santoni and Zucchini, 2004; Rebessi and Zucchini, 2018; Brouard and Hönnige, 2017). Nevertheless, we need to link the external perspective to the aforementioned internal perspective. Only by doing so we are able to understand the mechanisms of how external constraints shape judicial decision-making.

Two conclusions can be drawn: First, courts are no monolithic actors. Instead, individual judges, clerks, and inner-court procedures influence the internal decision-making of highest courts (Epstein and Knight, 1998; Segal and Spaeth, 2002). However, research on European constitutional courts is limited in this regard. Second, courts are embedded in a political and societal environment. Scholarship on European courts seeks to account for respective environmental factors (Vanberg, 2005; Hönnige, 2009; Brouard and Hönnige, 2017; Sternberg et al., 2015). Nevertheless, a link between (1) inner-court activities and the (2) intra-institutional interaction would help facilitate research on mechanisms in judicial decision-making. This is true not only for constitutional but also for supreme courts. One plausible approach to create such a link is to reconsider the data structures scholars use to study highest courts. For this purpose, we review the existing data in the next section and present a novel approach in the subsequent sections.

## 2.2. Previous, matrix-shaped datasets on highest courts

Given that courts are not isolated actors, we need to compile respective data structures that allow us to address both inner-court activities and intra-institutional interactions with other political players. However, current research on judicial decision-making

mainly uses datasets generated on the basis of information from within the judicial domain. The most prominent tool to study judicial decision-making is the Supreme Court Database (Spaeth et al., 2017), which is rooted in the attitudinal model of judicial decision-making (Segal and Spaeth, 1993, 2002).

The dataset makes it possible to systematically test hypotheses on decisions made by the US Supreme Court since 1946 and includes about 60 variables on the petitioners, case features, and the justices. The dataset comes in two forms: one case-centered version and one justices-centered version. This makes the dataset a strong tool to understand judicial decision-making from an inside perspective on the US Supreme Court. It also serves as a role model for other data collection efforts such as the recently published Israeli Supreme Court Database (Weinshall, Epstein and Worms, 2018).[1]

The data available to study European constitutional courts are more diverse and, consequently, less harmonized. A number of datasets have been published until today. The datasets available cover the petitioners' behavior and the success of minority parties in Spain, Portugal (Magalhães, 2003), France, and Germany (Hönnige, 2009; Sternberg, 2019). Moreover, the datasets address the justices' positions based on separate opinions in Spain, Portugal, the UK, Bulgaria (Hanretty, 2012, 2014), or Germany (Engst et al., 2017; Wittig, 2016). Datasets have also been compiled to study intra-institutional interactions, for instance, to assess the veto behavior of courts in Italy (Santoni and Zucchini, 2004; Rebessi and Zucchini, 2018) and France (Brouard, 2009). However, the focus is on the courts' decision-making, while legislative data is used in aggregated ways only. Some scholars focus on courts in a macro-comparative perspective (Herron and Randazzo, 2003; Smithey and Ishiyama, 2000) or on supreme courts beyond the prominent US case (Evans and Fern, 2015).

To further study intra-institutional interactions, scholars also consider public opinion (Vanberg, 2001, 2005; Sternberg et al., 2015) or the position of other political actors

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[1] The US Supreme Court Database was also a point of departure to design the CCDB.

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(Hönnige, 2009; Sternberg et al., 2015). The common approach is to merge respective information from existing data sources – such as public opinion surveys or party manifesto scores – with data from the judicial domain. Others simply extract information from different sources and make the information easily accessible to the public; for example, Hamann (2019) subsumes information on the composition of different courts and judicial panels. The different datasets created to study specific questions and the diverse structures of existing data constitute a challenge when trying to systematically link data to assess a broader set of hypotheses. Instead, existing data structures can have a rather narrow focus.

In sum, existing datasets to understand inner-court judicial action or the intra-institutional interaction between the judiciary and other branches of government are not linked. Thus, we need particular data structures to develop a comprehensive perspective on courts. To this purpose, we create a publicly accessible database on one court. This Constitutional Court Database (CCDB; Hönnige et al. 2015) on the German Federal Constitutional Court combines multiple information on processes internal and external to the court in various data tables. The structure of the database allows for multiple combinations of the data tables. Thus, the database can be used to create a number of datasets to assess different variables on different levels of analysis. To design the database, we had to overcome the challenge that judicial decision-making is multifaceted, as we outline in the next section.

## 3. Conceptualizing the CCDB

The aim of the CCDB is twofold. First, we seek to quantify inner-court activities, which are inherent to judicial decision-making. Second, we aim to embed the court in the intra-institutional interaction with the political branches and society. To reach both goals, we need to address the challenges to identify information of relevance in

legal decisions and the judicial domain. Afterwards, we embed the judicial domain in a dynamic data structure and link information to the political and societal domain. However, prior to performing both steps we need to understand the institutional setup of the German Federal Constitutional Court (GFCC).

## 3.1. Institutional setup

In this section we provide an overview of the particular institutional context of the GFCC. The constitutional court is a representative yet one of the most influential apex courts worldwide (Kneip, 2008; Hönnige, 2008; Engst, 2018). The GFCC is not a supreme court in the Anglo-American sense but a highest court following the Kelsian tradition (Kelsen, 1942; Epstein, Knight and Shvetsova, 2001*b*; Stone Sweet, 2000). As such, it is not a court of last resort but reviews constitutional matters only.

The Court consists of 16 judges in two senates (eight-judge panels) selected alternately by the lower house (Bundestag) and the upper house (Bundesrat) with a two-thirds majority (see Article 94 of the German Basic Law). Each house also elects the president and the vice president of the GFCC alternately, which are the respective chairpersons of the senates. Judges are appointed for a 12-year, non-renewable term. The two-thirds majority requirement has so far ensured that the right to nominate candidates rotates between two ideological camps following along Germany's two major parties; the center-right Christian Democrats (CDU/CSU) and the center-left Social Democrats (SPD). On occasion, both parties grant the right to nominate a candidate to their respective coalition partners.

As many apex courts without full docket control, the GFCC created several panels in 1986. The panels are called chambers (*Kammern*), and each chamber is composed of three judges. The chambers were founded to deal with the huge caseload, in particular with the large number of constitutional complaints (Engel, 2017; Vanberg, 2005). We do not compile chamber decisions, because they do not address new legal matters.

Instead, they merely comprise cases in which a decision on a similar issue has been taken before. Chambers are not allowed to declare a law unconstitutional (§93c I Act on the GFCC). Moreover, they can take decisions only unanimously. Otherwise, they need to refer the case to the senate. Finally, the senates present their decisions as a collective outcome of the constitutional court (Engst, 2018; Wittig, 2016) and very rarely publish individual judicial votes, not making available any conference proceedings (Hönnige and Gschwend, 2010; Kelemen, 2013; Engst et al., 2017).

The GFCC allows for a large number of access routes for different petitioners: abstract review initiated by political institutions, concrete review initiated by lower courts, constitutional complaints initiated by individual citizens, and a number of horizontal and vertical competence conflicts (Vanberg, 2005; Kommers and Miller, 2012). The overall caseload of the court is rather high: on average, there are two to three abstract reviews and competence conflicts, 20 concrete reviews, and about 6,000 constitutional complaints each year.[2] In the following section, we outline the challenge to transfer the court's decision-making to our database.

## 3.2. Inner-court activities: analyzing judicial decision-making

The starting point for doing empirical research on topics that involve courts are judicial decisions. Therefore, the characteristics of the decisions made by the senates of the GFCC are of utmost importance to our database. Ideally, scholars (as well as the public) would be interested in data that (1) are generated by official sources, (2) are available in the public domain, (3) provide a complete picture of the court, (4) contain raw text information, and (5) are electronically searchable and usable (Coupette and Fleckner, 2018). We seek to address all five points when designing the CCDB.

The initial challenge is that none of the following available sources of decisions

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[2] Compare the official statistics by the GFCC `https://www.bundesverfassungsgericht.de/SharedDocs/Downloads/EN/Statistik/statistics_2018.pdf?__blob=publicationFile&v=4`, accessed 04/14/2020.

made by the GFCC fulfills all five criteria. First, there is the official collection of senate decisions by the court published since 1951 - the *Amtliche Sammlung*. Second, there are two commercial full-text databases that contain senate decisions: *Juris* and *beck-online*. These databases are similar to the US search engine *Westlaw*. Third, the court has published a number of senate decisions on its own website since 1998. In order to code the decisions, we referred to the digital version (available on CD-ROM) of the official collection of senate decisions as our prime source. The official collection appears the most reliable and complete source.[3]

To mirror the inner-court activities of the GFCC in our database, we coded characteristics of the court's decisions. How does a "typical" decision of the GFCC look like? A typical decision consists of two layers.[4] First, there is the *Cases Layer*, encompassing characteristics that refer to one entire decision made by the court. Second, multiple referrals to the court can be combined in one decision on the *Proceedings Layer*. Different proceedings contain information with regard to each referral separately. For example, a petitioner claims her constitutional rights are violated by a specific act of a public authority, a previous ruling of another court, or an enacted law. In the same way, other petitioners submit referrals considering a closely related issue, for example the same law or a court decision with similar implications for the petitioner's rights. Hence, these claims reveal substantial similarities but at the same time differ significantly: One petitioner may be a private person and the other a political actor. One petitioner may refer to one constitutional article being violated and the other to another article. Moreover, one petitioner deems one article of a law unconstitutional and the other addresses another article from the very same law. This is why, upon referral to the GFCC, each petitioner's proceeding receives a separate file number. Nevertheless, there

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[3] *Juris*, for instance, does not always include the so-called *Rubrum* of a decision; i.e., the headnotes showing the names of the parties, docket number, and the *tenor* (operative provisions) of a judgment. The Court's website provides information on decisions only from 1998 onward. Moreover, the online resources are not transparent whether or not all decisions are available.

[4] We closely follow the description in Wittig (2016, chapter 2). Moreover, we learned that there are many exceptions from the "typical" decision when implementing the CCDB.

is a high chance that the GFCC bundles proceedings, addressing related issues, in one decision. Thus, we need to consider the Cases Layer and the Proceedings Layer separately, albeit being able to link both layers.

Let us consider the **Cases Layer** in more detail. The text body of a decision is published in the aforementioned official collection. The collection refers to a decision as BVerfGE (*Bundesverfassungsgerichtsentscheidung*). The individual decisions can be distinguished by the volume number and the starting page of the respective decision. Hence, decision BVerfGE 98, 218 is a decision in volume 98 of the official collection starting on page 218. There are several Cases Layer characteristics that apply equally to the whole decision, for example, which senate made the decision, the date the decision was announced, or whether the decision contains separate opinions by individual judges – which rarely happens (see, e.g. Wittig, 2016; Engst et al., 2017).

There are, however, characteristics that do not apply to all decisions but are unique to a proceeding addressed in a decision. This is why one can identify unique characteristics in comparison to other proceedings within the very same decision. Roughly every third senate decision contains multiple proceedings. Hence, it is necessary to take account of the **Proceedings Layer**. The Proceedings Layer is decisive, for example, once the court renders a verdict. Verdicts in one decision can be specific to proceedings. While the court might see a legitimate constitutional claim in one proceeding, this might not necessarily be the case in other proceedings in the very same decision. Moreover, every proceeding can have different (and multiple) petitioner types, and petitioners might challenge different (and multiple) constitutional norms across proceedings. Finally, there are different types of proceedings, and different rules for the admissibility apply to the different types.

In sum, there are case characteristics and (multiple) proceedings characteristics in one decision. A major challenge is that we do not find a clear hierarchical structure for decisions in which proceedings are nested into decisions. Instead, a proceeding can

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Figure 1: Example of the multidimensional structure of "typical" GFCC decisions
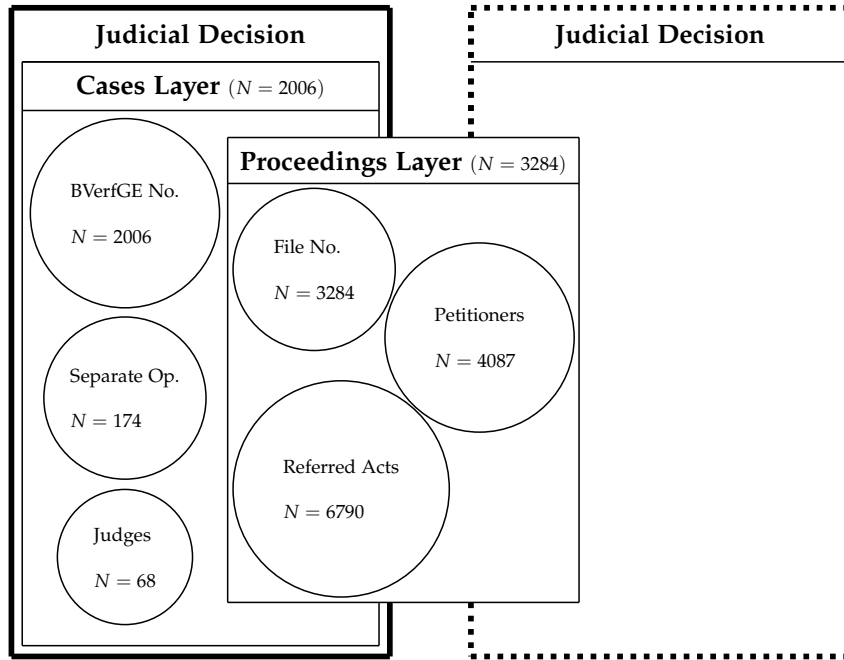


occur more than once in the set of decisions. This is due to the fact that multiple types of decisions exist. There are rulings prior as well as subsequent to a main judgment. Those rulings do not decide on the substantial matters but only on preliminary issues, concern preparatively procedural questions, or deal with executing certain consequences of a judgment. Independent of whether occurring in a provisional ruling, a main decision, or subsequently, the file number of the proceeding remains the same. In other words, the very same file number of one proceeding can occur multiple times across decisions; since every decision has a unique BVerfGE number, the very same file number of a proceeding can occur in combination with varying BVerfGE numbers. Hence, the Cases Layer and the Proceedings Layer provide a cross-classified data structure. Neither the Cases Layer nor the Proceedings Layer alone will suffice. Instead, a decision by the GFCC is uniquely identified only once linking the case characteristics with a BVerfGE number to the proceeding characteristics with a file number.

In Figure 1 we summarize our discussion and illustrate the issue of dimensionality. The bold square highlights our unit of analysis, namely judicial decisions. Nested in decisions, we find information on the Cases Layer and information on the Proceedings Layer. Information on the Proceedings Layer can be of relevance to multiple decisions (see dashed box). The circles highlight different data tables within layers. These data tables comprise respective variables of interest. In total, the CCDB combines Cases Layer information on 2,006 senate decisions which address 3,284 proceedings filed by 4,087 petitioners of various types who referred 6,790 different constitutional issues between December 13, 1972, and October 27, 2009. This period is equivalent to Germany's 7th until the 16th legislative periods. The choice to follow electoral periods already indicates that we deem it necessary to embed a highest court in the political environment. Hence, to understand "the choices justices make" (Epstein and Knight, 1998), we use the next section to outline how to embed judicial decision-making in the political and societal environment.

## 3.3. Embedding the court: the political and societal environment

The second aim of our database is to link the inner-court activities to legislative decision-making, governmental action, and the societal environment within Germany.

We already outlined that courts do not play alone. Instead, courts influence and are influenced by other (political) actors and the public at large (e.g., Brouard and Hönnige, 2017; Engst, 2018; Epstein and Knight, 1998; Sternberg, 2019; Vanberg, 2005). Hence, a complete picture of judicial decision-making requires adding more layers to the Cases and Proceedings Layers.

The first layer of the CCDB links 2,006 senate decisions with the second layer of 3,284 different proceedings referred to the GFCC between 1972 to 2010. This link is in a way functionally equivalent to the Supreme Court Database (Spaeth et al., 2017). To study the empirical implications of courts not playing alone, we add two layers to our CCDB.

One layer describes legislative activities and the other Germany's political and societal context.

The third layer of the CCDB links legislative outcomes to the Proceedings Layer of the court. To this end, we identify the constitutional issue referred to the court for review. If the issue is a federal law initially considered by the *Bundestag*, we link this particular law to a dataset on the German legislature. This dataset, called GESTA/DIP (originally compiled by Manow and Burkhart 2007 and expanded by Stecker 2016), encompasses all bills considered between the 7th and the 15th legislative period of the *Bundestag*. The expanded dataset contains 7,476 bills and more than 100 variables covering all steps of the legislative process from the sponsoring of a bill until either the defeat on the floor or the promulgation in the federal law gazette. The creation of the Legislative Layer also requires relational information management. On the one hand, petitioners in one proceeding within one decision can refer more than one piece of legislation. As a result, it is necessary to link one proceeding to $N$ pieces of legislation. On the other hand, petitioners in multiple proceedings within one decision can refer the very same piece of legislation. This requires linking $N$ petitioners to one piece of legislation. Overall, the relationship between pieces of legislation and proceedings in decisions is $N : N$. In brief, we compute the Legislative Layer by identifying federal laws referred to the court in proceedings, linking those laws to their unique identifier in the dataset on the German legislature.[5] The resulting **Legislative Layer** links the legislative environment to our database.

The fourth layer links additional metadata to describe the societal and political context in Germany. For instance, we compile various information from public opinion surveys to measure public support for political actors on a monthly basis, support for the court, or support for other institutions (e.g., Politbarometer, 2013). Moreover, we incorporate the ideological position of various political parties using common manifesto

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[5] We provide further substantial information on how to code the links in Appendix A. In our online repository we publish an R script to link the GESTA/DIP dataset to our proceedings data.

scores (Laver and Budge, 1992; Lowe et al., 2011; König, Marbach and Osnabrügge, 2013). Finally, we collect information on the judges that have served on the court from 1972 to 2010 from different sources. All these independent datasets and pieces of information are summarized in the **Metadata Layer**. To link the layer, we consider that the context is driven by a temporal component; for example, the governing parties receive a certain level of public support in a given month surveyed by the *Politbarometer*. A decision made in a given month or a hearing held in a given month occur under the influence of this specific support for the government. Thus, linking the month and year from the *Politbarometer* in a $1:N$ connection to the date a decision was made or a hearing was held links the decision layer to the Metadata Layer.[6]

The final setup of our database enables us to follow up on research assessing the degree to which courts take into account political actors, the public at large, or their own personal imprint when making decisions (e.g., Engst, 2018; Brouard and Hönnige, 2017; Hönnige, 2009; Sternberg, 2019; Sternberg et al., 2015; Vanberg, 2001, 2005; Krehbiel, 2016; Meyer, 2019). Nevertheless, to link all layers and compute a respective dynamic data storage requires substantial technical planning, which we describe in the next section. We also outline how we provide access to the CCDB.

## 4. Implementation of the CCDB

We demonstrated that conceptualizing judicial decision-making requires a multidimensional approach. Connecting data from decisions to the political and societal arena, one has to account for multiple connections between the legal and non-legal domain. To establish such connections and overcome the presented challenges, we design the relational CCDB. In what follows, we outline the technical side of the database and how we provide access to the data, and conclude with a use-case.

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[6] In our online repository we publish `R scripts` to compute dates that allow to easily merge metadata to decisions.

Figure 2: Schematic illustration of the Constitutional Court Database

| CONSTITUTIONAL COURT DATABASE | | |
|---|---|---|
| **Cases Layer** | **Proceedings Layer** | **Legislative Layer** |
| Cases Table | Proceedings Table | GESTA/DIP Table ⇒ |
| ⊙ BVerfGE; Proceeding $N = 2006$ | ⊙ BVerfGE; File No. $N = 3284$ | ⊙ Const. Issue $N = 7482$ |
| BVerfGE Table | File No. Table | **Metadata Layer** |
| ⊙ Cases; Proceeding $N = 2006$ | ⊙ Proceedings $N = 3017$ | Judges Table |
| Separate Opinion Table | Petitioner Type Table | ⊙ Opinion, Signing Judges $N = 105$ |
| ⊙ Cases $N = 174$ | ⊙ Proceedings $N = 4087$ | Public Surveys Table ⇒ |
| Signing Judges Table | Const. Issue Table | ⊙ Date Variables $N = 348 \mid 336$ |
| ⊙ Cases; Judges $N = 68$ | ⊙ Proceedings; GESTA $N = 6790$ | Party Positions Table ⇒ |
| | | ⊙ Date Variables $N = 262$ |

Validation Through Partially Automated Process

⊙ Highlights links between tables; ⇒ Highlights tables which provide spreadsheets to establish links to existing dataset collected outside of the CCDB.

## 4.1. A manageable database

The CCDB is constructed as a relational database, which allows for a particular flexible structure. Therefore, it can account for the multiple layers in judicial decision-making and in the interaction between the GFCC and other actors.

Figure 2 is a schematic illustration of the database. In essence, each of the four layers subsumes a number of data tables, and the tables can be linked to one another, also across layers (see ⊙). Two layers contain data tables available as spreadsheets with unique identifiers, which allow for linking to datasets existing outside the CCDB (see ⇒).

The structure makes a large amount of data manageable. First, it is (theoretically) possible to extract all proceedings from the PROCEEDINGS TABLE and all unique identi-

fiers to bills in the GESTA/DIP Table. However, if interested only in laws that occur in judicial proceedings, the tables can be linked to extract only the information of interest. This would be done by linking the Proceedings Table, the Const. Issue Table, and the GESTA/DIP Table. Second, redundant information is coded only once. For example, a judge signing a decision has certain characteristics, such as election date and election body. Instead of repeatedly coding the judge's characteristics for each and every decision she is involved in, it is sufficient to code this information once and link it from the Judges Table on the Metadata Layer to the Signing Judges Table on the Cases Layer.

On the judicial side, the Proceedings Layer is the most decisive one. We outlined that a decision is uniquely identified only once a BVerfGE number and a file number are linked. This link is done in the Proceedings Table on the Proceedings Layer. The layer summarizes information on the outcome of different proceedings and incorporates information on the petitioner or the referred constitutional issues in separate tables. The Cases Layer summarizes the features that apply in general across one decision, including the BVerfGE number.

The Metadata Layer combines tables with information to refer to existing datasets on the societal, political, and judicial context. Especially public survey data (such as the support for political parties) or political information (such as manifesto scores) are published periodically. To connect such existing data to our database, we considered the period to which a piece of information on the Metadata Layer refers. For example, party positions are computed based on manifestos for each legislative period. Therefore, we assume that the manifesto score for one legislative period can be matched to a respective date variable indicating when a decision was made.[7] This date variable is included in the Cases Layer. Moreover, we also collected information on the court's judges in a separate Judges Table on the Metadata Layer. The GFCC rarely publishes

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[7] This is a strong assumption, but it is inherent to the data generating process of manifesto scores.

judicial votes but the participating judges sign decisions. Signing judges are coded on the Cases Layer. Thus, we can link metadata on the judges to a decision through the SIGNING JUDGES TABLE on the Cases Layer.

Much information summarized on the metadata and Legislative Layer was compiled by other scholars, and we only refer to this information via keys incorporated into the CCDB. Nevertheless, we self-collected variables on the Cases and Proceedings Layer. We implemented a multi-step procedure to reduce errors: First, all coders were trained and provided with a codebook. Second, where suitable, the decisions of the coders were restricted by drop-down menus. Third, joint coding workshops were held, at which project staff addressed issues. Fourth, each coder was assigned a set of clearly identifiable decisions, and the coder's action was logged in the database. Fifth, the most essential variables were reevaluated by the most experienced coders. Corrections were done in consultation with the project staff. Finally, we implemented automated plausibility checks. To this end, we computed a second database, which does not allow for personal interference. The court decisions collected in the database assembled by the coders were transferred into the final database only after having passed all plausibility checks.[8]

In sum, the CCDB is a multi-layered, relational database that allows for establishing links among variables in various data tables across layers of relevance to inner-court decision-making and the legal environment. The database makes large amounts of data easily manageable. To create and use such a structure, scholars need to consider the technical side of the database, which we outline in the next section.

## 4.2. The technical aspects of the CCDB

The techniques employed to design a database determine its convenience of use. In this regard, a compelling database design will allow for (1) flexibility in data management,

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[8] For example, if a judge signed a decision but was – according to her the metadata – not yet elected to sit on the bench, then a case was not transferred to the final database but to a report on errors.

(2) a structured data collection process, and (3) parsimony in the amount of data that has to be managed. We incorporated these three aspects when programming the CCDB.

To ensure flexibility in data management, we decided to define our data structure using Structured Query Language (SQL) in order to build a relational database. The advantage of SQL is its easy-to-use syntax and large distribution. Employing SQ Language, we are able to address the issue of flexibility in data management as it allows for building relationships between information in a database. Information is collected in tables, and different tables contain different information. Tables are therefore comparable to single spreadsheets. Different characteristics of decisions taken by judges at the constitutional court are collected in different datasets. We connect these datasets via assigned keys in each table. Through linking unique keys, we are able to draw connections between different tables called data models. Data models define the relationship between two entities or, in our case, information in two tables. We end up having different relationships. For example, we always have one decision of the constitutional court, but each decision can comprise multiple proceedings. Hence, a one-to-many relationship characterizes the link between the decision and its proceedings. In addition, in each case petitioners refer certain constitutional issues affecting them. Multiple plaintiffs can refer one issue while one plaintiff can also refer multiple issues. Therefore, the relationship between plaintiffs and the constitutional issues is a many-to-many relationship. Programming the database using SQL allows for capturing these different data models. This guarantees flexibility in the data management process.

Subsequent to the data collection process, it is necessary to clean the data and validate collected information. Databases have the advantage that this process can be enhanced. While logic checks and cross checks of double-blind coding are possible just like in a dataset, the advantage of a database is that sources of mistakes can be reduced owing to the link between the data. The idea is that identical information that appears in two or more different decisions by the GFCC – for example the same judge signing multiple

decisions – needs to be collected and stored only once. As a unique key is assigned to each judge, it can be used multiple times in different cases, which themselves have unique keys. Therefore, the possibility to make mistakes decreases, since only one entry (e.g., the judge's name) needs to be checked for accuracy. This reduces the amount of data compared to a dataset in which the information on the judge needs to be collected repeatedly for each data entry. Finally, it contributes to the manageability of data because the whole size of the database shrinks. Therefore, the idea of linking data in a database contributes to the parsimony in the amount of data to be collected.

Nevertheless, one should not underestimate the process of programming a database. We here outline an ideal process. It requires in-depth knowledge of the information to be collected and how this information is connected to each other. In addition, a programmed database requires extensive tests to see whether the designed tool is able to capture not just the information one wishes to collect but also the relationships between this information. Finally, access to the information collected should be easily possible. This is why we outline how we intend to publish the collected data in the next step.

## 4.3. Online repository of the CCDB

To enable different users to employ the compiled data, we will provide an online repository of the CCDB. We envision three types of users. First, we will provide rectangular data frames in the form of spreadsheets (e.g., `Excel files`) that data-innocent scholars, journalist, or members of an interested broader public can use easily to get a quick overview of the decisions, tabulate interesting subsets of cases, and create graphs based on the information provided in the spreadsheet.

Second, we will also offer `.csv-files` and `R-scripts` to allow empirically working scholars to merge other data sources easily to the basic data structure we provide. Most importantly, we will publish scripts for linking the Legislative Layer such that

the GESTA/DIP data can be merged to the judicial data as well as a script to allow for merging contextual information, for example public opinion data or party positions at particular points in time to the judicial data as well.

Finally, we provide data in various spreadsheets together as an actual relational database for tech-savvy scholars. We chose `OpenOffice Base` as an easily accessible format for a desktop database management system to not hinder the availability of the database because of software licensing policies. This database management system makes it possible to relate information across different spreadsheets and enables wizards, among other things, to create new rectangular tables and to develop own queries.

The publication of the data for those three types of envisioned CCDB users will be done in three steps, starting upon publication of this manuscript. Spreadsheets, scripts to link data, and the entire database will be published on the dedicated website of the CCDB online repository at `https://www.ccdb.eu/`.

In the following subsection we provide a use-case to show the advantages of the particular data structure of the CCDB.

## 4.4. Use-case: legislative length and referral to courts

In this section we provide an analysis as an exemplary use-case of what type of new research questions can be addressed using the CCDB.

To what extent is legislative length a predictor of a law's referral to a constitutional court? It seems reasonable that the length of the legislative process can have one of two theoretical effects on the probability of a law being referred to a court. On the one hand, a longer legislative process can be an indicator of conflict in the legislature. The governing and opposition parties bargain over legislation and the outcome may be a compromise not satisfying all actors. Defeated actors may take legislation to the highest courts. On the other hand, the length of the legislative process may indicate that the

actors involved carefully considered all legal implications. This way, constitutional issues are actively addressed and laws that take longer are less often referred to the highest courts. The CCDB makes it possible to assess both competing theoretical considerations.

To this purpose, we identify all laws published in Germany and then compare the length of the legislative process for laws published and not referred to the GFCC to laws referred for judicial review. To this end, we extract all published federal laws from the GESTA/Dip dataset (Manow and Burkhart, 2007; Stecker, 2016) and use the unique identifiers of the laws – summarized in the GESTA/DIP Table (see figure 2) – to draw a link between those laws and the BVerfGE Table. To establish the link, we connect the identifiers from the GESTA/DIP Table with all referrals against federal laws that are flagged in the Const. Issue Table. This latter table can be connected to the Proceedings Table, which links to the BVerfGE Table.

In our assessment we focus on the period from December 14, 1976, to October 19, 2005. Using the outlined linkage structure, we identified 3,981 entries. However, these are not the final entries for our assessment. Instead, it is necessary to account for the dimensionality of judicial decisions. This requires considering the data generating process on the judicial side of the CCDB closely. Thus, we do the following: First, we subdivide the judicial data into main decisions only, leaving aside special or preliminary rulings. Second, it is possible that different petitioners referred the same law within one decision. As a consequence, a law would appear multiple times in one decision, which inflates the data. Given that we do not care who referred a law to the court, we aggregate the laws across the petitioners. By doing so, we ensure that all laws referred to the GFCC in one decision occur only once.

The final dataset, accounting for the data generating processes on the judicial side, consists of 3,205 entries, meaning different laws. 2,896 laws were not referred to the GFCC, and in 309 judicial decisions, federal laws were referred to the court for review.

Hence, our dependent variable is dichotomous and distinguishes non-referrals (0) from referrals (1). The low percentage of about (1=) 9.6 referrals compared to (0=) 90.4 percent of bills not referred leads us to later estimate a rare event logistic regression.

The length of the legislative process is our independent variable, which is computed from variables obtained via the keys in the GESTA/DIP Table. To compute the variable, we subtract the date a bill was presented to the legislature from the date a bill was published in the federal law gazette. Instead of using the resulting raw number of days, we logged the length of the legislative process because the relationship is expected to be non-linear.

The Legislative Layer in the CCDB allows for linking additional variables, which may affect the length of the legislative process. This is why we control for those variables.

In particular, we assess whether a law was sent to the conference committee to settle conflict between both legislative chambers, as this delays the legislative process. Moreover, the German political system knows two types of bills; consent bills, which need to be passed by both parliamentary chambers, and objection bills, which are passed by the first chamber, and the second chamber can only raise an objection to it (Art. 77 German Basic Law; see also Fortunato, König and Proksch 2013). In this regard, it may be plausible that consent bills take longer than objection bills or that conflict over the correct procedure unnecessarily delays the legislative process. This is why we control for both, the type of bill and whether there was conflict over the type of bill.[9] Finally, the GESTA/DIP Table allows for linking to a variable indicating whether a bill was passed with a broad majority or along a divide between the governing parties and the (major) opposition parties. We control for a possible divide, assuming that conflict delays processes. In a similar vein, we assess whether a bill was presented by the government (also together with legislators) or by either of the legislative chambers

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[9] The variables do not correlate highly with one another. Conflict occurs only in about 5 percent of the bills passed.

Table 1: Rare event logistic regression of legislative length on referral to the GFCC

|  | Baseline | Complete |
| --- | --- | --- |
| Legislative length (log) | −0.26*** | −0.40*** |
|  | (0.08) | (0.09) |
| Law in conference committee (=1) |  | 1.19*** |
|  |  | (0.18) |
| Type of bill (Consent =1) |  | 1.07*** |
|  |  | (0.15) |
| Conflict over type of bill (=1) |  | 0.76** |
|  |  | (0.29) |
| Vote in 1st chamber divided btw. gov. and opp. (=1) |  | 1.25*** |
|  |  | (0.15) |
| Law presented by federal government (=1) |  | −0.16 |
|  |  | (0.16) |
| Constant | −0.33 | −0.88 |
|  | (0.44) | (0.46) |
| AIC | 1864.33 | 1630.33 |
| BIC | 1918.98 | 1715.34 |
| Log likelihood | -923.17 | -801.16 |
| Num. obs. | 3205 | 3205 |

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$

Both models include legislative period fixed effects.

alone. In the latter case, existing consent between representatives may shorten the legislative process.

Table 1 shows results from two rare event logistic regressions of the legislative length on a law's referral to the GFCC. We included legislative period fixed effects in the baseline and complete model.

The significant negative estimates for the legislative length in both models suggest that the longer the legislative process is the less likely a law is referred to the court. This speaks in favor of the idea that a longer legislative process leads to a more legally sound law and less referrals. Among the alternative explanations, the involvement of

Figure 3: Probability of a law being referred to GFCC dependent on legislative length
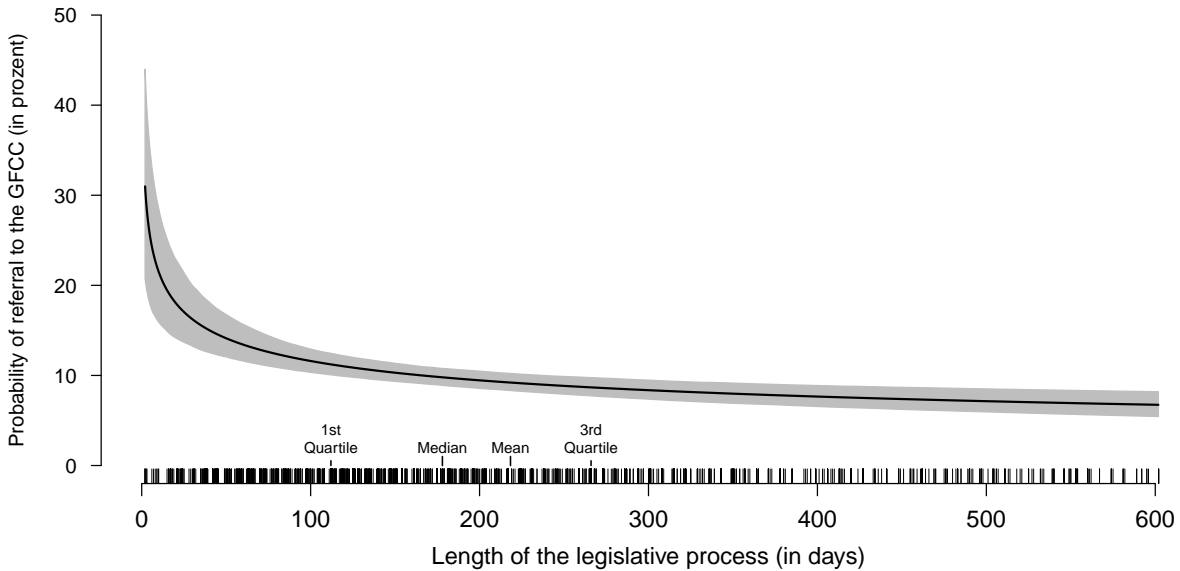


Based on 1000 simulations from the complete model in Table 1 using an observed value approach
(Hanmer and Ozan Kalkan, 2013) while varying the length of the legislative process.

the conference committee, the consideration of consent bills, conflict over the type of

bill, and a conflicting vote have a positive effect on referral to the GFCC.

In Figure 3 we estimate the predicted probability of a law's referral to the GFCC

over the length of the legislative process. Remember that we took the logarithm of the

legislative length, but for convenience we rescale the values to days in Figure 3. The

illustration confirms that the longer the legislative process is, the less likely a referral

of a law to the GFCC is. Assume, for example, the legislative process takes about 50

days. In this case, the probability of a referral is on average 14 percent compared to

about 9 percent when the process takes around 200 days. Nevertheless, the rug plot,

mean, median, and quartiles included in Figure 3 illustrate that extremely short or long

legislative processes occur rarely. To account for this and assess the robustness of our

findings, we recoded the independent variable and calculated an indicator variable

that highlights whether the length a bill was considered was above average (=1) or

normal/below average (=0) within a respective legislative period. In Appendix B we

show the predicted probabilities and significant negative first differences comparing

bills that where considered in a legislative process of normal or below-average length, to bills that were considered in a process of above-average length. The finding confirms that the longer the legislative process is, the less likely a referral to the GFCC is.

In sum, the length of the legislative process has a negative effect on a bills' referral to a constitutional court. We were able to obtain this result through connecting data from the legislative domain to the judicial domain. The CCDB provides a flexible data structure to establish such and other connections between the judicial, the legislative, and the societal domain.

## 5. Conclusion

Highest courts do not play alone. Instead, they are institutions embedded in an ever-changing political and societal environment. If scholars want to understand the role of highest courts in political systems, they need to take account of two aspects. First, the inner-court activities; second, the inter-institutional interaction of highest courts with other institutions. The latter are mostly governments and parliaments, as they produce the legislation that courts decide upon. Moreover, they are the actors that are responsible for implementing judicial decisions. The relational CCDB provides a tool to understand highest courts better. Compared to its role model – the US Supreme Court Database (SCDB) – the German CCDB links the traditional focus on inner-court activities to the inter-institutional interaction with governmental and legislative actors and society at large.

Research on the GFCC is comparatively rich for a highest court that is not the US Supreme Court. Existing studies often employ a comparative case study perspective with data from various samples and different time frames, operationalizing different characteristics of the GFCC (e.g., Hönnige, 2007; Vanberg, 2005; Krehbiel, 2016; Sternberg et al., 2015; Garoupa, 2016; Engst et al., 2017; Schröder, 2019). Nevertheless, the

multiple datasets are often designed to answer specific rather than a wide range of questions. Variables of interest are mostly extracted from judicial decisions, and if information is connected to other institutions, scholars account for a limited set of variables only. Especially the origin of legislation that causes constitutional conflict is often ignored. Thus, the picture of the GFCC's political role is still blurry. In designing the CCDB, we seek to overcome limitations and aim to provide scholars with a tool they can employ in their own research.

We had to address a number of challenges building the CCDB. First, judicial decision-making is multi-layered. As a consequence, we had to move away from rectangular datasets and choose to develop a relational, multidimensional database with multiple data models. Second, connecting information from the legal domain to information from the political and societal domain, we had to translate judicial concepts into concepts that link to political science. In this regard, we had to take details in legal considerations seriously. Legal language is very particular, and gladly we observe a trend among scholars of political science to take this into account (e.g., Clark and Lauderdale, 2010; Dyevre, 2010, 2019; Lax, 2011; Arnold, Engst and Gschwend, 2019; Sternberg, 2019; Meyer, 2019). The CCDB combines traditional perspectives of political science with these more recent trends in the literature. In taking jurisprudence and the content of decision-making seriously, we also aim to overcome the unnecessary scholarly divide between European law scholars and political scientists. Third, data from the database needs to be manageable, and thus multidimensional issues in judicial decision-making had to be addressed as simply as possible to allow a broad audience to use the CCDB.

The CCDB will be published in three steps. First, we publish rectangular datasets, which parallels the approach of the US and Israeli Supreme Court Databases. Second, we provide `R-scripts`, which allow for linking additional datasets to the judicial data. Third, we provide a version of the database in `OpenOffice Base`.

We hope that the CCDB – similar to the US and Israeli databases – can serve as a template to scholars interested in setting up databases on judicial decision-making in other countries. It was our aim that this "how-to" study would help scholars assess the potential and the challenges when embarking on such an endeavor. Moreover, we strongly encourage the community to connect existing datasets on legislative behavior to datasets on judicial decision-making.

With the aim to foster a comparative research agenda on law and court, future research should conceptualize and develop a cross-national comparative infrastructure. This would prepare the ground for studies on how different courts address common legal topics of shared interests or how different courts deal with increasing threats of judicial independence.

# Appendix A.

In this appendix we describe how we conceptualize the link between federal laws referred to the GFCC (Const. Issue Table) and the GESTA/DIP dataset (GESTA/DIP Table). We refer to this link as the *GESTA/DIP Link*.

1. Coders identified federal laws directly and indirectly referred by petitioners and mentioned in the *Rubrum*. The *Rubrum* summarizes main case characteristics at the onset of a judicial decision. A federal law directly referred implies that the law is the immediate issue a petitioner wishes to address. An indirect referral implies that the major act referred by a petitioner is, for example, an administrative act. However, the act is based on a federal law that the petitioner refers as well. It is important to note that the GESTA/DIP dataset summarizes only legislative procedures of federal laws from December 1972 (Germany's 7th legislative period) onward. This is why only those are included in the GESTA/DIP Link.

2. Two pieces of information are necessary to establish the GESTA/DIP link: the date on which a federal law causing the constitutional issue was initially published in the federal law gazette and the title of the law. The review of decisions showed that referrals of laws to the GFCC follow three patterns. Therefore, we designed procedures suitable for each pattern to build the GESTA/DIP Link:

   - *Individual federal law that is clearly identifiable*
     e.g., BVerfGE 109, 279: "... Art. 2 Nr. 2 Buchstabe a und Nr. 5 des Gesetzes zur Verbesserung der Bekämpfung der Organisierten Kriminalität vom 4. Mai 1998 (BGBl. I S. 845)..."
     ⇒ The law is clearly identifiable. The publication date (May 4th, 1998) and the title (Gesetzes zur Verbesserung der Bekämpfung der Organisierten Kriminalität) are used to identify the ID of the respective law in the GESTA/DIP dataset to establish the GESTA/DIP link.

   - *Original federal law that was recently changed by another federal law*
     e.g., BVerfGE 109, 96: "... §1 Abs. 3 Satz 1 des Gesetzes über die Alterssicherung der Landwirte (ALG) vom 29. Juli 1994 (BGBl I S. 1890) in der Fassung des Gesetzes zur Änderung des Gesetzes zur Reform der agrarsozialen Sicherung (ASRG-ÄndG) vom 15. Dezember 1995 (BGBl I S. 1814, ber. BGBl 1996 I, S. 683)..."
     ⇒ The law that creates the constitutional issue is the one that was passed recently to modify the original law. The publication date (December 15th, 1995) and the title (Gesetz zur Änderung des Gesetzes zur Reform der agrar-

sozialen Sicherung) of the law are used to identify the ID of the respective law in the GESTA/DIP dataset to establish the GESTA/DIP link.

- *Two or more federal laws are linked to one another*

  e.g. BVerfGE 99, 300: "... Artikel 1 §1 in Verbindung mit Anlage 2 sowie Artikel 6 §5 Satz 1 des Gesetzes über die Anpassung von Dienst- und Versorgungsbezügen in Bund und Ländern 1987 (Bundesbesoldungs- und -versorgungsanpassungsgesetz 1987) vom 6. August 1987 (BGBl I S. 2062) in Verbindung mit Artikel 14 §3 des Gesetzes zur Reform des öffentlichen Dienstrechts (Reformgesetz) vom 24. Februar 1997 (BGBl I S. 322) ..."

  ⇒ Two laws are connected by the standard phrase "in Verbindung mit" (in conjunction with). The law that created the constitutional issue is the one that was passed most recently. It was decisive to create the legal conjunction. This is why the publication date (February 24th, 1997) and the title (Gesetz zur Reform des öffentlichen Dienstrechts) of the law are used to identify the ID of the respective law in the GESTA/DIP dataset to establish the GESTA/DIP link.

3. In some decisions, the specifics of the referred law in the *Rubrum* were not precise enough. To build the GESTA/DIP link, the coders followed two steps:

   a) The coders assessed whether additional information was mentioned in other parts of the decision. If this was the case they followed one of the three aforementioned procedures. If this was not the case the following procedure was used:

   b) The coders used the German legal database *juris*. This database summarizes the full text of major German laws. Within the database a coder can search for a section of a law that was referred to the court. For each referred law (even accounting for single paragraphs or subparagraphs) *juris* summarizes two major pieces of information that are necessary to establish the GESTA/DIP link. These are all dates on which sections of laws referred to the GFCC were changed (comparable to version control) and the title of the law that introduced a change to a referred law. Thus, with the help of *juris* it was possible to come to a scenario resembling an *original federal law that was recently changed by another federal law*. Moreover, if *juris* indicated that a referred section of a law was never changed the scenario was similar to an *individual federal law that is clearly identifiable*. Following either scenario the GESTA/DIP link was established.

4. Missing links can exist mostly due to four issues: (1) A law is missing in the

GESTA/DIP dataset. (2) A federal law referred to the court was published before 1972. (3) A petitioner referred a legal decree (*Rechtsverordnung*) instead of a federal law. Decrees are published in the federal law gazette, but they are not part of the GESTA/DIP dataset. (4) It was not possible to establish all links with laws passed during the 7th legislative period due to missing information in the GESTA/DIP dataset. We suggest using links built for the 7th legislative period with caution.

Thus designed, the substantial content of the GESTA/DIP link is as follows: All German federal laws that were referred to a senate of the GFCC and – according to a petitioner – could imply a constitutional issue, published from the 7th legislative period onward. The link is established importing the unique IDs from the GESTA/DIP TABLE into a variable in the CONST. ISSUE TABLE. The latter table summarizes all acts referred to the GFCC and is part of the proceedings layer of the CCDB.

# Appendix B.

In Figure A.1 we repeat our main analysis. This time we compute an indicator variable that separates bills passed in a legislative process of normal length or below-average length (0) from bills considered in a process of above average length (1). The variables serves as our independent variable.

The results in the left panel of Figure A.1 confirm that the longer the legislative process the lower the probability of referral to the GFCC compared to a legislative process of normal or below-average length. The first difference shown in the right panel of Figure A.1 confirms the significance of the difference between legislative processes of different length.

Figure A.1: Probability of a law being referred to GFCC dependent on legislative length
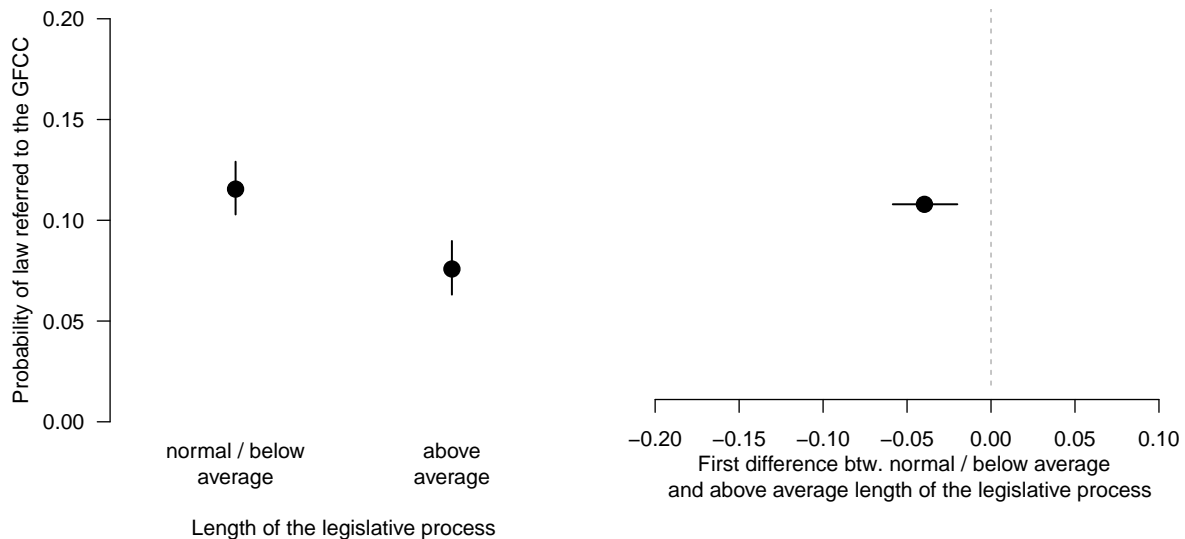


Based on 1000 simulations from a rare event logit model using an observed value approach (Hanmer and Ozan Kalkan, 2013) including all variables presented in Table 1.

# References

Arnold, Christian, Benjamin G. Engst and Thomas Gschwend. 2019. "Scaling Lower Court Decisions." *Working Paper* 2019.

Bagashka, Tanya and Lydia Tiede. 2018. "Explaining dissensus on the Bulgarian constitutional court." *East European Politics* 34(4):418–439.
**URL:** *doi: 10.1080/21599165.2018.1501362*

Brouard, Sylvain. 2009. "The Politics of Constitutional Veto in France: Constitutional Council, Legislative Majority and Electoral Competition." *West European Politics* 32(2):384–403.

Brouard, Sylvain and Christoph Hönnige. 2017. "Constitutional courts as veto players: Lessons from the United States, France and Germany." *European Journal of Political Research* 56(3):529–552.

Clark, Tom S. and Benjamin E. Lauderdale. 2010. "Locating Supreme Court Opinions in Doctrine Space." *American Journal of Political Science* 54(4):871–890.

Coupette, Corinna and Andreas M. Fleckner. 2018. "Quantitative Rechtswissenschaft Sammlung, Analyse und Kommunikation juristischer Daten." *JuristenZeitung* 73(8):379–389.

Dyevre, Arthur. 2010. "Unifying the field of comparative judicial politics: towards a general theory of judicial behaviour." *European Political Science Review* 2(02):297–327.

Dyevre, Arthur. 2011. "The German Federal Constitutional Court and European Judicial Politics." *West European Politics* 34(2):346–361.

Dyevre, Arthur. 2019. "The Promise and Pitfalls of Automated Text-Scaling Techniques for the Analysis of Judicial Opinions." *Working Paper* .

Engel, Christoph. 2017. "Does Efficiency Trump Legality ? The Case of the German Constitutional Court." *Law & Economics eJornal* 9(83).

Engst, Benjamin G. 2018. *The Two Faces of Judicial Power: The Dynamics of Judicial-Political Bargaining*. University of Mannheim: PhD Thesis.

Engst, Benjamin G., Thomas Gschwend, Nils Schaks, Sebastian Sternberg and Caroline E. Wittig. 2017. "Zum Einfluss der Parteinähe auf das Abstimmungsverhalten

der Bundesverfassungsrichter – eine quantitative Untersuchung." *JuristenZeitung* 72(17):816–826.

Epstein, Lee and Jack Knight. 1998. *The choices justices make*. Washington, D.C.: CQ Press.

Epstein, Lee, Jack Knight and Olga Shvetsova. 2001*a*. "Comparing Judicial Selection Systems." *William and Mary Bill of Rights Journal* 10(1):7–36.

Epstein, Lee, Jack Knight and Olga Shvetsova. 2001*b*. "The Role of Constitutional Courts in the Establishment and Maintenance of Democratic Systems of Government." *Law and Society Review* 35(1):117–164.

Evans, Rhonda and Sean Fern. 2015. From Applications to Appeals: A Political Science Perspective on the New Zealand Supreme Court's Docket. In *The New Zealand Supreme Court: 2004-2013*, ed. Mary-Rose Russell and Matthew Barber. Wellington: Thomson-Reuters pp. 33–60.

Fortunato, David, Thomas König and Sven-Oliver Proksch. 2013. "Government Agenda-Setting and Bicameral Conflict Resolution." *Political Research Quarterly* 66(4):1–14.

Garoupa, Nuno. 2016. "Comparing Judicial Activism – Can We Say That the US Supreme Court Is More Activist than the German Constitutional Court?" *Revista Portuguesa de Filosofia* 72(4):1089–1106.

Gibson, James L., Gregory A. Caldeira and Vanessa A. Baird. 1998. "On the Legitimacy of National High Courts." *American Political Science Review* 92(2):343–358.

Grendstad, Gunnar, William R. Shaffer and Eric N. Waltenburg. 2015. *Policy making in an independent judiciary : the Norwegian Supreme Court*. Colchester: ECPR Press.

Hamann, Hanjo. 2019. "The German Federal Courts Dataset 1950–2018: From Paper Archives to Linked Open Data." *Journal of Empirical Legal Studies* 16(3):671–688.

Hammond, Thomas H, Chris W Bonneau and Reginald S Sheehan. 2005. *Strategic Behavior and Policy Choice on the U.S. Supreme Court*. Stanford (California): Stanford UP.

Hanmer, Michael J. and Kerem Ozan Kalkan. 2013. "Behind the Curve: Clarifying the Best Approach to Calculating Predicted Probabilities and Marginal Effects from

Limited Dependent Variable Models." *American Journal of Political Science* 57(1):263–277.
**URL:** *http://doi.wiley.com/10.1111/j.1540-5907.2012.00602.x*

Hanretty, Chris. 2012. "Dissent in Iberia: The ideal points of justices on the Spanish and Portuguese Constitutional Tribunals." *European Journal of Political Research* 51(5):671–692.

Hanretty, Chris. 2014. "The Bulgarian Constitutional Court as an Additional Legislative Chamber." *East European Politics & Societies* 28(3):540–558.

Herron, Erik S and Kirk A Randazzo. 2003. "The relationship between independence and judicial review in post-communist courts." *Journal of Politics* 65(2):422–438.

Hirschl, Ran. 2002. *Towards Juristocrarcy. The Origins and Consequences of the New Constitutionalism*. Cambridge: Harvard University Press.

Hirschl, Ran. 2008. The Judicialization of Politics. In *The Oxford Handbook of Law and Politics*, ed. Gregory A. Caldeira., Daniel R. Kelemen and Keith E. Whittington. Oxford: Oxford University Press pp. 119–141.

Hönnige, Christoph. 2007. *Verfassungsgericht, Regierung und Opposition. Die vergleichende Analyse eines Spannungsdreiecks*. Wiesbaden: VS Verlag.

Hönnige, Christoph. 2008. "Verfassungsgerichte in den EU-Staaten: Wahlverfahren, Kompetenzen und Organisationsprinzipien." *Journal for Comparative Government and European Policy* 6(3):524–553.

Hönnige, Christoph. 2009. "The Electoral Connection: How the Pivotal Judge Affects Oppositional Success at European Constitutional Courts." *West European Politics* 32(5):963–984.

Hönnige, Christoph. 2011. "Beyond Judicialization: Why We Need More Comparative Research About Constitutional Courts." *European Political Science* 10(3):346–358.

Hönnige, Christoph and Thomas Gschwend. 2010. "Das Bundesverfassungsgericht im politischen System der BRD – ein unbekanntes Wesen?" *Politische Vierteljahresschrift* 51(3):507–530.

Hönnige, Christoph, Thomas Gschwend, Caroline Wittig and Benjamin G. Engst. 2015. *Constitutional Court Database (CCDB), V17.01 [Mar.]*.
**URL:** *http://ccdb.eu/*

Kelemen, Katalin. 2013. "Dissenting Opinions in Constitutional Courts." *German Law Journal* 14(8):1345–1371.

Kelsen, Hans. 1931. *Wer soll der Hüter der Verfassung sein?* Berlin: Rothschild.

Kelsen, Hans. 1942. "Judicial Review of Legislation. A Comparative Study of the Austrian and the American Constitution." *Journal of Politics* 4(2):183–200.

Kneip, Sascha. 2008. Verfassungsgerichtsbarkeit im Vergleich. In *Die EU-Staaten im Vergleich Strukturen, Prozesse, Politikinhalte*, ed. Oscar W Gabriel and Sabine Kropp. Wiesbaden: VS Verlag für Sozialwissenschaften pp. 631–655.

Kommers, Donald P. and Russell A. Miller. 2012. *The Constitutional Jurisprudence of the Federal Republic of Germany*. 3rd ed. Durham: Duke University Press.

König, Thomas, Moritz Marbach and Moritz Osnabrügge. 2013. "Estimating Party Positions across Countries and Time–A Dynamic Latent Variable Model for Manifesto Data." *Political Analysis* 21(4):468–491.

Krehbiel, Jay N. 2016. "The Politics of Judicial Procedures: The Role of Public Oral Hearings in the German Constitutional Court." *American Journal of Political Science* 60(4):990–1005.

Laver, Michael and Ian Budge. 1992. Measuring Policy Distances and Modelling Coalition Formation. In *Party Policy and Government Coalitions*, ed. Michael Laver. New York: St. Martin's Press pp. 15–40.

Lax, Jeffrey R. 2011. "The New Judicial Politics of Legal Doctrine." *Annual Review of Political Science* 14(1):131–157.

Lowe, Will, Kenneth Benoit, Slava Mikhaylov and Michael Laver. 2011. "Scaling Policy Preferences from Coded Political Texts." *Legislative Studies Quarterly* 36(1):123–155.

Magalhães, Pedro C. 2003. *The Limits to Judicialization: Legislative Politics and Constitutional Review in the Iberian Democracies*. Ohio State University: PhD Thesis.

Manow, Philip and Simone Burkhart. 2007. "Legislative Self-Restraint Under Divided Government In Germany, 1976-2002." *Legislative Studies Quarterly* 32(2):167–191.

Manow, Philip and Simone Burkhart. 2008. "Delay as a Political Technique under Divided Government? Empirical Evidence from Germany, 1976-2005." *German Politics* 17(3):353–366.

Meyer, Philipp. 2019. "Judicial public relations: Determinants of press release publication by constitutional courts." *Politics* .
**URL:** *https://doi.org/10.1177/0263395719885753*

Politbarometer. 2013. *Partielle Kumulation (1977 - 2011). ZA2391 - Version 3.0.0.* Köln: GESIS - Leibniz-Institut für Sozialwissenschaften.

Raffaelli, Rosa. 2012. "Dissenting opinions in the Supreme Courts of the Member States." *European Parliament: Directorate General for Internal Policies* (PE 462.470).

Rebessi, Elisa and Francesco Zucchini. 2018. "The role of the Italian Constitutional Court in the policy agenda: persistence and change between the First and Second Republic." *Italian Political Science Review/Rivista Italiana di Scienza Politica* 48(3):289–305.

Santoni, Michele and Francesco Zucchini. 2004. "Does Policy Stability Increase the Constitutional Court's Independence? The Case of Italy During the First Republic (1956–1992)." *Public Choice* 120(3-4):401–439.

Schröder, Philipp A. 2019. *The Political Constraints on Constitutional Review*. University College London: PhD Thesis.

Segal, Jeffrey A. and Harold J. Spaeth. 1993. *The Supreme Court and the Attitudinal Model*. Cambridge: Cambridge University Press.

Segal, Jeffrey A. and Harold J. Spaeth. 2002. *The Supreme Court and the Attitudinal Model Revisited*. Cambridge: Cambridge University Press.

Smithey, Shannon Ishiyama and John Ishiyama. 2000. "Judicious choices: designing courts in postcommunist politics." *Communist and Post-Communist Studies* 33(2):163–182.
**URL:** *isi:000086723600001*

Spaeth, Harold J., Lee Epstein, Andrew D. Martin, Jeffrey A. Segal, Theodore J. Ruger and Sara C. Benesh. 2017. *Supreme Court Database, Version 2017 Release 01*.

Stecker, Christian. 2016. "The effects of federalism reform on the legislative process in Germany." *Regional and Federal Studies* 26(5):603–624.

Sternberg, Sebastian. 2019. *No Public, No Power? Analyzing the Importance of Public Support for Constitutional Review with Novel Data and Machine Learning Methods*. University of Mannheim: PhD Thesis.

Sternberg, Sebastian, Thomas Gschwend, Caroline E. Wittig and Benjamin G. Engst. 2015. "Zum Einfluss der öffentlichen Meinung auf Entscheidungen des Bundesverfassungsgerichts: Eine Analyse von abstrakten Normenkontrollen sowie Bund-Länder-Streitigkeiten 1974 - 2010." *Politische Vierteljahresschrift* 56(4):570–598.

Stone Sweet, Alec. 2000. *Governing with Judges: Constitutional Politics in Europe*. Oxford: Oxford University Press.

Tate, C. Neal and Torbjorn Vallinder. 1995. *The Global Expansion of Judicial Power. The Judicialization of Politics*. New York: New York University Press.

Vanberg, Georg. 2001. "Legislative-Judicial Relations: A Game- Theoretic Approach to Constitutional Review." *American Journal of Political Science* 45(2):346–361.

Vanberg, Georg. 2005. *The Politics of Constitutional Review in Germany*. Cambridge: Cambridge University Press.

Vanberg, Georg. 2015. "Constitutional Courts in Comparative Perspective: A Theoretical Assessment." *Annual Review of Political Science* 18(January):1–19.
**URL:** *http://www.annualreviews.org/doi/abs/10.1146/annurev-polisci-040113-161150*

Weinshall, Keren, Lee Epstein and Andy Worms. 2018. "The Israeli Supreme Court Database, 2018 version.".
**URL:** *http://iscd.huji.ac.il*

Wittig, Caroline E. 2016. *The Occurrence of Separate Opinions at the Federal Constitutional Court. An Analysis with a Novel Database*. Berlin: Logos Verlag.