Patterns of democracy: A sub-national analysis of the German Länder

Markus Freitag^{a,*} and Adrian Vatter^b

^aDepartment of Politics and Management, University of Konstanz, PO Box 84, D-78457, Konstanz, Germany.

^bInstitute of Political Science, University of Bern, Lerchenweg 36, CH-3000, Bern, Switzerland.

*Corresponding author.

Abstract This article evaluates the patterns of democracy in the 16 federal states of Germany. By replicating Lijphart's analysis for the German sub-national context, we attempt to explain the connections between the political-institutional variables in the Länder democracies. Using factor analysis, it is possible to distinguish a three-dimensional pattern. Whereas the western area-states and Saxony tend to exhibit majoritarian traits, the eastern Länder and the city-states are more likely to display consensual patterns of power-sharing. The origins of these differing patterns of consensus and majoritarian democracy can be partially found in the unique constitutional traditions of their Allied occupying powers, critical historic junctures, as well as in the point in time when the state constitution was ratified.

Keywords: power-sharing; consensus democracy; majoritarian democracy; comparative analysis; political institutions

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Introduction

Arend Lijphart's (1984, 1999) identification of two ideal types of democracy, namely *majoritarian* and *consensus democracy*, is regarded as one of the most prominent achievements within the field of comparative politics. Some scholars even herald it as 'the single most influential typology of modern democracies' (Mainwaring, 2001, p. 171). Following Lijphart's conception of democracy, the present article aims to transfer his principal ideas to the political systems of the German Länder. While a significant amount of cross-national research on the relations and causes of political institutions and democratic patterns has

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been done, systematic investigations at the sub-national level remain scarce (Vatter, 2007). The 16 German Länder, with their different political institutions, socio-economic structures and historical legacies, constitute an extraordinary research laboratory within a small space, providing ideal conditions for comparative political analyses. Somewhat surprisingly, however, this resource has rarely been taken advantage of: Research continues to focus on the cooperation and conflicts between Bund and Länder in Germany, bearing testimony to 'a blind spot in German federalism research' (Blancke, 2004, p. 42). Save for a handful of exceptions, the individual political institutions and democratic structures of the Länder have tended to be overlooked by recent federalism research, constituting a kind of 'terra incognita' in the field of political science (Gunlicks, 2003; Mielke and Reutter, 2004; Leunig, 2007). This research gap can, to a large extent, be attributed to the assumption of homogeneity of the German member states, something which was challenged only a few years ago: 'The volume of research on sub-national government and politics in Germany is small [...] most of that what exists contents itself with descriptive aims. In conceptual and methodological terms it is therefore underdeveloped' (Kaiser, 2004, p. 1). The aim of the present article is therefore to begin narrowing this gap by using comparative methodology to explain the interdependences and patterns of democratic institutions in the German Länder (see, for example, Freitag and Vatter, 2008).

To reach this goal, a comparative empirical survey of the various patterns of democracy in the 16 Länder will be presented, as well as a comparison and contrast of the democratic features found in the German member states. In doing so, we strive to adapt the analysis and research techniques used by Arend Lijphart in his international comparative studies (1984, 1999) to the German Länder and to establish a relationship between international and sub-national patterns of democracy. Our research is based upon a *cross-sectional analysis* of the relationships and determinants of political institutions in the German Länder between 1990 and 2005.¹ First, we use a *factor analysis* to enquire into the most important dimensions underlying political institutions in the Länder. Second, a *graphic representation of a three-dimensional matrix* of the Länder ('democratic map') further and more precisely depicts the political-institutional characteristics of the German member states.

The advantage of our *research design* is that by comparing different political systems at the sub-national level, a central problem of international comparative research is avoided. Comparisons of nation states must take specific political forms and regulations as well as particular institutional contexts into account. In contrast, it is potentially less difficult to create *ceteris paribus* conditions for a systematic comparison of sub-national systems (Snyder, 2001). As the German Länder are units within the same national political framework, they share many characteristics that can be treated as

constants. The political-institutional variables, however, often vary as much as those found in national level comparative studies. In sum, the German Länder offer particularly good opportunities well suited for the application of the comparative method because they allow the establishment of relationships among a few variables, while controlling for many other background variables. In this sense, the systematic comparison of German Länder has the advantage of meeting the requirements of the most-similar systems research designs (Przeworski and Teune, 1970; Freitag and Schlicht 2009).

Following Lijphart, different dimensions of democracy will be identified at the conceptual level. While the *executive-parties dimension* primarily considers developments within the electoral, party, and government systems, the *federal-unitary dimension* mainly addresses specific features concerning the composition of a state. Lijphart's approach will be modified whenever certain components of the respective dimensions of democracy cannot be transferred to the sub-national level or when more specific variables and indicators are needed. While labour relations, bicameralism and central bank independence are therefore not included in the study of the German Länder, close attention will be paid to aspects of direct democracy.² We attempt to find answers to the following three questions:

- Do the German Länder exhibit more characteristics of consensual democracy or do they tend towards majoritarian democracy?
- Where are the 16 Länder situated on a democratic map in terms of horizontal and vertical power-sharing?
- What possible explanations are there for the Länder positions on the democratic map of horizontal and vertical power-sharing?

These central questions will be addressed as follows: First, the theoretical links to existing contributions in the field of empirical democracy research will be presented, as well as eight indicators of political-institutional configurations, which will allow for a quantitative positioning of the German Länder on the majoritarian/consensus democracy continuum. A discussion follows on the extent to which these political-institutional variables correlate to one another and to what degree the locations of the Länder determine a specially designed map of democracies. Lastly, we will present five possible explanations to account for the positioning of the Länder and then summarize our central findings in the conclusions.

Political Institutions in the German Länder

Starting with the criticism of classic institutionalism which claims that the latter restricts itself to formal legal institutions and inadequately covers

the breadth of variation of institutional arrangements in real democratic systems, thus leading to an under-specification of the most important types of democracy, the following analysis is based on Lijphart's (1999) well-known typology of democracies that has successfully established itself in comparative politics. In the factor analysis of the constitutional features and electoral outcomes of 36 different democracies, Lijphart reveals two dimensions: the first being the executive-parties (or joint-power) dimension, which is loaded on by the degree of electoral disproportionality, the effective number of parties, the frequency of one-party government, the average cabinet length and the interest group system. The second dimension, which Lijphart refers to as the federal-unitary (or divided-power) dimension, is loaded on by bicameralism, federalism, judicial review, constitutional rigidity and central bank independence. Following recent theoretical thought on political institutions, our analytical concept centres not only on the classic 'rules-in-form' (or 'institutional inputs'), but equally on the 'rules-in-use' (or 'institutional outputs') which have crystallized over time (Rothstein, 1996; Taagepera, 2003; Flinders, 2005; Rhodes *et al.*, 2006). Therefore, and in accordance with Lijphart's terminology (1999, p. 3), the 'institutional rules and practices' of the democracies of the German Länder lie at the heart of our research interests. Table 1 shows the eight political institutions that we will consider in depth. As our point of departure, we will now briefly introduce these institutional features which are the foundation of our empirical analysis. In light of the increasing importance of direct democracy in the German Länder, we pay special attention to these institutions of citizen law-making (see also Lijphart, 1984, p. 197 *et seq.*). A detailed overview of the operationalization of our variables is found in Appendix B1.

Electoral system

Lijphart (1984, 1994, 1999) uses the degree of disproportionality of an electoral system as defined by Gallagher (1991) to illustrate the extent of vote-seat distortion present within the system. Following Taagepera's (2003) critique of this variable, we develop an *additive index of electoral proportionality*, focussing on the determining institutional conditions. Criteria used include the electoral formula, the seat allocation formula, and threshold and alternative clauses. Over the course of analysing sub-national electoral systems, obvious differences between the German Länder become manifest: Whereas Bavaria, Berlin, Brandenburg, Bremen, Hamburg, Hesse and North Rhine-Westphalia have comparatively proportional electoral systems, representation is more disproportional in Baden-Württemberg, Lower Saxony, Saarland and Schleswig-Holstein.

Table 1: Institutions, variables and measurement

<i>Institution</i>	<i>Variable</i>	<i>Measurement</i>
Electoral system	Degree of proportionality of the electoral system	Index of electoral proportionality (based on electoral formulas, thresholds, and so on)
Party system	Effective number of legislative parties	Laakso-Taagepera index of fragmentation of the party system
Cabinets	Sharing of executive power	Oversized coalitions and minority cabinets (in %)
Executive-legislative relations	Degree of executive dominance	Institutional index of executive dominance (based on agenda-setting power, and so on)
Decentralization	Degree of fiscal decentralization	Tax revenue of the municipalities as a percentage of the total tax revenue of the Land (without conditional grants from Land level)
Constitutions	Degree of constitutional rigidity	Index of constitutional rigidity
Judicial review	Strength of judicial review	Index of judicial review
Direct democracy	Institutions of direct democracy	Additive index of direct democracy (formal access)

Party system

In line with Lijphart (1999), the Laakso-Taagepera index (Laakso and Taagepera, 1979) is used to measure the effective number of parliamentary parties. The index weights the parties according to their strength in terms of seats. Conceptually, with an increase in the effective number of parties in parliament, the degree of consensus democracy rises. A closer look at the positions of the Länder party systems on the consensus-majoritarian continuum reveals that 13 of the 16 German member states have a two-and-a-half or a three-party system. On average, for the period between 1990 and 2005, only three Länder have a greater (Berlin) or smaller effective number of parties (Bavaria and Saarland).

Cabinets

Lijphart (1999, p. 91) describes single-party and minimal winning cabinets as the most majoritarian type and oversized multi-party cabinets as the most consensual. Multi-party minority cabinets, multi-party minimal winning cabinets and one-party minority cabinets can be found in between these two forms of government. Taking the critique of Lijphart's (1999) decision to treat single-party minority cabinets as a majoritarian trait into consideration (Taagepera, 2003, p. 5), the proportion of governments, which were either oversized multi-party coalitions, minority coalitions or single-party minority cabinets is utilized to measure the consensus aspect in the government. That leaves single-party majority and minimal winning coalition cabinets as majoritarian characteristics. The debate of the correct classification of single-party minority cabinets refers to the fact that all minority governments, coalitions or not, have to share power with the opposition in order to stay in office (De Winter, 2005, p. 10). According to this modified Lijphart indicator, nine of the 16 Länder between 1990 and 2005 can be classified as majoritarian, with Bavaria, Saarland and Saxony showing clearly majoritarian traits. In this respect, consensus democracy is found in particular in the city-states of Berlin and Bremen, while Baden-Württemberg, Mecklenburg-Vorpommern and Saxony-Anhalt tend to exhibit consensual traits as well. Brandenburg and Rhineland-Palatinate take a middle position.

Executive-legislative relations

Lijphart's (1999) measurement of executive dominance *vis-à-vis* the legislative branch of government, which uses the average cabinet duration in days, has been the recipient of much criticism (Tsebelis, 2002; De Winter, 2005). Lijphart (2002, p. 110; 2003, p. 20) himself expresses serious reservations about the appropriateness of the indicator. First, the logical connection between the variable and its operationalization is lacking. Cabinet stability can follow from mere loyalty of the government to the parliamentary parties supporting it and while strong parliaments may provoke short-lived cabinets, it is neither a necessary nor a sufficient condition (De Winter, 2005, p. 11). Furthermore, Lijphart (1999, p. 134) is forced to assign values 'impressionistically', as the indicator has shortcomings in its empirical application. To avoid the severe shortcomings of cabinet durability, an index of formal executive dominance on the basis of Siaroff (2003) is used. It is derived from the concept of governments' agenda-setting power (Döring, 2001, 2005; Tsebelis, 2002, pp. 111–114). Consequently, the index of executive dominance encompasses agenda-setting prerogatives of the government, including the setting of the

plenary agenda itself, restrictions on members' initiatives, and the prerogative of curtailing debates. Additionally, plenum and committee rights, which vary significantly between the Länder, are incorporated in the index. Executive dominance is shown to be strongest in North Rhine-Westphalia and weakest in Schleswig-Holstein.

Decentralization

Lijphart (1999, p. 185) denotes the division of competences to different levels of government as the most drastic method of power-sharing. The highest degree of power-sharing is found in federal and decentralized states where regional interests can, in certain ways, influence the political decision-making process. In the context of German public administration, the municipalities are regarded as a separate level, although constitutionally they are part of the Länder. As far as vertical power-sharing is concerned, this is why we adapted the concept by which Lijphart assesses the municipalities' degree of autonomy relative to the Land parliaments (*Landtage*). As indicator of decentralization we used the proportion of municipal income to the total revenue of the respective Länder (see also Vatter, 2002; Vatter and Freitag, 2007). Financial transfers from the Länder to the municipalities, which are destined for a specific purpose (conditional grants from Land level), were not taken into account since such payments frequently aim at influencing municipal decisions. Following Lijphart (1984), the degree of decentralization can be derived from the municipalities' degree of fiscal autonomy. Baden-Württemberg, Hesse and North Rhine-Westphalia have a comparatively high degree of decentralization and possess a certain financial municipal autonomy, whereas Rhineland-Palatinate, Saarland, and especially the new Länder show strong centralistic tendencies.

Constitutional rigidity

As far as *constitutional rigidity* is concerned (the institutional barriers to the amendment of a constitution), the German Länder form a quite homogeneous group. For example, in no Land the constitution can be amended by a simple majority vote. Most Länder require the approval of two-thirds of the members of their parliament. Following Lijphart (1999) and Lorenz (2005), we develop an index to measure constitutional rigidity that takes the majorities needed to amend a constitution and the number of ballots to be taken into account. Bavaria exhibits the highest degree of constitutional rigidity, Baden-Württemberg and Hamburg the lowest.³

Judicial review

For measuring the strength of judicial review we use an additive index, which bundles the number of competences as well as the citizens' direct means of access. There are few differences between the Länder in terms of the general configurations of *constitutional jurisdiction*. All of them make use of the so-called 'Austrian model', assigning the authority to approve of the constitutionality of laws to a central court whose judges are appointed by the *Landtag*. According to our measurements, judicial review is strongest in Bavaria and weakest in Schleswig-Holstein, where a constitutional court did not yet exist during the period under investigation. Pursuant to Article 99 of the Basic Law, the competence for the decision of constitutional conflicts was assigned to the Federal Constitutional Court. It must be emphasized that none of the constitutional courts examined can really be classified as weak; they all have extensive competences as far as the settling of disputes between the legislative and the executive as well as the monitoring of the constitutionality of laws are concerned.⁴

Direct democracy

In his later research, Lijphart only uses the variable *direct democracy* – originally one of the nine political-institutional variables in Lijphart's (1984) typology of democracies – to indicate the possibility of constitutional amendment (Lijphart, 1999). Unlike at the federal level, there are various possibilities for direct democracy at the level of the German Länder. Within the last few years, several direct democratic institutions were introduced into the process of political decision-making. Initiatives and referendums had gradually taken root in all German Länder by 1997. Pertinent legislation reveals major differences between the Länder concerning, for example, signature requirements or deadlines (Freitag and Wagschal, 2007; Eder and Magin, 2008). In order to determine whether the institutional rules of direct democracy effect the concentration or sharing of power, we construct an index of direct democracy that measures the degree of power-sharing of direct democratic instruments in the Länder on the basis of their regulatory framework. We discover patterns that show obvious differences between the Länder and disclose the development trends of direct democratic institutions. While North Rhine-Westphalia shows the strongest majoritarian tendency, most of the Länder can be described as slightly majoritarian. The direct democratic institutions available in Bavaria, Brandenburg and Rhineland-Palatinate, on the other hand, indicate a more consensual form of direct democracy.

From the eight variables used in the factor analysis, three independent factors emerge that illustrate the multidimensionality of Lijphart's concept of democracy. These new factors each include at least two of the original variables which are regrouped depending on where they show the highest factor loadings. Save for one exception, all variables have high loadings for only one factor, with a high loading defined as a loading per factor of greater than 0.5 (Backhaus *et al.*, 2006).

For the first factor, the highest loading is found in the type of cabinet, followed by the degree of decentralization, electoral disproportionality, and the effective number of parties. We will call this factor *consociational-centralized dimension* because its institutional configuration – apart from the absent minority veto – almost exactly corresponds to the elements of an ideal type of consociational democracy as described by Lijphart (1977). The variables degree of constitutional rigidity and strength of judicial review have similarly high loadings for the second factor as the aforementioned four variables do for the first factor, emphasizing the special significance attributed to the constitution and constitutional courts in Germany. The federal-unitary dimension as the second factor originally identified by Arend Lijphart (1999) is thus reduced to two variables, which shall herein be denoted as the *judicative power-sharing dimension*. Our third factor includes executive-legislative relations and the degree of direct democracy. Since both variables refer to control of the government either by parliament or by the people, they will be combined in the so-called *executive power-sharing dimension*. It is to be noted, however, that the last variable, direct democracy, also is related to the second factor, albeit weakly.

From these findings, certain conclusions can be drawn about the German Länder.⁶ In contrast to earlier studies (Lijphart, 1984, 1999; Grofman, 2000), direct democracy is not shown to be a variable that is independent of all other political institutions; rather, it is closely connected to the executive-legislative relations along the *executive power-sharing dimension*. A high degree of power-sharing between executive and legislative entails a high probability of direct democracy; or, to put it differently, the Länder with strong parliaments tend to also have a high degree of direct democracy. Nevertheless, due to its institutional connectedness, direct democracy loads on the *judicative power-sharing dimension*. In Bavaria, Bremen (until 1994), Hesse, and, in exceptional cases, Berlin referendums are able to be held on amendments to the constitution. Furthermore, the constitutional courts are significantly involved in the implementation of direct democratic processes, a fact that becomes particularly evident when, for example, a legal decision on an application for admission must be made. Finally, we notice that the degree of decentralization has a factor loading of -0.80 on the *consociational-centralized dimension*, indicating that a higher concentration of power in favour of the Länder government entails a higher degree of autonomy at the municipal level.

Since the factor analysis does not allow us to comment on the position of the German Länder in relation to each other along the three dimensions of power-sharing, we will use a democratic map to illustrate these relationships (cf. Lijphart, 1999, p. 248). Figure 1 shows a three-dimensional matrix comprising our eight variables.⁷ By using the bubble-plot technique, three dimensions can be depicted in a two-dimensional scatter diagram when the size of each data bubble corresponds to its value on the third dimension (Jacoby, 1998). The horizontal axis shows the variables of the first (*consociational-centralized*) dimension; the vertical axis represents the second or *judicative power-sharing dimension*. The 16 German Länder are situated between consensus (positive values) and majoritarian (negative values) democracy. The third or *executive power-sharing dimension* is represented by the size of the bubbles – the bigger a bubble, the higher the loading on the third dimension, thus indicating a high degree of institutional power-sharing.

Figure 1 shows that the German Länder, which from an international point of view appear to form a homogeneous group, differ from one another along all three dimensions as far as their institutions are concerned. One should however bear in mind that our map represents only a portion of Lijphart's map of democracy (1984, 1999). In contrast to international studies, the German

Figure 1: Three-dimensional democratic map of the German Länder, 1990 to 2005.

Note: Bubble size = executive power-sharing dimension

Empirical Results: Three Dimensions of Democracy in the German Länder

The question now arises as to whether relationships can also be found between the most important political institutions in the German Länder democracies, as have been observed at the national level in a comparative perspective of 36 democracies. The appropriate method to investigate a set of variables with an ordering structure is a factor analysis, which allows individual variables, by virtue of their correlations, to be classified into independent groups. This statistical procedure allows us to tease out one or several dimensions underlying the different variables (Kim and Mueller, 1978; Lijphart, 1999, p. 245; Backhaus *et al.*, 2006).⁵ In order to determine the number of factors for the present case, the so-called 'Kaiser criterion' will be used, which sets the number of factors to be extracted equal to the number of factors with eigenvalues greater than 1.0.

Table 2 shows the results of the factor analysis with the eight variables. The variables electoral disproportionality, degree of direct democracy, executive-legislative relations, constitutional rigidity and judicial review are operationalized by means of specially developed indices. The effective number of parties serves as an indicator for the party system, the ratio of consensual government types stands for the type of cabinet, and the degree of decentralization is represented by the proportion of municipal income as compared to the total revenue of the Länder (without conditional grants from Land level). The period under investigation is limited to the years 1990 to 2005, as data cannot be uniformly obtained for all variables and all Länder for the period before German reunification. The units of analysis are the 16 German Länder. The values specified for each variable indicate the factor loadings, which can be interpreted as correlation coefficients between the variable and the factors. The indicator values are summarized in Table B1 in Appendix B.

Table 2: Varimax orthogonal rotated factor matrix of the eight variables in the 16 German Länder, 1990 to 2005

<i>Variable</i>	<i>Factor I</i>	<i>Factor II</i>	<i>Factor III</i>
Type of cabinet	0.87	-0.13	-0.01
Degree of decentralization	-0.80	0.08	-0.36
Electoral disproportionality	0.79	0.46	-0.03
Effective number of parties	0.75	-0.45	-0.01
Constitutional rigidity	-0.17	0.81	0.10
Judicial review	-0.00	0.74	0.03
Executive-legislative relations	0.11	-0.07	0.97
Degree of direct democracy	0.03	0.52	0.73

Note: Eigenvalues over 1.0 extracted; significant values above the critical threshold of 0.5 in bold.

Länder do not span the extreme range between the polar opposites of unitary Westminster and federal consensus democracy. They rather represent several forms of democracies with varying degrees of decentralization that oscillate between slightly consensual and slightly majoritarian on Lijphart's first dimension of power-sharing. A clear indication of this pattern is the effective number of parties, which, during the period of investigation (1990–2005), varies from 2.06 (Bavaria) to 3.54 (Berlin). The mean approaches 2.84, which corresponds to the value measured for the Federal Republic of Germany for the years 1971 to 1996. According to Lijphart (1999, p. 255), this value can be placed almost exactly halfway between the two ideal types of democracy, drifting slightly towards consensus democracy.

With regard to the *consociational-centralized dimension* of our democratic map, it can also be noted that while the West German area-states and Saxony are situated on the majoritarian side, the other East German Länder and all city-states are found on the consensual side. From an international point of view, the German Länder – as far as the first dimension is concerned – are neither distinctively consensus nor majoritarian democracies, but rather a kind of hybrid. For the second, or *judicative power-sharing dimension*, Figure 1 shows a concentration around the central axis. Bavaria has the most consensual structure, while Baden-Württemberg and Schleswig-Holstein tend more towards the majoritarian side. It should also be mentioned that, in terms of international comparison, the constitutional courts in all Länder can be considered as strong institutions with far-reaching authorities (abstract and concrete judicial review as well as procedural means to resolve conflict between governing bodies). According to Lijphart's typology, all the Länder have relatively rigid constitutions that can only be amended by means of a two-thirds majority. This means that their constitutional rigidity would be classified by Lijphart with a value of 3 on a scale ranging from 1 to 4. This dimension is characterized by an overall high degree of power-sharing and distinct federal-consensual traits in international comparison. It appears to be rather difficult to place our third dimension of power-sharing in an international context; on the one hand, the executive has a relatively dominant position compared to the legislative. On the other hand, swift increase in the strength of direct democratic institutions in the Länder has been observed over the past few years. Overall, and with regard to the executive power-sharing dimension, Baden-Württemberg, Hesse and North Rhine-Westphalia strongly tend towards a concentration of power, whereas Bavaria, Lower Saxony, Rhineland-Palatinate and Schleswig-Holstein tend clearly towards a diffusion of the executive. It is to be noted that these results, based on a political-institutional analysis, contradict the findings of existing local government approaches. The latter tend to measure the sub-national type of democracy in terms of local party polarization. As a

result, Baden-Württemberg, for example, is always classified as a Bundesland with unambiguously consensual structures.

The German Länder between Consensus and Majoritarian Democracy: Explaining the Different Configurations

Finally, we wish to examine the reasons underlying the similarities and differences between the political-institutional configurations in the German Länder. Do the democratic political institutions of one Land resemble those of another German member state due to geographic proximity, or does the development of specific patterns of democracy depend rather on other factors, such as a common historical legacy or exceptional and decisive historical events?

Empirical democracy research offers various approaches to explain the political-institutional development of democracies. Following Lijphart (1999, p. 250 et sqq.), Kaiser (1997, p. 422) and Vatter (2002, p. 414 et sqq.) and giving special consideration to the historical factors in the development of the Länder democracies, we will discuss five possible explanations: (1) the importance of geographic-spatial proximity; (2) the transfer of institutions to the new Länder from their West German partner states in the wake of German reunification; (3) the year in which the Länder constitutions were ratified; (4) the historical impact of the Allied occupying powers and their constitutional traditions; and (5) the 'critical junctures' hypothesis.

1. A first possible explanation for the development of different political-institutional patterns is the *geographic proximity of political systems*. Can the institutional patterns and innovations of its neighbour states gradually influence the architecture of a German member state? A cursory glance at the democratic map clearly reveals that the geographical position of the Länder rarely has an impact on their institutional development. For example, in Figure 1 Schleswig-Holstein is positioned directly next to Baden-Württemberg, and Bremen next to Berlin, – these states clearly do not share common geographical borders. Overall, there are many such cases where Länder positions on the map do not correspond to their actual geographic ones. Only the cumulative clustering of the southern German states in the upper left, or the concentration of the northern Länder in the lower right corner allow for weak conjectures to be made about the impact of regional neighbour cultures. The new Länder, however, form a relatively homogeneous group, with the single exception of Saxony's position along the first dimension. The comparatively majoritarian position of this member state can be attributed to the long-term sole dominance of CDU governance and to the distribution of parliamentary seats according to the d'Hondt procedure.

2. A second explanation relates directly to a particularity of the development of liberal-democratic constitutional structures in the new Länder during the early 1990s following German reunification: the *transfer of institutions from the western Länder to the new Länder in East Germany*. After the collapse of the German Democratic Republic, each new Land was assigned to one or more of the old Länder, which through personnel and financial support, tried to further the development of the public administrations. In this process, Brandenburg cooperated with North Rhine-Westphalia; Mecklenburg-Vorpommern with Schleswig-Holstein and Hamburg; Thuringia with Hesse and Rhineland-Palatinate; Saxony with Baden-Württemberg and Bavaria; and Saxony-Anhalt with Lower Saxony. As our analysis reveals, there are few to no similarities between the new Länder and their respective western partners. The largely predominant West to East transfer of institutions at the administrative level (Seibel and Reulen, 1996) was not followed by a mimetic transfer of political-institutional configurations concerning the electoral, party and government systems.

3. A third analytical approach focuses on the *date of ratification of the Länder constitutions*. A closer look at the positions of the Länder along the judicative power-sharing dimension reveals two things: First, apart from a few exceptions, the German Länder are located within one standard deviation. In other words, with the exceptions of Bavaria, Baden-Württemberg, Hesse and Schleswig-Holstein, we find a comparatively homogeneous cluster as far as the design of constitutional courts and constitutional rigidity are concerned. Without exceptions, this convergence is particularly visible in the East German Länder, who apparently followed the example of the western states when creating the constitution and constitutional courts. On the other hand, if one only considers the western states, excluding the city-states, a much greater variance is observed. The positions of the Länder are, to a large extent, related to the ratification date of their constitutions. Those western states whose constitutions were ratified before the Federal Basic Law went into effect in 1949 are situated in the upper left corner; the Länder with constitutions which were ratified after that year are found in the lower left corner.⁸ The former constitutions are called 'full constitutions' because they include a variety of human rights laws as well as detailed organizational regulations. For constitutions ratified after 1949, human rights laws were not explicitly included as they were already covered by the Basic Law (Gunlicks, 2003, p. 145).

4. The *idea of political heritage* focuses on the states' common historical background. For example, one can primarily trace the prevalence of the Westminster model of democracy in the Caribbean and oceanic countries back to the fact that they once were British colonies (Lijphart, 1999, p. 250). According to these thoughts, the specific patterns of democratic techniques of

conflict settlement can be reduced to a common legacy and to past constitutional traditions. In the context of Germany, it might be particularly interesting to consider the extent to which the patterns of democracy and the political-institutional configurations observed between 1990 and 2005 in the western member states reflect an impact of their former occupying powers.⁹ According to Pfetsch (1990), the plans for the reorganization of Germany were influenced by a number of elements of Allied political culture and historical constitutional concepts. For this purpose, each occupying power resorted to its own constitutional traditions. The Americans tried to primarily introduce their liberal-capitalist, democratic and federalist ideas. The British occupiers wanted their familiar elements, such as the first-past-the-post system and other principles of majoritarian politics, to be adopted. The French, in turn, were keen on the acceptance of their idea of parliamentary systems and their tradition of human rights and culture. However, all of these specifications could only be put into practice if they were compatible with the traditions of the respective German *Länder* or were supported by the occupied German side (Pfetsch, 1990, p. 241). Pfetsch (1990) therefore arrives at the conclusion that the Allied powers did not so much act as pacemakers but rather as 'organizers' at the birth of the constitutions. The Allied powers influenced the constitutions of the German *Länder* mainly as 'initiators, organizers and catalysts of the process' (Pfetsch, 1990, p. 244). According to Pfetsch (1990), lasting effects of the Allied powers on the different patterns of democracy should be negligible. Nevertheless, some of the *Länder* positions and institutional measurements show distinctive features that may correlate directly with the constitutional traditions of the Allied powers. Bavaria and Hesse, for example, have high values along the judicative power-sharing dimension (that is, relatively strong constitutional courts), which clearly corresponds to the strength of the US courts and, in particular, to the Supreme Court. They also show strong decentralization and convey the American idea of territorial power-sharing and the financial autonomy of small political subdivisions. Lower Saxony, North Rhine-Westphalia and Schleswig-Holstein are positioned in the more majoritarian lower left corner and seem to reflect the British tradition in terms of their relatively weak judicative. Within this group, Lower Saxony and Schleswig-Holstein exhibit relatively disproportional electoral systems, whereas North Rhine-Westphalia shows a high concentration of power in favour of the executive. To a certain extent, the impact of French occupation can only be seen in Rhineland-Palatinate. The degree of executive power diffusion may reflect the French ideal of a comparatively strong parliament at this time (Pfetsch, 1990, p. 243). However, relying on the constitutional ideas of the occupying powers certainly does not sufficiently explain the positioning of the *Länder* on our democratic map. Neither the position of Saarland (weak parliament, comparatively strong centralization) nor those of Lower Saxony

(strong executive power-sharing) and Hamburg (with a tendency towards consociational democracy) can be completely accounted for by the impact of the Allied powers. Furthermore, it is difficult to align the more proportional electoral systems, as found in North Rhine-Westphalia and Hamburg, with the British model. Baden-Württemberg, however, comprises a special case for two reasons: First, this south-western German state was not established by the occupying powers, but came into existence only as of 1952 by way of referendum. Second, the territory was divided by two western powers (the French occupation in the south and the American occupation in the north and west), rendering a distinct influence by a single occupying power rather unlikely.

5. The fifth possible explanation is based on the central hypothesis of historical institutionalism, a theoretical approach that explains institutional arrangements primarily as a legacy of past social conflicts which have left their mark on the present. The historical continuity of political institutions is primarily attributed to *certain significant historical events or critical junctures*, which preclude alternative developments (Collier and Collier, 2002). A decision made at such a critical juncture may lead to a turning point and institutional reforms due to the lessons learned. While these reforms may be a consequence of the historical context, they also redefine the configuration of an institutional regime. For example, the position of Schleswig-Holstein along the executive power-sharing dimension can be attributed to a growing mistrust towards the government during the beginning of the 1990s. In the wake of this development, the legislative and the people as controlling bodies were strengthened (Gunlicks, 2003, p. 141), which, if nothing else, resulted in an increase in the index value measuring parliamentary strength from 3.2 (for the period before 1990, not covered here) to 6.0 (for the period after 1990). The ratification of the new constitution in 1990 formed the backdrop for this development. The constitutional reforms were triggered by responses of a parliamentary investigation into the so-called 'Barschel Affair' at the end of the 1980s. The commission recommended that the *Landtag* undergo institutional reforms, with the primary objectives of more effective control of the government as well as a strengthening of parliamentary rights (Mutius *et al.*, 1995, p. 6 *et seq.*). These goals were achieved by the introduction of extensive rights of initiative and information for the benefit of the *Landtag* members. In addition to the extension of parliamentary supervisory rights, the instruments of direct democracy established in Schleswig-Holstein over the course of the Barschel Affair bear witness to the significant impact such critical junctures can have on institutional reform and change. Alongside the incidents in Kiel, Saxony's position along the first dimension also attests to the importance of particular historical landmarks – namely, the unique predominance of the CDU under the leadership of

Kurt Biedenkopf during the 1990s, something which is nearly unheard of in the eastern Länder.

Finally, we feel it necessary to point out that the positioning of the Länder along the first and third dimensions are also influenced by day-to-day political events. These positions are determined by elements such as the effective number of parliamentary parties, the composition of government, and by parliamentary supervisory activities. These political institutions, particularly at the member state level, are liable to certain changes and are notably accommodating to the character of a sub-national experimental ground. Unlike the aforementioned dimensions, the elements of the judicative power-sharing dimension, save for transformations due to extraordinary developments such as German reunification, are substantially more resistant to change.

Conclusions

This article builds on Lijphart's (1999) typology distinguishing majoritarian and consensus democracy and its two sub-dimensions, namely one executive-parties and one federal-unitary dimension. Relying on data that we compiled ourselves and by including information on eight political-institutional variables in the 16 German member states for the period from 1990 to 2005, we were able to carry out principal component analyses. Following the logic of the original typology in terms of the overarching poles of consensualism and majoritarianism, we incorporated direct democratic institutions in our analysis, while leaving out central bank independence, interest groups and bicameralism, giving us a total of three sub-dimensions for the German Länder.

Of note is that the findings of our sub-national analysis have obvious similarities to Lijphart's (1999) study of national states: For example, along the first dimension and also found by Lijphart, the variables electoral disproportionality, effective number of parties and type of cabinet are correlated strongly, supporting the causal link between these three variables (Taagepera, 2003) for the sub-national context as well. Likewise, we found that the variables constitutional rigidity and judicial review load high on the second dimension. The logic underlying the combined occurrence of these two institutions is formulated by Taagepera (2003, p. 11) as follows: 'Rigid constitutions (...) could be argued to need judicial review, because otherwise the central parliament could all too easily construe the wording of the constitution in its favour. At the other extreme, no judicial review can possibly take place in the absence of a written constitution' (see also Lijphart, 1999, p. 218). Moreover, the development of an independent second dimension also

illustrates the special strong position occupied by the constitution and constitutional courts in Germany.

In our findings there are however two obvious deviations from Lijphart's (1999): (1) The degree of decentralization belongs to the same dimension as the type of cabinet, the number of parties and electoral disproportionality and (2) the variable for executive-legislative relations does not belong to this dimension; it, together with direct democracy, forms a separate element. The degree of decentralization has a strong negative correlation with electoral disproportionality, the effective number of parties and type of cabinet – demonstrating that an increase in concentration of power in favour of the Länder government results in autonomy gain for the municipalities. This empirical result can best be reconciled with Kaiser's (1998) concept of multidimensional veto point democracy.¹⁰ Kaiser (1997, 1998) distinguishes between various dimensions of veto points, referring particularly to the compensatory relationship between political-institutional veto points and the suppression of majority rule. By the same token, the outcomes of our factor analysis indicate that compensatory effects between the political institutions – with regard to the constant goal of a balance of power – play an important role in the German Länder democracies. In this sense, we can support Kaiser's (1998) critique of the one-dimensional framework of counter-majoritarian institutions by Huber *et al* (1993) or McGann's (2004) critique of Tsebelis' (2002) one-dimensional veto points approach. In the present case, it seems similarly imprudent to simply tally up the institutional veto points, for this would cause the different characteristic dimensions of power-sharing and the specific interaction of institutions in the German democracies to essentially disappear. Theoretically, as well as empirically, it is more useful to allow for the variety and the functional equivalence of political-institutional arrangements in the German Länder by differentiating between at least three different dimensions of political institutions.

To date, analyses of German federalism have mostly adopted an overall view of federal politics, paying particular attention to the *Bundesrat* (upper house of parliament) while neglecting the perspective of the Länder. The existing studies particularly emphasize both the strongly developed political interconnections as well as the institutional incompatibilities between the competition-oriented party system and the cooperative federalist principles, which complicate political control and thus favour reform blockages. This state of affairs is compounded by a lacking autonomy of the Länder, the constant increase in the number of tasks at the central state level, and insufficient competitive federalism as a consequence of dysfunctional cooperative federalist structures in Germany (Moore *et al*, 2008). The present findings with regard to the democratic patterns in the individual Länder indicate that the established idea of a uniform federal system in Germany is greatly overrated and needs to be

revised for recent times. Moreover, our findings are also of considerable relevance for the longstanding controversy over the question of whether German federalism is overregulated and too little space is granted to the regional peculiarities of the Länder (Benz, 2008; Scharpf, 2008). In particular, our results from a comparative 'bottom-up' perspective show that to date, the heterogeneity of politico-institutional configurations in the different Länder has been significantly underestimated – something which can be impressively illustrated by, for instance, contrasting the majoritarian-decentralized structures of Bavaria on the one hand with the concordance-democratic features of Berlin on the other. All in all, a comparison of the individual Länder reveals an astonishing range of different political institutions with conspicuous differences, which in turn reflects the dissimilar concepts of democracy on Germany's sub-national level and thus makes the homogeneity theory established in German federalism research seem outdated.

Finally, our findings also relativize the negative appraisals of the efficiency of German federalism and indicate that generally, Germany's federal order disposes over a considerable diversity of political structures and thus also over sufficient openness to strengthen competitive federalism (Hildebrandt and Wolf, 2008). In this respect, our findings corroborate the assessment that the German Reunification has forced the tendency towards deconcentration and decentralization and that the pull of unitarianism has come to a standstill. Finally, the Federalism Reform of 2006 with its abolition of framework legislation and joint tasks leads one to expect that political institutions and actors such as parties, constitutional courts and direct democracy at the Länder level should become more important.

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About the Authors

Markus Freitag (1968) is professor of comparative politics at the Department of Politics and Management, University of Konstanz, Germany. He studied political science and economics at the Universities of Heidelberg and Bern

(PhD and Habilitation) and was Assistant Professor at the Humboldt-University of Berlin. He has published on trust, social capital, direct democracy, comparative public policy and voter participation in the *British Journal of Political Science*, *Comparative Political Studies*, *European Journal of Political Research*, *European Union Politics*, and *Publius*.

Adrian Vatter (1965) is professor of political science at the Institute of Political Science, University of Bern, Switzerland. He studied political science and economics at the University of Bern (PhD and Habilitation) and was a visiting scholar at the University of California at Los Angeles. His current research interests are Swiss and German politics, federalism, direct democracy, and policy analysis. He is the author of several books and numerous articles on Swiss and comparative politics.

Notes

- 1 The reasons why we have based our analyses on the period from 1990 to 2005 and have refrained from analysing sub-periods are the following: (1) First, by using an extended time span we hope to mask out strong aberrations caused by particularly momentous historical events. In democracy research, periods in which states are newly formed are considered to be 'moments of great drama' which are accompanied by incomparable political, social and economic tensions (Kostadinova, 2003, p. 743). For instance, with regard to decentralization, the enormous structural changes inherent in the transition from a communist to a capitalist regime, as well as the legacies of the GDR – particularly in the area of public service – led, in the early 1990s, to considerable fluctuations in the field of public finance. (2) Moreover, a restriction of the analysis to the first half of the 1990s would be forced to confront a large number of gaps in the available data: For instance, the constitutions of the new Länder only entered into force between June 1992 and October 1993. In the preceding years, the five new Länder used provisional constitutions which consisted of only a small number of organizational state regulations. The constitutional courts of the East German Länder (including Berlin) only took up work between 1992 (Berlin) and 1995 (Mecklenburg-Vorpommern, Thuringia). Additionally, in Berlin and Hamburg popular legislation has existed only since 1997 and 1996, respectively.
- 2 While the feature of bicameralism is not relevant in the German Länder between 1990 und 2005 (only in Bavaria a powerless second chamber existed until 1999) and central bank independence simply does not exist at the sub-national level we have not included the system of labour relations in our analysis of the Länder for the following reasons. In the first place, it should be noted with reference to the relevant literature that the levels at which labour relations are negotiated are not identical with the political boundaries of the Länder (Keller, 2008). On the one hand, a stronger decentralization of labour relations can be observed where negotiations are held at company level. On the other hand, in individual sectors the levels of negotiation sometimes extend over several Länder (for instance, the northern German metal industry employers' association, the Nordverbund, covers the federal states of Hamburg, Bremen, Mecklenburg-Vorpommern, Schleswig-Holstein and parts of Lower Saxony), whereas in other cases the results of negotiations achieved at the federal level are implemented by all of the regional units of the Länder (for example, in the civil services sector). Furthermore, by

concentrating on the electoral and party systems, government, parliament, the state architecture, justice and direct democracy, we follow Schmidt's (2000, p. 349 et seq.) much-noted criticism of Lijphart (1999) in which Schmidt accuses Lijphart of, on the one hand, overstressing the concept of democracy by taking into account institutions such as the Central Bank and labour relations. On the other hand, Schmidt considers Lijphart to insufficiently consolidate the form of governance by disregarding essential components of democracy, such as direct democratic participation rights.

- 3 The correlation often claimed to exist between constitutional rigidity and the frequency of constitutional amendments cannot be confirmed for the German Länder because despite great similarities concerning constitutional rigidity there are major differences between the Länder when it comes to the frequency of constitutional amendments.
- 4 In contrast to Lijphart's assumption (1999), the existing variance of judicial review can only be inadequately explained by different degrees of constitutional rigidity.
- 5 The factor analysis chosen here is a principal component analysis with orthogonal, rotated factor loadings in accordance with the Varimax Criterion. Principal component analysis is the most commonly used and most important technique for the determination of factors. In principal component analysis, the coordinate system with the factorizing characteristics is rotated so that new axes emerge, successively explaining maximum variance. The orthogonal (right-angled) rotation technique ensures that the factors are independent of each other (reciprocally uncorrelated). Rotation using the Varimax Criterion causes the factors to be rotated in such a way that the variance of the squared loadings per factor is maximized. This process aims to create the best possible structure for the significant factors.
- 6 An isolated analysis for the West German member states has confirmed the structure of factors.
- 7 The exact factor values for all German Länder are located in the appendix.
- 8 The constitutions of the Länder (the new Länder and the city-states excluded) were ratified on the following dates: Baden-Württemberg, 11 November 1953; Bavaria, 2 December 1946; Hesse, 1 December 1946; Lower Saxony, 13 April 1951; North Rhine-Westphalia, 28 June 1950; Rhineland-Palatinate, 18 May 1947; Saarland, 15 December 1947; and Schleswig-Holstein, 13 December 1949.
- 9 The American occupation zone included Bavaria, Bremen, Hesse and Württemberg-Baden. The British zone extended to Hamburg, Lower Saxony, North Rhine-Westphalia and Schleswig-Holstein. France occupied Baden, Rhineland-Palatinate, Saarland and Württemberg-Hohenzollern, whereas the Soviet Union controlled the territory of today's new Länder (Brandenburg, Mecklenburg-Vorpommern, Saxony, Saxony-Anhalt and Thuringia). Berlin was divided into four sectors which later formed West and East Berlin (Pfetsch, 1990, p. 27 et seq.).
- 10 Kaiser (1998) differentiates between various dimensions of veto points in political systems. The veto points may exist in a compensatorily interdependent relationship to one another (consociational veto points, influential and decisive points of delegation, influential and decisive points of expertise, and legislative veto points). With this approach, veto points are not simply added up, but rather categorized according to their functions and effects in order to preserve the patterns of power-sharing and interaction specific to the units of analysis.

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Appendix A

Table A1: Factor values for the 16 German Länder

<i>Land</i>	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>
Baden-Württemberg (BW)	–0.45	–1.54	–0.93
Bavaria (BV)	–0.87	2.49	0.83
Berlin (BE)	1.87	–0.52	0.78
Brandenburg (BB)	0.53	0.17	0.10
Bremen (HB)	1.99	0.16	0.13
Hamburg (HH)	0.62	–0.39	0.79
Hesse (HE)	–0.25	1.14	–1.17
Mecklenburg-Vorpommern (MV)	0.51	–0.03	–0.44
Lower Saxony (LS)	–1.37	–0.92	0.88
North Rhine-Westphalia (NW)	–0.43	–0.41	–2.41
Rhineland-Palatinate (RP)	–0.35	0.73	1.29
Saarland (SL)	–1.05	0.13	–0.22
Saxony (SN)	–0.65	0.27	–0.28
Saxony-Anhalt (ST)	0.74	–0.31	–0.16
Schleswig-Holstein (SH)	–1.11	–1.60	1.38
Thuringia (TH)	0.27	0.62	–0.57

Note: Factor 1 = consociational-centralized dimension, Factor 2 = judicative power-sharing dimension, Factor 3 = executive power-sharing dimension.

Appendix B

Index of Electoral Proportionality

This index measures the degree of electoral proportionality in the German Länder over time. It is comprised of three indicators and is calculated as follows (see Table B1):

Index of electoral proportionality $(x)_t =$

$$\frac{\text{Electoral\_formula}_t + \text{Seat\_allocation\_formula}_t + \text{Electoral\_threshold}_t}{3}$$

Coding of indicators: '0' (low) and '1' (high). Analogous to the aggregated index values.

Electoral formula: This indicator is comprised of the means by which citizens elect their representatives and the availability of compensatory additional list seats (*Ausgleichsmandate*). Losers and Surplus Method = 0; list proportional representation = 1; personalized proportional representation = 0.5; personalized proportional representation with compensatory additional list seats available = 0.75.

Seat allocation formula: d'Hondt = 0; Hare-Niemeyer and Sainte-Laguë = 1.

Electoral threshold: Indicator combining threshold and alternative clauses. Threshold above 5 per cent, no *Grundmandat* clause = 0; no threshold = 1.

Effective Number of Parties

The effective number of parties as defined by Laakso and Taagepera (1979); own calculations on the basis of the parties' seat shares in parliament ($ENP = 1/\sum p_i^2$). [ENP = effective number of parties].

Type of Cabinet

per cent of consensual forms of government, defined as oversized coalitions, grand coalitions of CDU and SPD supported by at least two-thirds of the members of parliament and minority cabinets in relation to all governments, without caretaker governments, weighted by days.

Institutional Index of Executive Dominance

Additive, unweighted index, consisting of 10 items with a range of values from 0 to 1 for each item. Three items describe the electoral functions (A through C);

Table B1: Indicator values for 1990 to 2005

	<i>Index of electoral proportionality</i>	<i>Effective number of parties</i>	<i>Type of cabinet</i>	<i>Institutional index of executive dominance</i>	<i>Tax revenue of the municipalities as a percentage of the total tax revenue of the Land</i>	<i>Index of constitutional rigidity</i>	<i>Strength of judicial review</i>	<i>Additive index of direct democracy</i>
BW	0.42	3.09	0.30	4.00	46.65	1.17	-0.05	1.60
BV	0.75	2.06	0.00	5.50	44.75	1.83	0.92	3.51
BE	0.83	3.54	0.74	5.50	0.00	1.33	-0.39	2.93
BB	0.81	3.02	0.33	4.52	34.51	1.33	-0.05	3.12
HB	0.92	2.94	1.00	5.29	0.00	1.38	-0.09	2.45
HH	0.81	2.84	0.00	5.52	0.00	1.17	0.31	2.65
HE	0.73	2.73	0.00	3.00	45.65	1.50	0.66	2.67
MV	0.73	2.88	0.53	3.71	33.55	1.33	-0.34	2.92
LS	0.42	2.43	0.00	5.31	43.93	1.30	-0.54	2.82
NW	0.75	2.54	0.00	2.00	50.99	1.33	-1.18	1.51
RP	0.73	2.66	0.00	5.50	37.37	1.33	0.79	3.88
SL	0.50	2.19	0.00	4.00	34.99	1.33	0.54	2.53
SN	0.56	2.57	0.00	3.95	36.96	1.33	0.79	2.69
ST	0.73	3.34	0.52	4.21	36.50	1.33	-0.34	2.97
SH	0.49	2.69	0.00	6.00	41.14	1.33	-1.79	2.84
TH	0.73	2.69	0.32	3.70	31.50	1.33	0.75	2.81

three the control functions (H through J); and four the legislative function of parliaments (D through G). In order to account for amendments to the institutional rules under consideration in a given Land over time, the affected indicator will be weighted by days. Low values indicate executive dominance:

A: *Formation of the government*: 0 = Parliament elects only the head of government; 0.5 = Cabinet is appointed by the head of government, requires parliamentary approval; 1 = Parliament elects the head of government and the individual ministers.

B: *Vote of no-confidence by the parliament*: 0 = no vote available; 0.5 = no-confidence vote only against the head of government; 1 = no-confidence vote also available against individual ministers.

C: *Motion of Confidence*: 0 = Government can request parliamentary dissolution by means of a Motion of Confidence; 1 = no Motion of Confidence possible.

D: *Control of parliamentary agenda*: 0 = majority vote able to broaden the agenda; 1 = simple majority insufficient to broaden the agenda.

E: *Plenary session before committee stage*: 1 = legislative proposals can be referred to a committee without prior approval by a plenary session; 0 = legislative proposals can only be referred to a committee after a plenary session.

F: *Right of initiative*: 0 = no right of initiative for the individual representatives; 1 = unrestricted right of initiative for the individual representatives (Siaroff, 2003).

G: *Suspensive veto rights*: 1 = Government cannot exercise suspensive veto power over Landtag legislation; 0 = Government has suspensive veto power over Landtag legislation.

H: *Parliamentary citation*: 1 = Parliamentary minority has the right to cite responsible ministers to respond to questions personally, 0 = Parliamentary majority required to cite responsible ministers to respond to questions personally.

I: *Request for submission of files (Berichtersuchen)*: 1 = Parliamentary minority has the right to demand the submission of governmental files, 0 = Parliamentary majority required to demand the submission of governmental files.

J: *Parliamentary control over abstract judicial review*: 1 = judicial review upon request of one parliamentary fraction, in Bavaria upon request of any citizen; 0.5 = abstract judicial review upon request of 20 per cent to 33.3 per cent of the members of the Landtag; 0 = no abstract judicial review.

Tax Revenue of the Municipalities as a Percentage of the Total Tax Revenue of the Land

Percentage of municipal revenue (without conditional grants from Land level) in relation to the total revenue of Land and municipalities.

Index of Constitutional Rigidity

This index is based on the required majorities needed to amend the constitution as specified by the Länder constitutions. For constitutions that allow for alternative procedures (Act of Parliament or referendum), only the alternative that implies fewer barriers was considered – an approach mirroring those of Lijphart (1999, p. 221) and Lorenz (2005, p. 346). It is thus assumed that Acts of Parliament imply fewer hurdles, thereby rendering constitutional changes easier. If the means to amending a constitution vary with regard to the section to be amended, the measurement then orients itself to the most easily amended section. While this measurement follows Lorenz (2005), it diverges from Lijphart (1999). If the procedures concerning amendment to the constitution were reformulated during the period under investigation, the measurement was weighted to account for this change.

The following table shows a categorization of procedural rules for parliamentary votes by means of a typology comprised of the dimensions 'required majority of parliamentary voters' and 'required majority of representatives present'.

In addition to a parliamentary resolution, a referendum, which must be approved by the majority of voters, is required to pass the draft bill in Bavaria and Hesse. Looking at the typology in Table B2, an index value of 0.5 is added to these Länder in order to account for the added referendum requirement.

Strength of Judicial Review

The strength of judicial review calculated according to the number of competences of the individual constitutional courts and to the number of proceedings in which individual citizens are entitled to file a petition. If court competences or citizen petition rights were modified during the period from 1990 to 2005, the measurement was weighted to account for this change. Both indicators were then z-standardized. The mean of the standardized values produces the index for measuring the strength of the constitutional courts.

Additive Index of Direct Democracy

Additive index calculated, covering all six direct democratic instruments available in the Länder. The values of the three instruments popular initiative,

Table B2: Typology of the majorities required in the *Landtag* in order to amend a constitution

		<i>Required majority of parliamentary voters</i>			
		<i>1/2</i>	<i>2/3</i>	<i>3/4</i>	<i>1/1</i>
<i>Required majority of representatives present</i>	0				
	1/2	HE Index value: 1	BW, HH, LS (until 1993) Index value: 1.17		HB (until 1994) Index value: 1.5
	2/3		BV, BE, BB, HB (since 1994), MV, LS (since 1993), NW, RP, SL (since 1956), SN, ST, SH, TH Index value: 1.33		
	3/4			SL (until 1956) Index value: 1.5	
	1/1				

This table also shows the index values of the various regulations. These values correspond to the sum of the required majorities on both dimensions. For example, Article 64, Section 2 of Baden-Württemberg's constitution provides that the constitution can be amended by parliament if in the presence of at least two-thirds of the members of the *Landtag* a two-thirds majority is obtained which corresponds to at least half of all members of the *Landtag* as well as for the respective adoption. When the required majority of parliamentary voters (2/3) is added to the required majority of representatives present (1/2), an index value of 7/6 or 1.17 results.

recall and plebiscite are comprised of several indicators each (among other factors, this index takes the number of signatures required and ballots to be taken, deadlines, and specifications concerning the public announcement of the procedures into account). The facultative referendum, the obligatory referendum and the arbitrating referendum are assigned one value each (available/not available). Adding these values, which range between '0' and '1', we obtain an overall value range from '0' to '6' for our index of direct democracy, with '0' indicating maximal concentration of power and '6' maximal diffusion of power.