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The spectacular enlargement of the Bundestag and the long road to the 2023 German electoral law reform

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Abstract

Since 2002, the regular size of the German Bundestag has been 598 seats. However, due to overhang and compensatory mandates, the Bundestag was enlarged to 709 seats after the 2017 election and to 736 seats after the 2021 election. This made the Bundestag the largest parliament of any democratically governed nation state in the world. To address this issue, the Bundestag passed a reform of the electoral law on March 17, 2023. This article explains the mechanics behind the significant increase in seats in 2021. Furthermore, it analyzes the conditions that must be met for a significant increase to occur. Specifically, it examines the relationship between the increase in surplus seats that triggered the expansion and the change in the party system's structure. This relationship is demonstrated by developing a simple formal model. The German electoral system is a system of personalized proportional representation. However, as shown, some essential and desirable normative requirements that such a system should fulfill are mutually incompatible. Against this background and considering the history of the reform, it is demonstrated how the chosen reform option developed.

Keywords Mixed member proportional electoral system · Overhang seats · Constituency seats · German electoral system · Electoral reform · German Bundestag

JEL Classification K16 · L38 · Z18

1 Introduction

Since the founding of the Federal Republic of Germany, overhang seats have been a characteristic feature of its electoral system. They arise when a party wins more constituency mandates than it would be entitled to in proportion to its votes. Because of a change in the party system, the number of overhang seats has risen steadily since the early 1990s. Since 2013, the distortion of proportional representation caused by these seats has been corrected by compensatory seats. The result has been a dramatic increase in the size of the Bundestag. The Bundestag had to be enlarged from its regular size of 598 to 631 seats in

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2013, to 709 in 2017, and to 736 in 2021.¹ This made the German Bundestag the world's largest parliament of a democratic nation state. Even the European Parliament, which comprises delegates from 27 member states and represents around 450 million people, was at that time smaller than the Bundestag. And even more dramatic increases in the size of the Bundestag were conceivable given the mechanisms at work.

To fix the size issue, the so-called traffic light coalition passed with its majority in the Bundestag an electoral reform on March 17, 2023. The solution adopted was to no longer allocate more constituency seats than are covered by the so-called second votes (in which citizens vote for a party's state list), which are decisive for the distribution of seats across parties. As this solution comes at the cost of the element of personal voting, it has attracted some criticism. However, any potential reform faced the problem that there are several mutually incompatible normative criteria that an ideal system of personalized proportional representation would fulfill.

This article presents the German reform debate of the last 30 years in the context of the tension between these normative justifications and empirical developments. The paper is structured as follows: First, I will describe the fundamental aspects of the German electoral system. Next, I will provide a brief history of the reform and discuss the previous electoral laws of 2011, 2013, and 2020. Then, I will explain in detail how the dramatic increase in the number of seats occurred after the 2021 election. Finally, I will demonstrate how the expansion of the Bundestag is primarily explained by changes in the party system's structure over the last thirty years. I will develop a simple formal model to calculate the minimum size required for the Bundestag, depending on the number of direct mandates secured by the leading party and its overall vote share. The following paragraph examines potential alternatives to the reform in the context of four fundamental normative criteria. The final chapter discusses the constitutional constraints and political circumstances that resulted in the chosen solution, as well as the challenges to stability that solution faces.

2 Basic features of the German electoral system

Although there have been repeated reforms to the Federal Election Act in recent decades, the basic features of the German electoral system have remained largely the same since 1956. The system is usually described as personalized proportional representation and thus is a mixed system. More precisely, it is a mixed-member electoral system (Shugart and Wattenberg 2001), or, still more precisely, a mixed-member proportional system (see Saalfeld 2005, for example). It is *mixed* because members of Parliament are divided into two groups whose members are allocated mandates based on different decision-making rules. It is *proportional* because the overall composition of Parliament follows the ideal of proportional representation (Nohlen 2010).

Voters have two votes: With the first vote they vote for a candidate in their constituency, and with the second they vote for a party's state list. The overall distribution of seats proceeds as follows: First, the parties that receive seats—all parties that receive more than 5 percent of the second votes—are determined. According to the basic mandates

¹ Because of a repeat election ordered by the Federal Constitutional Court in some constituencies in Berlin, which took place on February 11, 2024, there were minor shifts, meaning that the current Bundestag still has 735 seats.

clause, a party also participates in the proportional distribution of seats if it won at least three direct mandates, even if it has failed the 5 percent hurdle.²

The parties compete in all 16 states (*Bundesländer*) on state lists. There are no nationwide party lists. In a two-stage process, the state lists of the parties eligible on the basis of the two aforementioned criteria are allocated the seats to which they are entitled in proportion to the number of second votes for them, using the Sainte-Laguë method (Lijphart 1994), which is identical to the Webster method (Balinski and Young 2010). Until 2013, and now again with the new electoral law, the 598 seats to be allocated by default were first divided among the parties (the upper distribution), and then the seats allocated to a party were divided among the states in proportion to the number of second votes for the party's state lists (the lower distribution). Between 2013 and 2021, the process was reversed: The seats were distributed first to the states in proportion to the population and then to the respective state lists.³

The mandates awarded to a party on the state lists are now offset against the constituency mandates to which it is entitled. Until the new electoral law of 2023, a constituency candidate who won the plurality of the first votes in their constituency was always awarded this mandate. Since 1953, these so-called direct mandates have accounted for more or less half of the regular number of seats of the Bundestag, and there have been 299 direct mandates since 2002.⁴ The number of direct mandates won by a party's candidates was then deducted from the total number of mandates to which the party was entitled. The remaining mandates were allocated according to the list. However, if a party won more direct mandates in a state than it was entitled to according to its second votes, so-called surplus seats, or overhang mandates, arose (Behnke 2007). This gave the parties that received those overhang mandates an advantage and led to a corresponding deviation from proportional representation. The electoral-reform debate since the 1990s has largely revolved around how to deal with these overhang mandates.

3 The long road to the 2023 reform

In the first four decades of the Federal Republic of Germany, overhang mandates occurred rarely. This changed abruptly with the 1994 Bundestag election, which resulted in 16 overhang mandates—12 for the CDU (Christian Democratic Union) and 4 for the SPD (Social-democratic party of Germany). It became obvious that a new element had the potential to change the political outcome of an election. The results of the election prompted the government of Lower Saxony (under the future Federal Chancellor Gerhard Schröder) to take legal action against the phenomenon of the overhang seats before the Federal Constitutional Court. With a 4–4 tie, the decision in 1997 was split, and overhang mandates were not declared unconstitutional. However, the form the stalemate took showed how

² The removal of the basic mandate clause in the new electoral law was probably the most controversial element of the reform, as it jeopardized the chances of a certain two parties entering Parliament. Following the ruling of the Constitutional Court, the basic mandate clause was temporarily reinstated.

³ In the adjustment stage all seats were distributed in the end only according to the number of second votes, so the initial distribution according to population numbers was made irrelevant and neutralized (Behnke 2014).

⁴ Until reunification in 1990, the Bundestag normally comprised 497 MPs (without overhang mandates; plus 22 MPs from Berlin who were not entitled to vote because of Berlin's special status); from 1990 to 1998, the regular size was 656, and since a reform of the constituency division in 2002 it has been 598 seats.

politically charged the issue was. The four judges appointed by the ruling alliance of CDU and CSU (Christian Social Union) considered the overhang mandates to be constitutional, while the four appointed by the opposition SPD and Greens considered the overhang mandates unconstitutional. However, even the former set of judges by no means believed that the overhang mandates did not pose a problem; rather, whether they were problematic depended on the extent of the mandates and the extent to which the “basic character of proportional representation” was still preserved. If “conditions were to arise under which overhang mandates regularly occur in larger numbers from election to election,” then the electoral system would move away from the “basic decisions of the law.”⁵ In this and subsequent decisions, the guideline for the “larger number” was the minimal size of the parliamentary group—approximately 5 percent of the regular size of the Bundestag. In other words, even those who saw no fundamental problem with overhang mandates conceded that they would be a problem above this size.

In analyzing the 1994 election results, Hans Meyer (1994) pointed out a curious phenomenon that became known as negative voting weight—namely, a party could in principle win more seats if it lost votes, and vice versa. What was a mere intellectual exercise in Meyer’s article became a reality in the 2005 Bundestag election—specifically, in a by-election in Dresden (Behnke 2008). The by-election led to a ruling by the Federal Constitutional Court in 2008 that declared the negative voting weight unconstitutional. While the SPD, Greens, and Left Party wanted to solve the problem by eliminating overhang mandates, as the negative voting weight was causally linked to them, the then-governing coalition of the CDU, CSU, and FDP (Free Democratic Party) attempted to merely eliminate the negative voting weight without attacking the overhang mandates. However, the law it passed in 2011 only had a short lifespan, as it was overturned by a new Federal Constitutional Court ruling in 2012 (Behnke 2014). Among other things, the court criticized the 2011 law for being unable to eliminate the negative voting weight. Even more important, however, it declared overhang mandates themselves to be unconstitutional for the first time, at least if there were more than 15.⁶

The 2013 law that implemented the ruling was passed jointly by all parties except the Left Party. It provided for the complete equalization of all overhang mandates. Strictly speaking, this was not about balancing out overhang mandates but about balancing out an overhang of mandates, because under very specific circumstances it could happen that a party was overrepresented without overhang mandates being the cause. But as a rule, the balancing was directed at the overhang mandates. In 2013, the Bundestag had to be enlarged from 598 to 631, the largest relative increase to date. Even this moderate (from today’s perspective) increase prompted the then president of the Bundestag, Norbert Lammer, to call for a reform of the electoral law. Several simulation studies (including Weinmann 2013; Behnke 2014, 2017) proved that the electoral law of 2013 could yield an even more extensive increase in size, which was confirmed in the elections in 2017. Thirty-six surplus seats for the CDU, which had to be compensated for with compensatory seats for the other parties until nationwide proportional representation between the parties was restored, led to an increase of 111 seats.

This dramatic increase in the size of the Bundestag could no longer be ignored. The new president of the Bundestag, Wolfgang Schäuble, made it clear from the start of his term of

⁵ BVerfGE 95, 335, para. 101, translated by author.

⁶ Fifteen is half the minimal size of a parliamentary group, so the figure was probably a Solomonic compromise between the two competing interpretations: to consider overhang mandates problematic either from the outset or only once the parliamentary group had reached the minimal size requirement.

Table 1 Distribution of the 598 regular mandates among the Länder (states) according to population figures

State (<i>Bundesland</i>)	Population	Number of mandates
Baden-Württemberg	9,313,413	77
Bavaria	11,328,866	93
Berlin	2,942,960	24
Brandenburg	2,397,701	20
Bremen	548,941	5
Hamburg	1,537,766	13
Hesse	5,222,158	43
Mecklenburg-Western Pomerania	1,532,412	13
Lower Saxony	7,207,587	59
North Rhine-Westphalia	15,415,642	127
Rhineland-Palatinate	3,610,865	30
Saarland	865,191	7
Saxony	3,826,905	32
Saxony-Anhalt	2,056,177	17
Schleswig-Holstein	2,659,792	22
Thuringia	1,996,822	16

office that electoral reform was his top priority. Experts on German electoral law spoke of an “obese” Bundestag (Meyer 2018) and did not rule out the possibility of a future “Bundestag of a thousand” (Pukelsheim 2019). After several attempts by the parliamentary parties to agree on a joint reform failed, electoral reform became a top priority for the party leaders, who in August 2020 finally agreed on the main features of a draft that resembled the law passed shortly afterward by the majority of the grand coalition of CDU/CSU and SPD in the Bundestag. The law provided for the following mechanisms, also known as “damping measures”: Overhang mandates of a party in a particular state were to remain with the party but would be partially compensated for by the withdrawal of list mandates of the same party in other states. Three overhang seats would be allowed to remain without compensation. The number of constituencies would be reduced from 299 to 280. However, this last measure was not to be implemented until the election after next. The ineffectiveness of these measures was demonstrated in the following Bundestag elections—on September 26, 2021—when the Bundestag reached a new record number of 736 seats. With a full 138 seats above the benchmark of 598, the Bundestag was 23 percent larger than it should be.

In 2022, as part of the 2020 act, the Bundestag also decided to set up a commission whose main purpose was to develop proposals “based on the principles of personalized proportional representation” that would “effectively reduce the size of the Bundestag toward the statutory standard size and sustainably prevent the Bundestag from growing.” The group, commonly referred to as the Electoral Law Commission, began its work in April 2022.⁷ The law passed in March 2023 is based on the proposals developed within its framework.

⁷ The author of this article was one of the members of this commission.

Table 2 Distribution of the mandates allocated to a state among the parties and distribution of direct mandates

State (<i>Bundesland</i>)	Mandate type	SPD	CDU	CSU	Greens	FDP	Left	AfD	SSW ^a	Total
Baden-Württemberg	PM	18	21	0	14	13	3	8	0	77
	DM	1	33	0	4	0	0	0	0	38
Bavaria	PM	20	0	34	15	11	3	10	0	93
	DM	0	0	45	1	0	0	0	0	46
Berlin	PM	6	4	0	6	3	3	2	0	24
	DM	4	3	0	3	0	2	0	0	12
Brandenburg	PM	7	3	0	2	2	2	4	0	20
	DM	10	0	0	0	0	0	0	0	10
Bremen	PM	2	1	0	1	1	0	0	0	5
	DM	2	0	0	0	0	0	0	0	2
Hamburg	PM	4	2	0	3	2	1	1	0	13
	DM	4	0	0	2	0	0	0	0	6
Hesse	PM	13	11	0	7	6	2	4	0	43
	DM	14	7	0	1	0	0	0	0	22
Mecklenburg-West- ern Pomerania	PM	4	2	0	1	1	2	3	0	13
	DM	6	0	0	0	0	0	0	0	6
Lower Saxony	PM	21	15	0	10	6	2	5	0	59
	DM	22	8	0	0	0	0	0	0	30
North Rhine-West- falia	PM	40	35	0	22	15	5	10	0	127
	DM	30	30	0	4	0	0	0	0	64
Rhineland-Palatinate	PM	10	8	0	4	4	1	3	0	30
	DM	8	7	0	0	0	0	0	0	15
Saarland	PM	3	2	0	0	1	0	1	0	7
	DM	4	0	0	0	0	0	0	0	4
Saxony	PM	7	6	0	3	4	3	9	0	32
	DM	1	4	0	0	0	1	10	0	16
Saxony-Anhalt	PM	5	4	0	1	2	2	3	0	17
	DM	4	3	0	0	0	0	2	0	9
Schl. Holstein	PM	6	5	0	4	3	1	2	1	22
	DM	8	2	0	1	0	0	0	0	11
Thuringia	PM	4	3	0	1	2	2	4	0	16
	DM	3	1	0	0	0	0	4	0	8
Total	PM	170	122	34	94	76	32	69	1	598
	DM	121	98	45	16	0	3	16	0	299

The SSW party represents the Danish minority in northern Germany. It is exempt from the 5 percent threshold because of a treaty from the 1950s

PM proportional mandates, *DM* direct mandates.

4 The seat-allocation mechanism for the 2021 Bundestag election under the 2020 law

I use the 2021 Bundestag election to explain in detail how the mandates were allocated and how the Bundestag was enlarged accordingly. As already mentioned, in the very first step, the 598 seats were allocated to the *Länder* in proportion to their population (Table 1).

These state seat quotas were then distributed to the parties in proportion to the second votes won by the parties' state lists in the states. Of the 77 seats allocated to Baden-Württemberg, for example, 18 went to the SPD, 21 to the CDU, 14 to the Greens, and so on (see Table 2).

However, the CDU won 33 of the 38 direct mandates in Baden-Württemberg. This resulted in 12 overhang seats for the CDU in that state. These were the only overhang seats for the CDU in that election. The SPD, meanwhile, won 10 overhang seats in six states. Even the right-wing populist party the AfD (Alternative for Germany) won an overhang mandate (in Saxony) for the first time. All of these overhang mandates would have been irrelevant for the enlargement either way because they would have been offset against list seats.

However, the CSU was not able to offset its overhang seats against list mandates, because it is a regional party that only runs in the state of Bavaria. The CSU forms a parliamentary group with the CDU in the Bundestag, and the two parties never compete in elections. The two parties therefore form a party alliance, but in the distribution process each party is treated separately. As the CSU overhang seats cannot be compensated for by removing list seats, the party's overrepresentation in Bavaria always corresponds to its overrepresentation nationwide. So the CSU represents an Achilles' heel of the electoral system because the equalization is based on the most overrepresented party. With the 45 direct mandates it won, in 2021 this was indeed the CSU, which would only have been entitled to 34 mandates based on its second votes. As can be seen from Table 3, the CSU would have been entitled to 5.66 percent of the seats based on the number of its second votes. However, with 45 out of 299 direct mandates, it had a share of 15.05 percent of all direct mandates. These direct mandates accounted for 7.53 percent of the regular total of 598 seats, so the CSU was overrepresented by almost a third (last row in Table 3).

In the equalization process, the Bundestag now had to be enlarged until the overhang mandates, for which there are adjustment mandates for the other parties, were all covered. Because of the three overhang seats, which do not have to be compensated for under the 2020 electoral law, the Bundestag only had to be enlarged until the CSU was entitled to 42 seats in proportion to its second votes. This condition was fulfilled when the size of Parliament had been augmented to 733 seats (see Table 4). Including the three unbalanced overhang seats, the final size of the Bundestag was therefore 736 seats.

As can also be seen from Table 4, the Bundestag would have had to be enlarged to a total of 787 seats if all the CSU's overhang seats had had to be balanced out.

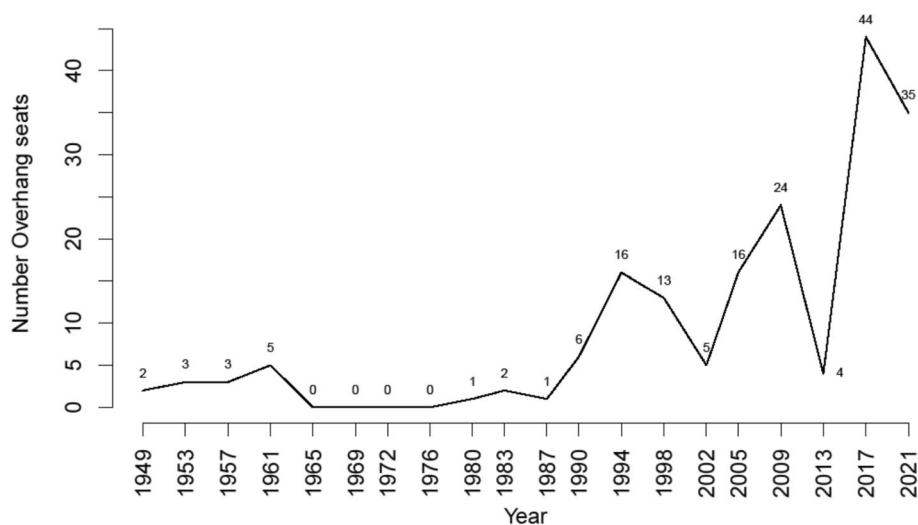
Table 3 Relevant key figures of the three biggest parties

	SPD	CDU	CSU
Second votes	11,955,434	8,775,471	2,402,827
Share of second votes	28.17	20.68	5.66
Number of direct mandates	121	98	45
Number of prop. mandates	168	124	34
Share of DM of all DM	40.47	32.78	15.05
Share of DM of regular size	20.23	16.39	7.53
Factor of overrepresentation	0.72	0.79	1.33

DM Direct mandates

Table 4 Proportional nationwide distribution of seats across the parties depending on size of the Bundestag

House size	SPD	CDU	CSU	Greens	FDP	Left	AfD	SSW
...								
730	206	151	41	118	91	39	83	1
731	206	151	41	118	92	39	83	1
732	206	152	41	118	92	39	83	1
733	206	152	42	118	92	39	83	1
734	207	152	42	118	92	39	83	1
..								
785	221	162	44	127	99	42	89	1
786	221	163	44	127	99	42	89	1
787	221	163	45	127	99	42	89	1
788	222	163	45	127	99	42	89	1
789	222	163	45	128	99	42	89	1
..								

**Fig. 1** Number of overhang mandates from 1949 to 2021

5 The changing structure of the party system and the conditions for the emergence of overhang mandates

The equalization process centers on the party most overrepresented by the overhang mandates. Figure 1 shows the development of overhang mandates since the beginning of the Federal Republic of Germany. Until reunification, the number of overhang seats was very low; the highest level was reached in 1961, when the CDU won 5 overhang seats, 4 of which went to Schleswig–Holstein.⁸ Since reunification, the number of overhang seats has risen

⁸ This was due to an inadequate division of constituencies. Schleswig–Holstein had too many constituencies in relation to its population because no adjustment had been made to the refugees who had arrived after the war first in Schleswig–Holstein and then moved to other states since 1949.

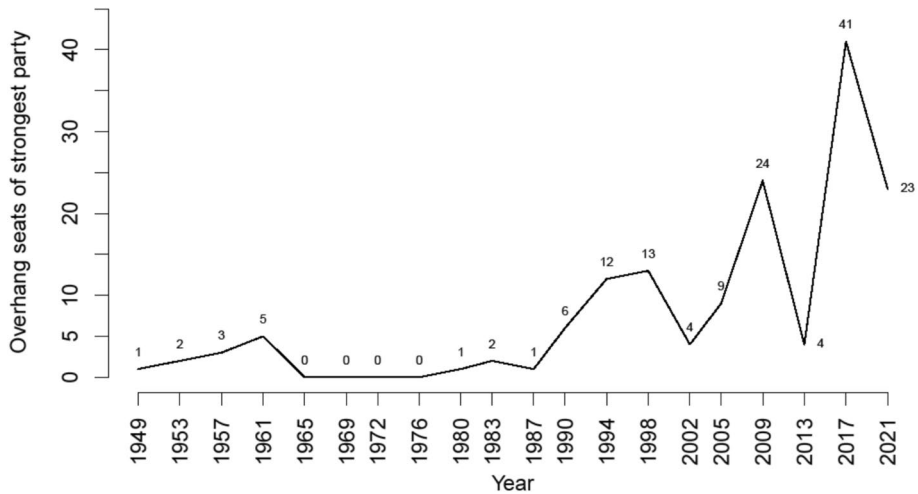


Fig. 2 Number of overhang mandates of the largest party from 1949 to 2021

rapidly. In 1994 there were 16 overhang seats, 12 of them being for the CDU; in 1998 there were 13 overhang seats for the SPD. A new high was reached in 2009, when 21 overhang seats were won by the CDU and 3 by the CSU. However, with 34 overhang mandates for the CDU, 7 for the CSU, and 3 for the SPD—a total of 44—the 2017 result was another record. In 2021, there were 11 overhang seats for the SPD, 12 for the CDU, 11 for the CSU, and 1 for the AfD, making a total of 35.⁹

However, the decisive factor in the enlargement of the Bundestag is not the total number of overhang seats, but the extent to which the party that benefits most from them is over-represented. Most overhang mandates (at least so far) accrue to the largest party, and this is therefore the party most overrepresented by the overhang mandates. The CDU and CSU are treated here as one party (Fig. 2).

A number of factors can lead to the emergence of overhang seats, including the division of constituencies,¹⁰ voter turnout, and vote splitting (Behnke 2007).¹¹ By far the most

⁹ For ease of comparison the number was calculated according to the electoral law of 2008. Slight differences from the numbers in Table 2 arise because the first distribution (in 2021) of the mandates among the *Länder* after the law of 2020 was done according to the population numbers and not the second votes.

¹⁰ The division of the constituencies played a greater role in the first elections after reunification because there were too many constituencies in the new *Länder* in relation to the population, just as there were in Schleswig-Holstein in 1961 (see footnote 9), which favored the emergence of overhang mandates there. This problem has been resolved since 2002, and the division of constituencies is regularly adjusted.

¹¹ The role of vote splitting is double-edged: It can lead to an increase or a decrease in overhang mandates. The effects of vote splitting can be approximated by comparing the actual result with the result that would have been obtained if all voters had voted for the candidate of the party for which they also cast their second vote. (This would be equivalent to an electoral system in which voters have only one vote, which is taken into account simultaneously for determining the winner of the constituency seat and for calculating the proportional seat shares of the parties. This is the system used in the first Bundestag election in 1949 and until 2021 in Baden-Württemberg.) Under this assumption, in 2021 the CSU would have “only” received 43 direct mandates and the Bundestag would have had to be enlarged “only” to 701 seats instead of 736 seats. The Bundestag would have probably grown further in size in 2017 and would have had to be increased to 744 seats instead of 709 if all voters had cast their first vote in accordance with the second vote.

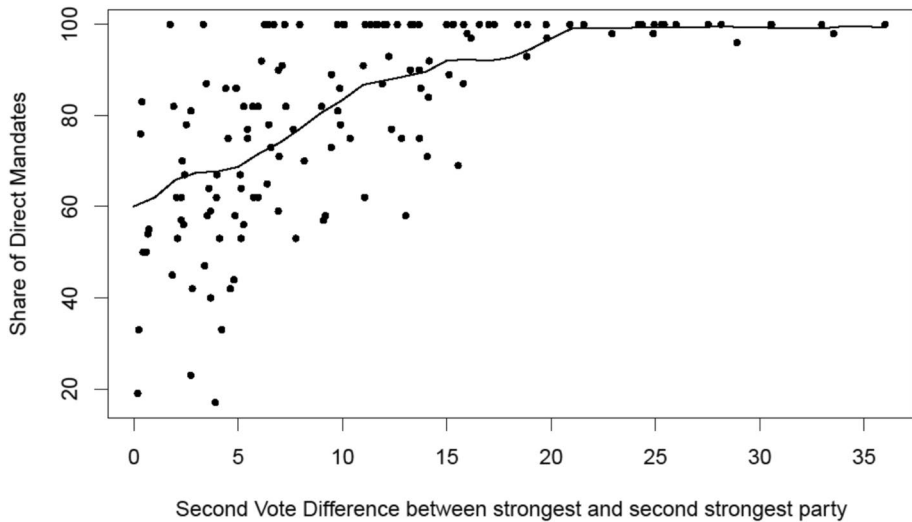


Fig. 3 Share of direct mandates won as a function of the difference in second votes between the strongest and the second-strongest party in the *Länder* since 1990

important role, however, is played by the structure of the party system. This has changed dramatically over the last few decades.

Since the direct mandates make up 50 percent of the regular size of Parliament, overhang mandates can only occur if a party with less than 50 percent of the second votes wins all or almost all direct mandates in a state. For a party to win almost all direct mandates, it needs a certain lead over the second-strongest party. The more homogeneous the constituencies are, the smaller this lead can be. Since the overhang mandates occur at the level of the states, Fig. 3 shows the share of direct mandates won by the strongest party for all 16 *Länder* for all nine elections since reunification in 1990 as a function of the distance to the second-strongest party.

The continuous line displays the moving averages, which result from looking at an interval whose boundaries are 5 percentage points above and below the reference value. As a rule of thumb, a party receives around 80 percent of direct mandates if it is at least 10 percentage points ahead of the second-strongest party and almost all of them if the gap is at least 20 percentage points. This rule of thumb can be used to estimate how large the strongest party must be, as a function of the number of parties, to gain overhang seats.

In the case of two parties, the strongest party must receive 60 percent of the second votes to have a very high probability of winning all direct mandates. Logically, however, there are no overhang mandates in this case, as the party would be entitled by its second votes to more seats than all the direct mandates in this state. With three parties, one party must receive at least approximately 46 percent of the second votes to win almost all direct mandates if the remaining 54 percent is divided evenly between the other two parties (with 27 percent each). In principle, the circumstances for the largest party to win many direct mandates are the most favorable when the other parties are far enough from it that they cannot compete with it for the direct mandates but are almost equally strong and thus compete vigorously with each other. With four parties, the strongest party only needs to win 40 percent of the second votes so that it is highly likely to win all direct mandates, and with five parties the figure is 36 percent. With six parties, if the votes are distributed favorably

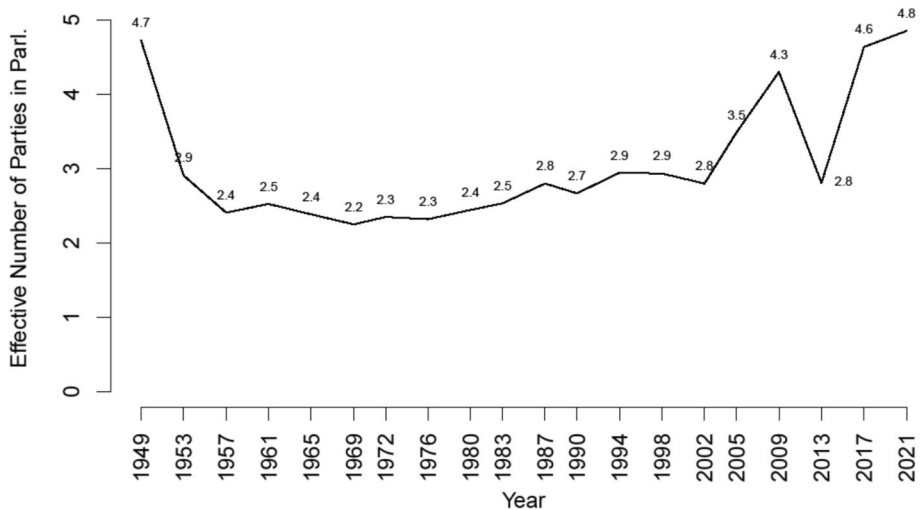


Fig. 4 The effective number of parties in Parliament from 1949 to 2021

among the other parties, only approximately 33 percent is sufficient to win all or almost all direct mandates. But the further a party falls below the 50 percent threshold, the greater is the potential for it to receive overhang mandates. A party with 40 percent of the second votes that wins all direct mandates, and thus 50 percent of the seats, will be overrepresented by a quarter, while a party that wins all direct mandates with 30 percent of the second votes will be overrepresented by two-thirds.

The more parties there are, the easier it is for the largest party to achieve overhang mandates by winning all or almost all direct mandates. It is even easier when the votes are distributed among the other parties more evenly. The so-called effective number of parties (Laakso and Taagepera 1979) is a particularly suitable measure of these characteristics of the party system because it takes into account the fragmentation or concentration of the party system. The effective number of parties is equal to the nominal number of parties if all parties are the same size, and it is lower when more votes (or seats) are concentrated among the major parties. Figure 4 illustrates the development of the effective number of parties represented in Parliament over the history of the Federal Republic of Germany.

To see to what extent the effective number of parties and the overhang mandates are related, Fig. 5 superimposes the two graphs. For this purpose, the values for both sets of figures are standardized.¹² In addition, I only consider the values up to the 2017 federal election, as the 2021 results are attributable to the performance of the CSU, which, being a regional party, makes national values unsuitable for it. The values transformed in this way are now shown together in Fig. 5a. The strong correlation can be seen with the naked eye. The overhang mandates are shown in all panels of Fig. 5 with a continuous line, and the respective causal variables with a dashed line. The correlation coefficient in Fig. 5a is 0.69, and the R^2 for the regression of overhang mandates on effective number of parties is 47.6 percent. Note that the figures are all nationwide. The nationwide trend is used here as a proxy variable for the effects in the states, which then can be aggregated to the nationwide effect.

¹² The formula for the transformation was therefore $newtransformedvalue = \frac{originalvalue - Minimum}{Maximum - Minimum}$.

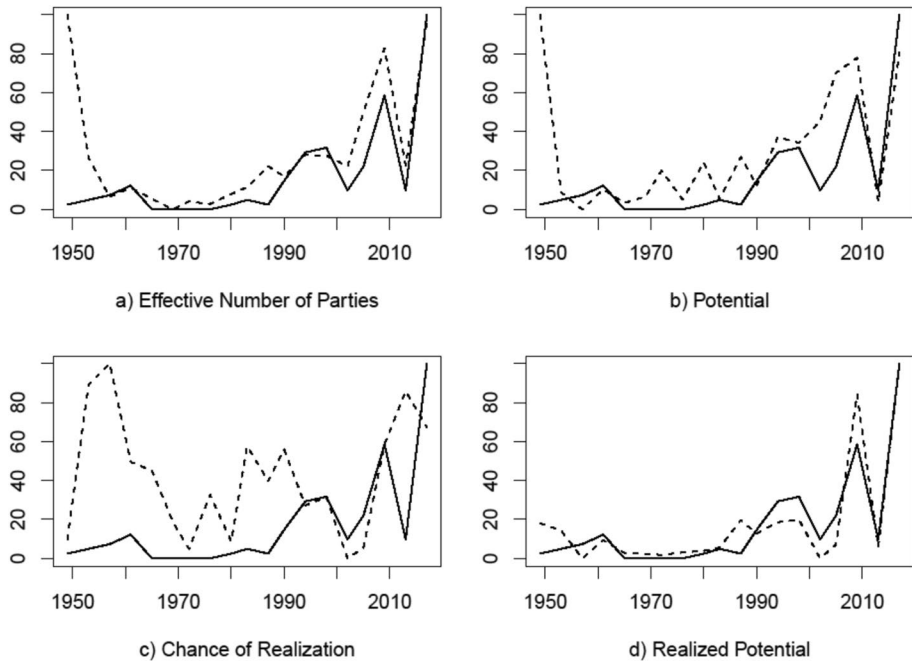


Fig. 5 Predictors for the overhang seats, 1949–2021

However, the fragmentation of the party system is an imprecise predictor of the emergence of overhang mandates because the party system can be very fragmented, as at the beginning of the republic, without any overhang mandates arising.

Two conditions must be met for overhang mandates to arise. The effective number of parties is related to these two conditions, but only indirectly, so we get more precise results if these conditions are made more specific and then used as predictors. The first condition for the emergence of overhang mandates is that there is potential for them at all. The potential is greater the further the largest party is below the 50 percent threshold, and it can be operationalized as this distance.¹³ The potential for the strongest party is therefore twice as high if it receives 30 percent of the second votes as it would be if it received 40 percent of the second votes. The correlation for the standardized values is shown graphically in Fig. 5b. The correlation coefficient is 0.59, and the R^2 of the corresponding regression model is 34.5 percent, so potential alone explains less than the effective number of parties.

This lack of estimation capability occurs because although there is high potential in certain cases, this potential has not necessarily been realized. The largest deviations between potential and realization occur in the first Bundestag election (in 1949) and in the 2002 and 2005 Bundestag elections. As shown in Fig. 6, the CDU/CSU is more or less on par with the SPD in these three elections. The direct mandates are therefore distributed fairly evenly between these two parties, so there are no overhang mandates or only a few.

¹³ Only since 1965 has the number of direct mandates been exactly half of the regular total, but since 1953 it has been approximately half. The year 1949 is an exception, as the proportion of direct mandates at that time was around 60 percent. To keep the measurement consistent, the threshold of 50 percent is nevertheless used to determine the potential, though this underestimates the figure for 1949.

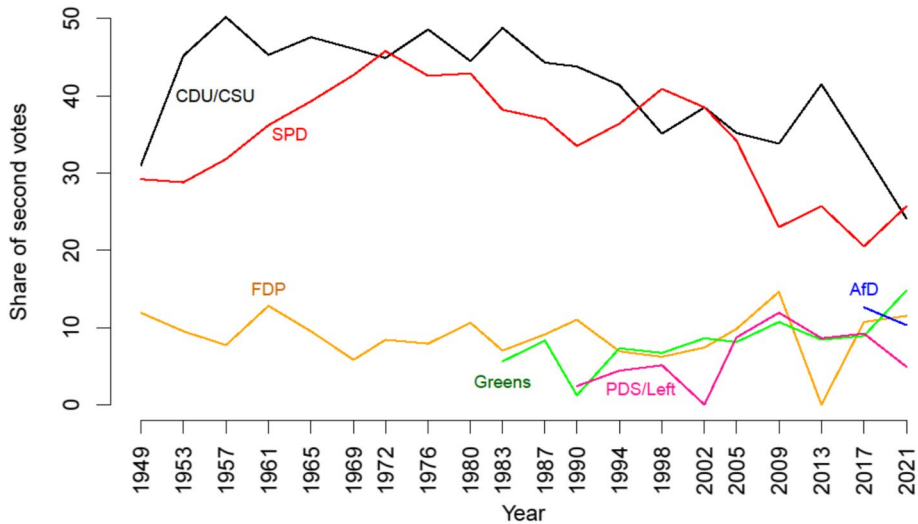


Fig. 6 Second-vote shares of the parties from 1949 to 2021

The second condition for the emergence of overhang mandates is therefore that the existing potential can be realized. This depends above all on the share of direct mandates won by the strongest party. As has already been shown, this in turn is largely determined by the lead of the strongest party over the second-strongest party. As a rough approximation for the chance of realizing the potential, the difference between the second-vote shares of the strongest and second-strongest parties should therefore be considered.¹⁴ This variable can only explain just under 5 percent of the variance of the overhang mandates of the strongest party ($R^2 = 4.8$ percent), and the correlation coefficient is 0.22. This is hardly surprising, because a high share of direct mandates, as with the CDU in 1953 and 1957, does not help a party gain overhang mandates if its share of second votes is only just below or even above 50 percent—that is, if there is no potential.

A large number of overhang mandates occur when there is considerable potential and this potential can then be realized. An appropriate operationalization of this interaction of the two conditions is the simple multiplication of the two variables: potential and chance of realization. In Fig. 5d, the corresponding curves concern realized potential. It is immediately apparent that the best fit to the curve of the overhang mandates of the strongest party is achieved in this panel, where the R^2 of the corresponding regression model has the impressive value of 85.5 percent and the correlation coefficient is 0.92.

The development of the party system in the Federal Republic of Germany can be briefly summarized as follows (see Figs. 4 and 6). In 1949, the party system was still very fragmented, mainly because of the existence of small parties, which often only had regional strongholds; this was in turn because in 1949 the 5 percent threshold and the basic mandate clause (with only one required direct mandate) were applied at the level of the *Länder*, which functioned as separate electoral areas. The Bundestag was then made up of these partial contingents sent from the *Länder*. From 1953 onward, however, the thresholds

¹⁴ In theory, because of the ceiling the relationship has to be curvilinear, but the linear relationship is a sufficient approximation.

referred to the entire federal territory. The basic mandate clause now also applied nationwide and was tightened in 1956 so that a party now had to achieve a total of three direct mandates to participate in the distribution of seats according to second votes. The 1950s saw a very rapid consolidation of the party system, with only the two major parties (CDU/CSU and SPD) and the small liberal party (FDP) remaining. This party system characterized the Federal Republic of Germany for the next 30 years and was often referred to as a two-and-a-half-party system, which essentially refers to the effective number of parties in those years (Fig. 4). The effective number of parties rose slightly in the early 1980s, when the Greens entered Parliament for the first time. In 1990, after reunification, the PDS (Party of Democratic Socialism), a successor party to the socialist SED (Socialist Unity Party of Germany) in the German Democratic Republic, was added, which was particularly successful in the new states in the east. The effective number of parties therefore rose particularly sharply in these states. In the 1990s, therefore, overhang mandates arose primarily in the new states of Brandenburg, Saxony, Saxony-Anhalt, Mecklenburg-Western Pomerania, and Thuringia (Tables 5 and 6).

In 2002, the PDS failed to reach the 5 percent hurdle, but it returned to the Bundestag in 2005 after uniting with a group of renegades of the SPD to form a new force, which appeared under the name Die Linke from 2007 onward. This significantly increased the fragmentation of the party system. However, there were not many overhang mandates in 2005, as the CDU/CSU and SPD were still more or less even. This changed abruptly in 2009, when the CDU/CSU took a clear lead over the SPD (Table 7), resulting in a record number of overhang seats.

In 2013 the FDP failed to enter the Bundestag, which—together with an impressive result for Angela Merkel's CDU—led to an interim drop in the effective number of parties and overhang seats. Finally, in 2017, the FDP reentered and the right-wing populist party

Table 5 Effective number of parties (ENP) and overhang seats (OS) in *Länder* from 1994 to 2005

State	1994		1998		2002		2005	
	ENP	OS	ENP	OS	ENP	OS	ENP	OS
Baden-Württemberg	3.0	2	3.0	0	2.9	0	3.4	3
Bavaria	2.5	0	2.5	0	2.2	0	2.8	0
Berlin	3.7	0	3.6	0	3.1	0	4.1	0
Brandenburg	3.0	3	3.0	3	2.3	0	3.6	3
Bremen	3.0	1	2.7	0	2.8	0	3.4	0
Hamburg	3.1	0	2.9	1	3.0	1	3.6	1
Hesse	2.9	0	2.9	0	2.9	0	3.5	0
Mecklenburg-Western Pomerania	3.3	2	3.3	2	2.4	0	3.6	0
Lower Saxony	2.8	0	2.5	0	2.6	0	3.0	0
North Rhine-Westphalia	2.8	0	2.7	0	2.9	0	3.2	0
Rhineland-Palatinate	2.6	0	2.7	0	2.8	0	3.3	0
Saarland	2.5	0	2.4	0	2.6	0	3.7	1
Saxony	3.0	3	3.4	0	2.7	1	4.0	4
Saxony-Anhalt	3.2	2	3.3	4	2.5	2	3.7	4
Schleswig-Holstein	2.8	0	2.7	0	2.8	0	3.2	0
Thuringia	3.2	3	3.4	3	2.5	1	3.8	0

Table 6 Effective number of parties (ENP) and overhang seats (OS) in countries from 2009 to 2021

Country	2009		2013		2017		2021	
	ENP	OS	ENP	OS	ENP	OS	ENP	OS
Baden-Württemberg	4.1	10	2.5	0	4.6	10	4.9	12
Bavaria	3.4	3	2.3	0	4	7	4.3	11
Berlin	4.8	0	3.7	0	5.5	0	5.2	0
Brandenburg	4.0	0	3.2	1	4.9	4	4.8	4
Bremen	4.4	0	3.2	0	5	1	4.6	1
Hamburg	4.4	0	3.2	0	5	2	4.5	0
Hesse	4.1	0	2.8	0	4.7	3	4.7	1
Mecklenburg-Western Pomerania	3.8	2	2.8	0	4.4	2	4.9	2
Lower Saxony	3.9	0	2.7	0	4.1	0	4.2	0
North Rhine-Westphalia	3.9	0	2.7	0	4.4	0	4.4	0
Rhineland-Palatinate	4.0	2	2.6	0	4.2	3	4.4	0
Saarland	4.1	1	2.8	1	4.3	0	3.6	1
Saxony	3.9	4	2.7	0	4.6	3	5.2	1
Saxony-Anhalt	3.8	0	2.9	1	4.6	4	5.0	0
Schleswig-Holstein	4.1	1	2.7	0	4.5	2	4.6	1
Thuringia	3.9	1	3.0	1	4.6	3	5.0	0

AfD entered the Bundestag, further increasing fragmentation and the number of overhang mandates.

Fragmentation has been increasing throughout Germany since around 2005, resulting in more overhang mandates in the old states. The extremely strong increase in overhang mandates in the southern states of Baden-Württemberg and Bavaria is particularly striking (Table 6). There, the CDU and CSU used to be the dominant parties, receiving 50 percent or more of the second votes, so no overhang seats could arise. However, over time these parties lost popularity, so they are now well below 50 percent of the second votes (high potential), but they are still so far ahead of their competitors that they continue to win almost all direct mandates (chance of realization)—that is, the ideal conditions for the emergence of a large number of overhang mandates.

Table 7 Nationwide share of second votes for various parties since 1990

	1990	1994	1998	2002	2005	2009	2013	2017	2021
CDU/CSU	43.8	41.4	35.1	38.5	35.2	33.8	41.5	32.9	24.1
SPD	33.5	36.4	40.9	38.5	34.2	23.0	25.7	20.5	25.7
FDP	11	6.9	6.2	7.4	9.8	14.6	0	10.7	11.5
GREEN	1.2	7.3	6.7	8.6	8.1	10.7	8.4	8.9	14.8
PDS/DIE LINKE ²	2.4	4.4	5.1	0	8.7	11.9	8.6	9.2	4.9
AfD	0	0	0	0	0	0	0	12.6	10.3

6 A simple formal model

Even if overhang mandates are offset against list mandates, the maximum number of overhang mandates that can be neutralized is the number of list mandates that still exist. It is useful to distinguish between internal and external overhang mandates. Internal overhang mandates arise at the state level. External mandates exist when a party receives more direct mandates nationwide than it is entitled to nationwide according to proportional representation. If proportional representation is to apply in principle and all direct mandates won are to be allocated, then the external overhang mandates determine the minimum necessary increase in the size of Parliament. The following basic model can be formulated on the basis of these basic assumptions.¹⁵

Let D_T be the number of all direct mandates and M_T be the total number of seats to be allocated—that is, the necessary size of the Bundestag to maintain or restore proportionality. Let d_A be the share of direct mandates won by party A and m_A be the share of mandates to which A is entitled in proportion to its second votes. If all of A's direct mandates are to be included in its mandate claim based on the second votes, then the following must hold:

$$d_A * D_T \leq m_A * M_T \quad (1)$$

resp.

$$\frac{d_A * D_T}{m_A * M_T} \leq 1 \quad (2)$$

resp.

$$M_T \geq \frac{d_A}{m_A} D_T \quad (3)$$

For simplicity, I assume that the share m_A of mandates to which a party is entitled on the basis of its second votes also corresponds to its share of second votes v_A , so I ignore rounding effects, which are irrelevant for basic considerations. The share of second votes in this respect is always the share of the second votes of the parties that are taken into account when calculating the distribution of seats. This is higher than the second-vote shares of the valid votes cast, as the votes of parties that receive less than 5 percent of the second votes are not taken into account in the distribution of seats.

$$M_T \geq \frac{d_A}{v_A} D_T \quad (4)$$

The required minimum size of the Bundestag is therefore calculated by multiplying the number of all direct mandates by the factor $\frac{d_x}{v_x}$ of the party for which this factor is highest. For simplicity, assume party A is the party for which this applies. The decisive factor is then obviously the ratio of the party's share of direct mandates to the party's share of mandates won in proportion to the second votes, which I equate with its share of second votes.

¹⁵ The main features of this model can be found in Behnke (2007). Bochsler (2012) uses a similar model to illustrate how vote splitting can lead to increased demand for mandates to compensate for resulting disproportionalities. Weinmann and Grotz (2020) use a similar model to examine the effects on German state elections of increasing the size of parliaments.

It is possible to calculate the relationship in an even simpler way by using directly D_A , the number of direct mandates of party A:

$$M_T \geq \frac{D_A}{v_A} \quad (5)$$

It follows from Eq. (5) that the size of the Bundestag is a breathing variable. Ultimately, its regular size has next to no relevance for the minimum final size of the Bundestag calculated in this way. It merely defines a lower limit that is assumed to be necessary for the efficient functioning of the Bundestag. In other words, the effective, or actual, final size M_f is the maximum of the regular size M^* of the Bundestag and the size M_T calculated on the basis of the factor $\frac{d_A}{m_A}$ and the total number of direct mandates.

$$M_f = \max(M_T, M^*) \quad (6)$$

The following Basic Rule applies:

If a party with a share z of the second votes wins a share d of the direct mandates, the size of Parliament must be at least $\frac{d}{z}$ times the fixed total number of direct mandates so that all direct mandates won are included in the share of seats to which the party is entitled in proportion to its second votes.

In concrete terms, if a party with 30 percent of the second votes also wins 80 percent of the direct mandates, Parliament must have a total size that is at least eight-thirds the total number of direct mandates. In the simple example below, the standard size is assumed to be 600 for simplicity,¹⁶ and the total number of direct mandates is fixed at 300. These figures are close enough to the actual values of 598 seats and 299 direct mandates to make all effects in the example calculations more or less accurate. At the same time, they simplify the calculations considerably, making them easier to understand. Based on 300 direct mandates, the Bundestag would have to be enlarged to 800 seats in our specific situation with an 80 percent direct mandate share and 30 percent share of second votes.

We can now apply the Basic Rule to explain the increase in the size of the Bundestag in 2021, which was based on the overrepresentation of the CSU. Since the CSU only runs candidates in Bavaria, its relative enlargement factor is also that for the entire parliament. The CSU won 45 of the 299 direct mandates with 5.66 percent of the second votes (Table 3). Using Eq. (5), minimum size can therefore be roughly calculated as $45/0.0566 = 795.1$. However, as the Sainte-Laguë seat entitlement is rounded, it is sufficient if the second votes result in a seat entitlement of 44.5 seats to cover the 45 direct mandates won. A more precise calculation therefore results in $44.5/0.0566 = 786.2$. The deviation from the 787 seats which would have been required to compensate for all overhang mandates (see end of paragraph 4) can be explained by rounding effects.

The results can be calculated at least roughly using the figures for Bavaria only. So if the CSU won 90 percent of the direct mandates in Bavaria with 30 percent of the second votes counted, we would end up with a Bundestag of 900 seats; if it won 100 percent of the direct mandates, we would end up with the aforementioned “Bundestag of a thousand” (Pukelsheim 2019). In fact, the CSU only had 31.7 percent of the second votes in 2021. Although the share of the second votes accounted for is always a little higher, the CSU was obviously not that far away from the extreme case of 30 percent. Because of the weakness of the Greens and the SPD especially in Bavaria, it is also very likely that it could win all

¹⁶ Since the 2002 reform, the base size has been 598; from 1990 to 1998 it was 656.

or almost all of the direct mandates with about 30 percent of the second votes. It is therefore very plausible that the rapid growth of the Bundestag would have continued if the 2023 reform had not put a stop to it.

7 Possible solutions and the 2023 law

Several proposals were developed in the course of the reform discussion. All of the proposals can be characterized by the importance they attach to the following four normative desiderata:

- (a) Preserving the regular size of the Bundestag
- (b) Inviolability of the winning claim of constituency candidates with a plurality of first votes—that is, inviolability of direct mandates
- (c) Inviolability of the state lists—that is, the seats to which a party list in a state is entitled by the proportional allocation of seats cannot be taken away
- (d) Maintaining interparty proportionality—that is, the proportionality between second votes and the number of seats held by the parties

However, it is not possible to meet all of these criteria once a large number of overhang mandates occur. In fact, conditions (a), (b), and (d) alone are incompatible as soon as external overhang mandates occur—that is, when a party wins more constituency mandates nationwide than it would be entitled to according to its share of second votes. This follows directly from the formal model of Sect. 6 and the Basic Rule formulated there. If, in accordance with condition (d) and apart from rounding effects, each party receives exactly as many seats as it is entitled to in proportion to its second votes ($m_A \sim v_A$), and if party A receives according to (b) all constituency seats D_A in which it has won a plurality of first votes, and if according to (c) overhang mandates are not compensated for by the deduction of list mandates, then the minimum size of the Bundestag M_T must be larger than its target size M^* as long as D_A comprises more mandates than the party is entitled to with the base M^* , violating condition (a). There is therefore a trade-off between the criteria: It is only possible to fulfill one by violating at least one of the others.

This relationship, which theoretically could also be formulated as a kind of theorem, reflects the fundamental dilemma in which the parties deciding on the reform found themselves. All four conditions are important and have great value. But they cannot all be fulfilled; the reformers had to decide which criterion they were most willing to sacrifice. The dilemma is this:¹⁷ If one insists on interparty proportional representation and the inviolability of direct and list mandates, then one must be prepared to accept an increase in the size of the Bundestag that may be extreme. Conversely, if one insists on maintaining the target size of the Bundestag, then either interparty proportional representation must be waived or the principle of the inviolability of direct mandates or the principle of the inviolability of list mandates must be abandoned—or more than one of these conditions has to be sacrificed. One must therefore

¹⁷ In a decision-theoretical sense, this is not a dilemma, but merely a weighing up of different consequences. The “dilemma” is psychological and, to some extent, moral because something has to be sacrificed that is normatively (and in this case, democratic-theoretically) good in itself. A decision that can be justified as a balancing exercise can therefore still be criticized because it accepts (as it must accept) the destruction or impairment of something good. This is analogous to the “problem of dirty hands” (Walzer 1973).

turn at least one of the following four adjusting screws that mirror the four criteria and which a reform could address, depending on which criterion one is prepared to sacrifice:

- (a') Enlargement of the Bundestag through compensatory mandates
- (b') Non-allocation of constituency seats if these are not covered by the second-vote result
- (c') Offsetting of state lists with overhang mandates
- (d') Admission of unbalanced overhang mandates

The 2013 electoral law opted for option (a')—that is, it allowed for an undiminished increase in the size of the Bundestag. The 2020 electoral law also used mechanisms (c') and (d'). However, (c') did not come into play at all in 2021 because the balance was based on the CSU, while (d') alone could not prevent the Bundestag from increasing to 736 seats.

Certainly if, in theory, the allowed deviation of (d') had been greater than that enabled by the acceptance of three unbalanced overhang seats, the enlargement could have been reduced. In the extreme case, all 35 overhang seats could have remained unbalanced in 2021. Or—following the logic of the electoral systems of Scotland, Bolivia, and Lesotho—the overhang seats could have been compensated within, meaning that all constituency seats would have been guaranteed and the proportional adjustment would have stopped when the regular size of the Bundestag was reached. For example, the 11 overhang mandates of the CSU in Bavaria would have been compensated for by the SPD and the Greens each receiving three fewer mandates, the FDP and AfD two fewer, and the Left Party one fewer. This corresponds to the electoral system that Bavaria introduced as early as 1949 and that was applied in the 1950 regional election there (Unterpaul 1992, 80) and abolished in 1952. Such a model is almost the opposite of the equalization used in the last three federal elections because not only do the other parties not receive any equalization mandates for the overhang mandates of a particular party, but, on the contrary, some of the mandates that would be due to them according to the proportional system are subtracted. Apart from substantial normative considerations, there are two reasons why such a severe violation of proportionality would not be realizable in the German electoral system: one constitutional and one political.

German electoral law is not enshrined in the Constitution but is mere law. However, it must comply with the *Wahlrechtsgrundsätze* (electoral-law principles) in Article 38 of the Constitution, the German Grundgesetz. The most important of these is equality. Constitutional jurisprudence has interpreted this principle in relation to a proportional representation system in terms of *Erfolgswertgleichheit* (success-value equality)—that is, the number of seats a party receives for a certain number of votes. Deviations from proportionality, however, violate the principle of success-value equality and are therefore only possible to a very limited extent, as was once again emphasized in the 2012 ruling mentioned above.¹⁸ So violations could be stretched a little, but giving no compensation at all for overhang mandates, or adopting a system like the Scottish one, would be unconstitutional. Larger deviations would require systemic change. One proposal from the CDU/CSU to the Electoral Law Commission, for example, was to introduce a *Grabenwahl* system—a segmented or parallel system (Shugart and Wattenberg 2001, 15). This would have guaranteed the regular size of the Bundestag but would have shifted the system from proportional to majoritarian. But (at least for now) there would be no

¹⁸ The great importance of success-value equality can also be seen from the fact that almost all *Länder*, when they are distributing the seats, have now switched from the d'Hondt method to the Hare-Niemeyer and Sainte-Laguë (Webster) methods, which come closer to proportionality. In an often-cited judgment in 2010 the Constitutional Court of Schleswig-Holstein even described the use of d'Hondt as “apparently problematic” (LVerfG 3/09).

majority in the Bundestag voting for such shifts because one party would benefit the most by far from it and almost all the others would lose.

In the end, the 2023 electoral law opted for mechanism (b'). The principle of covering the direct mandates by the second votes, which has now been implemented, is the central element of this reform. According to this principle, a party at most receives as many mandates in a particular state as it is entitled to there in proportion to its share of second votes. If it has a plurality of first votes in more constituencies than it is entitled to in terms of second votes, only the best constituency winners, the mandates of whom are still covered by the second votes, receive their constituency mandate.

The 2023 act also contained two other changes. The target size of the Bundestag was increased from 598 to 630 seats. There was no substantive argument for this; it was more of a therapeutic measure. Ultimately, the MPs were expected to vote in favor of a law that would significantly reduce the likelihood they would return to the next Bundestag. The slight increase to 630 seats was therefore intended to have a psychological effect on MPs' willingness to vote for the reform. The second change was the aforementioned abolition of the basic mandate clause, which was reinstated temporarily by the Federal Constitutional Court.

If the law had already been applied in the 2021 election and the same election result had been achieved, the CSU would have been entitled to 36 seats instead of 34 because of the new regular size of 630 seats. As the CSU would still have won a plurality of first votes in 45 constituencies, under the new law the CSU candidates with the nine lowest first-vote shares would no longer have received a mandate.

Of course, it would be easiest if overhang mandates did not arise in the first place. The formal model from Sect. 6 can therefore also be used to determine the maximum number of direct mandates to be allocated—that is, the number of constituencies—so that overhang mandates do not arise. Whereas in equalization models the total number of direct mandates is kept constant and the final size of the Bundestag is the variable, it is now the other way around: The size of the Bundestag is fixed at the target size, and the maximum number of direct mandates is variable. A slight transformation of Eq. (5) results in the following:

$$D_A \leq v_A * M^* \quad (7)$$

The number of direct mandates achievable with a certain share of the vote must be less than the number of mandates to which a party is entitled in proportion to this share of the vote. Since we know that based on the current party system, a party could win all direct mandates with approximately 30–33 percent of the votes, the proportion of all direct mandates to all mandates must be on approximately this order of magnitude, which would correspond to a constituency number of approximately 190–210 with a new standard size of 630 seats. The current number of 299 would have to be reduced by around a third. But the 2020 law provided only for a reduction to 280 (for the election following 2021), and in the context of the discussions in the Electoral Law Commission the CDU/CSU held out the prospect of a reduction to 270. Although these figures could have mitigated the problem of enlargement a little, the reduction would still have been much smaller than necessary. Ultimately, the capping model that has now been introduced leads to a similar result to an a priori reduction in the number of constituencies: This way or that, the proportion of direct mandates is reduced more or less to the proportion covered by second votes. However, to solve the problem by reducing the number of constituencies, one has to be guided by the worst-case scenario and may therefore overshoot the mark—that is, reduce the number of constituencies to a level that would not have been necessary in regard to specific future

election results. In comparison, the capping model is more accurate: It eliminates exactly the minimum number of direct mandates required to ensure that no more overhang mandates arise because it eliminates the overhang mandates where they arise, namely in the respective states.

8 Conclusion

Mixed-member proportional electoral systems are often assumed to represent the “best of two worlds” (Shugart and Wattenberg 2001), combining the advantages of direct election of representatives with the advantages of proportional representation systems. However, there may be conflicts between these two elements. If directly elected MPs can no longer be accommodated in the seat quotas to which a party is entitled in proportion to its votes, overhang mandates arise. If these mandates remain untouched, this leads to a restriction of the element of proportional representation. However, if one wishes to retain this element and allow the unrestricted direct election of successful MPs in their constituencies, there is no alternative but to introduce compensatory mandates, which leads to an increase in the size of Parliament compared to the target size. The dramatic proportions this can take became apparent in Germany, the home of the mixed-member proportional system. The 2017 and 2021 elections there saw increases of around 20%, and even more dramatic increases were possible. This vulnerability can be explained by the immense increase in overhang mandates, which in turn are the result of an increasingly fragmented party system, caused in part by the emergence of parties on the fringes of the political spectrum. The trend in Germany is paradigmatic, and the same effects are to be expected in other countries with mixed-member proportional systems experiencing similar developments of their party system.

To stop the unbridled expansion of Parliament, one must usually choose between Scylla and Charybdis: One must sacrifice or restrict either the personal or the proportional element of democracy. Against the background of a tradition of a proportional system that has existed in Germany for more than 70 years, the importance of more or less strict adherence to the proportionality principle can hardly be denied. Also the scope of the Electoral Law Commission was limited to finding a solution within the framework of “personalized proportional representation.” Solutions that significantly weakened the principle of proportional representation would therefore have been unacceptable, and it would have been impossible to implement them politically.

But strict adherence to proportional representation and the target size requires necessarily restriction of the personal election element. Either the number of MPs elected in constituencies is to be reduced to such a proportion of the target size that overhang mandates can no longer be expected to arise, or not all constituencies are to continue to be filled with directly elected MPs—that is, each party will only receive as many MPs as it is entitled to according to proportional representation. The latter is the path taken by the German electoral reform of 2023.

Constituencies are no longer self-contained areas that autonomously generate mandates or their own mandate claims (even if these are included in the overall calculation). Instead, they are used as computational units to create a ranking list on the basis of which seats are allocated. Such a system is still a mixed-member proportional system because there are still two groups of MPs elected under different rules, but the new system is moving toward

a system like that of Slovenia (Difford 2022), in which there are no constituency MPs in the narrow sense at all and the constituencies only function as the aforementioned computational units to create a virtual dynamic list. The Electoral Law Commission discussed a similar system with two lists, in which one would be generated dynamically based on constituency results and the other would be a fixed list as before (Funk 2018; Behnke 2019). However, this system did not become the focus of discussions. But the 2023 reform may have increased the chances of such a model being implemented in the future.

With the new electoral law, the Bundestag's regular size is always adhered to exactly, thus efficiently solving the problem of enlargement. The price of achieving this aim consists in so-called orphaned constituencies—that is, constituencies that are not represented by a directly elected MP. However, it is not unlikely that there are MPs from such constituencies from other parties who have entered the Bundestag on their behalf via the list, so the loss in representation of local interests may be small. Upcoming elections will show how successful the reform will be, especially in a political sense, and thus how useful the reform could be as a model for other countries.

The period after one reform is also the period before the next reform. Since the new electoral system was adopted against the will of the CDU/CSU, which won the elections in February 2025 and now leads the new government, the question of the stability of the new electoral law arises. However, to implement a new reform the CDU/CSU will need to rely on its new coalition partner, the SPD, who was among the architects of the reform and who will probably not be willing to make too many concessions in this regard. And any new reform would have to take place under similar empirical conditions to before and the same normative constraints as outlined here. Perhaps the new electoral system is not the best solution in every respect, but in some very relevant respects it is better than the one that existed before.

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