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The chancellor model: Forecasting German elections

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Abstract

Our forecast model for German Bundestag elections relies on three predictors: (1) the popularity of the incumbent chancellor (hence the christening of it as the "Chancellor Model"); (2) the long-term partisan balance in the German electorate; and (3) the cost of ruling, as captured by the tenure of the government in office. The model forecasts the vote share of the governing parties (typically two, such as Social Democrats and Greens, or Christian Democrats and Free Democrats), except for instances of a grand coalition. The coefficients of the predictors are estimated based on elections since 1949, the beginning of the Federal Republic. The out-of-sample forecasts of the model deviate from the actual results by just over one percentage point, on average. The first real-time test of the model came in 2002. The forecast issued three months before Election Day picked the incumbent vote share to the decimal (47.1% for the SPD-Greens coalition); for the 2005 election, called a year early, our forecast three weeks before Election Day was just three-tenths of a percentage off the mark. For the upcoming election, we offer separate forecasts, conditional at this moment, for each of the two parties in the grand coalition.

Keywords: Election forecasting; Government popularity; German elections; Multivariate models

1. Introduction

Forecasting elections in Germany is no cottage industry. Pollsters and academic students of elections in that country view the endeavor with bewilderment, disbelief or undisguised disdain. When we introduced our forecast model with a prediction for the 2002 German Bundestag election, one critic gleefully predicted that our "model will not survive the next [2002] election" (Quoted by Neumeyer, 2002). In the end, the model did more than survive. The forecast posted three months before Election Day in 2002 picked the result, the vote share of the governing parties, to the decimal (47.1%). No poll, not even the Election-Day exit polls, beat or even equaled the performance of our forecast model. In 2005, the forecast of our model came within three-tenths of a percentage point of the outcome, again beating pre-

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election polls. Granted, a broken clock may be right twice a day, but our model's performance in those elections was not just a stroke of luck.

Our forecast formula combines predictors of the vote that are familiar to students of elections anywhere. We owe a special debt, of course, to forecast models developed for American elections (as featured by Campbell & Garand, 2000, and Lewis-Beck & Rice, 1992; and, most recently, in PS: Political Science & Politics, 2008. However, our formula should not be mistaken for a German replica of any particular American model. The predictors of our forecast model for Bundestag elections, in a nutshell, are long-term partisanship (a normal-vote baseline), short-term chancellor approval, and a medium-term dynamic of declining incumbent support over time — call it the "cost of ruling" or simply government fatigue (Gschwend & Norpoth, 2001). Using election returns and measures from opinion surveys, we estimated the statistical influence of these variables on the vote in Bundestag elections. Forecasts after the fact confirmed that the model would have been capable of predicting German election outcomes from 1953 to 1998 quite closely (Norpoth & Gschwend, 2003). The out-of-sample forecasts of our model picked the results of those elections with an average deviation of just over a single percentage point. What broken clock can do that?

2. The forecast target

Anyone who tries to forecast an election in a multi-party system must first settle on what exactly it is that is being forecast. With no single party likely to control the government in Germany, our efforts focus on the politically most telling party combination: the parties forming the government before the election. For each Bundestag election we obtained the combined vote of the governing parties. The vote of any party that belonged to the government at some time during the term preceding the election but departed before Election Day was not included. A few elections, however, posed some problems.

One is the 1969 election. CDU/CSU and SPD entered the election campaign as partners in a grand coalition, but they parted company as soon as the votes were tallied. What is more, the combined share of those two parties (88.8%) is an extreme case that would require special consideration or else the exclusion of that case. The most practical solution was to use only the vote share of the dominant party (CDU/CSU) of the coalition for that election. The upcoming election (2009) presents us with the same problem. Again, CDU/CSU and SPD are governing in a grand coalition. This time, however, we will be offering a forecast each for CDU/CSU and SPD.

Another sort of tough case is the election of 1983. Technically, the coalition government going into that election consisted of CDU/CSU and FDP, and yet this was an election that was specially called to let the public decide on the replacement of the previous government of SPD and FDP, headed by Chancellor Schmidt, in the Bundestag a few months earlier. With the FDP newly aligned with the CDU/CSU, we decided to consider only the vote share of the SPD, the dominant party of the Schmidt government, for that election.

Yet another problem arises from unification, in 1990. Should we use the vote in the newly unified Germany for elections since then or stick to the vote in the old Federal Republic? Again, for practical reasons, we decided to keep the continuity of the vote series intact until 1998. Beginning with the 2002 election, we have ended this exclusion and begun relying on the vote in the unified Germany. What then determines voter support for governing parties in any given Bundestag election? What makes the difference between winning and losing?

3. Theoretical foundation

Our main point of departure from other approaches is the premise that the voting decision is determined by the confluence of long-term, short-term, and medium-term components. The influence of long-term partisan loyalties on electoral decisions is an undisputed fact (Campbell, Converse, Miller, & Stokes, 1960; Lewis-Beck, Jacoby, Norpoth, & Weisberg, 2008), and the German electorate is no exception. What determines the vote choices in Bundestagswahlen to a large extent is long-term stable attachments to political parties (Falter & Rattinger, 1982; Norpoth, 1978). The aggregate distribution of party identification in the German electorate provides a "normal vote" baseline for the outcome of a given election under normal circumstances.

While the notion of long-term forces, in principle at least, is not hard to grasp, the notion of short-term forces is more elusive. What tips the electoral balance in the short run, as we see it, is a matter of retrospective judgment. The electoral calculus boils down the following: "If the performance of the incumbent party is 'satisfactory'..., the voter votes to retain the incumbent governing party...; while if the government's performance is not 'satisfactory', the voter votes against the incumbent..." (Kramer, 1971, p. 134; see also Fiorina, 1981). Or, to put it more apocalyptically, the electorate acts as a "rational god of vengeance and reward" Key (1964, p. 568).

Aside from long-term partisanship and short-term performance judgment, our vote model also includes a cyclical dynamic. In US presidential elections, a party rarely occupies the White House longer than two or three terms. The two-term limit for presidents, either by tradition or law, makes for competitive contests that open the door to the opposition party getting back into the White House. Some forecast models have taken account of this dynamic in U.S. presidential elections (Abramowitz, 2008; Norpoth, 2002, 2008). In parliamentary systems like Germany without such term limits, the "cost of ruling" (Paldam, 1991) is set to ensure that parties in office lose rather than gain votes from election to election.[1]

4. Measures for the predictors

Measuring electoral variables over a span of 50 years or so, like making sausages, is not something for purists. Opinion surveys track few if any questions over such long periods. The business of survey research in Germany is barely that old. For measuring long-term partisanship, we have altogether forsaken survey data and instead derived an estimate from election returns, as was done for U.S. elections under similar conditions by Tufte (1978, ch. 5). It is undeniable that the long-term support of a given party registers in its mean vote percentage over several elections. For the still quite young Federal Republic it seemed prudent to rely only on a few past elections. Hence, the long-term partisan support for the governing parties in the German electorate is measured as follows:

Long-term partisanship =

Average vote in the last three Bundestag elections.

For the early Bundestag elections, it is necessary to modify this measure of long-term partisanship. The first three simply have not enough previous elections to fall back on, and there is just no way we can afford to drop them all from the analysis. Those early elections also witnessed a massive transformation of the German party system that realigned the partisan loyalties in the German electorate. This makes it defensible to use only the immediately preceding election for a measure of long-term partisanship for the elections of 1953 and 1957. With nothing to guide us for the first election, we have no choice but to let 1949 go.

The relationship between long-term partisanship and incumbent vote is quite strong ($r = 0.55$), as can be seen in Fig. 1. To be sure, some elections do not fit especially well. One would not expect long-term orientations to offer much guidance for voting in 1953, only the second election of a new political system. This is an incumbent victory that one would predict to derive primarily from short-term forces. Similarly, an incumbent defeat, as in 1998, registers in an electoral showing far below the normal-vote prediction. All in all, long-term partisanship is not correlated with the vote in any given election strongly enough for it to be used as the sole predictor.

What matters for the vote in the short-run, we contend, is public satisfaction with the performance of the incumbent government. Forecast models for U.S. elections have typically captured this factor by relying on measures of economic performance and presidential approval (Abramowitz, 2008; Holbrook, 2008; Lewis-Beck & Tien, 2008), or combining economic measures with the trial-heat standing of presidential candidates (Campbell, 2008; Erickson & Wlezien, 2008). Regarding Germany, the only other forecast model besides our own that we are aware of relied on economic predictors such as unemployment and the budget deficit, not direct measures of popularity (Jerôme, Jerôme-Speziari, & Lewis-Beck, 2002), and was based on only 11 elections. Our model, in contrast, relies solely on chancellor support as a

[1] While the Federal Republic came up as an exception to that rule in Paldam's analysis, our replication, including elections since 1983, shows the German case to be a perfect fit, with an estimate for the key parameter of −1.7, which is close to the average of −1.6.

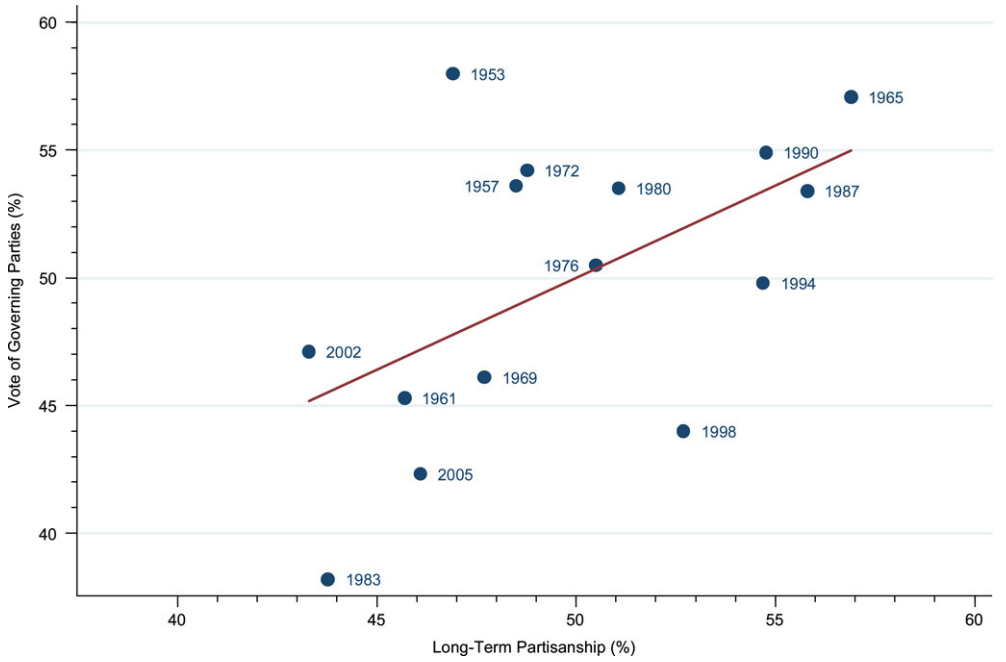

Fig. 1. Partisanship and the vote.

short-run predictor of the vote, omitting the economy. That is not to say that we consider the economy of no importance for electoral outcomes. Our view is that the electoral effect of the economy is fully mediated by chancellor support. Preliminary tests have shown that the inclusion of economic measures, be it economic growth, unemployment, or inflation, adds no predictive leverage to our forecast model with chancellor support as a predictor (Gschwend & Norpoth, 2000, pp. 404–406). The federal chancellor is the most visible figure of any federal government, and his reputation mirrors that of the government he leads. While purely personal considerations may play a part in evaluations of the chancellor, matters of the economy, as well as foreign policy, leave their mark on such evaluations (Gschwend & Norpoth, 2001, pp. 492–493).

Lacking a single measure of chancellor approval for the last 50 years, we have fashioned a series of comparable items from several survey sources (Norpoth, 1977). For the early elections (1953 and 1957) and the special case of 1983, we had to turn to the Allensbach question, "Are you satisfied with the policy of chancellor [name]?" For the other years, we have relied on the question in the German Election Studies about chancellor preference (incumbent vs. challenger), which is also used in public opinion polls of the *Forschungsgruppe Wahlen*. Wherever possible, our measure of chancellor support for a given election averages the values one and two months before Election Day.

The correlation between chancellor approval and the vote for the governing parties is quite strong ($r = 0.75$), as can be seen from Fig. 2. Nonetheless, it would be foolish to make forecasts of German elections solely from chancellor support. What is more, the less than perfect fit shows that chancellor support and vote choice are not two sides of the same coin. It is not a tautology to say that someone votes for one of the governing parties because she approves of the incumbent chancellor. There is enough room for additional factors, quite aside from long-term partisanship.

In the medium-run, our vote model specifies a fatigue effect that prophesies electoral decline to incumbent parties. The longer a government is in office, the more its electoral support diminishes, to the point where defeat in an election brings on a new

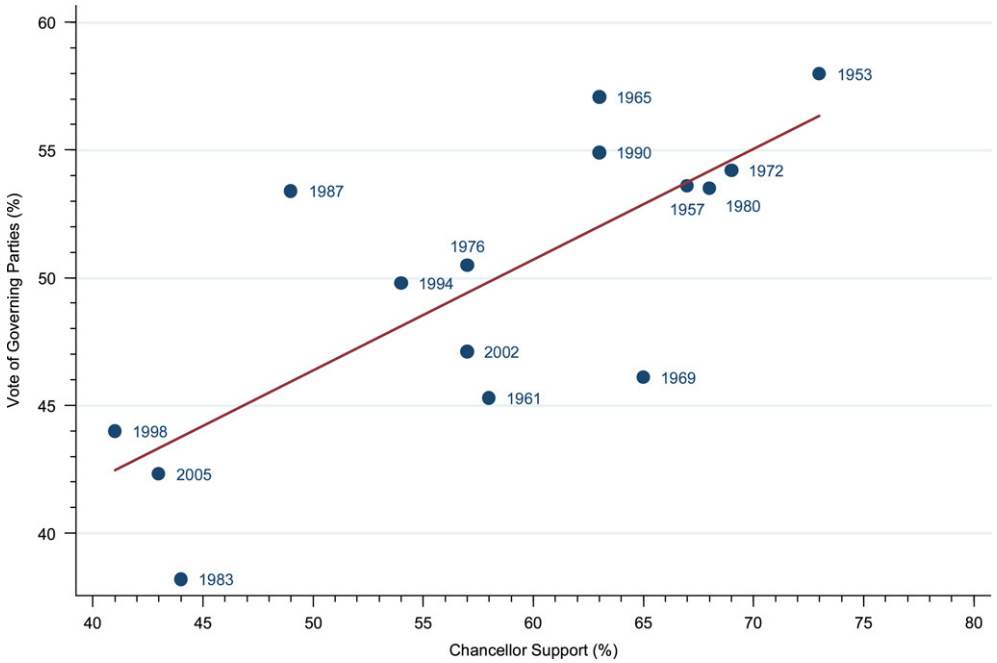

Fig. 2. Chancellor support and the vote.

government. The federal governments in Germany have lasted three terms, on average. We measure voter fatigue simply by the number of terms a government, or the leading governing party if the coalition composition changed, has been in office.

Fig. 3 shows that the vote of governing parties declines as the number of terms of that government increases. The correlation is fairly strong and has the proper negative sign ($r = -0.44$). To be sure, some of that electoral decline is prompted by the withdrawal of parties from the government. The departure of several parties from government in the early years (1953–1957) had to diminish the vote of the remaining governing parties at the next election. However, since then, voter attrition has been the primary source of the electoral decline of governing parties. That is true for the social-liberal coalition (1969–1982) under Chancellors Brandt and Schmidt, the Christian-liberal one under Kohl (1982–1998), and the red–green coalition under Schröder (1998–2005). The tendency of the governing parties in Germany to lose electoral support confirms the general "cost of ruling" proposition put forward by Paldam (1991).

The reader may wonder, however, whether this medium-term fatigue is really something independent of the short-term evaluations of incumbent performance, or just an artifact of the latter. If such fatigue exists, should it not register in declining satisfaction with the incumbent chancellor, which in turn drives down the vote of governing parties? Chancellor support and term of office are indeed correlated with each other ($r = -0.34$), but not to such a degree that the relationship between them would seem in imminent danger of proving to be spurious. It remains to be seen how much of the fatigue factor remains with chancellor support held constant, and vice versa. That takes us to the next step, where we put all three predictors in one electoral basket.

5. The forecast model

Using all three predictors in a single vote equation lets us determine whether long-term partisan strength, a short-term evaluation of incumbent performance, and the medium-term decline of government support each exert an independent effect on the incumbent vote in Bundestag elections. As the results in Table 1

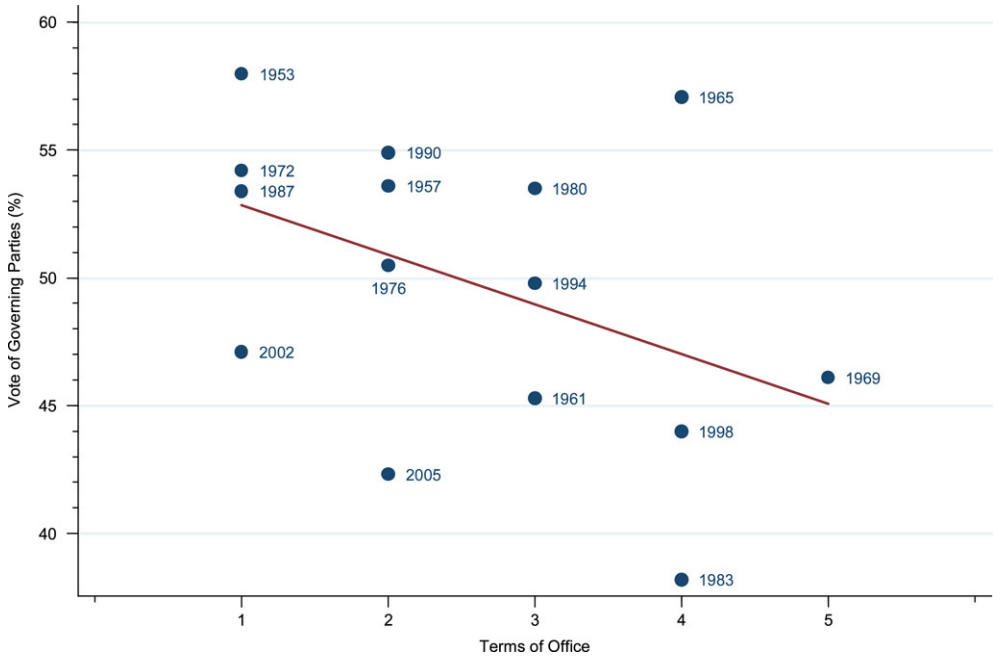

Fig. 3. Terms of office and the vote.

Table 1
Estimates for the forecast model.

	Forecast target: Vote of governing parties	
Predictors	Parameter	(SE)
Long-term partisanship	0.75***	(0.08)
Chancellor support	0.38***	(0.04)
Term	−1.5***	(0.28)
Constant	−5.6	(4.5)
$\overline{R}^2$	0.95	
Standard error	1.3	
(N)	(15)	
Durbin–Watson $\underline{d}$	1.80	
Lijung–Box Q (5 lags)	2.78 ($p > 0.70$)	

Note: Model estimation based on elections 1953–2005.
* $p < 0.05$.
** $p < 0.01$.
*** $p < 0.001$.

show, the coefficients of all three vote predictors are statistically significant beyond a doubt, and their signs are all in the expected directions. Each of them brings something distinct to the table. We can rule out the possibility that partisanship has such a tight grip on chancellor approval that the latter has no vote leverage left. It is also not true that the decline of support with an increasing number of terms in office manifests itself in chancellor support. However unwelcome it may be to the coalition governments in the Federal Republic, the cost-of-ruling effect proves extremely helpful to us in coming to grips with election outcomes, and hence for forecasting.

What do these results tell us about election outcomes in the Federal Republic? For one thing, long-term partisan strength does help a governing coalition get re-elected, but it does not guarantee it. The governing parties can expect to retain about three fourths of their "normal" vote in a given election. Contrary to claims about dealignment, long-term partisanship is a powerful electoral factor in Germany. Still, it is not strong enough to secure reelection. Second, chancellor approval has a strong effect, above and beyond long-term partisanship. For every point gained in chancellor approval, the incumbent parties can expect to gain close to one-half of a percent in votes. Granted, the incumbent parties cannot count on the vote of everyone who favors the chancellor. Let us not forget that partisanship counts for a lot, too, in German elections. But chancellor

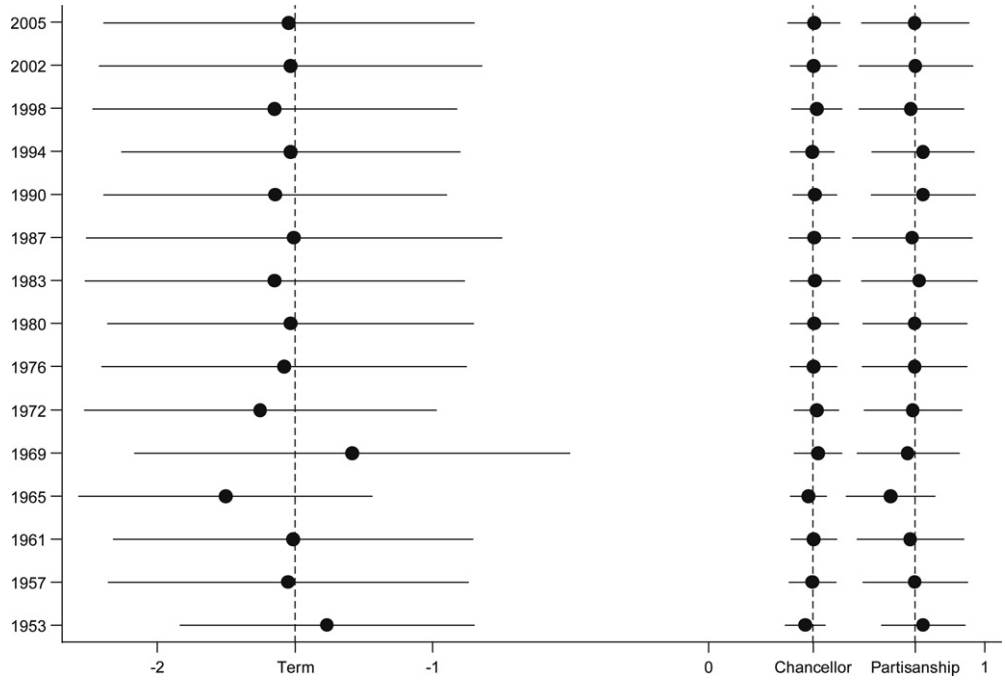

Fig. 4. Stability of estimates in synthetic out-of-sample predictions.

approval adds a critical margin to the base support of the governing parties. A chancellor whose approval rises from, say, 40% approval to 60%, adds eight percentage points to the vote total of the parties in his government. That can spell the difference between winning and losing. And finally, the government fatigue associated with increasing terms in office proves costly for the governing parties at election time, and does so independently of the incumbent chancellor's approval and partisanship. Taken all together, the three predictors capture the actual vote of incumbent parties in Bundestag elections from 1953 to 2005, with an average error no larger than 1.3%. By another measure of fit, the explanatory power of the vote equation with the three predictors reaches 95%. Very little of the variance of the actual vote in elections between 1953 and 2005 is left unexplained. Such a performance inspires strong confidence that the model can make reasonably accurate forecasts about future elections.

But how robust are the predictor coefficients, given only 15 cases (elections) from which to extract information about electoral outcomes? One sign of reassurance is the pattern of the relationship between each of the three predictors and the vote that is visible in Figs. 1–3. There are no signs of any outliers that could disturb the estimates in any particular election. This is suggestive of robustness, but is not conclusive. A harder test is provided by examining the stability of coefficient estimates for synthetic out-of-sample predictions. As can be seen in Fig. 4, the estimates for a given predictor vary very little across elections, with none even close to straying beyond the 95% confidence intervals. In other words, none of the estimated coefficients used for out-of-sample predictions differ significantly from the benchmarks (dashed lines) of the full model presented in Table 1.

The out-of-sample forecasts themselves, which are displayed in Fig. 5, track the actual results extremely closely. Apart from the notoriously difficult case of 1953 – the first instance of a federal government seeking reelection – there is only one other election (1965) where our model prediction is off by more than two percentage points. Luckily, in close elections (such as 1976) the margin of error is far smaller than the average, to allow us to make the right call. What is

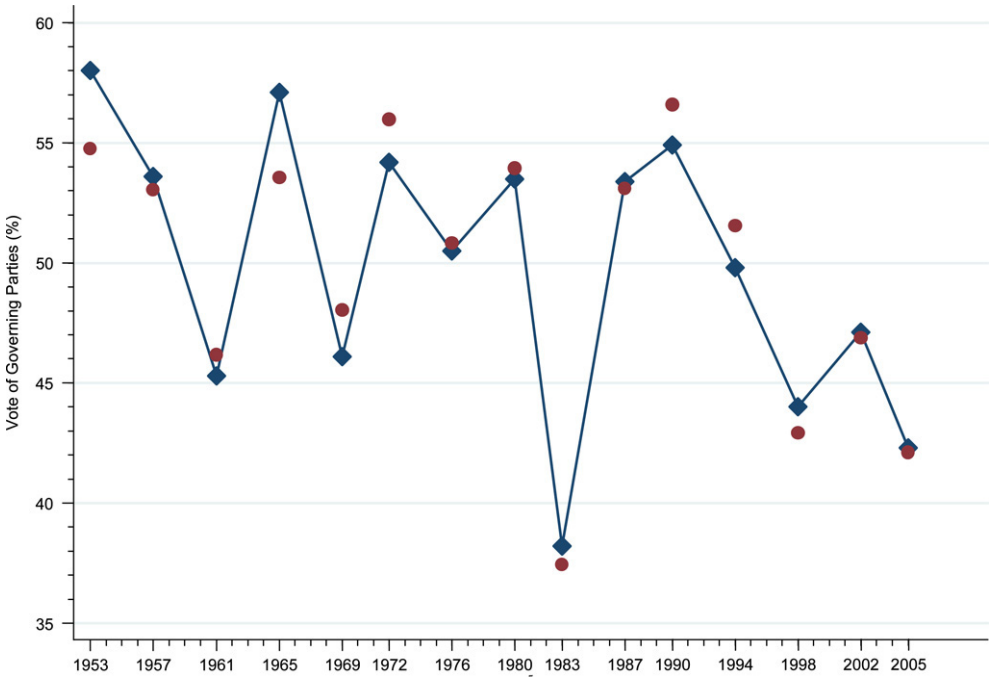

Fig. 5. The vote of governing parties with point forecasts.

more, the forecasts shown in Fig. 5 pick the winner of every single Bundestag election since 1953, at least in hindsight.

6. Real-time tests of the model

The ultimate test of a forecasting model is its ability to offer precise predictions ahead of time. How did our model perform in one-step-ahead forecasts? The first time the model was tested this way was in 2002. Three months before Election Day we posted the forecast, derived from our model, that the SPD-Greens coalition, led by Chancellor Schröder, would get 47.1% of the vote (Neumeyer, 2002). Such a vote would be enough to ensure victory over the combination of CDU/CSU and FDP, given the realistic assumption that all other parties combined would muster at least 6%; the share of all other parties had averaged just above 8% during the last three elections. On Election Day 2002, the red–green coalition won 47.1% of the vote—exactly the share predicted by our model three months earlier. Red–Green defeated the combination of CDU/CSU and FDP while securing a majority in the Bundestag.

To be sure, scoring a bull's-eye hit with a forecast model is a stroke of luck, but coming within about one percentage point would have been no surprise for our model, given its overall fit to German elections. What was surprising in 2002, however, was that the model did as well when all the polls predicted the opposite. Relying on opinion polls, the headlines in the German media practically called the election for the opposition CDU/CSU and FDP. The governing parties were trailing so far behind in the horse race that defeat seemed inevitable. Like Schröder, our model was fated not to survive the 2002 election (Neumeyer, 2002).

The second real-time test of our model came in 2005. The SPD-Greens government was running for reelection again, and facing a combination of CDU/CSU and Free Democrats (FDP) as a likely successor government once again. This time, however, the arrival of a new competitor, the Left Party (DIE LINKE.PDS), complicated the electoral competition. This party – shown in public opinion polls securely above the critical 5% threshold – was cutting into

the support for the Social Democrats. How could our model cope with this new wrinkle? Creating a variable just for this novelty would be very costly, given the small number of cases (elections in the Federal Republic). Could any of the model predictors cope with the impact of a new party? Which one would be most suitable?

The government fatigue variable provides no leverage for any such adjustment, and it seemed too early to tweak long-term partisanship since the party had just been formed in the election year. So we decided to use chancellor support to make the adjustment. Our reasoning was as follows: Supporters of the new Left Party, as was evident from polls, preferred the SPD chancellor candidate (Gerhard Schröder) but would not vote for his party. In so doing they would distort the normal relationship between chancellor approval and voting decision in 2005. Thus, we adjusted the popularity rating of the SPD chancellor candidate (vs. his CDU/CSU-challenger, Angela Merkel) by the support for the Left Party recorded in polls.[2]

Our forecast, based on the left-adjusted popularity rating, along with the other variables of the model, predicted that the SPD and Greens together would receive 42.0% of the vote, with a standard error of the forecast equal to 1.7.[3] The actual SPD-Greens vote share (42.3%) was just three-tenths of a percentage off the mark — and well within the expected margin of error of our forecast. In a historical perspective, the 2005 forecast ranks among the best showings of our model, using out-of-sample predictions for previous elections (Fig. 5).

The polls, in contrast, fared less well in 2005. Three months before the 2005 election, support for the red–green coalition registered in polls at about 37.2%, on average, and even a month before the election at about 38%. At the same time, those polls pointed to a decisive victory for a CDU/CSU-FDP coalition. Our forecast disagreed with that prospect (Gschwend & Norpoth, 2005a). As it turned out, our model predicted the outcome not only earlier, but also more precisely than the pre-election polls, and our forecast was on par with exit-poll results on Election Day (Gschwend & Norpoth, 2005b).

7. Forecasting the 2009 election

To use this model for the upcoming election (expected in September 2009), we first have to overcome two obstacles. One has to do with the rare occurrence of a grand coalition (Christian Democrats and Social Democrats) in the federal government; the other concerns the continued presence of the new Left Party. Regarding the first obstacle, the federal government since 2005 has been made up of Germany's two major parties. This is only the second time that such a grand coalition has been formed in the Federal Republic, the previous occasion occurring in the late 1960s. Though the Christian Democrats and Social Democrats are governing together, each of them has nominated its own chancellor candidate (Merkel, the incumbent chancellor, for the CDU/CSU, and Frank-Walter Steinmeier, the vice chancellor, for the SPD). And each would surely part company as soon as alternatives become available. So a forecast for the combined share of the governing parties, which is what our model is designed to produce, would be of little interest for the upcoming election. We must adapt the model to generate separate forecasts for CDU/CSU and SPD in the 2009 election. We do so by entering separate values for the CDU/CSU and SPD for each of the predictors of the forecast equation.

The second obstacle deals with the Left Party. As noted above, this party suddenly rose during the 2005 election season, with dissident leftists in the SPD joining the post-Communist Party of Democratic Socialism, which had strong support in the eastern states. Rather than create a new variable to account for this contingency, we adjusted one of the predictors in making our forecast for the 2005 election. This involved deflating the chancellor approval in proportion to the strength shown by the new Left Party in polls before the election. We assumed that such voters would favor the SPD-chancellor (Schröder), but not vote for his party. While such an adjustment is an option for the upcoming election as well, by now the impact of the new party should have registered in long-term partisanship. As a rule, long-term partisanship

[2] This step resulted in a left-adjusted chancellor approval rating of 43% (52.4% overall minus 9.4%, the level of support for the Left Party).

[3] The 2005 forecast was issued three weeks before Election Day. The 2005 election was called a year early and did not give us as much time to prepare a forecast.

Table 2
Conditional forecasts for the 2009 election.

Approval rating (%)		Vote of CDU/CSU (%)		Vote of SPD (%)	
Chancellor	SPD candidate				
30	70	31.4	(2.1)	**42.0**	(1.9)
40	60	35.2	(1.9)	**38.2**	(1.9)
50	50	**39.0**	(1.8)	34.4	(1.9)
60	40	**42.8**	(1.8)	30.6	(2.0)
70	30	**46.6**	(1.8)	26.8	(2.1)

Note: Forecast standard errors are in parentheses. The predictor values for long-term partisanship and term of office are 36.3 and 1 for all forecasts of the CDU/CSU vote, and 34.2 and 3 for the SPD.

is measured by the average vote in the last three Bundestag elections. This may not be a wise rule for the SPD these days. Its vote declined from 40.9 to 34.2% between 1998 and 2005, as the Left Party took root. While we cannot determine for sure what proportion of former SPD voters have defected to the new party, it is certain that the average of a declining phenomenon is not the best estimate of its long-term prospect. A better move is to take its last showing as an indicator of future performance. Hence, we have decided to use the SPD's showing in the last election (2005) as the best measure of its long-term strength. Even that level may be inflated, given the boost the SPD received in 2005 from the popularity of then Chancellor Schröder.

Table 2 presents a range of model forecasts for each of the two major parties in the upcoming (2009) election. These are conditional forecasts, subject to approval ratings for Chancellor Angela Merkel (CDU/CSU) vs. her SPD-opponent, Frank-Walter Steinmeier. What is known for certain at this moment is the long-term partisanship and term of office for each of the parties. Assuming an approval rating of 70% for the Chancellor (Merkel), the model would predict a landslide victory for her party, the CDU/CSU, over the SPD. Even such a favorable result, however, might not guarantee a majority of seats for the CDU/CSU in the Bundestag. Seats are allocated in proportion to the national vote, provided that a party secures at least five percent of the national vote. Though it will take a little less than 50% of the national vote to capture a majority of seats in parliament, recent experience suggests that in all likelihood at least 47% of the national vote would be necessary. The CDU/CSU will be able to top that mark with the help of a willing coalition partner, the Free Democrats (FDP), provided that that party clears the five-percent hurdle. In the end, a moderately popular Chancellor Merkel, along with an FDP getting its normal share of about eight percent of the national vote, will be able to control the next Bundestag.

In contrast, the prospect for an SPD-led government is less rosy. Even with an exceptionally popular chancellor candidate (70% approval), the SPD would fall short of controlling the next Bundestag outright. The help of the Greens, its coalition partner during the Schröder years (1998–2005), would no longer be enough for an SPD chancellor candidate with a less impressive approval, assuming a normal level of the Green vote (about eight percent). Embracing the new Left Party would be a move that is fraught with too many risks for the SPD to contemplate. In any case, all this will remain academic unless the SPD-candidate Steinmeier manages to rise above the anemic levels of approval recorded in polls so far (37% in the January 2009 poll of the Forschungsgruppe Wahlen).

8. Conclusion

Our forecast model for German elections has admittedly taken a page or two from models developed for U.S. presidential elections. That is quite obvious from the reliance on chancellor approval, echoing the presidential-approval measure. However, few U.S. models incorporate a partisan predictor, which seems to make good sense in the case of German elections. After all, German voters are not given a choice of chancellor candidates on the ballot. The chancellor approval nonetheless supplies the most forecasting leverage.

The "Chancellor Model" has performed admirably in one-step-ahead forecasts, issued for two German elections thus far. In 2002, we picked the incumbent

vote share to the decimal, and for the 2005 election we were just three-tenths of a percent off. What is more, in both years our forecasts stood in stark contrast to what the trial heats in polls portended. While a broken clock may be right twice a day, the synthetic out-of-sample forecasts of our model for previous cases do just about as well. German elections prove to be highly predictable amidst contrary horse-race polls and media coverage. The upcoming election presents a special test for the model. The parties of the governing coalition will be competing against each other to see if they can govern without the other one, so we have had to tweak our model to produce a separate forecast for each of them.

Parliamentary elections in countries like Germany do pose special problems for forecasters. Presidential elections, by nature, produce a single winner. Parliamentary elections using a proportional representation rarely do so. The party winning the most votes need not be "the winner" of such an election. A coalition of parties is typically required to govern. But which coalition emerges after an election as the new government depends on many factors. Ideally, a forecast model for elections in a multiparty system should be able to predict the vote shares for each of the parties, but neither electoral theory nor data makes such an enterprise feasible yet.

Given the small number of Bundestag elections and five parties with a parliamentary representation these days, there is no way to use our model to predict the vote shares of all of the parties. What we have done is focus on the governing parties, which makes for the most compelling forecasting target. If the governing parties win enough votes in an election to command a majority of seats in the Bundestag, they win the election and stay in office. If they do not win enough votes for a majority of seats, some other combination of parties will try to govern.

The problem is predicting what proportion of the vote is "enough". It need not be a majority, since, as a rule, seats in German elections are apportioned on a proportional basis only to parties winning more than five percent of the national vote. The larger the combined pool of "wasted" votes (Gschwend, 2007) going to parties falling short of the five-percent hurdle, the lower the requirement for a vote share below 50% to ensure a majority of seats. To take an example, with six percent of the vote going to such parties, any coalition of parties with more than 47% of the vote would capture a majority of seats, and hence win the election.

There is no question that the governing coalition composed of CDU/CSU and SPD will get more than that vote share in the next election, so they will have "won" the vote battle. But that is no guarantee that they will keep governing. Grand coalitions are the exceptions to the rule in the Federal Republic. Each of the major parties would rather be the bigger partner in a coalition with a smaller one. Whether one of the major parties will be in a position to do so after the next election depends not only on its own vote share, but also on the vote of the likely partners. We do offer a forecast of the vote of each major party, but do not have a model to forecast the vote of the minor parties, just educated guesses based on past experience. For the upcoming election the following outcomes appear most likely. Whichever major party receives more than 40% of the national vote will get a majority of seats with the help of its traditional junior partner (the FDP for the CDU/CSU, and the Greens for the SPD).[4] If neither the CDU/CSU nor the SPD clear the 40% mark, the best bet would be a continuation of the grand coalition. If both clear it, the outcome depends on which of the junior partners does better in the election.

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[4] Recent polling gives FDP and the Greens at least 8% each in the upcoming election (http://www.wahlrecht.de/umfragen/index.htm), so the threshold for the major parties need not be as high as 40%.

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