

Collective and individual economic judgments and voting in West Germany, 1961–1984

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Abstract: This article attempts to provide individual-level support to findings of longitudinal macro-level studies of the relation between economic variables and electoral outcomes in the Federal Republic. The theoretical framework is one of incumbency-oriented vs. policy-oriented political responses to collective vs. individual economic judgments (Kiewiet, 1983). The data base consists of 25 surveys from 1961 through 1984. Empirical analysis comprises three steps: First, the relation between economic judgments and partisan sympathies is analyzed, since it appears likely that part of the covariations between voting and such judgments is spurious due to a common dependence upon partisan orientations. Second, the impact of both kinds of economic judgments upon voting over time is investigated with and without controls for partisan affiliation. Finally, the impact over time of macropolitical and macroeconomic variables on individual political response patterns to economic judgments is estimated at the longitudinal macro-level. The analysis demonstrates that collective economic judgments are generally a more potent predictor of electoral choice than individual economic judgments, and that there is clear empirical evidence both for the incumbency-oriented and the policy-oriented hypothesis linking such judgments to the vote.

1. Introduction

As for many other nations, significant longitudinal macro-level relationships between economic conditions and electoral outcomes or government popularity have been reported for the Federal Republic of Germany by several studies (see, e.g., Rattinger, 1980; Kirchgässner, 1983, 1985). The purpose of this article is to provide some micro-level support for these findings, drawing upon data from 25 surveys from 1961 through 1984. The article proceeds in five steps: First, the theoretical framework is outlined in terms of political responses to collective vs. individual economic judgments, and in terms of incumbency-oriented vs. policy-oriented political responses to such judgments. Second, a few remarks concerning data and methodology have to be made. The empirical analysis starts, third, by relating economic judgments to partisan sympathies, as it appears plausible that part of the covariation between voting and economic judgments is spurious due to common dependence upon partisan orientations. The fourth step will be to investigate the impact of both kinds of economic judgments upon voting over time with and without

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controls for partisan affiliation. In the fifth and final part of the paper the cross-sectional individual-level analysis will be complemented by a longitudinal macro-level approach in an attempt to account for changes over time in individual political response patterns to economic judgments by macropolitical and macroeconomic variables.

2. Theoretical framework: Incumbency-oriented vs. policy-oriented political responses to collective vs. individual economic judgments

Many investigations of the political impact of economic conditions have simply adopted Downs' (1957) classical formulation of the calculus underlying voting decisions, according to which the probability of a vote for incumbents should strongly be influenced by evaluations about whether or not the economy has been doing 'well enough'. Regardless of whether the Downsian approach is applied to the electorate at large or only to the potential floating voters, all that it achieves is a rigorous statement of the common sense notion that 'bad times hurt the ins'.

A major shortcoming of the Downsian approach is that it uniformly predicts anti-incumbent effects of economic crises, completely ignoring the partisan composition of government and the nature of prevailing economic problems. Hibbs (1977) therefore has rightly called attention to the necessity of taking such factors into account. His alternative hypothesis assumes some kind of client relationship, i.e. between political parties and their adherents concerning macroeconomic outcomes, that should be quite independent from incumbency. Even though his arguments are geared for the U.S. and the traditional policy preferences of American parties and their followers, they can be easily adapted for most other Western democracies as well (see, e.g., Hibbs, 1982a, 1982b).

A comprehensive discussion of both hypotheses can be found, e.g., in Kiewiet (1983), so there is no need for extensive repetition here. Kiewiet terms the two approaches 'incumbency-oriented' vs. 'policy-oriented', and summarizes them as follows (p. 14f.):

There are, then, two major alternative hypotheses about the effects of economic conditions upon voting in national elections. The incumbency-oriented hypothesis posits that voters give greater support to the incumbents when economic conditions are good, but turn against them and opt for their challengers when conditions are poor. The policy-oriented alternative predicts that Democratic candidates will receive more support during times of high unemployment, while bouts of inflation lead to more support for the Republicans. The hypotheses have much in common – both see the elector-

ate responding retrospectively to actual economic conditions. They differ mainly in the decision rule they specify. According to the first, voters make their decisions on the basis of how satisfactory economic conditions have been under the incumbent administration. The second holds instead that their choices reflect the relative economic priorities of the major political parties.

To this summary should be added that predictions from both hypotheses can either coincide with or contradict each other – depending upon incumbency.

A second important distinction discussed by Kiewiet concerns the precise nature of predictor variables, i.e. what economic conditions and concerns lead to which political responses. His basic dichotomy here is that of a 'personal experiences hypothesis' vs. a 'national assessments hypothesis'. This distinction is far from trivial for two reasons: First, the literature dealing with incumbency- vs. policy-oriented reactions to economic variables (following Downs' example) usually does not explicitly address the question for what kind of economic variables these hypotheses claim to be valid. Second, the relationship between macroeconomic conditions and judgments and personal economic experiences and judgments is not an obvious one (see Kinder and Kiewiet, 1979; Weatherford, 1983; Conover, 1985; Rattinger, 1985).

Both hypotheses have a lot going for them. That people 'vote their own pocketbooks' (personal experience) rather than due to considerations of the common economic good (national assessments) is too plausible to be dismissed out of hand, especially if predilections for material well-being are accompanied by the notion that society and the state are responsible for according everyone a fair chance and a fair share, as well as for protecting individuals against economic hardship. Of course, this notion is far more important in West Germany than in the U.S. It is not surprising, therefore, that mainly American scholars have underscored the possibility that the national assessments hypothesis should be superior. They expect adverse personal experiences to become politicized (i.e. responsibility attributed to society and the political system) with a lower probability, due to the individualistic American 'ethic of coping and self-reliance' (Sniderman and Brody, 1977).

Interpretations of empirical findings supporting the national assessments over the personal experience hypothesis in terms of 'sociotropic' (Kinder and Kiewiet, 1979) or altruistic behavior are somewhat suspect, however, for at least two reasons: First, the personal experience hypothesis is mostly tested against its rival by only comparing the effects of individual and collective economic *judgments* upon voting, even though this hypothesis also refers to (probably even has its predominant focus on) the political effects of *actual personal experiences* of economic hardship or success. It is entirely conceivable

– and some evidence points in this direction (e.g. Schlozman and Verba, 1979)
– that the individual-level economic variables with genuine political effects are not judgments, but rather actual personal experiences that can be more or less easily politicized, e.g. becoming unemployed.

Second, results indicating that the national assessments hypothesis does better empirically do not require us to accept the explanation that 'sociotropic' or altruistic voters are putting their pocketbooks behind the common good. Collective economic judgments almost inevitably primarily involve some political connotations or attribution of responsibility, e.g. to the government's handling of the economy, to parties, the unions, big business, to OPEC, etc. Although individual economic judgments may also involve such connotations and attributions of responsibility, there is in addition a wide range of completely non-political influences on such judgments, and people are probably aware that these influences are non-political. Disregarding personality traits, aspiration levels, and value systems, individual economic evaluations and expectations will be sensitive to a variety of idiosyncratic and biographic family experiences and circumstances such as illness, death, physical handicaps, marriage, divorce, raising of children, and inheritance etc. It would be foolish, e.g., not to expect members of a household with the main wage earner recently deceased to express pessimism regarding their financial future. It would be even more foolish, however, to expect political consequences arising from this judgment. To put this quite simply: It is considerably easier to politicize collective than personal economic discontent.

For genuine tests of the national assessments vs. the personal experience hypothesis, therefore, the latter should be conceived of in terms of personal economic biography (rather than in terms of individual economic judgments), taking into account the filtering processes possibly translating such experiences into political outcomes. These processes necessarily will be more complex than those shaping political responses to collective economic judgments, so one should not be surprised if, in empirical investigations with comparatively simple models, the latter kind of evaluations appear to have the stronger impact upon voting. This does not reflect a 'sociotropic' philosophy but rather sufficient rationality not to hand out political reward and punishment for circumstances that are clearly outside the scope of political responsibility. This argument remains very much the same if one substitutes individual economic judgments for actual personal experiences. The former certainly are in part shaped by collective economic judgments (especially concerning projections into the future), a fact which is reflected in the multicollinearity reported in most studies dealing with both aspects (e.g. Weatherford, 1983; Rattinger, 1985). But since individual judgments (unlike collective ones) are in addition determined by a multitude of factors that do not easily lend themselves to political externalization, we again have to expect a victory of the national assessments model.

Although the two dichotomies discussed here appear rather simple, Kiewiet's book represents the first attempt to systematically organize empirical politico-economic research around this combination of hypotheses. He rightly describes the empirical record – even for the U.S. with its comparatively high number of relevant studies – as 'extremely fragmentary and thus inconclusive', laments that he found only 'scraps of evidence' in studies that 'never considered more than one of these two basic dimensions or pairs of alternatives', and summarizes that 'at this point it is simply impossible to assess the relative merits of the various hypotheses' (Kiewiet, 1983: 26). It goes without saying that the state of our knowledge about economic influences upon voting in Germany is even less complete.

This article presents findings from a first modest attempt to investigate both pairs of hypotheses simultaneously for the Federal Republic in a longitudinal fashion drawing upon a series of surveys. Its main shortcoming, when viewed in light of the above discussion of hypotheses, is that the national assessments vs. personal experiences dimension has to be simplified to a juxtaposition of national and personal economic judgments due to availability and comparability of data. It has been argued above that this does not do justice to the personal experience dimension and thus probably loads the dice somewhat in favor of the national assessments hypothesis.

3. Data and Methods

The empirical analyses in this article are based upon 25 surveys taken between September 1961 and June 1984, some of which are single waves from panel studies (see Table 1). Each survey contained at least one item concerning judgments of the general and of the personal economic situation (evaluations and/or comparisons with the past, usually one year ago, and/or expectations, usually one year into the future, of general and individual economic conditions, see Table 1) along with voting intentions for the next federal election and thermometer scales gauging feelings vis a vis the political parties. For each survey the economic items were combined into two uniform indices of general and personal economic perceptions, respectively (see Appendix 1).

Data analysis consists of a series of OLS regression runs. First, voting intentions and the two indices of economic judgments were regressed upon party scalometers in each survey (section 4 of this article), with party scalometers transformed according to the hyperbolic tangent function in the voting regressions, in order to take the dichotomous character of the dependent variable into account (see Appendix 1). The residuals from these regressions, by definition, are unrelated to partisan sympathies. Second, voting intentions were regressed upon the two economic judgment indices, and voting residuals

Table 1. Items on general and personal economic perceptions in 25 surveys, 1961-1984.

Month/year of fieldwork	Zentralarchiv study-number	General economic conditions			Personal economic conditions		
		Evaluation	Comparison with past	Expectation	Evaluation	Comparison with past	Expectation
9/1961	56			x		x	x
10/1965	314	x				x	
11-12/1967	524	x	x	x			
8/1969	525	x			x	x	x
1/1972	839 ^a	x			x		x
3/1972	840 ^a	x	x	x	x	x	x
9-10/1972	635 ^b	x		x	x		
10/1972	841 ^a	x	x	x	x		x
10-11/1972	636 ^b	x		x	x		
12/1972	637 ^b	x		x	x		x
10/1973	1133 ^c	x	x	x	x	x	x
11/1975	1134 ^c	x		x	x		x
5-6/1976	823 ^d	x		x	x		x
8-9/1976	823 ^d	x		x	x		x
10-11/1976	823 ^d	x		x	x		x
11/1976	1135 ^c	x		x	x		x
4/1980	1053	x		x	x		x
6/1980	1053	x		x	x		x
9/1980	1053	x		x	x		x
2-5/1982	1160	x		x	x		x
10/1982	1275	x		x	x		x
11/1982	1276 ^e	x		x	x		x
11-12/1982	1	x	x	x	x		x
2/1983	1276 ^e	x		x	x		x
3-6/1984	1340	x		x	x		

x: Item is available in survey.

a: Part of a four-wave panel.

b: Part of a three-wave panel.

c: Part of a three-wave panel.

d: Part of a three-wave panel.

e: Part of a three-wave panel.

f: Own survey; not yet available through Zentralarchiv für empirische Sozialforschung, Cologne.

upon the two economic judgment residuals in each survey. The latter specification holds constant the impact of partisan sympathies upon both voting and economic judgments (section 5).

In the third step the analysis is taken from the cross-sectional micro-level to the longitudinal macro-level in order to shed some light upon the relative merits of the competing hypotheses discussed earlier. Now the standardized

regression coefficients from the residual regressions of voting upon economic judgments in the second step become dependent variables that are regressed upon incumbency and macroeconomic variables (see Appendix 2). This allows us to assess the extent to which the impact of collective and individual economic judgments on the electoral fortunes of the political parties over time can be described by the incumbency-oriented and the policy-oriented hypotheses (section 6).

4. The influence of partisan evaluations upon economic judgments

Tables 2 and 3 show the results for each survey of regressing voting dummy-variables and indices of general and of personal economic perceptions upon party scalometers for four parties: CDU/CSU, SPD, FDP, and the Green Party (from 1980 onward). Substantively, the voting regressions (R^2 s in first four columns of Table 2) yield the familiar finding that voting intentions and partisan sympathies covary highly, and much stronger for the major two parties than for the smaller parties. For economic judgments we find that general economic judgments usually depend more upon partisan sympathies than personal ones – which seems to be in line with what has been argued above – and that attitudes toward the major parties exert a stronger influence upon economic judgments than attitudes toward the smaller parties. Over time, the impact of partisan orientations on economic judgments, i.e. the polarization of such judgments along partisan lines, emerges as strongest for the years from 1972 through 1980, with a clearly visible peak between the 1972 and 1976 Bundestag elections, a period with inflation running high and unemployment starting to increase in 1974 following the OPEC oil-shock.

As to the direction of these relationships between partisan sympathies and economic judgments, Table 3 clearly contains only one standard pattern that is completely congruent for general and personal economic perceptions: With the exceptions of the SPD and the FDP in the 1967 and 1969 surveys (the SPD at that time was the CDU/CSU's partner in a Great Coalition while the FDP spend its only time in opposition) and of the Green Party in the 1980 surveys (the party was at its beginning then, failing to enter the Bundestag in the 1980 election), the usually highly significant standardized regression coefficients demonstrate that the more people like (dislike) governing parties the better (worse) they evaluate personal and general economic conditions. The handful of coefficients that do not conform to this pattern, moreover, usually display the smallest absolute values in their respective columns, most of them not deviating significantly from zero. It is actually quite amazing to witness the almost automatic change of sign of the CDU/CSU- and SPD-coefficients between 1969 and 1972 and between spring and fall of 1982, when new

Table 2. Adjusted R's from regressing voting and general and personal economic perceptions on party scalometers.

Month/Year	Voting				General economic perceptions				Personal economic perceptions			
	C	S	F	G	C	S	F	G	C	S	F	G
9/1961	52	59	27	-	02	01	01	-	01	00	00	-
10/1965	50	48	30	-	05	04	01	-	01	01	00	-
11-12/1967	48	57	21	-	01	00	00	-	-	-	-	-
8/1969	59	63	33	-	01	00	00	-	00	00	00	-
1/1972	48	42	15	-	04	11	05	-	00	02	01	-
3/1972	48	42	11	-	05	11	06	-	02	05	02	-
9-10/1972	44	46	08	-	01	05	03	-	00	01	00	-
10/1972	56	57	10	-	06	10	06	-	01	03	01	-
10-11/1972	54	53	05	-	06	13	06	-	01	02	01	-
12/1972	52	53	03	-	14	26	16	-	10	16	12	-
10/1973	41	44	10	-	04	14	06	-	01	07	04	-
11/1975	47	52	11	-	08	16	07	-	02	06	03	-
5-6/1976	55	48	14	-	04	12	08	-	01	04	02	-
8-9/1976	58	53	12	-	06	14	08	-	01	03	03	-
10-11/1976	32	62	03	-	04	23	13	-	02	11	06	-
11/1976	50	58	11	-	09	18	11	-	04	08	06	-
4/1980	66	49	18	33	02	08	05	00	00	02	02	00
6/1980	49	46	12	24	01	05	03	00	00	02	01	00
9/1980	66	50	18	16	03	10	07	00	00	03	04	00
2-5/1982	62	52	19	32	03	02	00	00	00	00	00	01
10/1982	59	58	22	33	05	00	02	02	04	01	01	02
11/1982	52	49	17	37	04	01	03	01	03	00	02	00
11-12/1982	55	53	08	30	02	00	02	01	01	00	01	00
3/1983	54	59	12	32	07	01	04	03	05	01	01	03
3-6/1984	56	38	13	32	16	01	11	03	06	00	05	00

-: Not (yet) applicable.

C: CDU/CSU.

S: SPD.

F: FDP.

G: Green Party.

All R's multiplied by 100.

Table 3. Standardized regression coefficients from regressing general and personal economic perceptions on party scalometers.

Month/Year	General economic perceptions				Personal economic perceptions			
	C	S	F	G	C	S	F	G
9/1961	150 ^c	-087 ^a	088 ^a	-	119 ^b	-043	047	-
<i>Election: 17.9.1961</i>								
<i>Election: 19.9.1965</i>								
10/1965	227 ^c	-196 ^c	085 ^b	-	111 ^c	-087 ^b	023	-
11 -12/1967	122 ^c	-034	002	-	-	-	-	-
8/1969	087 ^b	-013	059	-	033	-002	044	-
<i>Election: 28.9.1969</i>								
1/1972	-194 ^c	336 ^c	224 ^c	-	-022	124 ^c	089 ^a	-
3/1972	-223 ^c	325 ^c	241 ^c	-	-134 ^c	224 ^c	147 ^c	-
9 -10/1972	-117 ^c	229 ^c	183 ^c	-	-026	094 ^c	051 ^a	-
10/1972	-239 ^c	323 ^c	245 ^c	-	-115 ^c	161 ^c	119 ^c	-
10 -11/1972	-240 ^c	366 ^c	250 ^c	-	-113 ^c	122 ^c	076 ^b	-
<i>Election: 19.11.1972</i>								
12/1972	-369 ^c	514 ^c	405 ^c	-	-313 ^c	406 ^c	352 ^c	-
10/1973	-204 ^c	371 ^c	255 ^c	-	-108 ^c	261 ^c	197 ^c	-
11/1975	-281 ^c	398 ^c	260 ^c	-	-137 ^c	239 ^c	186 ^c	-
5 -6/1976	-205 ^c	348 ^c	284 ^c	-	-080 ^b	190 ^c	156 ^c	-
8 -9/1976	-237 ^c	378 ^c	275 ^c	-	-077 ^b	168 ^c	174 ^c	-
<i>Election: 3.10.1976</i>								
10 -11/1976	-195 ^c	482 ^c	356 ^c	-	-153 ^c	338 ^c	245 ^c	-
11/1976	-297 ^c	423 ^c	337 ^c	-	-190 ^c	275 ^c	246 ^c	-
4/1980	-140 ^c	290 ^c	228 ^c	055	-059	150 ^c	123 ^c	-066 ^a
6/1980	-120 ^c	227 ^c	173 ^c	031	-042	141 ^c	084 ^b	054
9/1980	-168 ^c	314 ^c	225 ^c	055	-059 ^a	176 ^c	196 ^c	034
<i>Election: 5.10.1980</i>								
2 -5/1982	-158 ^c	151 ^c	060 ^a	-040	-028	036	044	-071 ^b
<i>Replacement of SPD-FDP-government by CDU/CSU-FDP</i>								
10/1982	234 ^c	-045	124 ^c	-138 ^c	204 ^c	-078 ^a	117 ^c	-129 ^c
11/1982	200 ^c	-082 ^c	178 ^c	-072 ^c	167 ^c	-019	136 ^c	-007
11 -12/1982	147 ^c	-033	158 ^c	-110 ^c	083 ^b	-021	120 ^c	-020
2/1983	258 ^c	-093 ^b	200 ^c	-172 ^c	233 ^c	-102 ^c	121 ^c	-165 ^c
<i>Election: 6.3.1983</i>								
3 -6/1984	402 ^c	-097 ^c	334 ^c	-169 ^c	252 ^c	-068 ^b	220 ^c	-041

All coefficients multiplied by 1000.

a: Significant at .05.

b: Significant at .01.

c: Significant at .001.

All other notes as in Table 2.

coalitions came to power. To see political elites you like and trust come into government obviously increases general and, to a lesser extent, personal economic satisfaction and optimism, and vice versa. This, of course, is very similar to what has been discussed above in terms of incumbency-oriented political responses to economic conditions, only with the direction of influence reversed. Since these relationships are so strong, there is good reason to attempt to control for partisan sympathies in the subsequent analysis of the impact of economic judgments upon voting in order to avoid spurious findings due to the common dependence of both variables on attitudes toward the parties. Therefore, the residuals from the regressions of voting and economic judgments on party scalometers described in Tables 2 and 3 will be analyzed in the next section together with the original variables.

5. The influence of economic judgments upon voting

Table 4 contains values of R^2 for regressions of voting on general and individual economic judgments and of voting residuals on economic judgment residuals for each of the 25 surveys. Obviously, several of the findings described in the previous section are paralleled here: The impact of economic judgments on voting is much stronger for the major parties than for the smaller ones, and, again, these influences are most visible in the 1972–1976 interval. Controlling partisan sympathies considerably reduces the variance in voting accounted for by economic judgments, and much more so for the major two parties for whom the correlations between voting and economic judgments on the one hand and partisan attitudes on the other were much stronger (Table 2). For the CDU/CSU and the SPD we can safely say that on the average two thirds or more of the variance accounted for in voting by economic judgments are actually due to partisan attachments.

More parallels can be seen if one turns to the standardized regression coefficients of general and personal economic perceptions obtained with and without controlling for partisanship (Tables 5 and 6). Without controls, the similarities to the previous section, not surprisingly, are quite striking: The better economic judgments are – be they collective or individual – the more people intend to turn out for parties supporting the current government, and vice versa. Out of a total of 165 coefficients reported in Table 5, 84 refer to the electoral effects of general and 81 of personal economic perceptions. Of the former, 81 have the correct sign (60 of which are significantly different from zero), only three coefficients (one significant) have the wrong sign. Of the latter, 70 coefficients have the correct sign (20 significant), only 11 (two significant) have the wrong sign. 'Correct' and 'wrong', of course, here refer to the hypothesis that predicts this kind of pattern, i.e. the hypothesis of incum-

Table 4. Adjusted R's from regressing voting on general and personal economic perceptions in simple and residual regressions (controlling for partisan sympathies, i.e. party scalometers).

Month/Year	Simple regressions				Residual regressions			
	C	S	F	G	C	S	F	G
9/1961	02	02	00	-	00	00	00	-
10/1965	04	04	00	-	01	01	00	-
11-12/1967	01	00	00	-	00	00	00	-
8/1969	01	00	00	-	00	00	00	-
1/1972	07	08	00	-	02	02	00	-
3/1972	11	10	00	-	04	02	00	-
9-10/1972	03	03	00	-	01	00	00	-
10/1972	09	09	00	-	04	01	00	-
10-11/1972	08	08	00	-	02	00	00	-
12/1972	21	17	00	-	07	01	00	-
10/1973	08	07	00	-	04	00	00	-
11/1975	12	09	01	-	04	00	00	-
5-6/1976	09	06	01	-	04	00	00	-
8-9/1976	09	08	01	-	01	00	00	-
10-11/1976	17	16	01	-	13	00	00	-
11/1976	12	09	02	-	04	00	00	-
4/1980	04	05	00	01	02	00	01	01
6/1980	03	04	00	00	02	00	00	00
9/1980	06	07	00	01	03	00	00	01
2-5/1982	02	02	01	00	00	01	00	00
10/1982	04	02	00	00	00	01	00	00
11/1982	03	01	00	01	00	00	01	01
11-12/1982	01	00	01	01	00	00	01	01
2/1983	04	02	00	01	00	01	00	00
3-6/1984	10	04	01	04	00	03	00	01

Notes as in Table 2.

bency-oriented political reactions to economic conditions, which appears to emerge as a clear winner concerning both kinds of economic judgments.

Another almost equally clear winner seems to be the national assessments hypothesis: While less than thirty percent of the coefficients for personal economic perceptions that have the correct sign are statistically significant, the corresponding percentage for the coefficients of general economic perceptions is 74. Moreover, with the exception of the liberal FDP, the order of magnitude of the collective judgment coefficients is consistently much higher than that of the individual judgment coefficients. Only for the FDP does the personal judgment hypothesis appear, on the average, to be as equally relevant as the national assessments hypothesis.

Table 5. Standardized regression coefficients from regressing voting simultaneously on general and personal economic perceptions, simple regressions.

Month/Year	General economic perceptions				Personal economic perceptions				Correlation between general and personal economic perceptions
	C	S	F	G	C	S	F	G	
9/1961	.099 ^a	-.086 ^a	.038	-	.022	-.073	-.058	-	.30
<i>Election: 17.9.1961</i>									
<i>Election: 19.9.1965</i>									
10/1965	.174 ^c	-.182 ^c	.020	-	.055	-.077 ^a	.058	-	.16
11 -12/1967	.094 ^c	-.049 ^c	-.004	-	-	-	-	-	-
8/1969	.074 ^a	-.049	-.032	-	.005	-.009	.013	-	.28
<i>Election: 28.9.1969</i>									
1/1972	-.269 ^c	.286 ^c	.005	-	-.010	.010	.030 ^a	-	.30
3/1972	-.284 ^c	.272 ^c	.029	-	-.088 ^c	-.091 ^c	.004	-	.35
9 -10/1972	-.165 ^c	.164 ^c	.015	-	-.018	.012	.008	-	.32
10/1972	-.293 ^c	.293 ^c	.010	-	-.012	.018	.035	-	.43
10 -11/1972	-.275 ^c	.275 ^c	.000	-	-.012	.037	-.032	-	.36
<i>Election: 19.11.1972</i>									
12/1972	-.378 ^c	.343 ^c	.033	-	-.120 ^c	.098 ^b	.027	-	.52
10/1973	-.255 ^c	.250 ^c	.030	-	-.039 ^a	.024	.035 ^c	-	.54
11/1975	-.353 ^c	.298 ^c	.105 ^c	-	-.001	.003	.017	-	.52
5 -6/1976	-.293 ^c	.238 ^c	.106 ^c	-	-.026	.034	.011	-	.41
8 -9/1976	-.308 ^c	.290 ^c	.050	-	.013	-.023	.033	-	.51
<i>Election: 3.10.1976</i>									
10 -11/1976	-.388 ^c	.355 ^c	.093 ^a	-	-.044	.071 ^a	.016	-	.55
11/1976	-.310 ^c	.281 ^c	.096 ^c	-	-.063 ^a	.040	.046	-	.54
4/1980	-.186 ^c	.223 ^c	.006	-.072 ^a	-.010	.003	.066	-.021	.40
6/1980	-.171 ^c	.186 ^c	.008	-.064 ^a	-.024	.009	.021	.010	.46
9/1980	-.237 ^c	.264 ^c	.001	-.096 ^a	-.030	.003	.068 ^a	.020	.44
<i>Election: 5.10.1980</i>									
2 -5/1982	-.157 ^c	.147 ^c	.057 ^a	-.010	-.020	.038	.042	-.024	.39
<i>Replacement of SPD-FDP government by CDU/CSU-FDP</i>									
10/1982	.115 ^b	-.064 ^a	-.011	-.024	.125 ^c	-.081 ^a	.034	.000	.44
11/1982	.114 ^c	-.072 ^a	.004	-.077 ^c	.079 ^c	-.031	-.044	-.056 ^c	.37
11 -12/1982	.069 ^a	-.032	.005	-.099 ^a	.015	-.052	.100 ^b	-.029	.34
2/1983	.120 ^c	-.097 ^b	.054	-.079 ^a	.117 ^c	-.077 ^a	-.015	-.064 ^a	.44
<i>Election: 6.3.1983</i>									
3 -6/1984	.288 ^c	-.138 ^b	.021	-.187 ^c	.063 ^b	-.090 ^b	.075 ^b	-.019	.43

Notes as in Table 3.

However, these are findings without controls for partisanship. Assuming that controlling for partisan attitudes *does* make sense, we can now take a look at the picture as it emerges from residual regressions of voting on economic judgments. There are those who argue that in the West German context this assumption does not hold, because voting intentions and all kinds of measures of partisan attachments were just multiple measures of one and the same thing. According to this argument the analysis could stop here, and Tables 4 and 5 would summarize the true impact of economic judgments on voting, and Tables 2 and 3 that of evaluations of parties on economic judgments over time. This argument is not accepted for two reasons: First, liking or disliking of parties and voting for them can be distinguished conceptually *and* empirically (see the first four columns of Table 2). Second, this distinction leads to a statistically conservative approach that eliminates the danger of wrongly attributing causal effects to economic judgments due to spurious correlations. The worst mischief possibly resulting from this subsequent conservative approach is that the true electoral effects of economic judgments could be underestimated.

Table 6 shows that controlling for partisan sympathies has considerable consequences for our description of the electoral effects of economic judgments. As had already been suggested by the comparison of R^2 s in Table 4, we can now see that these effects appear smaller in magnitude. Several findings remain intact from Table 5: On the average, the national assessments hypothesis still does better than the individual judgments hypothesis, with the former coefficients usually being higher and a larger percentage of them significantly different from zero. As will be recalled, this conforms to theoretical expectations. The pattern of coefficients predicted by the incumbency-oriented hypothesis also still prevails regarding the impact of general economic perceptions on voting for the major two parties and the Green Party, as well as regarding the impact of personal economic perceptions on voting for the CDU/CSU. Out of these 83 coefficients, 81 have the correct sign (38 significant), while two (both for the Great Coalition SPD in 1967 and 1969, one of them significant) have the wrong sign.

All other findings, however, that had also solidly conformed to the incumbency-oriented model in Table 5, are more or less upset in Table 6. The influence of personal economic perceptions on voting is particularly affected. Their impact on voting for the Green Party is never significant, and the signs of these coefficients appear to vary randomly. The FDP is no longer seen as benefitting almost consistently from positive private economic judgments; only three of these coefficients are significant, but with opposite signs, and nine out of 24 coefficients have turned negative. With 21 out of 24 coefficients negative (eight of them significant) the SPD's vote now no longer appears to be affected by private economic judgments along the lines of the incumbency-

Table 6. Standardized regression coefficients from regressing voting simultaneously on general and personal economic perceptions, residual regressions.

Month/Year	General economic perceptions				Personal economic perceptions				N
	C	S	F	G	C	S	F	G	
9/1961	009	-068	014	-	020	002	-055	-	681
<i>Election: 17.9.1961</i>									
<i>Election: 19.9.1965</i>									
10/1965	071 ^a	-068 ^a	000	-	027	-047	065	-	1007
11 -12/1967	050	-058 ^a	005	-	-	-	-	-	1267
8/1969	011	-030	033	-	026	-016	012	-	1084
<i>Election: 28.9.1969</i>									
1/1972	-150 ^c	128 ^c	-045 ^b	-	-010	-033 ^a	024	-	5285
3/1972	-189 ^c	124 ^c	-024	-	-041 ^a	-037 ^a	-013	-	3497
9 -10/1972	-109 ^c	018	-030	-	-021	-011	015	-	1473
10/1972	-195 ^c	107 ^c	-047 ^a	-	-012	-001	025	-	2336
10 -11/1972	-162 ^c	040	-052	-	-032	041	-036	-	1264
<i>Election: 19.11.1972</i>									
12/1972	-250 ^c	083 ^b	-018	-	-036	007	-002	-	1033
10/1973	-162 ^c	057 ^a	-025	-	-052 ^b	-039 ^a	006	-	5005
11/1975	-206 ^c	070 ^b	-047 ^a	-	-011	-037	000	-	2833
5 -6/1976	-202 ^c	025	028	-	-024	-027	-028	-	1684
8 -9/1976	-078 ^b	050	-014	-	-071 ^a	-049	008	-	1336
<i>Election: 3.10.1976</i>									
10 -11/1976	-361 ^c	063 ^a	042	-	-002	-021	-030	-	1064
11/1976	-164 ^c	015	014	-	-047	-017	022	-	2035
4/1980	-126 ^c	041	-080 ^a	-108 ^b	-016	-066	052	034	1004
6/1980	-104 ^c	059	-035	-057	-044	-037	014	-016	1262
9/1980	-138 ^c	063 ^a	-066 ^a	-112 ^c	-057	-061 ^a	021	012	1232
<i>Election: 5.10.1980</i>									
2 -5/1982	-025	053 ^a	016	-002	-039	-059 ^a	052	058	1536
<i>Replacement of SPD-FDP-government by CDU/CSU-FDP</i>									
10/1982	020	-071 ^a	-041	-030	038	-045	-005	-006	919
11/1982	022	-037	-061 ^a	-087 ^b	012	-044	-060 ^b	-019	1413
11 -12/1982	032	-031	-038	-078 ^a	030	-066 ^a	079 ^a	035	1038
2/1983	040	-079 ^a	-019	-039	017	-064 ^a	-048	000	1091
<i>Election: 6.3.1983</i>									
3 -6/1984	060 ^b	-107 ^c	-045	-103 ^c	013	-086 ^c	055 ^a	-035	2205

Notes as in Table 3.

oriented logic. Instead, when partisanship is controlled, this party always (regardless of its participation in government) seems to profit from negative personal economic perceptions – a finding which probably should be interpreted as an effect of social class that cannot be detected in the simpler specification. Obviously such an interpretation is much closer to the policy-oriented hypothesis than to the incumbency-oriented one. Finally, the effects of general economic perceptions on the FDP vote likewise no longer conform to the incumbency-oriented model, as they did in Table 5. For the post-1969 period, during which the FDP had continually been in government, most of these coefficients are now negative (17 out of 21, six significant), suggesting that this party, after removing the effects of partisanship, has been particularly attractive to those with negative overall economic evaluations and expectations. In view of the fact that the FDP has traditionally been identified with the interests of business ('Wirtschaftspartei'), this, again, appears as more compatible with the policy-oriented hypothesis.

So far, the analysis can be summarized as follows: During the period studied here collective economic judgments have generally had a stronger impact upon voting than individual economic judgments (not to be confused with 'objective' personal economic experience!). The effects of the latter on the Green and the FDP vote appear random and/or insignificant. The influence of personal judgments on the SPD vote and of general judgments on the FDP vote seems to follow the policy-oriented rather than the incumbency-oriented hypothesis, those who see themselves as worse off favoring the SPD, those who see the economy in general in trouble favoring the FDP, regardless of these parties' role in government or in the opposition. The impact of general economic judgments upon the Green and the SPD vote and of both kinds of judgments upon the CDU/CSU vote, on the other hand, apparently conforms to the incumbency-oriented model.

Whereas this comparison between the national assessments and the personal judgments hypothesis has a solid operational base in the magnitudes of estimated standardized regression coefficients, the conclusions on the incumbency- vs. the policy-oriented model are instead based only on eyeballing the time-series of coefficients and their signs. As eyeballing is done more effectively with figures than with tables, the CDU/CSU and SPD coefficients from Table 6 have been plotted in Figure 1. Here we clearly see the almost consistently negative coefficients of personal economic perceptions for the SPD vote, as well as the changes in sign of the general economic perceptions coefficients predicted by the incumbency-oriented model for the major two parties in 1969 and late 1982, following the establishment of the new SPD-FDP coalition and the overthrow of the Schmidt government, respectively. The same thing, but at a lower magnitude, is perceptible for the individual judgments coefficients for the CDU/CSU.

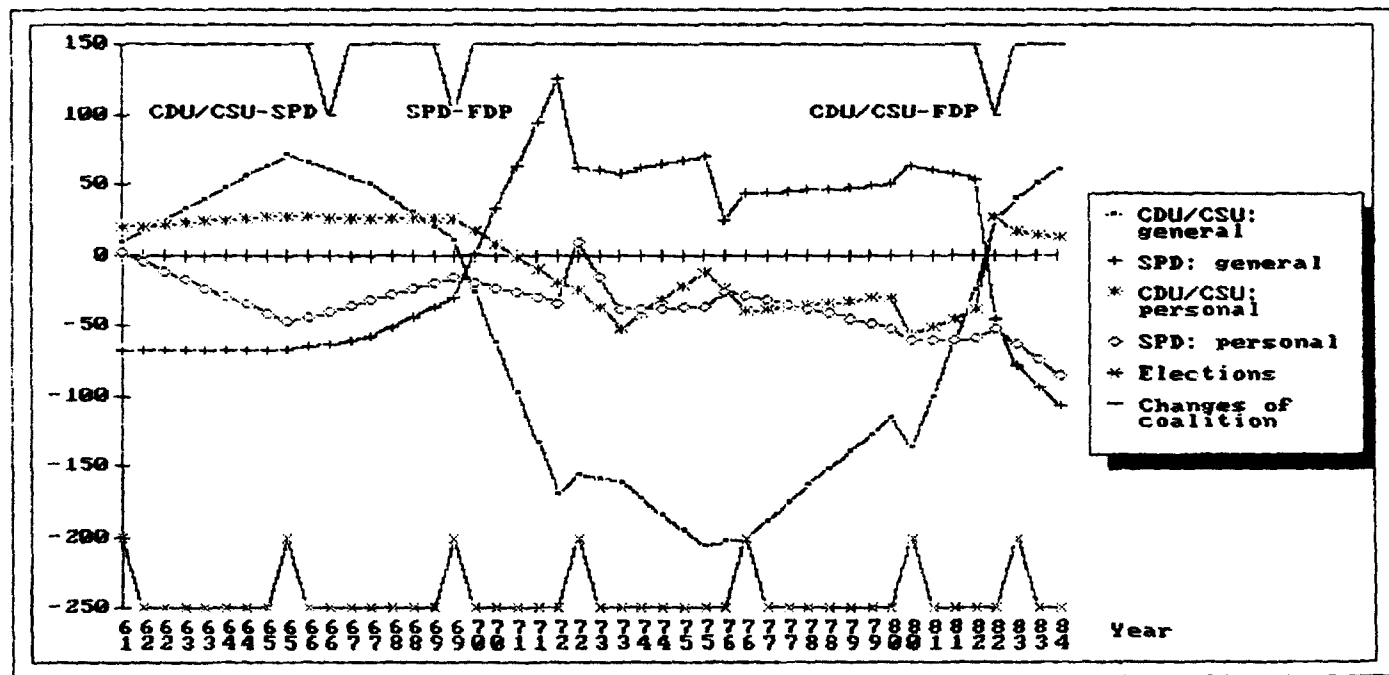


Fig. 1. Standardized regression coefficients ($\times 1000$) of general and personal economic judgments for CDU/CSU and SPD from Table 6.

We also see a little more, however. The general economic judgments coefficients both for CDU/CSU and SPD peak in the early to mid-Seventies. During those years unemployment was low, and GNP and incomes increased rapidly (even in real terms). But at the same time prices went up considerably, so that from 1970 well into 1975 negative general economic judgments were most likely reflective of unacceptable levels of inflation (and of budget deficits, which are closely related, of course). Such judgments obviously hurt the SPD electorally and gave the CDU/CSU a considerable advantage. From 1976 to the overthrow of the Schmidt government the signs of these coefficients remain the same, despite a somewhat smaller magnitude. During those years, inflation slowly decreased, as did the real growth of GNP, and unemployment took the place of inflation as the most pressing economic concern. Negative general economic judgments at this point were instead related to unacceptable levels of unemployment. Such judgments still hurt the SPD electorally to the CDU/CSU's benefit, but less so than when 'bad times' for the economy had to be identified with high inflation.

This implies, of course, that we might have something like a policy-oriented response pattern to economic judgments superimposed upon incumbency-oriented reactions. In other words, political responses to economic judgments could simultaneously depend upon who governs and who plays the part of the opposition, as well as upon the nature of prevailing current economic problems. This consideration leads to the subsequent attempt to compare the validity of the policy-oriented and the incumbency-oriented models and to investigate the potential of their combination in a more rigorous fashion. Due to the low number of years for which data are available, the effects of economic judgments on the Green vote will be left out of this analysis.

6. Incumbency-orientation and policy-orientation in longitudinal perspective

This final step of the analysis consists, initially, of running three regressions for each of the standardized general and personal economic judgment regression coefficients for the CDU/CSU, SPD, and FDP (Table 6): These six variables are regressed, in turn, on dummy-variables (+1/-1) capturing government participation so as to test the incumbency-oriented hypothesis; on unemployment, inflation, and real growth of GNP in order to test the policy-oriented hypothesis (see Appendix 2); and on these three macroeconomic variables as well as on their products with respective government dummy-variables so as to test the combination of both hypotheses. To begin with a non-finding: none of these analyses yielded any significant results for the personal economic perceptions coefficients for the FDP; under both hypotheses they have to be regarded as random.

The results for the incumbency-oriented hypothesis are given in Table 7. With adjusted R^2 s of .70 and .73 the impact of general and of personal economic judgments on the CDU/CSU vote is well accounted for by this hypothesis. Results for the other two parties are less convincing: 60 percent of the influence of general economic judgments on the SPD vote are explained by incumbency, but only 10 percent on the FDP vote. The predictive power of incumbency for the effects of personal economic perceptions on the SPD vote is equally low ($R^2 = .10$). Allowing for electoral cycles of these effects turned out to be insignificant in all of the equations.

For the policy-oriented hypothesis, full models containing all three macroeconomic variables on the right-hand side were first estimated. Insignificant predictors were then eliminated step by step if their inclusion reduced adjusted R^2 , in order to arrive at the best fitting models described in Table 8. From this table it is evident that the policy-oriented hypothesis does much worse than its rival for the CDU/CSU vote, and somewhat worse for the influence of general economic perceptions on the SPD and the FDP vote. Given what has been described in the previous section, it is no surprise that the policy-oriented model explains the effects of individual economic judgments on the SPD vote much better than the incumbency-oriented model, with an adjusted R^2 of .40, as compared to .10.

The procedure to arrive at the best-fitting combined models (Table 9) is completely analogous. The results show an increase of predictive power over isolated application of either hypothesis for the impact of general economic perceptions on voting for all three parties. On the other hand, the explanation of the effects of personal economic perceptions for the CDU/CSU vote offers no improvement over the simple incumbency-oriented model, and for the SPD vote it declines below the level of the pure policy-oriented model.

Table 10, which summarizes the findings for all three models in terms of

Table 7. Incumbency-oriented hypothesis: Unstandardized regression coefficients from regressing standardized voting coefficients (residual regressions, Table 6) on incumbency dummy-variables ($N = 25$).

	General economic perceptions			Personal economic perceptions	
	C	S	F	C	S
Party in government (+1/-1)	.099 ^a	.058 ^a	-.022	.028 ^a	.011
Constant	-.064	-.008	-.003	-.004	-.039
Adjusted R^2	.70	.60	.10	.73	.10
F	57.9 ^a	37.5 ^a	3.7	64.8 ^a	3.5

a, b, c: Significance as in Table 3.

Table 8. Policy-oriented hypothesis: Unstandardized regression coefficients from regressing standardized voting coefficients (residual regressions, Table 6) on macroeconomic indicators (N = 25).

	General economic perceptions			Personal economic perceptions	
	C	S	F	C	S
Unemployment	-	-.014 ^c	-	-	-.007 ^c
Inflation	-.058 ^c	.031 ^c	-.008	-.016 ^c	-
Real growth of GNP	-.020 ^b	-	-	-.006 ^b	-
Constant	.227	-.074	-.014	.078	-.009
Adjusted R ²	.39	.53	.06	.41	.40
F	8.6 ^b	14.5 ^c	2.5	9.4 ^b	16.9 ^b

a, b, c: Significance as in Table 3.

adjusted R²s, demonstrates that a combination of incumbency-orientation and policy-orientation is at work is shaping political reactions to general economic judgments, and that such a combination is particularly relevant for the impact of such judgments on the SPD vote. On the other hand, to explain the effects of personal economic perceptions on the CDU/CSU and the SPD vote such a combination of approaches is not required. For the CDU/CSU the simple incumbency-oriented model is just as good as the combined one, so the simpler

Table 9. Incumbency- and policy-oriented hypotheses combined: Unstandardized regression coefficients from regressing standardized voting-coefficients (residual regressions, Table 6) on macroeconomic indicators alone and multiplied by incumbency dummy-variables (N = 25).

	General economic perceptions			Personal economic perceptions	
	C	S	F	C	S
Unemployment	-	-.007 ^a	-	-.004 ^a	-.007 ^c
Unemployment • •incumbency	-	-	-	-	-
Inflation	-.008	-.017 ^b	-	-	-
Inflation • •incumbency	.019 ^c	.009	-.007 ^a	.007 ^c	-
Real growth of GNP	-	-	-	-.004 ^a	-
Real growth of GNP • •incumbency	.015 ^a	.005 ^a	-	-	.003 ^a
Constant	-.047	-.071	.005	-.024	-.012
Adjusted R ²	.73	.76	.12	.73	.38
F	22.0 ^b	19.7 ^c	4.4 ^a	22.2 ^c	8.5 ^b

a, b, c: Significance as in Table 3.

model should be preferred. For the SPD the simple policy-oriented model is even better than the combined model.

It is one thing to compare goodness of fit for the competing models. To complete the analysis, however, we need to consider the substantive meaning of the superior estimation results. This is easiest for the incumbency-oriented model linking private economic judgments to the CDU/CSU vote (fourth column in Table 7). Here we have predicted standardized regression coefficients of +.024 for the CDU/CSU in power and of -.032 for this party in the opposition, with actual values ranging from .012 to .038, and from -.002 to -.071, respectively. This indicates that (controlling partisan sympathy) the worse people evaluate their private economic conditions the less likely they are to vote for a CDU/CSU in government, but the more likely they are to vote for this party when it is out of power. This conforms exactly to the basic Downsian logic.

For the of policy-oriented model linking personal judgments to the SPD vote (fifth column in Table 8) the substantive interpretation is as follows: The model always predicts negative standardized regression coefficients, i.e. votes for the SPD, holding partisanship constant, becoming more likely with negative personal economic perceptions. This relationship will be stronger the higher unemployment runs (predictions range from -.016 for one percent to -.072 for nine percent unemployment, with actual coefficients between -.001 and -.086, ignoring three coefficients with the wrong sign). This clearly conforms to the policy-oriented hypothesis: For people dissatisfied with their private economic conditions it makes most sense to turn to the SPD when

Table 10. Incumbency-oriented, policy-oriented, and combined hypotheses compared (adjusted R², N = 25).

	General economic perceptions			Personal economic perceptions	
	C	S	F	C	S
Incumbency-oriented hypothesis	.70 ^c	.60 ^c	.10	.73 ^b	.10
Policy-oriented hypothesis, complete model	.39 ^b	.53 ^c	.00	.38 ^b	.35 ^b
Policy-oriented hypothesis, best-fitting model	.39 ^b	.53 ^c	.06	.41 ^b	.40
Combined hypothesis, complete model	.62 ^c	.73 ^c	.00	.71 ^c	.27
Combined hypothesis, best-fitting model	.73 ^b	.76 ^c	.12 ^a	.73 ^c	.38 ^b

a, b, c: Significance as in Table 3.

unemployment is high, assuming that this state of the economy and private dissatisfaction are not unrelated.

Of all the combined models connecting general economic judgments to voting for the three parties, the one for the FDP (third column in Table 9) is most easily interpreted as it contains only one significant coefficient, i.e. for the rate of inflation. Since inflation during the period investigated here always exceeded one percent, this model consistently predicts a negative standardized regression coefficient that increases in absolute value as inflation rises: The higher the rate of inflation, the more the FDP benefits from negative general economic judgments when it is in power, while the reverse holds true when this party is in opposition to the government. However, the FDP has only been in the opposition from late 1966 through late 1969, a period in which only two of our surveys were conducted. Consequently one should not put much confidence in the estimation of the incumbency-oriented component of the model for this party. What is more important is that the negative sign of the predicted (and actually observed) coefficients flatly contradicts the incumbency-oriented hypothesis: Negative general economic judgments increase the vote for the FDP, which almost always has been a member of the governing coalition, the more so the higher the inflation rate, while positive judgments further defection from this party increasingly as the inflation rate rises. This clearly is a policy-oriented political response pattern that does not fit the 'bad times hurt the ins' folklore. Instead, the judgment that times are bad when inflation runs high actually benefits the smaller partner of the 'ins'.

The combined models for the impact of incumbency and macroeconomic conditions on the effects of general economic judgments on the vote for the major two parties (first two columns of Table 9) contain as significant predictors real economic growth (multiplied by incumbency) and inflation (alone as well as multiplied by incumbency). In addition, the SPD-model contains unemployment. The effects of this latter variable clearly conform to the policy-oriented model: *Ceteris paribus*, the coefficient which measures the influence of general economic judgments on the SPD-vote (with partisanship held constant) will decrease in value as unemployment rises. This implies, of course, that a governing SPD will be punished less for (or can even benefit from) had general economic perceptions, while an opposition SPD will benefit more from such judgments, if unemployment is relatively high rather than low. In other words, in times of high unemployment negative general economic judgments become more advantageous for this party, no matter whether it governs or not. Electorally, the Social Democrats can live with unemployment.

Concerning economic growth there is a combination of effects according to the policy- and to the incumbency-oriented model: *Ceteris paribus*, both major parties benefit (suffer) increasingly from positive (negative) general economic

judgments as real economic growth rises when they are in government (and vice versa when they play the role of the opposition). With little or no economic growth the impact of such judgments on the electoral fortunes of these two parties remains largely unaffected. Moreover, regardless of the rate of growth, its effect on the association between general economic judgments and the vote is stronger for the CDU/CSU than for the SPD by a factor of about three. With the economy growing rapidly the Christian Democrats have far more to gain or to lose from these perceptions than the Social Democrats.

In regards to inflation, a combination of effects corresponding to both models can also be discerned. However, contrary to economic growth, where findings are of different magnitude but of identical direction for both parties, inflation determines the importance of general economic perceptions for voting for these two parties in a strikingly asymmetrical way. This is best seen if one combines the coefficient of the original inflation variable with that of its product with incumbency for each party in and out of power. For the Christian Democrats in government a coefficient of .011 is thus obtained, and of $-.027$ when they are not in power. The corresponding values for the SPD are .026 and .008. What this means, in effect, is that the anti-government logic of the incumbency-oriented model is only found for the CDU/CSU, and that this reward-punishment pattern is much stronger when this party is in the opposition. Even though positive general economic judgments increasingly enhance (and negative ones reduce), *ceteris paribus*, the propensity to vote for a governing CDU/CSU as inflation increases, the opposite association for this party out of power (i.e. gains from negative, and losses from positive judgments rising with inflation) is of considerably greater magnitude.

For the SPD, on the other hand, such a reversal of effects is not observed. The relationship between general economic judgments and the probability of a vote for this party increases in magnitude with inflation far more strongly when the party is in power than when it is not. Thus, as inflation runs higher, negative judgments increasingly reduce the SPD-vote – and more strongly so if the party is in government. To simplify somewhat, one could say that – for any given level of inflation – as a governing party the CDU/CSU will be punished less for negative general economic judgments than the SPD would be, whereas as an opposition party the CDU/CSU will benefit comparatively strongly from such perceptions, while the SPD will not benefit at all. Thus, while we found that electorally the SPD could live with unemployment, it has every reason to dread inflation: The higher it runs the more economic dissatisfaction reduces the party's vote when it governs, while in opposition dissatisfaction is not to the SPD's advantage either (rather, votes are attracted to the liberal FDP, see above). The CDU/CSU also has to fear high inflation when it is in power (but less so than the SPD), and when it is out of power, general economic dissatisfaction will actually with rising inflation instead sizeably increase the CDU/CSU vote.

These findings can be interpreted more broadly in terms of the hypotheses that have guided this investigation and of policy objectives for the political parties. Concerning the first aspect we see that the incumbency-oriented and the policy-oriented hypotheses should not be considered as incompatible. Both can and do simultaneously find empirical support. Moreover, their combination does not have to be restricted to a simple reversal of policy-oriented effects on the relationship between economic judgments and political responses as a result of incumbency. It is equally possible that incumbency does not change the *direction*, but rather the *magnitude* of these effects, as has been the case with inflation for the SPD. To this author's knowledge these complexities of combining both approaches have never before been adequately addressed theoretically or empirically.

Constraints of space prevent us from going into the second aspect in any detail. Suffice it to say that the results presented here are somewhat at variance with often heard assertions about the macroeconomic policies that different parties will and have to pursue if they are in power in order to avoid losses of votes. It appears that in the Federal Republic a Social Democratic government does not have to be afraid of electoral punishment due to economic dissatisfaction when *unemployment* is high. Rather – just like (and even more so than) a Christian Democratic government – the Social Democrats have to attempt to keep *inflation* low when they are in charge of economic policy if they are to avoid this kind of punishment. During the period investigated here, this particular sensitivity vis a vis inflation and its political effects probably set West Germany apart from most other industrialized democracies.

7. Conclusion

Several longitudinal macro-level studies have reported significant influences of macroeconomic conditions upon the popularity of government and of political parties in the Federal Republic. The analyses contained in this article lend individual-level support to such findings, and they also shed some light upon why the success of such macro-level studies sometimes has been less impressive. In these studies macroeconomic conditions usually are related directly to the political outcome, i.e. time-series of popularity data. This is a considerable simplification. As we have seen here, macroeconomic conditions not only influence economic judgments, but also – together with incumbency – how such judgments are translated into political results. It thus appears mandatory that both kinds of hypotheses investigated here, the incumbency-oriented as well as the policy-oriented one, be taken seriously in politico-economic time-series work. On the other hand, longitudinal macro-level studies seem to be on safe ground if they assume the causal flow from

macroeconomic conditions to political responses via collective economic judgments to be more relevant than political reactions which result from individual economic judgments.

The empirical analyses presented here have been able to provide a micro-foundation for results on politico-economic interactions in the Federal Republic derived at the macro-level by establishing significant and systematic effects of economic judgments on voting. However, a lot more remains to be done along these lines, integrating macro- and micro-level approaches. First, there are unpleasant gaps in the data base that should be closed, even though this might prove difficult or even impossible for the earlier years, prior to 1970 and especially prior to 1960. Second, the analysis should be extended beyond 1984 in order to ascertain whether the new distribution of government and opposition roles will, in the longer run, affect the patterns described here. Third, the ultimate test of the estimates derived above has to be sought in predictions of the electoral impact of economic judgments from distributions of political power and from current macroeconomic situations, hopefully for politico-economic constellations different from those for which these estimates were computed. Fourth, the individual-level foundation for the policy- and the incumbency-oriented models should be strengthened by including several other items in the analysis: i.e. whether or not people perceive it to make a difference in terms of economic conditions who governs, how they attribute economic responsibility, what economic problems they see as most pressing and as decisive for their economic judgments, and whom they judge to be most competent and willing to handle them appropriately, etc. Fifth and finally, personal economic experiences and biographies should be included in this kind of analysis since individual economic judgments are only a weak substitute. Unfortunately, however, the number of survey studies containing all the appropriate data in regards to the last two desiderata in roughly comparable form is severely limited, so we will have to live with imperfect knowledge.

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Appendix 1

Construction of variables for individual-level regressions

General and personal economic perceptions are defined as arithmetic means of the available (from one to three) items, which almost consistently are five-point scales. The two arithmetic means have been re-scaled for a range from -2 (extreme dissatisfaction/pessimism) to +2 (extreme satisfaction/optimism).

Voting intentions are coded as zero-one variables for each party, with refusals, don't knows, and 'will not vote' treated as missing.

Party scalometers for most studies are eleven-point thermometer scales. For regressions of general and personal economic perceptions on party scalometers, the latter have been re-scaled for a uniform range from -5 through +5. For regressions of (dichotomous) voting on party scalometers, the latter have been further re-scaled as:

$$\begin{aligned} \text{Scalometer}^* &= .5 \tanh (.5(\text{Scalometer}-D)) + .5 = \\ &= .5(e^{(\text{Scalometer}-D)} - 1) / (e^{(\text{Scalometer}-D)} + 1) + .5 \end{aligned}$$

D here is the Scalometer value with the same share of respondents having more positive feelings toward a given party (i.e. Scalometer-reading > D) as intend to vote for this party. Scalometer* has a hypothetical range from 0 (approximated by re-scaled Scalometer = -5, very unfavorable feelings) through 1 (very favorable feelings). Subtraction of D shifts the inflexion point of Scalometer* away from Scalometer = 0, allowing for skewed distributions of partisan evaluations.

Appendix 2

Variables for macro-level regressions

Dependent variables for macro-level regressions are the standardized regression coefficients from individual-level residual regressions (Table 6).

For the incumbency-oriented models independent variables are:

- Government dummy-variables for each party, coded as +1 (in government) and -1 (in opposition).

For the policy-oriented models independent variables are:

- Unemployment: Percentage of the labor force (i.e. people holding jobs plus people registered as unemployed) registered as unemployed.
- Inflation: Percentage change of consumer price index for average wage earners' households.
- Real growth of GNP: Percentage change of GNP in constant prices.

All these variables are defined as annual averages, either for the current year, if a survey was taken after June, or for the previous year, if a survey was taken before July. Source: *Statistisches Jahrbuch für die Bundesrepublik Deutschland*.

For the combined models independent variables are:

- Three macroeconomic indicators as above.
- Three macroeconomic indicators as above, multiplied by government dummy-variables.

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