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IMAGES OF ECONOMIC CONDITIONS IN WEST GERMANY

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1. *Introduction*

Over the past dozen years or so we have witnessed a steady growth of literature on the impact of economic variables on political attitudes and behavior, notably voting behavior (for reviews see, e.g., Rattinger, 1980; Paldam, 1981; Jung, 1982; Kiewiet, 1983). This research flows along two mainstreams of thinking and research design: longitudinal macrolevel studies utilizing aggregate data vs. cross-sectional microlevel analyses of survey data. These two combinations of spatial and temporal dimensions do not reflect logical constraints but the availability of data. Cross-sectional aggregate investigations are feasible with appropriate sub-national ecological data, longitudinal individual-level studies require panel data. However, these two approaches to analyzing the political consequences of economic variables are far less frequently pursued than the two mainstream strategies (for exceptions see, e.g., Rees, 1962; Weatherford, 1978, Abrams, 1980; Rattinger, 1980, 1981; Jung, 1982).

Even though these mainstream approaches differ widely in terms both of the data being analyzed and of the time spans for which their results claim to be valid, they share the same substan-

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tive interest and a common, basically individualistic, theoretical foundation. Objective economic conditions and developments are assumed to produce economic attitudes with cognitive, evaluative, and predictive content that together with perceptions of economic actors and their programs or policies feed into a Downsian calculus of maximization of expected utility that shapes evaluations of actors and policies and, therefore, the final political response. This has already been the theoretical argument proposed in Kramer's (1971) seminal article, and in his recent work (Kramer, 1983) he does not abandon it. He rather argues (not convincingly in the view of this author) that these individual-level political responses to economic conditions can best be estimated from aggregate data, and *not* from microlevel survey data. His argument, thus, is not directed against *theoretical* microlevel foundation of observable aggregate politico-economic relationships, but he describes their *empirical* microlevel foundation as impossible and unnecessary. A study like Kirchgässner's dissertation (1976), in which the shape of the aggregate popularity function linking government popularity to macroeconomic conditions is derived from assumptions about the distribution of individuals' threshold levels for defecting from the government, but is estimated from aggregate time-series data, and thus is very much in line with Kramer's reasoning.

Kramer's recent article obviously has encouraged those who in studying the political effects of economic variables prefer to remain within the longitudinal macrolevel mainstream and to neglect in their empirical research the cognitive and affective processes that at the microlevel intervene between economic conditions and the political outcome. Some authors were concerned, however, that completely locking these processes into a black box might impair the credibility of their findings on the impact of macroeconomic indicators on aggregate political results. What if the ups and downs of the economy were not reflected in parallel shifts of aggregate economic cognitions and satisfaction? Kernell (1978) and Kirchgässner (1983), for example, have explicitly investigated the dependence of perceptions and evaluations of macroeconomic conditions on objective indicators of this kind over time, introducing them as intervening variables into their models, so to speak. Their findings were largely reassuring, replicating earlier research on the determinants and dynamics of economic attitudes over time (e.g.Straszheim, 1974). Why in one particular macroeconomic situation a wide distribution of such

attitudes should arise and how individual transition patterns within these distributions over time were to be accounted for did not concern these researchers within their mainstream macrolevel approach. Having established a longitudinal correlation between aggregate economic conditions and attitudes was satisfactory and sufficient for their purpose.

Turning now (in spite of Kramer's assertions) to the second mainstream, microlevel research on the political consequences of economic variables, things look very different indeed. The key predictors of the macrolevel approach, i.e. macroeconomic indicators like unemployment, inflation, economic growth, change or distribution of income, have no variance at all at this level. Individuals in one point in time can and do differ in their objective personal economic living conditions, in their attitudes on these personal living conditions and on the general economic situation, they can and do differ in their objective regional and local economic context and, finally, in the extent to which they use macroeconomic indicators as yardsticks to assess success or failure of economic policies, but the overall macroeconomic situation is exactly the same for all of them. Therefore, at the cross-sectional microlevel, logically objective macroeconomic conditions are unable to account for any political outcomes. Economic explanations of political attitudes and behavior at this level have to refer to objective personal or contextual economic conditions or to the kind of economic attitudes just mentioned. Economic attitudes, not surprisingly, thus play a very different role in the two mainstreams of research. In the macrolevel approach all they are required for is to ascertain that there are no severe perceptual distortions in the public's awareness of the business cycle. In the microlevel approach they are themselves among the most relevant predictors of political responses, be they attitudinal or behavioral.

This point has been made very clearly in a recent article by Weatherford (1983) who also has stressed the importance of systematic research on the determinants of such attitudes. While his prescription certainly merits attention, indeed it is the focus of the empirical analyses in this article, the arguments by which he supports it are inconclusive, to say the least. Weatherford posits a sequence of causation from objective economic conditions via perceptions via policy attitudes to the individual political outcome (i.e. the vote), and goes on to state that the final step in this chain has preoccupied the previous politico-economic literature.

This appears to be incorrect for both mainstreams. In macrolevel research, as has been described above, political outcomes generally are related directly to objective economic conditions, relegating conversion processes to the individual black box. In the microlevel approach, individual political responses are frequently related to *all* of the three groups of variables that Weatherford cites as causally preceding: Policy attitudes are the realm of the economic problem solving competence model (regarding economic valence issues) and of the spatial policy distance model (regarding economic position issues). Economic perceptions are at the heart of investigations like Kinder's (1979) and Kiewiet's (1983) on whether perceptions of personal or of general economic conditions are more relevant for voting. Objective personal economic living conditions, finally, also have been analyzed as predictors of political behavior (e.g. Brody, 1977). As a matter of fact, therefore, the point about previous research is not, as Weatherford maintains, its preoccupation with the final step in his causal chain, but the fact that economic attitudes have virtually exclusively been treated as predetermined variables. He justifiedly calls attention to the need also to view them as dependent variables and to study their determinants.

Investigating the causes of public economic attitudes at the microlevel appears as necessary and useful for several reasons beyond that little analysis of this kind is available. First, if the few studies (cited above) that address this problem are correct in concluding that mean aggregate perceptions and evaluations of macroeconomic conditions over time closely mirror the actual development of a few macroeconomic indicators, how come not all individuals perceive and evaluate the general state of the economy the same in a given point in time, and how is the parallel movement of objective and attitudinal aggregate economic time-series over time accounted for by individual transitions within these distributions of economic attitudes? Answers to these questions should improve our knowledge of the microlevel foundation for the remarkable success of macrolevel studies linking economic developments to political outcomes by shedding some light on the intervening processes.

Second, for microlevel research on the political results of economic variables it is important to stop regarding economic attitudes as exogenous in order to avoid erroneous attributions of causal effects. As our knowledge so far is only very limited, let us toy with some ideas: Voting is heavily influenced by long-

standing partisan sympathies. If perceptions and evaluations of the general economic situation also were to be influenced by partisan orientations, findings about the impact of attitudes on macroeconomic conditions on the vote might be more or less spurious. Or suppose satisfaction with the general state of the economy was largely a function of satisfaction with private economic living conditions which, in turn, were heavily dependent upon objective private well-being. Under these conditions a strong political effect of satisfaction with the general economic situation ("sociotropic voting" in Kiewiet's and Kinder's terminology) might largely transmit the influence of the objective personal situation. All this is to say is that we need to know more than we now do on what accounts to what extent for what kind of economic attitudes at the cross-sectional microlevel in order to get a more adequate understanding of the way in which economic variables shape individual and aggregate political responses. This article is meant as a modest contribution to meet this challenge.

2. *Determinants of Images of Economic Conditions*

In the first part of this article the term "economic attitudes" has repeatedly been used, whereas its title refers to "images of economic conditions". How are these terms to be distinguished? The term "economic attitude" is used to denote any attitude, including cognitive, affective or evaluative, and behavioral components, that refers to any economic object, be it an economic fact or situation, an economic actor, or an economic policy or program. An individual's "image of economic conditions" is to denote a subset of its total economic attitudes, i.e. those cognitive and evaluative components of attitudes referring to objective economic conditions, general or personal. Images of economic conditions do not comprise behavioral orientations, but constitute the cognitive and affective "map" of an individual, its knowledge and its evaluation of the macroeconomic situation and of its own private economic living conditions. Expectations and predictions, for the sake of convenience, are treated here as one component of the cognitive dimension, with "pure" cognitions as the other component, i.e. cognitions of past and present economic facts. This component of "pure" cognitions is not applicable to private economic living conditions in a straightforward way, as it is reasonable to assume that perceptual distortion does not play a role here. Combining the two distinctions of private vs. general eco-

nomic conditions and of "pure" cognitions vs. evaluations vs. expectations thus leads to five elements of individuals' images of economic conditions:

- cognition of general economic conditions
- evaluation of general economic conditions
- expectation of general economic conditions
- evaluation of private economic conditions
- expectation of private economic conditions

A sixth variable is to be added to this list of five image dimensions for investigation in this article: Only one of these dimensions is a purely cognitive one, i.e. cognitions of general economic conditions. We will analyze here, to what extent various factors contribute toward explaining variance in these cognitions. However, for the researcher it is not only possible to register such cognitions, but also to scale them as more or less correct, given information on the actual state of the economy. This additional dimension of the "accuracy" of macroeconomic cognitions is not part of individual images of economic conditions, but is a construction by the researcher developed in order to detect sources of cognitive distortions.

Let us now turn to the potential influences on the five components of images of economic conditions and on the accuracy of macroeconomic cognitions. Without claiming comprehensiveness, such a list would have to include at least the following factors or groups of variables:

- Personal economic living conditions, experiences and outlooks
- Individuals' position in the social structure
- Objective economic characteristics of individuals' local and regional context
- Personality traits
- Value systems and aspiration levels
- Media exposure and content
- Orientations toward political parties
- Idiosyncratic, non-economic experiences and living conditions

The first three groups of predictors taken together constitute what could be called the "personal economic experience and exposure" model of the generation of images of economic conditions. Such images here are seen as largely reflecting individuals' objective economic "biographies" and life spaces. The following two predictors could be collapsed under the heading of a "social-

psychological" model, attributing images of economic conditions to dimensions of individuals' core personality and to their normative orientations. The next two predictors belong to two variants of a "communication" model, a mass communication and a political communication model. In the first, economic images are viewed as produced by the informations and evaluations people receive through the media they are exposed to, in the second, they are regarded as dependent upon the messages people receive from the political elites they trust.

Some important clarifications and caveats are in order about this list of predictors of images of economic conditions: First, they are not mutually exclusive; several of them can and should be at work at the same time. Second, it is not always feasible to neatly separate them from each other logically or empirically. An individual's position in the social structure, e.g., will usually be related to its private economic living conditions and experiences, or media use and partisan orientations might covary, so it would be hard to tell whether economic images directly follow partisan rhetoric or reflect attention to media selective along partisan lines. Third, not all of these predictors are expected to be equally applicable to each dimension of economic images. The communication model, e.g., will probably be more relevant for explaining images of general economic conditions than of private economic conditions. Conversely, non-economic idiosyncratic experiences (e.g. marriage, death or illness of household head, etc.) more likely will shape images of personal than of general economic conditions. Fourth, due to the inavailability of data several of these groups of variables cannot be dealt within the subsequent empirical analyses. The effects only of private economic living conditions, position in the social structure, economic context, and orientations toward political parties will be investigated here. This implies, of course, that our models will be underspecified, and a lower fit than for complete models has to be anticipated. Provided the above list contains the most important exogenous variables it should be possible to do better in explaining economic images if appropriate data were at hand.

Another issue that needs to be mentioned is the possibility of interrelations among the five economic image components. Due to such interrelations (bivariate correlations range from .12 to .37) it would be theoretically incomplete to attempt to account for these components only by the exogenous variables listed above. However, this unfortunately produces some difficulty for

model specification, as for many pairs of economic image dimensions it can be argued that causation might run either way. People could be more optimistic about their personal economic future, e.g., because they evaluate their current economic situation positively, or, conversely, they could do so because they are personally optimistic. Allowing all conceivable feedback-patterns of this kind would obviously leave us with a hopelessly non-recursive sub-model within the economic image complex. In order to avoid such confusion in a first exploratory study, two simple guidelines will be followed in setting up structural equations: First, that images of personal economic conditions influence images of general economic conditions, but not vice versa; second, that within both personal and general economic images cognitions influence evaluations and expectations, and evaluations influence expectations, but not vice versa.

It would be useful to conclude this section by setting up an inventory of hypotheses about which direction and strength of relationships should be expected among the economic image components and between each of them and each of the groups of exogenous variables. One could posit, e.g., that objective personal economic living conditions should have the strongest impact upon cognitions of general economic conditions, or that satisfaction with private economic conditions should be the most potent predictor of evaluations of general economic conditions, and that the relationship should be positive in both cases, or that the adequacy of macroeconomic cognitions should best be explained by individuals' position in the social structure, notably education.

This kind of exercise is not continued for the following reasons: First, it simply would consume too much space. As this paper ventures into a field where little previous research has been done, most that could be said would have to rely on common sense, rather than on established knowledge, and therefore require extensive discussion. Second, given the state of the art unambiguous predictions appear unlikely. Take, for example, the first of the above assertions. To describe the process of macroeconomic cognition as largely influenced by projection of private economic circumstances appears highly plausible at first glance. It is equally plausible, however, to assume that individuals regard discrepancies between their personal economic situation and the state of the general economy as a yardstick to assess their private success or the extent of being disadvantaged. The privately better off might, therefore, tend to describe the general economic situ-

ation as worse to underscore their ability to make ends meet *in spite* of generally hard times; the worse off, conversely, could tend to recognize general economic conditions as better in order to stress their poor lot and to support their claims in societal conflicts over distribution. This, of course, is to predict an inverse relationship between objective personal economic conditions and macroeconomic cognitions. Or, to complicate things further, the latter argument could only hold below a certain level of private well-being, implying a non-linear, V-shaped relationship. Similar arguments could be made about almost any of the influence patterns that are being dealt with here.

In this situation, it appears preferrable to proceed in a more exploratory fashion, estimating the impact of the various groups of explanatory variables upon economic image dimensions without strictly adhering to a scheme of hypothesis testing, and discussing substantive conclusions in the framework of describing empirical results.

3. *Data and Measurement*

The data base for this study is a survey (of approximately one hour length) of 1469 respondents representative of West Germans of age 18 and over (excluding West Berlin) done in November and December 1982 within a research project funded by the Volkswagen Foundation. The questionnaire strongly emphasized economic items and respondents' normative and religious orientations.

Five dimensions of images of economic conditions and the adequacy of macroeconomic cognitions constitute our dependent variables. They are measured by six indices of personal economic satisfaction (PES), personal economic expectation (PEE), general economic cognition (GEC), general economic satisfaction (GES), general economic expectation (GEE), and adequacy of general economic cognition (AEC).

Within the four groups of exogenous variables the following indicators and indices are used: Partisan orientation is measured via four eleven-point scalometers for the major West German parties, i.e. CDU-CSU, SPD, FDP, and the Green Party. Private economic conditions and experiences are assessed by seven indices of personal economic well-being (PWB), household income per capita (HIP), job-related difficulties respondents (PJP) or people close to them (GJP) had experienced, economic problems of re-

spondents' firm (EPF), anxieties related to the job of respondents or of people close to them (JRA), and of economic anxieties referring to respondents' context (CRA).

Individuals' position in the social structure is located by the following variables: Sex, age, education, religion, church attendance, marital status, household size, position within household, number of incomes in household, possession of real estate, dwelling units in residence, employment status, size of firm, employment status of spouse or household head, union membership. Economic context, finally, is measured via the September 1982 unemployment rate for the labor administration sub-district ("Arbeitsamtsunterbezirk") where respondents reside, its change since September 1981, town size, and the social composition of the residential neighborhood. Details on the definition and construction of these variables and indices and on their distributions an intercorrelations are available from the author upon request.

4. *Accounting for Images of Economic Conditions*

The following empirical analyses are designed as a search for most relevant predictors of components of images of economic conditions among the exogenous variables and other economic image dimensions. The appropriate technique is stepwise regression analysis of structural equations that contain, on the right-hand side, all of the 41 exogenous variables and from zero (PES) to four (GEE) economic image components. In stepwise regression (OLS is used here) predictors are entered in single steps from best to worst: The variable that explains the greatest amount of variance in the dependent variable will enter first, the variable that explains the greatest amount of variance in conjunction with the first will enter second, and so on. In other words, the variable that explains the largest proportion of variance unexplained by the variables already in the equation enters the equation at each step. The model estimates presented here describe the final step before the first insignificant predictor (at the .05-level) is entered; they therefore contain the bestfitting combination only of statistically significant explanatory variables for each endogenous variable.

(1) *Personal Economic Satisfaction (PES):* Of the five dimensions of economic images personal economic satisfaction is best accounted for (adjusted $R^2 = .28$) The complete model for estimating PES*, i.e. predicted PES, only from statistically signifi-

cant explanatory variables is presented in Table I. Respondents' position in the social structure has the strongest impact on their satisfaction with personal economic conditions. Respondents who hold white collar or blue collar jobs, are employed in public service, or are self or family employed evaluate their situation as significantly better than other people, i.e. farmers, students, apprentices, the retired, and those who don't work at all. Not surprisingly, satisfaction is highest among white collar and public service employees. Private economic satisfaction also is higher for married respondents and union members, it rises (non-linearly) with age (note that Weatherford, 1983, reports an opposite relationship), and it falls with increasing household size and number of incomes in household. This latter finding reflects the fact, of course, that additional family incomes are often sought because one simply is not enough. Such incomes then increase the standard of living, but people are less satisfied because they have to have them. Education, finally, is related to PES in a particularly interesting way: The least (only elementary education) and

Table I: *Determinants of personal economic satisfaction*

		Beta	Significance	Step
PES* =	.007 CDU-CSU	.079	.006	12
	+.006 SPD	.067	.016	21
	+.350 PWB	.244	.000	1
	−.181 PJP	−.083	.002	7
	−.122 GJP	−.054	.036	9
	+.088 CRA	.101	.000	11
	−.079 EPF	−.049	.049	17
	−.043 JRA	−.053	.039	22
	+.175 WHITE COLLAR	.213	.000	2
	+.158 PUBLIC SERVICE	.186	.000	3
	−.053 INCOMES IN HOUSEHOLD	−.127	.000	4
	+.083 MARRIED	.139	.000	5
	−.017 HOUSEHOLD SIZE	−.081	.016	6
	+.047 UNION MEMBER	.067	.012	8
	+.080 FAMILY EMPLOYED	.068	.008	13
	+.073 SELF EMPLOYED	.064	.013	14
	+.110 BLUE COLLAR	.113	.000	15
	+.003 $AGE^2/100$	.109	.001	16
	+.069 EDUCATION	.492	.000	18
	−.007 $EDUCATION^2$	−.430	.000	19
	+.022 CHURCH ATTENDANCE	.061	.020	20
	−.023 CHANGE UNEMPLOYMENT	−.081	.001	10
	−.062			

N = 1233 adjusted R^2 = .276 F = 22.4 SE = .239

the most qualified (university graduates) are the least content, respondents who have completed secondary, but not college or university, education are personally most satisfied.

Second in importance is the group of indices measuring private economic living conditions and experiences, and among these private well-being (PWB) is the most potent predictor of PES (Weatherford, 1983, reports the same kind of association with socioeconomic status). Having experienced the adversities of the labor market either directly (PJP) or indirectly via family and friends (GJP) significantly reduces private economic satisfaction (a finding similar to that of Weatherford, 1983). Witnessing economic difficulties in one's firm or job-related anxieties have the same effect. The only coefficient here that does not quite fit into this picture is the positive one of CR. It seems to indicate that the more people expect economic conditions around them to deteriorate the better they are able to accept their personal circumstances.

In comparison, partisan orientations have a rather limited effect upon PES, which mildly covaries with liking of the major two parties. Even less important is the economic context, private economic satisfaction on the average being somewhat lower in areas with unemployment rising particularly fast. A final point to be addressed here is multicollinearity. If four separate simultaneous regressions of PES upon the significant predictors (according to the stepwise solution) from the four groups of endogenous variables are run and their adjusted R^2s are totalled, this sum (.35, see Table II) exceeds the percentage of the variance in PES accounted for by the above stepwise model (.28). This obviously indicates multicollinearity, which mainly has to occur between respondents' objective personal economic conditions and their position in the social structure, the former being influenced by the latter. However, this degree of multicollinearity is neither surprising nor does it change the substantive finding on the order of magnitude of effects on PES. All we have to conclude is that probably part of the effect of personal economic conditions on personal economic satisfaction is due to the dependence of the former upon position in the social structure.

(2) *Personal Economic Expectation (PEE):* As Table II shows, multicollinearity between the significant predictors of private economic expectations does not present any problem. Again, individuals' position in the social structure has the strongest impact. Personal economic optimism declines steadily with age and is sig-

Table II: *Contribution of groups of predictor variables for explaining dimensions of economic images*

Dependent Variable	PES	PEE	GEC	GES	GEE	AEC
PES PEE		.036	.084	.119	.146	
GEC GES				.141		
Partisan orientation	.014	.007	.007	.012	.076	.003
Personal economic situation	.139	.034	.013	.002	.003	.005
Social structure	.192	.110		.000	.003	.069
Economic context	.006	.006	.004	.007	.001	
Sum of adjusted R^2	.351	.193	.108	.281	.229	.077
Adjusted R^2 complete stepwise model	.276	.197	.099	.223	.232	.075

Entries in first six rows are adjusted R^2s from regressing dependent variables upon the predictors from the respective group alone that are significant in the stepwise models described in the text. Crossed-off cells indicate that predictors from this group are not included in the specification; empty cells indicate there are no significant predictors from this group.

nificantly higher for students, apprentices, and catholics. While the former two results make perfect sense, it is not quite clear why catholics should be more optimistic. A straightforward interpretation also cannot be given to the fact that private economic optimism declines for inhabitants of larger housing projects; probably combined effects of wealth and occupational status are picked up here.

Almost equally important for predicting PEE are personal economic conditions and satisfaction (PES). Personal economic satisfaction and optimism covary, whereas anxieties over one's own job or that of people close to oneself (JRA) increase pessimism

Table III: *Determinants of personal economic expectation*

		Beta	Significance	Step
PEE* =	.201 PES	.181	.000	2
	+.011 CDU-CSU	.105	.000	5
	−.142 JRA	−.156	.000	3
	−.005 AGE	−.285	.000	1
	+.154 IN EDUCATION/TRAINING	.114	.000	4
	+.040 CATHOLIC	.064	.015	7
	−.005 NO. APTS. IN HOUSE	−.057	.040	8
	+.002 TOWN SIZE^2	.142	.000	6
	+.024			

N = 1233 adjusted R^2 = .197 F = 38.9 SE = .280

over one's private economic future. Least important for predicting PEE are partisan orientation and economic context. Hopeful personal outlooks become (non-linearly) more frequent with urbanization, and sympathizers of the CDU-CSU, that had gained power two months prior to the survey, also tend to expect a little more from their own economic future. The effects of the eight significant predictor variables are summarized in Table III.

(3) *General Economic Gognition (GEC):* Surprisingly, general economic cognitions are least well accounted for by the explanatory variables analyzed in this study; adjusted R^2 for the stepwise model containing only significant predictors is only .10. Images of personal economic conditions (PES and PEE) are the strongest determinants of GEC: the more privately satisfied and optimistic respondents are the better they describe the general state of the economy. To a certain extent images of the personal economic situation seem to work as a kind of perceptual filter on macroeconomic cognitions (Table IV).

Table IV: *Determinants of general economic cognition*

		Beta	Significance	Step
GEC* =	.199 PES	.236	.000	1
	+.080 PEE	.106	.000	2
	+.007 SPD	.087	.002	4
	−.005 GREEN	−.057	.042	6
	−.154 PJP	−.084	.002	3
	−.007 TOWN SIZE	−.065	.017	5
	−.178			

N = 1233 adjusted R^2 = .099 F = 23.6 SE = .225

The same holds true for objective private living conditions, where experience of personal "economic dislocation" (in Weatherford's terminology), measured by PJP, significantly deteriorates general economic perceptions. Comparison of the final, two rows of Table II demonstrates that multicollinearity, again, is not much of a problem here; most of it is due to the impact of PJP on PES.

While respondents' position in the social structure has no significant influence on GEC whatsoever, partisan orientations and economic context have some moderate effects. The more people like the Social Democrats, the more they tend to describe the general state of the economy in rosy terms, and vice versa; the opposite is true for sympathizers of the Green Party. This shows that people, though to a limited extent, even take information (not to speak of evaluation and projection) on macroeconomic conditions from the political elites they trust. In late 1982, when the CDU-CSU, that had just come to power, was still expounding the theme how badly run an economy it had inherited from the previous government, the SPD was countering that the economy had been doing comparatively well under its leadership. In our data the effects of this war of words on mass attitudes are visible.

Finally, as to economic context, general economic cognitions tend to deteriorate with urbanization. This should be seen together with the positive impact of this variable upon private economic expectations just described. Probably there is no contradiction, in that urban agglomerations offer more spectacular examples and experiences of general economic crisis, but at the same time a wider range of opportunities for the individual. It should be noted that the local unemployment rate or its change since the previous year are not included among significant context variables (in Weatherford's study a strong negative effect on perceptions of national economic conditions is reported). As urbanization and the unemployment rate (or its change) correlate only weakly and negatively, any suspicions that the former might just capture the effects of the latter are incorrect. We have to recognize, however, that all these six significant predictors manage to explain just about one tenth of the variance in GEC; with these models the rest has to be regarded as random. We are only to a limited extent able to account for the fact that one and the same macroeconomic situation is perceived differently.

(4) *General Economic Satisfaction (GES):* Regarding the deter-

minants of satisfaction with the general state of the economy several findings can be stated very clearly (Table V): First, GEC is the single most important predictor (adj. R^2 = .14). Second, position in the social structure and private economic living conditions have only small direct effects beyond those transmitted through GEC and images of personal economic conditions. Third, private satisfaction and optimism have sizeable and genuine predictive power for GES, but, of course, there is some multicollinearity due to the fact that these two dimensions of images of personal economic conditions also are the most important determinants of macroeconomic cognitions.

Table V: *Determinants of general economic satisfaction*

		Beta	Significance	Step
GES* =	.283 PES	.261	.000	2
	+.076 PEE	.078	.003	5
	+.375 GEC	.291	.000	1
	+.010 SPD	.096	.000	3
	+.095 PWB	.061	.023	7
	−.099 EPF	−.056	.029	8
	−.109 FAMILY EMPLOYED	−.084	.001	4
	−.011 TOWN SIZE	−.075	.003	6
	−.235			
N = 1233	adjusted R^2 = .223	F = 45.2	SE = .269	

Among the four groups of exogenous variables partisan orientations have the strongest independent effect; again, SPD-adherents are more likely to come up with more favorable evaluations of the general economic situation. The association between urbanization and satisfaction runs parallel to what has been discussed in the previous section. While private living conditions have emerged as highly relevant for explaining *personal* economic satisfaction, only two of these indices are significant here, all other influences being transmitted through PES and PEE: The better-off respondents are and the less they have experienced economic difficulties of their firm the higher their satisfaction with the general state of the economy. Family employed respondents, finally, tend to express lower general economic satisfaction than other occupational groups. Even though this is significant, the contribution toward the overall explanation of GES is minimal.

(5) *General Economic Expectation (GEE):* For GEE stepwise re-

gression yields a quite different pattern (Table VI). Even though GEC and GES were entered they fail to emerge as significant. Individuals' projections of macroeconomic developments into the future thus appear unrelated to how they perceive and evaluate the current state of the general economy. Instead, such projections seem most strongly affected by expectations about the personal economic future and satisfaction with private living conditions.

Table VI: *Determinants of general economic expectation*

		Beta	Significance	Step
GEE* =	.383 PEE	.361	.000	1
	+.167 PES	.141	.000	4
	+.015 CDU-CSU	.145	.000	2
	+.011 FDP	.088	.002	6
	−.009 GREEN	−.075	.006	7
	−.080 CRA	−.079	.004	8
	+.002 AGE	.085	.005	3
	−.012 EDUCATION	−.075	.005	5
	−.032 CHURCH ATTENDANCE	−.076	.004	9
	+.270 FARMER	.057	.024	11
	+.042 BLUE COLLAR NEIGHBORHOOD	.063	.013	10
	−.311			

N = 1233 adjusted R^2 = .232 F = 34.9 SE = .291

Apart from the overarching effects of private economic image dimensions Table VI reveals that partisan orientations exert a substantial influence on general economic expectations. Such effects have been visible in all the other four components as well, but here they are much stronger and of a different nature. While macroeconomic cognitions were better and personal and general economic satisfaction was higher for SPD-followers, here adherents of the parties of the new government are considerably more optimistic, reflecting in their projections the CDU-CSU and FDP phraseology of an economic "turnaround" initiated by their overthrow of the previous coalition. Sympathies for the Green Party, on the other hand, are associated with pessimism regarding the general economic outlook. These results strongly indicate that attempting to account for voting behavior by expectations of future economic development at least partially has to produce spurious findings, as such expectations, just as the vote itself, to a significant degree are shaped by partisan orientations.

In comparison, general economic expectations are only moderately due to direct influences of the other three groups of exogenous variables. Of the indices of the personal economic situation only fears about lay-offs in one's own, spouse's or household head's firm or about unemployment rising in the area significantly lower general economic optimism. As to social structure, farmers tend to be more optimistic, maybe due to anticipation of the new government's agricultural policies, and pessimism decreases with age and increases with education and intensity of religious ties. Together with the findings for PEE this result for age describes the interesting and plausible pattern that the older people are the more generally optimistic and privately pessimistic they are.

5. *Accounting for the Adequacy of General Economic Cognition*

GEC is explained least satisfactorily of the above five economic image components. Therefore, it does not come as a surprise that our ability to account for the adequacy of such cognitions is even lower (adj. R^2 = .08). As Tables VII and II show, respondents' position in the social structure is by far most important to predict the absence or intensity of such perceptual distortions.

Table VII: *Determinants of the adequacy of general economic cognition*

		Beta	Significance	Step
AEC* =	−.005 SPD	−.065	.020	7
	+.108 GJP	.062	.026	6
	+.012 FIRM SIZE	.146	.000	1
	+.043 MARRIED	.095	.001	2
	+.001 EDUCATION^2	.100	.000	3
	+.032 OWN HOUSING	.074	.008	4
	+.035 MALE	.081	.005	5
	−.032 RETIRED	−.060	.032	8
	+.368			
N = 1233	adjusted R^2 =.075	F = 13.5	SE = .207	

The single most important variable contributing toward making macroeconomic cognitions more adequate is the size of respondents' firm which suggests that a lot of information on the general state of the economy is transmitted through experience at the working place. Quite naturally, the smaller the firms are,

the higher is the probability that these experiences rather idiosyncratically reflect conditions in a small profession, trade, or market. Not surprisingly, AEC also covaries positively (and non-linearly) with education. Male and married respondents tend to be more "correct" in assessing macroeconomic conditions, whereas retired people usually are wider off the mark. People that own, rather than rent, their housing, finally, also tend to have more adequate perceptions, maybe because attention to interest rates, tax breaks, maintenance and operating costs produces some increase of knowledge of economic facts as a by-product.

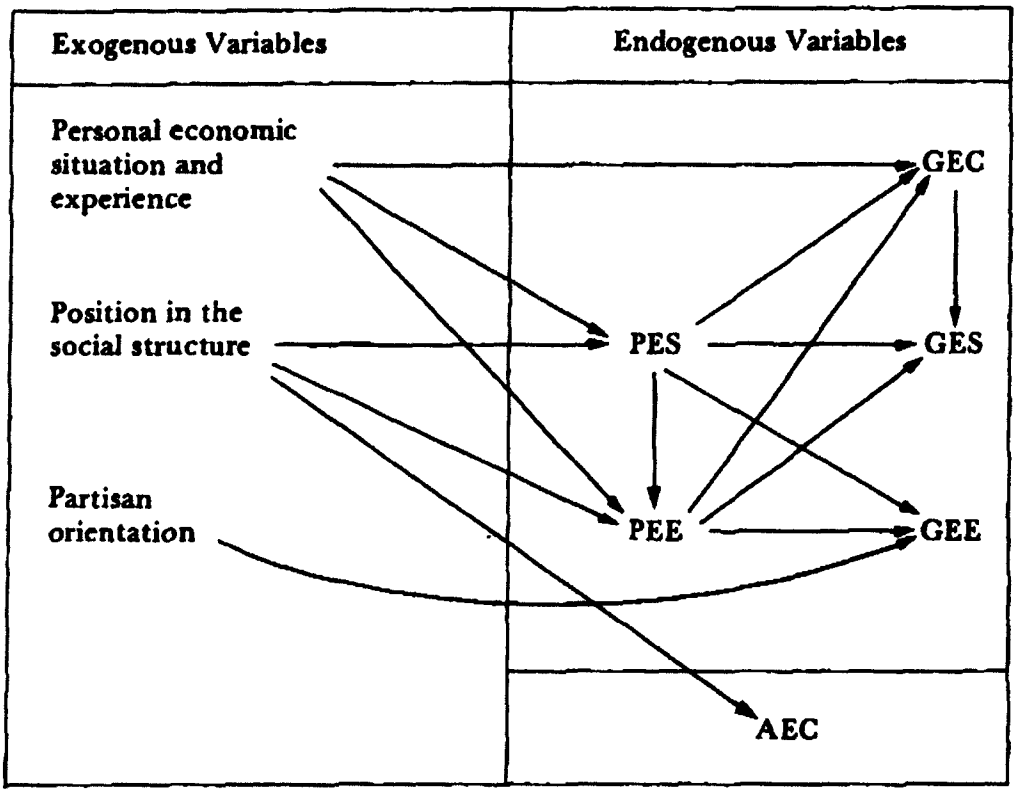
Of the indices measuring private living conditions, only the one capturing experience of unemployment through family or friends (GJP) is statistically significant, indicating that this experience makes people somewhat more aware of general economic conditions. The presence of the SPD scalometer in Table VII and its negative sign, finally, again reflect what has been said above on the determination of GEC by partisan orientations. If SPD-adherents to some extent tend to see the economic world as rosier than it is, because the party tells them how successful it has been, this naturally implies less adequate cognitions due to the "jack-knife" relationship between GEC and AEC. All in all, however, it should be remembered that the above equation only accounts for less than one tenth of the variance of economic cognitions around "true" descriptions. It looks as if we still have a long way to go to find what makes such cognitions more or less accurate. The variables analyzed here simply don't do a good enough job.

6. *An Alternative Specification of Personal and General Economic Expectations*

If ten percent of the variance explained in a dependent variable by an explanatory variable or a group of such variables is arbitrarily chosen as a cut-off point for defining substantial influence relationships, the results of estimating structural equations can graphically be summarized as in Figure 1.

Naturally, there are several arrows in this diagram where one could argue that the dominant pattern of causation should run the other way. By estimating structural equations this question cannot be decided on empirical grounds, of course. There is one arrow, however, where suspicions are particularly strong that it points the "wrong" way, i.e. from PEE to GEE, and this issue will be dealt with now.

Figure 1



Personal economic expectations probably are particularly susceptible to idiosyncratic conditions and events not of a direct economic nature (e.g. marriage or divorce, illness or becoming disabled, etc.). Such factors are not modeled here, but they show up in the variance of PEE given one and the same social and personal economic background. This variance in PEE should not be transmitted to GEE as individuals have to be aware that such conditions, that cause them to be more or less personally optimistic, have nothing to do with the general economic outlook. Conversely, expectations about the future course of the general economy, wherever they come from, could to a certain extent shape predictions of personal economic conditions by influencing expectations about one's job, income, standard of living, etc. If, accordingly, the arrow from PEE to GEE is reversed, and the modified structural equations are estimated for both variables, results as shown in Tables VIII and IX are obtained.

As has to be expected, our ability to account for personal economic optimism is sizeably increased while the reverse holds for general economic expectations. GEE now emerges as the single most important predictor of personal economic expectations, but

Table VIII: *Alternative explanation of personal economic expectation*

		Beta	Significance	Step
PEE* =	.132 PES	.119	.000	4
	+.313 GEE	.332	.000	1
	−.103 JRA	−.113	.000	3
	−.014 AGE	−.751	.000	2
	+.00008 AGE^2	.448	.002	6
	+.044 CATHOLIC	.069	.005	7
	+.011 EDUCATION	.068	.008	8
	−.005 NO.APTS. IN HOUSE	−.058	.030	9
	−.249 FARMER	−.055	.022	10
	−.006 FIRM SIZE	−.050	.044	11
	+.002 $TOWN\ SIZE^2$	.119	.000	5
	+.358			

N = 1233 adjusted R^2 = .293 F = 47.5 SE = .263

Table IX: *Alternative explanation of general economic expectation*

		Beta	Significance	Step
GEE* =	.205 PES	.174	.000	2
	+.092 GEC	.066	.018	10
	+.019 CDU-CSU	.177	.000	1
	+.013 FDP	.104	.001	4
	−.007 GREEN	−.059	.037	11
	−.084 JRA	−.087	.001	3
	−.068 CRA	−.066	.017	9
	+.046 MALE	.069	.012	5
	−.072 PUBLIC SERVICE	−.072	.010	6
	−.034 CHURCH ATTENDANCE	−.080	.004	8
	+.046 BLUE COLLAR NEIGHBORHOOD	.069	.010	7
	−.324			

N = 1233 adjusted R^2 = .137 F = 18.7 SE = .308

private economic satisfaction and job-related anxieties, as an indicator of private economic conditions, survive as significant predictor variables. Partisan orientations, on the other hand, vanish from the equation for PEE. Within the group of variables describing respondents' position in the social structure, findings for the effects of religion and of type of dwelling upon private economic

optimism remain the same, but it is now found, in addition, to covary positively with education and negatively with size of respondents' firm, both intuitively plausible results. For age a nonlinear influence upon personal optimism is estimated here, optimism declining rapidly first, but only marginally once people approach the final years of their job career.

Even though with PEE the previously most significant predictor of GEE is gone, there are no really dramatic changes in the influence patterns of remaining predictors. Personal economic satisfaction still is very important for accounting for predictions about the development of the economy in general, and partisan orientations, again, play an overriding role. This appears as a very robust finding indeed: Partisan sympathies only slightly determine how private economic conditions are evaluated and predicted or how general economic conditions are perceived and evaluated, but they do shape to a considerable extent general economic expectations, the economic image dimension people are least able to derive from their own situation or knowledge.

This is also confirmed by the small effect of perceptions of general economic conditions. Stepwise regression now includes this predictor (GEC) as significant, but compared to the impact of partisan orientations projections of past and current macroeconomic data play a very minor role. What does become somewhat more important now is the objective personal economic situation, as personal job-related anxieties (JRA) join CRA as a statistically significant predictor from this group. Reestimation of GEE also changes the pattern of social structure variables that are included as significant; however, their overall contribution toward explaining macroeconomic expectations again is very limited, as Table X demonstrates.

Choosing between these two representations of reality of Tables III and VI vs. VIII and IX cannot be an empirical affair, at least not within the framework of estimating structural equations, but has to be approached theoretically: Causation which way does an observed correlation imply? As pervasive arguments can be made either way, this matter is not pursued here. It is only within the framework of simultaneously estimating various competing and theoretically specified causal models that one can expect to come somewhat closer to an answer to the question — what constitutes the more adequate model? We now turn to such and other desiderata for further research.

Table X: *Contribution of groups of predictor variables for explaining economic expectations, alternative model*

Dependent Variable	PEE	GEE
PES	.036	.041
GEC, GEE	.128	.014
Partisan orientation		.067
Personal economic situation	.034	.017
Social structure	.118	.008
Economic context	.006	.001
Sum of adjusted R^2	.322	.148
Adjusted R^2 stepwise model	.293	.137

For definition of entries cf. Table II.

7. *Conclusion*

It has been possible to demonstrate in this paper that components of economic images at the individual level are systematically and plausibly related to each other and to various sets of exogenous variables. Explanation has been far from complete, however, variance accounted for ranging between eight and about thirty percent, respectively. This is because the models estimated here clearly are underspecified, neglecting e.g., as has been pointed out, psychological factors, aspiration levels and standards for comparison, value systems ("post-materialist" attitudes, e.g.), media and communication effects, and idiosyncratic personal circumstances and experiences. People with identical objective private well-being and identical unemployment experience, e.g., still vary widely in terms of their personal economic satisfaction. For a more complete explanation all these groups of predictor variables would have to be analyzed as well. One has to realize, however, that data comprising all these dimensions along with

the ones investigated here are not readily available. This is particularly true if one thinks about extending this study in a longitudinal fashion, which would be highly desirable, of course, in view of the problem outlined in the introduction, i.e. at the micro-level to investigate the processes underlying longitudinal macro-level covariations between general economic trends and their perception, evaluation, and projection.

A lot more remains to be done, however, that *is* possible with the available data: First, the indices of economic image dimensions presented here can be broken down into their components in order to evaluate whether below this level stronger associations for economic "sub-images" exist, e.g., between private well-being and perception of the general development of incomes, or between personal unemployment experience and satisfaction with the job market in general, etc. Second, individuals can be differentiated according to which substantive elements of economic image dimensions are most important for their position on other image dimensions. Imagine two respondents with identical general economic cognitions and predictions, but one perceiving and predicting the job situation as particularly unsatisfactory, the other economic growth. It is very conceivable that the impact of identical aggregate economic pessimism upon both private economic expectations and potential political consequences can be quite different.

Third, it is necessary to further pursue the issue of proper causal specification taking the possibility of non-recursive elements into account. This can be done either within panel data or by simultaneous equation causal modeling, or both. Panel data also would have the advantage to allow findings to be related more easily to longitudinal aggregate studies of economic perceptions. Simultaneous equation estimation would bring the advantage that economic image components, that have been defined by several indices here, could be treated as latent factors, estimating measurement models (loadings of indicators on factors) and causal patterns at the same time with LISREL or LVPLS or similar software. This will be the next step in our own research.

Fourth, finally, this study could be replicated cross-nationally and for other periods in the history of the Federal Republic, which should yield some insights into the general applicability and stability of the patterns described here. There is ample reason to suspect that not all of them will be highly time-invariant. The impact of partisan orientations on economic image components,

e.g., appears to be very much characteristic of the months of transition between governments, when voters have to adjust mentally to the shift in responsibility for economic policy and are exposed to plenty of rhetoric interpreting economic past and future in partisan terms. It is entirely conceivable that this peculiar feature of the time when our data were collected impinges upon some of the other relationships analyzed here as well. Thus, this first venture into describing, differentiating, and explaining individuals' images of economic conditions leaves us not only with a first set of interesting and credible findings, but also with an impressive agenda for further study.

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Abstract

With data from a December 1982 survey determinants of attitudes on general and personal economic conditions in West Germany are investigated. Such attitudes are differentiated into perceptions, evaluations, and expectations. Objective private living conditions, social background variables, regional economic context, and partisan affiliations are introduced as explanatory variables. Stepwise regression analysis is applied to estimate recursive models for endogenous variables. Apart from sizeable interrelations among components of individuals' images of economic conditions the findings indicate that evaluations and expectations of the private economic situation are strongly affected by social background and personal living conditions, whereas partisan sympathies mainly influence expectations of future general economic development.