Annu. Rev. Polit. Sci. 2000. 3:183–219

ECONOMIC DETERMINANTS OF ELECTORAL OUTCOMES

Michael S. Lewis-Beck
Dept. of Political Science, University of Iowa, Iowa City, Iowa 52242; e-mail: michael-lewis-beck@uiowa.edu

Mary Stegmaier
Dept. of Government and Foreign Affairs, University of Virginia, Charlottesville, Virginia 22901; e-mail: ms2bu@virginia.edu

■ **Abstract** Economic conditions shape election outcomes in the world's democracies. Good times keep parties in office, bad times cast them out. This proposition is robust, as the voluminous body of research reviewed here demonstrates. The strong findings at the macro level are founded on the economic voter, who holds the government responsible for economic performance, rewarding or punishing it at the ballot box. Although voters do not look exclusively at economic issues, they generally weigh those more heavily than any others, regardless of the democracy they vote in.

INTRODUCTION

In his pivotal book, *Political Control of the Economy*, Tufte (1978:65) articulated what he called a basic principle:

> When you think economics, think elections;
> When you think elections, think economics.

More than 20 years have passed since this axiom was articulated. Is it true? In particular, is economics the driving force behind electoral outcomes in democracies? And, if so, how does it work? These are the leading questions this essay attempts to answer by distilling the research literature. [For earlier literature reviews, see Monroe (1984), Kiewiet & Rivers (1985), Lewis-Beck (1988:chs. 2 and 3), Schneider & Frey (1988), Nannestad & Paldam (1994), Anderson (1995:ch. 3), Norpoth (1996a).] The task is not simple. The flow of scholarly papers on the topic has changed from a trickle to a torrent of over 300 articles and books on economics and elections. What holds this disparate collection of publications together is their tests of the economic voter hypothesis. In its elementary reward-punishment version, that hypothesis may be stated as follows: The citizen votes for the government if the economy is doing all right; otherwise, the vote is against. The inspiration for the hypothesis, now widespread in the scholarly literature, comes from Key

(1964:568). In the press, economic voting is routinely used as a sweeping explanation of electoral outcomes. For example, *New York Times* journalists concluded that in the 1992 US presidential race, "More than any other issue, the economy was Bill Clinton's ticket to the presidency" (Rosenbaum & Lohr 1996).

The research at hand tests this claim from every possible angle. Fortunately, economics and elections is a subfield of political science (and economics) where much has been learned. Increasingly refined tools of theory and method have been successfully applied to ever richer data bases.

We divide this presentation into four sections. The first section considers United States elections, since they have been the most extensively investigated. Presidential support is examined first, then congressional. Methodological issues are discussed at appropriate points and, ultimately, generalizations are offered about the impact of economics on the American voter. The second section explores a comparative example, the French presidential and National Assembly elections. The comparison is especially useful because French elections exhibit institutional differences that highlight the conditional aspects of economic voting. The third section reviews the findings of selected other nations that have been fairly heavily researched, Britain and Denmark in particular. The fourth section is truly comparative, evaluating the studies that have examined economic voting in a sample of nations, rather than in one nation alone. Finally, we draw conclusions about the place of economics in democratic voting models.

THE MOST STUDIED NATION: The United States

By far, there are more economic voting studies on the United States than on any other country. Therefore, we begin with that case, which in some ways defines the lines of debate for work elsewhere. We look first at presidential popularity and vote functions, then examine individual-level survey data on presidential voting. After that,we turn to congressional vote functions and survey data on House of Representative elections.

US Presidential Popularity Functions

There are two streams of work treating economic influences on US presidential elections, vote functions and popularity functions. [Nannestad & Paldam (1994:213) call these "VP-functions.")] In popularity functions, the dependent variable is job approval rating from a public opinion poll, and in vote functions it is vote choice itself.

The earliest research on popularity functions was by Mueller (1970, 1973), and, at least conceptually, it continues to shape current efforts. Data are aggregate time series gathered over the post–World War II period. The percentage of the public approving of how the president is handling his job, according to a Gallup poll, is the variable to be explained. The independent variables, besides the economy, are war, political scandal, international crisis, and term cycles. Examples of such a model in appear in Table 1. These efforts by Norpoth (1985:179) and Beck

TABLE 1 Earlier examples of US popularity functions

Variable	(1)[a]	(2)[b]	(3)[c]
Popularity lagged		0.84*	0.89*
Food inflation		−0.49*	−0.26*
Inflation	−139.33		
Inflation lagged	−306.42*		
Unemployment	0.93		
Unemployment change		−2.76*	−1.65*
Vietnam	0.97*	−0.41	−1.12
Watergate	−2.96*	−2.64	−1.85
Rally around the flag	2.54*		
Inauguration	19.95*		
Term dummies			
Kennedy		14.46*	13.86*
Johnson		18.43*	20.93*
Nixon		18.46*	15.07*
Ford		33.86*	22.90*
Carter		18.15*	17.41*
Reagan		22.17*	15.93*
Constant	−1.32*	10.07*	7.02*
Random MA(2)	0.37*		
R-squared		0.88	0.90
Adjusted R-squared	0.69		
Degrees of freedom		121	388
N	80		

* = Statistical significance at 0.05 one-tail, or better.

[a](1) Quarterly presidential popularity, 1961:1–1980:4 (from the monthly Gallup Poll percentage who approve of how the current president is handling his job), differenced and predicted from differenced economic variables (inflation, inflation lagged one quarter, unemployment) and dummies for the Vietnam War, Watergate, the rally-around-the-flag effect, inauguration, and presidential term, with ARIMA (autoregressive integrated moving averages) transfer function estimation (Norpoth 1985:179).

[b](2) Quarterly presidential popularity, 1953:2–1986:2 (from the monthly Gallup Poll), predicted from its lagged value, contemporaneous economic variables (inflation of food prices, change in the unemployment rate), a Vietnam variable (number of soldiers killed), and dummies for Watergate and each new administration, with OLS (ordinary least squares) estimation (Beck 1991:94).

[c](3) Monthly presidential popularity, 1953:3–1986:6, with the same independent variables and OLS estimation as in column 2 (Beck 1991:94).

(1991:94) are representative of the first wave of US popularity function estimation (Frey & Schneider 1978a, Kernell 1978, Monroe 1978, Golden & Poterba 1977, Kenski 1980, Hibbs et al 1982). Fairly long time series (monthly or quarterly) on presidential approval (invariably Gallup ratings) were predicted from a few macroeconomic indicators (unemployment, income, gross national product, inflation) and several political variables (almost always measured with dummies). An important conclusion of these studies was summed up by Norpoth (1985:180) as follows: "There can be little doubt that the economy matters for presidential popularity." However, beyond that generalization, much remained unsettled. What economic variables count? What is the lag structure? The estimates of Table 1 illustrate these concerns. In column 1, unemployment has no statistically significant effect, whereas in column 2 it does. In column 1, inflation has no statistically significant contemporaneous effect, only a significant lagged effect. But in column 2, the statistically significant inflation effect is lagged. In column 3, the specification is the same as in column 2, but the analysis is on monthly rather than quarterly data. The inflation and unemployment effects are again significant and the magnitudes are naturally reduced (although by about one half rather than one third, which raises the interesting question of the proper level of aggregation).

Despite the lack of resolution, the search for the preferred macroeconomic indicators, and their lagged effects pattern, has been largely abandoned. In the second wave of popularity function work, objective economic measures have been replaced with subjective ones. The models now contain aggregate perceptual evaluations of general economic performance instead of hard data on unemployment, inflation, income, or growth. A summary of responses from two types of questions, such as these posed by the Michigan Survey of Consumer Attitudes and Behavior since the 1960s, are most often used.

> Q1. Would you say that at the present time business conditions are better or worse than a year ago?
>
> Q2. [H]ow about a year from now, do you expect that in the country as a whole business conditions will be better, or worse than they are at present, or just about the same?

The first item is retrospective, asking the respondent to assess the performance of the national economy over the past year. The second item again asks for a national economic assessment, but over the forthcoming year, so it is prospective. The items have certain advantages. First, their responses appear to combine and weigh all the objective macroeconomic measures. For example, if 60% of respondents say business conditions are better and only 20% say they are worse, then on balance the overall economy looks good that year ($60 - 20 = +40$). Second, assuming that voters respond to their interpretation of the economy rather than to its objective condition, the economic effects on the vote might be more strongly and more accurately recorded (but see Kramer 1983). Third, the presence of a prospective as well as a retrospective measure facilitates the testing of whether economic voters are sophisticated or naive. Chappell & Keech (1985, 1991) have argued that voters

TABLE 2 Later examples of US popularity functions (figures in parentheses are standard errors)

Variable	(1)[a]	(2)[b]	(3)[c]
Political variables	†	‡	‡
Popularity lagged		0.81*	0.79*
		(0.04)	(0.04)
Retrospective business	0.10*	0.03	
	(0.03)	(0.02)	
Prospective business	−0.007		0.08*
	(0.065)		(0.03)
Retrospective personal		0.10	
		(0.07)	
Prospective personal			0.11
			(0.09)
Adjusted R-squared	0.84	0.90	0.91
N	136	141	147

* = Statistical significance at 0.05 one-tail, or better.

† = Coefficients for political variables in the model not shown: presidential change scored 1 for each quarter a fresh president assumes office, 0 otherwise; dummies for the Watergate and Iran-Contra scandals and the Gulf War; a Vietnam variable scored as percentage public approval of the war.

‡ = Coefficients for political variables in the model not shown: dummies for every administration, Watergate, the Iran hostage incident, and the Gulf War; Vietnam War deaths; counter variables for important events.

[a](1) Quarterly presidential popularity (Gallup approval percentage), 1960:1—1993:4, predicted from the political variables (†), retrospective business (scored percentage who call business conditions "better" over the last year − percentage who say "worse"), and prospective business (scored percentage who say business conditions will be "better" next year − percentage who say "worse"), estimated with conditional least squares and an AR(1) (first order autoreprssive) correction (Norpoth 1996b:783).

[b](2) Quarterly presidential popularity (Gallup percentage approval), 1954—1996, predicted from the political variables (‡), popularity lagged, retrospective business (the same item as in column 1, scored on a 200-point scale as a net measure of positive and negative evaluation), and retrospective personal (a net measure of those who reported family finances "better" − those who said "worse"), estimated from OLS. (Erikson et al 2000).

[c](3) The same variables as in column 2 except for the economic variables, which here are prospective business (a net measure of those who said business conditions in the next 12 months would be "good" − those who said "bad") and prospective personal (a net measure of those who said a year from now family finances would be "better" − those who said "worse").

rate the president according to the economic future his policies will deliver. In contrast to this sophisticated prospective voter is the naive retrospective voter, who merely judges the president according to the economic performance of the immediate past. In the terms of MacKuen et al (1992), prospective voters behave more as bankers, retrospective voters as peasants.

A central controversy in popularity function research today is whether economic voters are retrospective or prospective. Table 2 reports some illustrative results on

this issue. In column 1 are estimates for a Norpoth (1996b:783) model, supporting his consistent finding of "a substantial influence of retrospective views of the economy, but not with any [influence] for economic expectations." Columns 2 and 3, by contrast, show Erikson et al's (2000) dominant result: "Voters respond in terms of their expectation of the future level of prosperity." Thus, two leading scholars, looking at essentially the same data, and following model specifications that are conceptually similar, arrive at estimates that yield opposite conclusions. One discovers an exclusively retrospective economic voter, the other an exclusively prospective economic voter. To complicate matters further, the middle position—the economic voter is retrospective and prospective in more or less equal amounts—is advocated by Clarke & Stewart (1994), in their own careful analysis of the presidential approval data.

Why these conflicting results? It is worth recalling the phrase, "God is in the details." Although on the surface the models of Table 2 appear similar, there are differences. First, the time series cover different periods, 1960–1993 versus 1954–1996. Second, the political variables, though conceptually alike, are not measured the same way. In column 1, a general dummy stands for an adminstration change, the Vietnam War is tracked in terms of public approval, and there is no "events" or "rally" variable. By way of contrast, column 2 uses specific dummies for each administration, tracks the Vietnam War in terms of soldiers killed, and includes a variable for tracking special "events." Third, column 1 is estimated with Box-Tiao intervention analysis and an AR(1) error correction, whereas column 2 uses a lagged dependent variable on the right-hand side as a control, after which ordinary least squares (OLS) is applied. Fourth, multicollinearity may be rendering coefficients unstable, subject to serious change from one specification to the next. For example, the retrospective item correlates 0.84 with the prospective item "good-bad times next 12 months" (Norpoth 1996b:785). Once these points are considered, it is less surprising that differences are observed.

US Presidential Vote Functions

Although scholars have enthusiastically pursued the study of presidential popularity functions, some of that enthusiasm seems misplaced, since they fail to measure the variable of ultimate interest—presidential vote. The plentiful work on vote functions looks directly at macroeconomic effects on election outcomes, usually measured as the incumbent party share of the two-party popular vote, in an annual post–World War II time series. Table 3 summarizes the model specifications from most of the major studies. All are single-equation regression models with no more than four independent variables. There is invariably an economic measure, usually gross national product (GNP) or gross domestic product (GDP), with a lag structure that is seldom the same from model to model. Most models contain a candidate evaluation measure, usually presidential popularity itself.

Vote function research has experienced two waves, the first stressing explanation, the second stressing forecasting. The first began with Tufte (1978) and

TABLE 3 Model specifications for leading US presidential vote function studies*

Author	Independent variables
Tufte (1978:122)	Income, candidate evaluation
Fair (1978:168)	GNP, time, incumbency
Hibbs (1982:394)	Personal income
Lewis-Beck & Rice (1984)	Presidential popularity, GNP
Abramowitz (1988)	Presidential popularity, GNP, incumbency
Erikson (1989)	Income, candidate evaluation
Campbell & Wink (1990)	Presidential trial-heat, GNP
Lewis-Beck & Rice (1992)	Popularity, GNP, House vote, primaries
Campbell (1996)	Presidential trial-heat, GDP
Abramowitz (1996)	Popularity, GDP, time in office
Norpoth (1996c)	Past votes, GNP, inflation, primary
Lewis-Beck & Tien (1996)	Popularity, GNP, peace and prosperity
Wlezien & Erikson (1996)	Leading indicators, presidential popularity
Holbrook (1996b)	Presidential popularity, personal finances

*To appreciate fully these models, it is of course necessary to consult the work directly.

essentially ended with Erikson (1989). The second wave, somewhat overlapping the first, began with Lewis-Beck & Rice (1984), gathered momentum after the Lewis-Beck & Rice (1992) forecasting book, and continues still. The multiple forecasting papers published in 1996 (see Table 3) were revised for 2000 (Campbell & Garand 2000). The equations in Table 4 illustrate results from the two waves. Column 1 offers an explanatory model from Erikson (1989), while column 2 offers a forecasting model from Lewis-Beck & Tien (1996).

Some of the explanatory models in Table 3 view presidential vote as essentially economically determined (Fair 1978, 1982, 1988, 1996; Hibbs 1982, 1987). However, the Erikson (1989) equation in column 1, Table 4, which derives theoretically from Tufte's (1978) referendum model, sees presidential voters as responding to a mix of economic and noneconomic issues. In particular, the incumbent party vote share rises when its candidate is more likeable and income growth steepens. These two variables together account for almost 90% of the variance, a greater portion than the economically determined models, which yield *R*-squared between 0.63 and 0.70 (see, respectively, Hibbs 1982 and Fair 1978). Clearly, the explanatory vote functions establish that economic predictors rival, if not surpass, the political predictors in importance. In column 1, for example, the *t*-ratio of the Income variable exceeds that of the Candidate variable.

The Lewis-Beck & Tien (1996) equation of column 2 in Table 4 also starts with political economy notions. Voters respond to the national economic performance

TABLE 4 Examples of presidential vote function models (figures in parentheses are *t*-ratios)

Variable	(1)[a]	(2)[b]
Cumulative income	2.77*	
	(5.28)	
Candidate evaluation	6.50*	
	(4.31)	
Presidential popularity		0.16*
		(2.11)
GNP change		1.83*
		(3.33)
Peace/prosperity		0.14*
		(2.35)
Constant	44.64	27.34
Adjusted R-squared	0.89	0.88
SEE[†]	2.21	2.26
N	10	11
D-W[†]	2.10	1.87

* = Statistically significant at 0.05 or better.

[†]SEE, standard error of estimate; D-W, Durbin-Watson statistic.

[a](1) Dependent variable = percentage of the popular two-party vote (1948–1984); weighted income = percentage change in disposable income per capita, weighted over the 15 pre-election quarters; candidate evaluation = "like" responses over "dislike" responses about candidate characteristics in the American National Election Surveys (Erikson 1989).

[b](2) Dependent variable = percentage of the popular two-party vote (1952–1992); presidential popularity = the Gallup Poll approval rating in July; GNP change = percentage change (nonannualized) in GNP (constant dollars) from the fourth quarter of the year before the election to the second quarter of the election year; peace and prosperity = sum of the percentage of two-party respondents who favored the president's party on keeping the US out of war and the country prosperous (Gallup Poll questions) (Lewis-Beck & Tien 1996).

as measured by GNP growth, and they respond to the national political performance as measured by presidential popularity. These assessments are retrospective, as is standard with all vote function models. Because their primary purpose is forecasting, the measures have a lead time of several months, i.e. the indicators for making the November forecast are available in the summer. Measuring the predictor variables with lead time is the principal characteristic distinguishing forecasting vote functions from explanatory ones. The forecasting models of Table 3 (the 1996 citations) all fit well, generating *R*-squared of ~0.90 or better, and economics always looms large. For example, in column 2, the *t*-ratio of the GNP variable is greater than that of the popularity variable.

The model of column 2, in addition, uses both prospective (prosperity assessment) and retrospective (GNP) economic factors. Uniquely, it gives evidence that presidential voters look to the future—which party is more likely to bring prosperity—as well as the economic past. This finding bears on a developing strand of work concerning the "rationality" of economic voting in presidential elections. Are presidential voters naively retrospective, evaluating election-year economic growth, or do they prospectively "focus only on that portion of growth likely to persist after the election" (Alesina et al 1993:14)? From their own analysis, these researchers rejected the rational choice idea, concluding that "the effects of the economy on voting are consistent with naive retrospective voting" (Alesina et al 1993:26). However, Suzuki & Chappell (1996:235), on the basis of their vote function, could not reject the rational voter view. They claimed that presidential voting behavior reveals "marginal voters' awareness of economic constraints and the implications of vote choices for their long-term economic well-being."

US Presidential Election Surveys

Although virtually all the vote function investigations suggest strong economic voting effects, this is merely an inference from aggregates to individuals. Until voters themselves are examined directly, and economic evaluations linked to choice, the impressive time series results are open to the charge of ecological fallacy. In terms of theory, how might American voters translate the economy into a vote? The pioneering work of Key (1966:61) provides a guiding perspective: "The patterns of flow of the major streams of shifting voters graphically reflect the electorate in its great, and perhaps principal, role as an appraiser of past events, past performance, and past actions. It judges retrospectively." Applying the Key argument, Fiorina (1978, 1981:26) came up with the retrospective economic voter hypothesis of "an electorate that treats elections ... as referenda on the incumbent administration's handling of the economy."

Do voters actually think this way? Simple survey evidence suggests they do. Table 5 shows poll results on national economic evaluation and vote intention just before the 1996 presidential contest. Of those who saw the economy as good, 57% said they would back incumbent Clinton, whereas among those who saw it as bad, only 31% would. This bivariate table, from one election survey, provides little more than anecdotal information, but it points to the questions that need answering. What dimensions of the economy does the presidential voter evaluate? How important are these evaluations, once other variables are controlled for?

Three dimensions of economic evaluation dominate the literature: target, time, and context. The target is the object of evaluation, essentially either a person or a nation. A voter evaluating his or her personal finances is called a pocketbook voter or an egotropic voter. A voter judging national economic conditions is called a collective or sociotropic voter (Kinder & Kiewiet 1981). The American National Election Studies (ANES) poses these two items, the first pocketbook, the second collective:

TABLE 5 National economic assessment and vote intention, September 1996*

Candidate Preference	National economy good (%)	National economy bad (%)
Clinton	57	31
Dole	30	50
Perot	5	8
Other response	8	11
Column percent	100	100

*Total $N = 1281$. Respondents were asked to evaluate the national economy as "good" or "bad" and to state their candidate preference. These data are assembled from the *New York Times/CBS News Poll* taken September 2–4, 1996 (*New York Times* 1996).

> During the last few years has your financial situation been getting better, getting worse, or has it stayed the same?
>
> Would you say that at present business conditions are better or worse than they were a year ago?

The time dimension refers to whether the voter is looking at the economic past or the economic future. The above items point the respondent to "the last few years" or "a year ago." Therefore, they are backward looking, or retrospective. If instead they asked about the next few years or the coming year, they would be forward looking, or prospective. The third dimension, context, considers whether the economic target is explicitly linked to policy (Lewis-Beck 1988:39; see also Fiorina 1981:8081). For example, the second item changes from a simple to a complex context with the addition of the parenthetical phrase: "Would you say that at present [government policy is making] business conditions better or worse than they were a year ago?"

There are other dimensions, but these three—target, time, and context—have produced the biggest yield, almost exclusively from the ANES data. Therefore, we focus on these findings. In the first phase of this work, the central issue concerned pocketbook versus sociotropic effects. In Table 6 are illustrative equations estimated for the 1976 presidential election. The model of column 1 explores, in a preliminary way, the effect of central retrospective economic evaluations (Fiorina 1981:40). The model of column 2, by Kiewiet (1983:98), offers a more extensive specification, including controls on party identification and a host of economic issues (most of which are not shown because they failed to achieve statistical significance). The pocketbook variable, "financial situation," consistently fails to reach a conventional level of statistical significance. The only significant personal

TABLE 6 Pocketbook vs sociotropic economic voting in the 1976 election

	(1)[a]	(2)[b]
Financial situation		
same	−0.03	
better	−0.06	−0.02
worse		−0.19
Head of household not unemployed	0.21†	
Business conditions		
same	−0.08	
better	0.35‡	0.53‡
worse		−0.15
Government inflation policy		
fair	0.07	
good	0.42‡	
Government unemployment policy		
fair	0.21†	
good	0.21	
Approve of Ford	1.39‡	
Approve Nixon pardon	0.85‡	
Civil rights		
too fast	0.19†	
too slow	−0.43†	
Republican		0.67‡
Democrat		−0.73‡
Percent correctly predicted	80.1	
Pseudo-R-squared		0.40
N	1379	923

†$p < 0.05$.

‡$p < 0.01$.

[a](1) The dependent variable is dichtomous (1 = Ford, 0 = Carter). The coding of the independent variables, all from the 1976 ANES, is described in Fiorina (1981:36–40). The estimation procedure is probit.

[b](2) The dependent variable, the data source, and the estimation procedure are the same as in column 1. The coding of the independent variables is described by Kiewiet (1983:95–99). The following independent variables were included in the analysis but are not in the table because they failed to reach statistical significance: the "personal economic experiences" variables of inflation, declining income, unemployment, taxes, and general economic problems; the "national economic assessments" variables of inflation, taxes, more government programs, less government spending, and general economic problems.

economic effect depends on whether the head of the respondent's household is employed ("head not unemployed" in column 2).

These results typify the literature, which concludes that in US presidential elections, there is little pocketbook voting. Kiewiet (1983:35) concluded that, in general, the probability of a presidential incumbent vote shifts only 13% even if all economic opinion moves from "worse than a year ago" to "better than a year ago." A pooled survey analysis arrived at a comparable estimate of rather faint pocketbook effects (Markus 1988). By contrast, sociotropic voting is relatively strong. According to column 1 of Table 6, favorable judgments of government policies on unemployment and inflation heightened the likelihood of a vote for the incumbent president. Furthermore, as shown in both columns 1 and 2, when voters see that general business conditions have improved, they are more likely to support the incumbent. In conclusion, Kiewiet (1983:99) remarked that sociotropic factors seem to have had an impressive effect on voting decisions.

Generally speaking, in US presidential elections, sociotropic evaluations are found, and they are unambiguously stronger than the pocketbook evaluations (Kinder & Kiewiet 1979, 1981). In his seminal book, Kiewiet (1983) reinforced this judgment, based on his analyses of presidential elections from 1960 to 1980. Subsequent studies of more recent contests continue to show strong collective effects and weak to nonexistent personal economic effects. [On the 1984 election, see Kinder et al (1989); on 1984 and 1988, see Lanoue (1994); on 1956–1988, see Markus (1992); on 1992 and 1996, see Alvarez & Nagler (1995, 1998).]

Look at results from the 1992 and 1996 presidential elections. In a multinomial probit estimation, Alvarez & Nagler(1995) found that, in 1992, family financial situation did not have a statistically significant impact on presidential choice, whereas the assessment of the national economy was very influential. Similarly, from their analysis of the 1996 ANES data, they concluded that "the national economy had a strong effect in returning Clinton to office in 1996.... The overwhelming impact of the economy in 1992 was not just a fluke" (Alvarez & Nagler 1998:1360–62). They observed that economic perceptions had a much greater impact on choice than perceptions about other issues. If a group of voters shifted their national economic assessment from "worse" to "better," the probability of their voting for Clinton rose by 0.38. This rise was much smaller for other issue shifts. When a group's opinion on Social Security shifted from wanting it increased (0.56) to wanting it cut (0.42), their likelihood of voting for Clinton shifted by 0.14; when their opinion on welfare shifted from "increase" (0.57) to "cut" (0.49), the likelihood of a Clinton vote shifted by 0.08; when their opinion on abortion shifted from pro-choice (0.59) to pro-life (0.29), the likelihood of a Clinton vote shifted by 0.30. Economics has a greater effect than all these other issues, including abortion.

The research reviewed thus far has focused on retrospective economic voting, which forms the bulk of the empirical evidence. However, there is some investigation of prospective effects. Its theoretical impetus comes from Downs, rather than Key. According to Downs (1957:39), "When a man votes, he is helping to select the government which will govern him during the coming election period....

He makes his decision by comparing future performances he expects from the competing parties." Fiorina (1981:139) explored the impact of 1976 ANES items on future economic expectations that asked whether the problems of inflation and unemployment "would be handled better by the Democrats, by the Republicans, or about the same by both." He found that they outperformed complex collective retrospective items (Fiorina 1981:170). Lewis-Beck (1988:121), examining a special battery of Michigan Consumer Survey questions, showed that prospective personal finances (a year from now you will be better off) were a statistically significant predictor of 1984 presidential vote intention, whereas retrospective personal finances items were not. In contrast, Lanoue (1994) found significant prospective effects operating in the 1988 presidential election but not in the 1984 election. Conducting an extensive investigation of the ANES presidential election surveys 1956–1988, Lockerbie (1992) learned that prospective economic voting effects were pervasive and were much stronger than retrospective effects. He calculated that, overall, prospective items had 43% of the impact of party identification. Although this is an impressive conclusion, it is undercut by the author's admitted difficulties with item consistency across the surveys.

In sum, the survey evidence shows that economic voting is a regular feature of US presidential elections, always representing an important, not to say the most important, issue in the campaign. Still, arguments persist in the research literature about the nature of its presence. Are the apparent economic effects a psychological artifact of placing the economic questions too close to the vote questions in the survey instrument, as Sears & Lau (1983) contended, at least for the pocketbook items? A proximity analysis of ANES economic evaluation and voting items by Lewis-Beck (1985) indicated that this hypothesized effect was not occurring. However, he did go on to agree with Sears & Lau that these contextual effects could take place in certain surveys, such as exit polls (Lewis-Beck 1988:50). As a general rule, prudence requires that key economic and political survey items be placed at a distance from each other, in order to avoid a reactivity bias.

Working with a special question battery in the Michigan Consumer Surveys prior to the 1984 presidential contest, Lewis-Beck (1988:121) separated the economic and political items by about 70 questions to forestall this contextual bias. Besides the expected impact of collective economic evaluations, he found significant pocketbook effects, but only of a prospective type (Lewis-Beck 1988:121). The finding is of special interest because it employed panel data, to better control for party identification (i.e. July vote intention was predicted from January party identification). Panel data have seldom been used in the economic voting literature, and then only for the purpose of getting less endogenous measures of party identification (see especially Fiorina 1981:98).

Utilizing panel data to explore the temporal dynamic of individual economic voting seems the next frontier in US presidential survey studies. When individuals are surveyed at two or more points in time, their evaluations can record real economic change; the variation observed is more likely to be causal. Positive results would help rule out Kramer's (1983) standing dissent that in a survey cross

section there can be no "real" variance because there is only one economy being measured at one point in time. Further, the particular pattern of reported economic change observed in panel data would tap into regional variations in economic conditions, which have been largely neglected. Finally, the panel approach promises to overcome the biases that may persist even when cross sections and time series are pooled (Kiewiet & Rivers 1985:225).

US Congressional Voting

One might argue that economic voting research in the United States really began in the congressional arena, with a seminal paper by Kramer. His thesis was that when congressional voters judged economic performance to be satisfactory, they voted for the party of the president; otherwise, they did not (Kramer 1971:131). To test this proposition, he examined the effects of the macroeconomic indicators of inflation, unemployment, and income on House election outcomes in aggregate time series models (1896–1964, excluding 1912, 1918, 1942, and 1944). Income was found to have a statistically significant impact; a 1% decline in real per capita personal income produced a 0.5% fall in the House vote share of the incumbent party (Kramer 1971:140–41). Leading economists quickly attacked this finding, chiefly on the grounds that it made little sense for voters to think about the economy this way (Stigler 1973, Arcelus & Meltzer 1975). In response, Kramer carried out further analysis and arrived at the even stronger conclusion that "all three economic variables do influence congressional elections" (Goodman & Kramer 1975:1264).

Writing at about the same time, Tufte (1975, 1978) also uncovered potent economic effects on the congressional vote. He theorized that House elections held between presidential terms were referenda on the economic and political performance of the president. This straightfoward notion, coupled with powerful empirical results, helped spark numerous aggregate time series models featuring economic conditions and congressional elections. Table 7 gives three examples. In column 1 is Tufte's (1978:112) original midterm equation for a standardized House vote change, in which two highly significant independent variables, presidential approval and change in per capita disposable income, explain most of the variance. In column 2 is the Hibbs (1982:410) midterm equation, where roughly three quarters of the variance in incumbent House vote is attributable to income change (geometrically weighted). In column 3 is a preliminary Lewis-Beck & Rice (1992:63) extension, which modifies the dependent variable to examine directly incumbent-party seat change and which incorporates presidential-year elections. According to the model in column 3, economic effects remain strong, with a 1% rise in the growth rate of real disposable income generating a six-seat gain for the president's party. All three models, in sum, show important economic effects.

The results of Table 7 give some idea of the contours of political economy models for House elections. A few examples for the Senate could be trotted out, and they do show the importance of economic conditions in that arena (Abramowitz & Segal 1986, Lewis-Beck & Rice 1992:ch. 5). The Senate still seems to be the

TABLE 7 Selected models of congressional election outcomes (figures in parentheses are standard errors; * = statistically significant at 0.05 or better)

Variable	(1)[a]	(2)[b]	(3)[c]
Income	0.62*	0.93*	6.20*
	(0.17)	(0.21)	(1.93)
Popularity	0.13*		0.60*
	(0.04)		(0.30)
Midterm			29.08*
			(7.90)
Constant	−10.74	−3.15	−63.75
R-squared	0.825	0.76	0.66
N	8	9	22

[a](1) The dependent variable = standardized vote loss of president's party (percentage share corrected for average over eight previous elections); independent variables = income (the election-year change in real disposable income per capita) and popularity (Gallup presidential approval rating just before the election); *N* = midterm elections 1946–1974 (Tufte 1978:108–13).

[b](2) The dependent variable = standardized vote loss; independent variable = geometrically weighted average income (values closer to the election are weighted more heavily); *N* = midterm elections 1946–1978 (Hibbs 1982:410).

[c](3) The dependent variable = seat change for president's party; independent variables = income (growth rate of real disposable income six months prior to the election) and popularity (presidential job approval in the June Gallup). Midterm = a dummy for whether it is a midterm or on-year election; *N* = House elections 1948–1990 (Lewis-Beck & Rice 1992:60–66).

"forgotten side" of the economics and congressional elections debate (Hibbing & Alford 1982). But for the House, many aggregate time series models have been developed. Table 8 shows ten such House models and their explanatory variables. Some models focus only on midterm elections, whereas others include presidential election years as well. Further, the dependent variable is sometimes vote share and sometimes seat share. Regardless of these distinctions, or of the different independent variables over different time series, all produce good statistical fits, usually with *R*-squared values of ∼0.8 or more.

Economics is almost always measured with a version of income. In some models, economics shows a significant effect, but in others it does not. In a few cases, the lack of economic effect is because economic variables are absent from the equation (Campbell 1986, Oppenheimer et al 1986). But in other cases, economics fails to register significance despite its presence in the specification (Jacobson 1989, Marra & Ostrom 1989, Erikson 1990, Alesina et al 1993). To resolve these contradictory findings, it is important to look at individual voters. Kiewiet (1983: 102–7) sequentially analyzed the House election surveys from the ANES, 1958–1980, estimating a series of probit equations containing a battery of economic

TABLE 8 Specification of leading congressional election models*

Author	Independent variables
Kramer (1971:140–141)	Election year per capita personal income (V)
Tufte (1978:112)	Election year income, fall Gallup Poll (V, M)
Hibbs (1982:410)	Geometric average of past income (V, M)
Campbell (1986)	Presidential vote, presidential popularity (M)
Oppenheimer et al (1986)	Seats exposed
Jacobson (1989:786)	Challenger quality, past seats, challenger quality times presidential popularity
Marra & Ostrom (1989:556)	Presidential popularity, popularity change, party identification, seats at risk, events
Erikson (1990:384–91)	Past House vote (V, M)
Lewis-Beck & Rice (1992:69)	Income, presidential popularity, seats exposed, incumbent tenure
Alesina et al (1993)	Republican incumbent, past vote, military mobilization, growth (V)

*V = dependent variable of vote share, otherwise it was seat share; M = only midterm elections were studied, otherwise it was midterm and on-year elections together. In order to appreciate fully the models, the reader should consult the original studies.

items, with a control on party identification. After finding that the "national business conditions" variable produced a statistically significant effect in five of the seven elections, he concluded, "Voters who believe that conditions in the nation's economy have improved over the previous year are much more likely to cast their ballots for congressional candidates of the incumbent president's party than are voters who believe that national economic conditions have deteriorated" (Kiewiet 1983:107).

Later work on congressional election surveys sustains the conclusion of individual level economic effects. Brown & Woods (1991) developed a structural equation model to compare the effects of local forces (party image, challenger quality, incumbency, and candidate evaluations) and national forces (party identification, issue proximity, and retrospective evaluations) on vote in the 1978 House elections. They reported significant pocketbook effects, as well as significant national retrospective economic effects, even after extensive controlling. This result was corroborated in a pooled analysis of ANES congressional surveys, 1980–1990, which found that personal and sociotropic retrospective economic variables moved voters to reward or punish House candidates of the incumbent party (Romero & Stambough 1996). Finally, Lockerbie (1991), examining the most extensive data set—the 14 ANES House surveys from 1956 through 1988—uncovered significant retrospective and, especially, prospective economic effects. (Unfortunately, consistent items on these two dimensions were not

available across the surveys.) All told, the survey work on economic voting at the congressional level seems to establish the proposition that in House elections, voters do punish the president's party for economic bad times and reward it for good times.

The aggregate time series models that fail to show the connection between economics and elections appear to suffer from faulty measurement, specification, or analysis. This assessment is reinforced by Kiewiet & Udell's (1998) thorough reexamination of the original Kramer (1971) model. Using a longer time series (1892–1992) and improved measures, they showed that "regardless of the construction of alternative data series for GNP and unemployment, and regardless of the particular specification that was employed, a century of economic and political data uphold Kramer's basic findings: electoral support for congressional candidates of the incumbent party increases along with income and job growth, and decreases with higher rates of inflation" (Kiewiet & Udell 1998).

A MUCH-STUDIED NATION: France

Economic voting theory is transnational (Eulau & Lewis-Beck 1985:1) and merits testing in any democracy. Thus far, we have examined only the US case because by far the most research has been done on that case. The American work, however, encouraging as it is, can do no more than suggest that economics is a strong force in other electoral systems. Indeed, it may be that the US case is unique and holds no generalizations about economic voting. Therefore, a comparative look is important. We begin with a simple comparison to one other democracy—France. The theoretical argument for the comparison rests on the common claim that, among the advanced democracies, the US and France are exceptional (see Hoffman 1992:25). A Franco-American comparison, then, offers a tough test. If economic voting is vigorous in France, the notion that it is a powerful cross-national model receives support. Furthermore, because many French electoral institutions are different, the comparison allows signficant refinements of the conditions under which economic effects may vary. As with the US case, we first look at popularity functions, then vote functions, and finally individual-level survey data.

French Popularity Functions

Popularity functions for the French executive—the president or the prime minister—are plentiful. Typically, the dependent variable is the percentage who respond positively to the Institut Français d'Opinion Publique (IFOP) national survey sample question, "Are you satisfied with X as President (Prime Minister)?" The usual economic independent variables are income, inflation, and unemployment, controlled on a series of political dummies. The leader in this research, working since the late 1970s, has been Lafay. In Table 9 are two of his popularity functions, the first for the president, the second for the prime minister. Essentially, as in the

TABLE 9 Two French popularity functions (figures in parentheses are *t*-ratios)

	(1)[a]	(2)[b]
Inflation	−0.028*	
	(3.4)	
Perceived inflation		0.30*
		(2.7)
Unemployment	−0.103*	
	(6.6)	
Perceived unemployment		−0.26*
		(1.8)
Income	0.029*	
	(3.1)	
Collective prospective		0.16
		(1.4)
Exchange rate	−0.253*	
	(6.8)	
Barre Plan	−0.310*	
	(4.7)	
PM dummies		
Mauroy	0.707*	37.25*
	(7.0)	(9.7)
Fabius		28.89*
		(9.1)
Chirac		19.40*
		(4.4)
R-squared	0.77	0.93
Degrees of freedom	104	91

*Statistical significance at 0.05 one-tail, or better.

[a](1) The dependent variable = logit of the proportion "satisfied" with the president in a monthly IFOP (Institut Français d'Opinion Publique) poll, measured monthly 1974–1983; the independent variables = inflation (rate over 6 months, lagged one month), unemployment (rate lagged one month), income (real disposable growth over 15 months, lagged one month), exchange rate (francs per dollar, lagged one month). The Barre Plan = a dummy for that prime minister's economic plan, PM dummy for the Socialists in government in and after June 1981; the estimation is weighted least squares (Lafay 1985:92–93).

[b](2) The dependent variable = popularity of the prime minister (percentage of respondents finding the prime minister "reliable" in a Societé Française d'enquêtes par sondage poll), monthly data from December 1978 to April 1987; independent variables = perceived inflation (percentage who think government is doing a good job against inflation), perceived unemployment (percentage who think government is doing a good job against unemployment), collective prospective evaluation (percentage who think conditions will improve in the near future); Mauroy, Fabius, Chirac = dummy variables for each new prime minister; other independent variables (not shown) are lagged values of perceived inflation, perceived unemployment, and the dependent variable. Estimation is with OLS (Lafay 1991:131).

US models, popularity is seen as a function of macroeconomic indicators (real or perceived)—income, inflation, and unemployment—plus dummies for political events and adminstrations.

These results are typical of the French case in that they show statistically significant economic effects and snug model fits. Numerous French popularity functions have been estimated by various scholars, and all but one (i.e. Lecaillon 1981) demonstrate an economic impact (see reviews in Lafay 1985, 1991). What is not clear is which of the three leading indicators—unemployment, income, or inflation—is most important. Nor is the lag structure clear. For example, the presidential popularity model of column 1 has long-distributed lagged economic effects of up to 15 months, whereas the model of Lewis-Beck (1980) has short, simple lagged effects from two months prior. Another underdeveloped issue is retrospective versus prospective economic impacts on popularity. (The coefficient of the collective prospective variable in column 1, Table 9, is the only empirical test of this idea. The result is suggestive, but falls short of statistical significance at the 0.05 level.)

French National Voting

In France, popularity function work has been largely set aside in favor of vote function work, where popularity is sometimes an independent variable. Lafay & Servais (1995:xv) found that popularity (of the parties) before an election was highly predictive of the result, and they made a very accurate forecast of the 1995 Chirac presidential victory. Presidential popularity itself (i.e. percent of respondents satisfied with the president) is highly correlated with presidential vote on the second round ($r = 0.77$), and it generates a comparable prediction (Lewis-Beck 1995). However, the macroeconomy alone is also very predictive. Table 10 shows selected vote function models for French elections.

In column 1, a measure of the economic growth rate accounts for almost all the variation in presidential election outcomes across the Fifth Republic. This effect holds only if the president is the "political economic incumbent," i.e. the chief public manager of the economy (Lewis-Beck 1997:321). If the president commands a ruling coalition in the National Assembly, then he has been responsible for shaping the economic policy of the nation. Under cohabitation, however, where the president and the prime minister are of rival coalitions, then the political economic incumbent becomes the prime minister. (This explains why, in the equation of column 1, the GNP variable is scored 0 for 1995. No economic performance was attributed to the Socialist President Mitterrand, since the prime minister was the Gaullist Balladur). French voters, then, are assumed to be rather sophisticated, appropriately shifting the target of economic responsibility (more on this below).

Vote function work on the French case actually began with legislative, rather than presidential, elections. The pathbreaking research of Rosa & Amson (1976) examined National Assembly contests from 1920 to 1973. They found that the vote share of leftist parties was heavily determined by fluctuations in inflation,

TABLE 10 Selected French vote functions (figures in parentheses are *t*-ratios)

Variable	(1)[a]	(2)[b]	(3)[c]
Popularity		−0.38*	
		(3.69)	
GNP	1.27*	−0.13	
	(7.48)	(0.05)	
Presidential vote			0.71*
			(7.69)
Unemployment			−4.73*
			(4.93)
Ideology			3.76*
			(4.27)
Instability			−1.31*
			(1.90)
Constant	47.26*	68.28*	11.39*
	(59.79)	(14.73)	(2.43)
R-squared	0.93	0.73	
Adjusted R-squared	0.92	0.65	0.71
SEE†	1.14	3.40	3.22
D-W†	2.47	1.82	
N	6	10	110

*Statistical significance at 0.05 one-tail, or better.

†SEE, standard error of estimate; D-W, Durbin-Watson statistic.

[a](1) The dependent variable = the percentage of second round presidential votes received by the candidate of incumbent party coalition, 1965–1995; independent variable = GNP (growth rate for the election year, except 1995 is coded 0); estimation = OLS (Lewis-Beck 1997:322).

[b](2) The dependent variable = percentage of first round National Assembly votes going to the opposition, 1958–1993; independent variables = presidential popularity six months before in an IFOP poll and GNP (the growth rate in the quarter six months before the election). Estimation = OLS (Lewis-Beck 1995:40).

[c](3) The dependent variable = percent of first round National Assembly vote going to the ruling coalition, by region (1978, 1981, 1986, 1988, 1993); independent variables = presidential vote [percentage of the last presidential vote (first round) going to candidates of the current ruling coalition], unemployment (change in the rate the year prior to the election), ideology [dummy to indicate whether since 1973 the region is ideologically (left versus right) voting consistently with the incumbent], instability (a dummy to indicate whether the legislative majority has switched ideologically at least twice since 1973). Estimation = OLS (Jérôme et al 1999).

unemployment, and income. In column 2 of Table 10 is a legislative vote function for Fifth Republic elections. It is similar in cast to many post–World War II US congressional election models. Opposition vote share is largely accounted for by presidential popularity and economic growth. (In contrast to the US case, collinearity plagues such models. For the variables of column 2, growth and popularity are correlated at 0.98.) This model, applied ex ante to forecast the 1997 National Assembly elections, surprised conventional wisdom by accurately predicting the defeat of the Right (Fauvelle-Aymar & Lewis-Beck 1997). Column 3 displays a somewhat different vote function, using a pooled time series design first pursued in France by Lafay (1993). Legislative election results from the 22 official regions of France are pooled across the 1978–1993 contests, yielding a much larger sample than the traditional vote functions allowed. The strategy permits detailed modeling of the region's political history and ideological tendencies, in addition to establishing strong economic effects. Specifically, the unemployment coefficient indicates that a one-percentage-point increase in the rate costs the ruling party coalition about 5% of the first-round vote (Jérôme et al 1999).

One limitation of the VP function literature is that it says nothing directly about how individual voters actually perceive and act on the economy. Several survey investigations, however, do point to the mental processes of the French economic voter. Table 11 provides selected vote equations estimated on individual survey respondents. The first, in column 1, is an idealized model in which legislative vote intention is held to be determined strictly by economic evaluations. The *R*-squared indicates that the economy, by itself, is capable of explaining a fair amount of variance in support for the ruling parliamentary coalition. There are no personal retrospective effects, a typical French finding. But collective effects, both retrospective and prospective, appear strong. For example, considered as a linear probability model, the equation says that, if the voter sees the economic future as likely to be improved, as opposed to made worse, the probability of an incumbent vote rises by 42% (Lewis-Beck 1988:56). Economic effects in presidential elections are assessed in column 2. This more fully specified model, estimated on second-ballot voters of the second and final ballot in the 1995 contest, demonstrates a similar pattern: no significant personal effects, but significant collective effects, especially prospective. Indeed, "the belief that Chirac would bring a better economy seems a decisive factor in his victory" (Lewis-Beck 1997:261).

The French electoral system has institutional features that allow the testing of economic voting under different rules. The influence of the two-ballot system is an example. On the first ballot of the 1995 presidential contest, there were eight leading candidates. With this wide array of choices, subtleties of economic voting can be explored. Lewis-Beck (1997:251–61) found support for a number of intriguing hypotheses. First, the closer the candidate was to the center of power, the more prevalent economic voting became. For instance, economic effects were highly visible in voting for the major party candidates—Gaullist, Socialist, Communist, National Front—but scarcely noticeable for minor party candidates. A second discovery was that voters were sophisticated, able under cohabitation to

TABLE 11 Selected survey models of the individual French vote

	(1)[a]	(2)[b]	(3)[c]
Personal	.	.	
Retrospective	0.00	0.02	
Collective	.		.
Retrospective	0.06***	−0.09*	0.43*
Personal			
Prospective		−0.09*	
Collective			
Prospective	0.21***	−0.40**	
Personal			
Complex	−0.03		
Collective			
Complex	0.03		
Anger	0.08***		
Religion		−0.34**	−0.24***
Class		0.70**	0.14**
Ideology		1.82**	2.46***
Cohabitation			0.22***
Cohabitation × Economics			−0.24***
R-squared/percent correct	0.28	88.3%	74.9%
N	642	2321	5684

*Statistical significance at 0.10.

**Statistical significance at 0.05.

***Statistical significance at 0.01.

[a](1) The dependent variable = vote intention based on the question, "If there were a General Election tomorrow which party would you support"; ruling coalition (Socialist, Communist, MRG, PSU = 1); opposition (Gaullists, Radical UDF, CDS/UDF, PR/UDF, Ecologist, National Front = 0). Independent variables are personal retrospective (personal finances scored from 5 = "a lot better" to 1 = "worse"); collective retrospective (national economy, scored from 5 = "a lot better" to 1 = "worse"); collective prospective [a year from now government policies will have "improved" (=1) the economy, "not made much difference" =2, "made worse" = 3]; personal complex [the impact of government policies on personal finances was "good" (=3) to "bad" (=1)]; collective complex [the impact of government policies on the economy has been "good" (=3) to "bad" (=1)]; anger (feel angry over government economic policies, from "never"= 5 to "always" = 1. All the variables were measured in 1984 in Euro-Barometer No. 21, and estimation is OLS (Lewis-Beck 1988:56).

[b](2) The dependent variable = second ballot 1995 presidential vote (1 = Chirac, 0 = Jospin). Economic independent variables are personal retrospective, personal prospective, collective retrospective, and collective prospective economic evalutions (better = 1 to worse = 5); religion, i.e attendance at Mass (from 1= "several times a week" to 6 = "never" or not Catholic); class, i.e. self-employed (1 = farmers, business, artisans, liberal professionals, 0 = other) and white-collar (1 = salaried, not blue-collar, 0 = other), which was not shown because it was not significant ; ideology [right-left self-placement from 7 (extreme right) to 1 (extreme left)]. The data are from the 1995 French National Election Survey; estimation is logit (Lewis-Beck 1997).

[c](3) The dependent variable is a dichotomy, vote intention for incumbent party scored 1 (Socialists if the prime minister is Socialist, RPR-UDF if the prime minister is RPR-UDF), 0 = otherwise. The independent variable of economics is the collective retrospective evaluation of the national economy (1 = better to −1 = worse). The remaining independent variables are ideology (left to right, from −1 to +1); religion = 1 for regular Mass attenders, 0 for irregular Mass attenders, −1 = otherwise. Class = 1 for blue collar workers, = −1 for self-employed, and 0 = other; cohabitation = 1 for a cohabitation period (1986–1988, 1993–1995); cohabitation × Economics = an interaction term, the estimation is logit. The data are from a Euro-Barometer pool, 1984–1994 (Lewis-Beck & Nadeau 2000).

place economic responsibility with the prime minister and his party rather than the president. That is, a perception of economic downturn took first-ballot votes from Prime Minister Balladur, a Gaullist candidate, but gave first-ballot votes to Jospin, the Socialist candidate. Third, cohabitation, another institutional feature of the French system, has its own effects on economic voting, as the equation in column 3 shows. In National Assembly elections, the impact of collective retrospective voting is cut in half if the contest occurs during a cohabitation period. Apparently, voters recognize that a prime minister who must work with a president from a rival coalition is inevitably a less effective economic manager; therefore, they mete out less praise or blame at the legislative ballot box (Lewis-Beck & Nadeau 2000).

OTHER SINGLE-NATION STUDIES: Britain, Denmark, and the Rest

The economic voting hypothesis has been pursued in other country studies. After the United States and France, the most commonly studied countries are Britain and Denmark. Economic voting effects, sometimes rather strong ones, have been uncovered in virtually all these studies.

BRITAIN

Popularity functions characterize the research on Britain (but for a thoughtful exception, see Hibbing 1987). This emphasis is no surprise; the first popularity function paper ever published (Goodhart & Bhansali 1970) was on the British case. This pathbreaking article posed the question that has now been repeated worldwide: "[H]ow far were swings in political popularity affected by economic circumstances?" (Goodhart & Bhansali 1970:45). The authors sought to model government popularity, measured from a public opinion time series on vote intention in the now familiar way, as a function of key macroeconomic indicators and electoral trends. According to their results, government support was strongly responsive to the inflation rate and the unemployment level. Their bold confirmation of the political-economy idea sparked other papers, some of which supported the idea (Frey & Schneider 1978b, Pissarides 1980, Whiteley 1986) and some of which did not (Miller & Mackie 1973, Mosley 1978, Chrystal & Alt 1981).

The apparent impasse over the modeling of British popularity functions was broken with the introduction of Falklands (Malvinas) War variables. Some researchers found that Falklands effects dwarfed economic effects (Dunleavy & Husbands 1985, Clarke et al 1986, Norpoth 1987). Others found massive economic effects and trivial Falklands effects (Sanders et al 1987). The economic variables they identified were personal economic expectations, the unemployment rate, the exchange rate, and the public sector borrowing requirement.

Since the Falklands War, British popularity function work has evolved in focus, examining the more general question of the dimensions of economic voting—retrospective or prospective, personal or collective (Clarke & Stewart 1995, Price & Sanders 1995, Clarke et al 1997). In the models, objective macroeconomic indicators are giving way to aggregated economic perceptions based on monthly surveys. For example, in the Sanders et al (1991:166) study, the personal expectations index was built from the monthly Gallup item, "How do you think the financial situation of your household will change over the next twelve months?" Besides this aggregated personal prospective measure, there are personal retrospective, collective prospective, and national retrospective measures. In Britain, Sanders (1991, 1993) has championed the determining role of the personal prospective dimension for government popularity.

Sanders (2000) has summarized many of the findings–and much of the controversy—surrounding economic voting in the United Kingdom today. Monthly popularity is modeled in an extended time series, 1974–1997, with controls imposed for the Falklands War and the Thatcher removal. He found that the macroeconomic indicators of inflation and unemployment have no effect. However, subjective economic assessments—personal expectations, inflation perceptions, and unemployment perceptions—have significant, predictable effects. (It is worth noting that whereas the personal assessment is prospective, the collective assessments of inflation and the economy are retrospective). He concluded that "voters reward government with their support if their economic prospects look good and if they perceive that unemployment and inflation are falling; they inflict punishment by withdrawing their support if expectations are falling or if they perceive that unemployment or inflation are rising" (Sanders 2000).

Denmark

Denmark provides a useful European contrast to the British case. Economic voting research on this small, continental, multiparty democracy has yielded different results. The first Danish popularity function paper, which in standard fashion linked objective macroeconomics with government support, showed that that link snapped in the 1970s (Paldam & Schneider 1980). In a recent effort by Nannestad & Paldam (2000), the dependent variable was government support (as a monthly average of different polls between 1986 and 1997), where the government was four times a Conservative-Liberal–led coalition and once a Social Democratic–led coalition (1993–1997). The focus has switched to the effects of perceptual measures of the economy, aggregated from the monthly government Consumer Confidence Index—sociotropic retrospective, sociotropic prospective, egotropic retrospective, and egotropic prospective. After an extensive series of tests, the authors concluded that during 1986–1997, "the level of government support in Denmark is not influenced by the level of the variables measuring economic evaluation" and that, based on their data, "there simply was no economic voting in Denmark during this period" (Nannestad & Paldam 2000).

Nevertheless, cross-sectional survey research by these and other investigators has found substantial economic voting in this period. Nannestad & Paldam (1995) examined multiple surveys from 1990 to 1993, containing a battery of 13 economic evaluation questions and vote intention questions. They found pervasive economic voting, but it took an unusual form—egotropic effects dominated sociotropic effects, which were extremely weak. Thus, they presented the strongest case for pocketbook voting in the entire economics and elections survey literature. Their explanation for the result is the "cultural hypothesis. In a welfare state the government *is* responsible for the economy of the individual, so it is only reasonable that he hold it responsible in his voting" (Nannestad & Paldam 1995:57, italics in original). Furthermore, they have replicated the result in an elaborate, pooled, cross-sectional time series design, described in "From the Pocketbook of the Welfare Man" (Nannestad & Paldam 1997).

Despite the allure of the unique claim, the Danish "pocketbook voter" has not been discovered by other researchers. Hibbs (1993) strongly argued against its existence, saying that collective societies foster sociotropic, not egotropic, voters. Borre (1997), employing surveys of the 1987, 1990, and 1994 general elections, estimated economic voting models for each. The dependent variable was dichotomous (vote for a government party or not), the control variables were social class and left-right ideology, and the economic variables were a personal retrospective item (on family economic situation) and a collective retrospective item (on the economic situation of the country). He found that there were never significant pocketbook effects, but there were always significant collective effects (Borre 1997:357). He concluded that evaluation of the national economy "exerts a considerable effect on the vote ... those who believe the economy has improved a lot give the government on the average a 28 percent higher vote than those who believe the economy has deteriorated a lot" (Borre 1997:359).

In sum, Borre's conclusions are essentially the opposite of Nannestad & Paldam's. Why the differences? Hibbs (1993:21) asserted that the unusual results of Nannestad & Paldam stem, at least in part, from their failure to use a standard simple retrospective item on the national economy. But Nannestad & Paldam (1994) claimed that they examined such an item, along with four other sociotropic measures, and still came to the same conclusion. The puzzle of the Danish case has yet to be solved.

Other Single-Nation Studies

Besides Denmark and Britain, economic voting studies have been carried out in many other democracies. At least one paper can be cited for virtually every established democracy, and work is under way on at least some of the new democracies. However, to take the risk of characterization, the relevant research in most of these remaining nations tends to be represented by one investigator, one approach, or even one article. This characterization implies nothing about the quality of the work, but it does mean that these single-country findings are short on the dynamic

needed to sustain a review narrative. Therefore, we simply list economic and elections publications from selected other democracies: Canada (Clarke & Kornberg 1992, Nadeau & Blais 1993); Germany (Feld & Kirchgässner 2000); Italy (Bellucci 1991); Japan (Anderson & Ishii 1997); Mexico (Brophy-Baermann 1994); the Netherlands (Irwin & Van Holsteyn 1997); Poland (Powers & Cox 1997); Russia (Colton 1996); Spain (Lancaster & Lewis-Beck 1989). Consulting these works or their authors will give the reader a good start on the relevant data and issues for modeling the economic vote in the country of interest. The list is limited to English language publications, as we assume that area specialists versed in the language of the country can more effectively pursue an in-depth search.

MULTIPLE-NATION STUDIES

So far, we have looked at how economic voting theory stands up in individual democracies. On the basis of that research review, it is safe to say that economic forces impose a heavy and variegated rule on elections in the United States, France, Britain, and Demark. These countries are certainly not identical. The steady stream of positive results issuing from them increases our confidence and knowledge about the generalizability of political economic effects. But what of other nations? Are these positive results peculiar to these four? As a check against this small-sample problem ($N = 4$), we need studies that examine many nations. Fortunately, there are several such studies. Most sample the high-income democracies, such as the nations of Western Europe. But there is a growing body of comparative economic voting research on the low-income democracies, and some relevant research even samples from the world's population of democracies.

The High-Income Democracies

Paldam (1991) was the first to look at a pooled vote function. He considered 17 high-income democracies (Australia, Belgium, Canada, Denmark, Ireland, Finland, France, Germany, the Netherlands, Italy, Japan, New Zealand, Norway, Austria, Sweden, the United Kingdom, and the United States), which yielded an aggregated data base of 197 elections, over the time period 1948–1985. The dependent variable was percentage point vote change for the government from one election to the next, the economic independent variables were inflation, growth, and unemployment (at different lags), and the controls were a series of institutional variables (country size, number of parties, left-right rule, years in power, and majority-minority government). Paldam (1991:25) commented that the economic results "are either insignificant or explain very little indeed." By contrast, another pooled vote function analysis of similar design, but limited to five nations (Britain, France, Germany, Italy, and Spain) and 27 elections (1967–1987), found that rising unemployment and inflation significantly lowered the number of seats won by the ruling coalition (Lewis-Beck & Mitchell 1990).

Following these two studies, Powell & Whitten (1993) conducted an economic voting analysis on ∼100 aggregated elections, 1969–1988, from a cross section of 19 industrialized nations. They reported that economic voting depends on political context, defined as voting cohesion in government, nature of the committee system, strength of the bicameral opposition, minority government status, and coalition government status. These conditions determine whether responsibility for economic policy is clear. In countries with clear lines of responsibility, GDP growth and unemployment (directly and interactively) significantly affected the government vote; however, in countries where policy responsibility is unclear, none of these variables were significant. Chappell & Veiga (2000) have examined the responsibility hypothesis in their own pooled analysis of 136 elections from 13 Western European countries (Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom). Responsibility variables—main party, coalition government, minority government, and openness—do not significantly influence change in government support. However, the inflation rate does. "Our strongest finding is that voters punish increases in inflation" (Chappell & Veiga 2000).

These aggregate, essentially Western European, pooled studies are contradictory. Some show economic effects, some do not. Among the studies that show an effect, there is dispute about whether the effect depends on political context. These disagreements can be partly resolved by looking at individual voters in these countries. Lewis-Beck (1988) estimated the same individual economic voting model on election survey data from five Western European nations. Although he uncovered no pocketbook effects, he found sharp collective retrospective and prospective effects. Further, "Changing economic conditions exert a force on Western European voters that approaches and sometimes exceeds the force of more traditional factors" (Lewis-Beck 1988:85). He discovered that economic voting varied in strength by country; it was strongest in Britain, followed by Spain, Germany, France, and Italy in that order (Lewis-Beck 1988:105). The key variable accounting for this pattern was "coalitional complexity," i.e. the number of parties in the ruling coalition (Lewis-Beck 1988:108). At one extreme was Britain, with one ruling party, and at the other extreme was Italy, with five parties in the ruling coalition. An economically disgruntled voter may have difficulty deciding which party to blame when several parties govern (Anderson 1995). With a multiparty ruling coalition, there is a "diffusion of government responsibility" and incumbent alternatives for dissent (Lewis-Beck 1986:341).

These particular individual-level survey findings by Lewis-Beck reinforce the aggregate findings of Powell & Whitten on the conditioning role of "clarity of responsibility." Anderson (2000) further developed this line of argument, in a convincing, pooled cross-sectional examination of 1994 Eurobarometer surveys from 13 European countries: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, and the United Kingdom. For example, he found statistically significant retrospective sociotropic effects in countries with either low or high clarity of responsibility (using the

Powell & Whitten measure). However, the effect was 1.5 times greater in the high-clarity group than in the low-clarity group. Overall, Anderson concluded that "voters' ability to express discontent with economic performance is enhanced when accountablity is simple. Voters' economic assessments have stronger effects on government support when it is clear who the target is, when the target is sizable, and when voters have only a limited number of viable alternatives to throw their support to" (Anderson 2000).

The Low-Income Democracies

The low-income democracies have been the subject of much less economic voting research than the United States and Western Europe. Nevertheless, important work has begun. Pacek (1994) provided the first comparative look at macroeconomic conditions and electoral outcomes in Eastern Europe. Examining 1990–1992 district-level data for Poland, Czechoslovakia, and Bulgaria, he found that rising unemployment lowered the vote support for reformist incumbent administrations. A more recent Eastern European analysis (Fidrmuc 2000) examined a pooled county-level data set on 1992–1998 elections from the Czech Republic, Hungary, Poland, and Slovakia ($N = 442$). Fidrmuc found that change in the vote share of the government was significantly influenced, in the expected direction, by unemployment change and wage growth. According to Fidrmuc (2000), "there is indeed a strong relationship between economic developments and voting behavior in the post-communist societies." Survey research results to underpin these macro-level findings are scarce. But Anderson et al (2000) have compared political economy models of the vote for Nicaragua and Hungary, using election survey data. According to their analysis of the 1994 Hungarian parliamentary election (and the 1990 Nicaraguan election), incumbent vote was significantly influenced by collective retrospective and collective prospective economic evaluations.

Remmer (1991:785) analyzed 21 presidential elections in 12 Latin American countries and claimed that her "results provide some support for the view that incumbents pay the price for short-term economic setbacks." Moreover, she reported that her results provide a Latin American extension of the political economy connection found in US and Western European elections. Pacek & Radcliff (1995) conducted a more general analysis of economics and elections in the developing world. They studied observations on 52 elections in eight nations: Botswana, Costa Rica, India, Jamaica, Sri Lanka, Trinidad and Tobago, Uruguay, and Venezuela. The dependent variable was incumbent vote share in presidential elections, regressed on the economic independent variable of change in real per capita GNP, plus controls (including a lagged dependent variable and country dummies). They found strong economic effects: "[E]ach percentage point decline in real per capita Gross Domestic Product [costs] the incumbent governments about 1.1% of the vote" (Pacek & Radcliff 1995:735). They concluded "that economic conditions may be far more important determinants of the vote in developing countries than in the West, at least when times are bad."

Finally, Wilkin et al (1997) sampled from the world's list of democracies, developing and developed ($N = 38$ elections, 1998–1994). They reported that for "every percentage point of GDP growth in the election year, [the major incumbent] party stands to gain 1.4 per cent of the vote" (Wilkin et al 1997:307). Their fitting conclusion was that "regardless of the complexities of the political context—whether it is fragmented party systems, coalition governments, divided control, or lack of party cohesion—voters around the world find a way of translating economic demands into partisan support" (Wilkin et al 1997:314).

SUMMARY AND CONCLUSION

Economics and elections form a tight weave. When anchoring economic threads snag, governments can fall. We have reviewed these interlacings at the macro and micro levels, in the electorate and in the elector. Electorates, the "nation as voter," are strongly affected by global economic fluctuations, real and perceived. For all democratic nations that have received a reasonable amount of study, plausible economic indicators, objective or subjective, can be shown to account for much of the variance in government support. In multivariate competition, controlling for other aggregate issue measures, the economic indicators hold their own. Indeed, the savvy modeler, given the choice of only one predictor, would do well to select an economic measure. Which one? The answer varies from country to country. It could be unemployment, inflation, or growth, perhaps measured perceptively, perhaps at a lag. That measurement variability is not a theoretical weakness. Rather, it incorporates, as it should, the institutional history of economic performance and statistical reporting in that particular country. Also, it is in harmony with the value of specifying political context, as is done in the positive cross-national studies. Electoral institutions, which shape the distribution of political economic responsibility in a nation, can affect much. Where government is led by one party, rather than several in coalition, the economy-polity link is especially firm.

The powerful relationship between the economy and the electorate in democracies the world over comes from the economic responsiveness of the electors, the individual voters. Among the issues on the typical voter's agenda, none is more consistently present, nor generally has a stronger impact, than the economy. Citizen dissatisfaction with economic performance substantially increases the probability of a vote against the incumbent. In a sense, it is even more important than long-term factors such as partisan identification, because of its greater volatility. Opinion on economic performance—satisfied versus dissatisfied—can alter dramatically from one election to the next, whereas party identification and other long-term forces change little. Thus, the fall of a government is more likely to come from a shift in economic evaluations than from a shift in party attachments.

What is the psychology of the economic vote? The classic reward-punishment model appears sound. Voters, regardless of the democracy in which they live,

assess national economic conditions and reward or punish the politicians responsible for those conditions. When judging the economy, they tend to look at multiple indicators rather than a single one (e.g. only unemployment) and arrive finally at a summary view. That view is subjective; it comes from an internal calculus that may use unique weights, and it is based on impressions from various sources, as well as on hard numbers from statistical reports. For example, a voter may decide that the economy has done badly over the last year. This collective retrospective judgment will tend to produce a vote against a party in government. Moreover, economic voters are not naive. They discern when a party is more clearly responsible for economic policy, and adjust the likelihood of their sanction accordingly. Further, they are capable of prospective judgments on party promises, in conjunction with retrospective judgments of party performance.

We have evaluated the evidence from economics and elections research, drawn conclusions about the state of our knowledge, and provided a depiction of the economic voter. We have covered much, but space limitations prevented us from covering everything. This review has focused on national (i.e. presidential, legislative) elections, to the exclusion of gubernatorial, state, primary, or local elections (Simon et al 1991, Lewis-Beck & Rice 1992:ch. 7, Bowler & Donovan 1994, Mondardi 1994, Partin 1995, Jérôme & Lewis-Beck 1999). The dependent variable of vote was always about party or candidate share, never vote turnout (Rosenstone 1982, Pacek & Radcliff 1995, Southwell 1996). The overarching hypothesis tested was the symmetric reward or punishment of the incumbent. The idea that economic voting is asymmetric, with mostly punishment and little reward (or vice versa), was not pursued (Bloom & Price 1975, Lewis-Beck 1988:ch. 5, Radcliff 1994). Nor was the policy-oriented hypothesis pursued. It stresses that the economic voter favors a different party for different problems, e.g. Democrats are considered better at dealing with unemployment, regardless of incumbency status (Weatherford 1978, Kiewiet 1983:99, Parker 1986, Hibbs 1992). This missing literature is not huge, but it does exist.

What should the agenda for future research be? Since economic voters act largely on their perceptions of the national economy, it is important to know what they actually know about the economy. Data on the economic information of the average voter are being gathered, but more work should be done (Holbrook & Garand 1996, Blendon et al 1997, Paldam & Nannestad 2000). Because a good deal of the average voter's economic information must come from the media, establishing these media connections is in order (Behr & Iyengar 1985, Mutz 1994, Goidel & Langley 1995, Hetherington 1996, Holbrook 1996a, Haller & Norpoth 1997). This work, and actually almost all extant economic voting research, assumes the most relevant evaluation dimension is global economic output, i.e. "How is the nation's economy doing?" But economic distribution may be an emerging relevant dimension. That is, what are the electoral effects of rising income inequality and insecurity? We can cite no published scientific paper on that exciting question. Another area where little research has been done is the impact of electoral institutions

on economic voting within single countries. The French research is suggestive and signals possibilities for work in other countries. Within Europe generally, there is also the question of the effects of the European Union on economic voting nationally and for the European Parliament. Finally, little is known about economic voting in Third World countries (although this is changing, as the papers reviewed here attest). One imagines that the reward-punishment paradigm can be extended to transitional democracies in Africa, for example. However, different dimensions, such as economic globalization, may emerge as more important. In fact, in the long run, increasing globalization may change the character of economic voting in western nations as well.

LITERATURE CITED

Abramowitz A. 1988. An improved model for predicting presidential election outcomes. *PS* 21:843–47

Abramowitz A. 1996. Bill and Al's excellent adventure: forecasting the 1996 presidential election. *Am. Polit. Q.* 24:434–42

Abramowitz A, Segal J. 1986. Determinants of the outcomes of Senate elections. *J. Polit.* 48:433–40

Alesina A, Londregan J, Rosenthal H. 1993. A model of the political economy of the United States. *Am. Polit. Sci. Rev.* 87:12–33

Alvarez RM, Nagler J. 1995. Economics, issues and the Perot candidacy: voter choice in the 1992 presidential elections. *Am. J. Polit. Sci.* 39:714–44

Alvarez RM, Nagler J. 1998. Economics, entitlements, and social issues: voter choice in the 1996 presidential election. *Am. J. Polit. Sci.* 42:1349–63

Anderson CJ. 1995. *Blaming the Government: Citizens and the Economy in Five European Democracies.* Armonk, NY: Sharpe

Anderson CJ. 2000. Economic voting and political context: a comparative perspective. *Electoral Stud.* In press

Anderson CJ, Ishii J. 1997. The political economy of election outcomes in Japan. *Br. J. Polit. Sci.* 27:619–30

Anderson L, Lewis-Beck MS, Stegmaier M. 2000. Post-socialist democratization: a comparative political economy model of the vote for Hungary and Nicaragua. *Studiji Politolohichnoho Tsentru Geneza*. Lviv, Ukraine: In press

Arcelus F, Meltzer AH. 1975. The effects of aggregate economic variables on congressional elections. *Am. Polit. Sci. Rev.* 69:1232–40

Beck N. 1991. The economy and presidential approval: an information theoretic perspective. See Norpoth et al 1991, pp. 85–102

Behr R, Iyengar S. 1985. Television news, real-world cues, and changes in the public agenda. *Public Opin. Q.* 49:38–57

Bellucci P. 1991. Italian economic voting: a deviant case or making a case for a better theory?, 1953–1979. See Norpoth et al 1991, pp. 63–84

Blendon RJ, Benson JM, Brodie M, Morin R, Altman DE, et al. 1997. Bridging the gap between the public's and economists' views of the economy. *J. Polit. Econ. Persp.* 11(3): 105–18

Bloom H, Price D. 1975. Voter response to short-run economic conditions: the asymmetric effect of prosperity and recession. *Am. Polit. Sci. Rev.* 69:124–54

Borre O. 1997. Economic voting in Danish electoral surveys 1987–1994. *Scand. Polit. Stud.* 20(4):347–65

Bowler S, Donovan T. 1994. Economic conditions and voting on ballot propositions. *Am. Polit. Q.* 22:27–40

Brophy-Baermann M. 1994. Economics and elections: the Mexican case. *Soc. Sci. Q.* 75: 125–35

Brown RD, Woods JA. 1991. Toward a model of congressional elections. *J. Polit.* 53:454–73

Campbell J. 1986. Forecasting the 1986 midterm elections to the House of Representatives. *PS:* 83–87

Campbell J. 1996. Polls and votes: the trial-heat presidential election forecasting model, certainty, and political campaigns. *Am. Polit. Q.* 24:408–33

Campbell J, Garand J, eds. 2000. *Before the Vote: Forecasting American National Elections*. Thousand Oaks, CA: Sage

Campbell J, Wink K. 1990. Trial-heat forecasts of the presidential vote. *Am. Polit. Q.* 18: 251–69

Chappell H, Keech W. 1985. A new view of political accountability of economic performance. *Am. Polit. Sci. Rev.* 79:10–27

Chappell H, Keech W. 1991. Explaining aggregate evaluations of economic performance. See Norpoth et al 1991, pp. 207–20

Chappell H, Veiga LG. 2000. Economics and elections in Western Europe: 1960–1997. *Electoral Stud.* 19: In press

Chrystal KA, Alt JE. 1981. Some problems in formulating and testing a politico-economic model of the United Kingdom. *Econ. J.* 91: 730–36

Clarke H, Kornberg A. 1992. Support for the Canadian Federal Progressive Conservative Party since 1988: the impact of economic evaluations and economic issues. *Can. J. Polit. Sci.* 25:29–53

Clarke H, Stewart M. 1994. Prospections, retrospections, and rationality: the "bankers" model of presidential approval. *Am. J. Polit. Sci.* 38:104–23

Clarke H, Stewart M. 1995. Economic evaluations, prime ministerial approval and governing party support: rival models considered. *Br. J. Polit. Sci.* 25:145–70

Clarke H, Stewart M, Whiteley P. 1997. Tory trends: party identification and the dynamics of conservative support since 1992. *Br. J. Polit. Sci.* 27:299–319

Clarke H, Stewart M, Zuk G. 1986. Politics, economics and party popularity in Britain, 1979–1983. *Electoral Stud.* 5:123–41

Colton TJ. 1996. Economics and voting in Russia. *Post-Soviet Aff.* 12(4):289–317

Downs A. 1957. *An Economic Theory of Democracy*. New York: Harper & Row

Dunleavy P, Husbands CT. 1985. *British Democracy at the Crossroads: Voting and Party Competition in the 1980s*. London: Allen & Unwin

Erikson RS. 1989. Economic conditions and the presidential vote. *Am. Polit. Sci. Rev.* 83(2): 568–73

Erikson RS. 1990. Economic conditions and the congressional vote: a review of the macrolevel evidence. *Am. J. Polit. Sci.* 34: 373–99

Erikson RS, MacKuen MB, Stimson JA. 2000. Bankers or peasants revisited: economic expectations and presidential approval. *Electoral Stud.* 19: In press

Eulau H, Lewis-Beck MS, eds. 1985. *Economic Conditions and Electoral Outcomes: The United States and Western Europe*. New York: Agathon

Fair R. 1978. The effect of economic events on votes for president. *Rev. Econ. Stat.* 60:159–73

Fair R. 1982. The effect of economic events on votes for president: 1980 results. *Rev. Econ. Stat.* 63:322–25

Fair R. 1988. The effect of economic events on votes for president: 1984 update. *Polit. Behav.* 10:168–77

Fair R. 1996. Econometrics and presidential elections. *J. Polit. Econ. Persp.* 10:89–102

Fauvelle-Aymar C, Lewis-Beck MS. 1997. L'Iowa donne l'opposition gagnante. *Libération* 4978(23 mai):15

Feld LP, Kirchgässner G. 2000. Official and hidden unemployment and the popularity of government: an econometric analysis of

the Kohl government. *Electoral Stud.* 19: In press

Fidrmuc J. 2000. Economics of voting in post-communist countries. *Electoral Stud.* In press

Fiorina M. 1978. Economic retrospective voting in American national elections: a micro-analysis. *Am. J. Polit. Sci.* 22:426–43

Fiorina M. 1981. *Retrospective Voting in American National Elections*. New Haven, CT: Yale Univ. Press

Frey BS, Schneider F. 1978a. An empirical study of politico-economic interaction in the U.S. *Rev. Econ. Stat.* 60:174–83

Frey BS, Schneider F. 1978b. A politico-break economic model of the United Kingdom. *Econ. J.* 88:243–53

Goidel RK, Langley RE. 1995. Media coverage of the economy and aggregate economic evaluations: uncovering evidence of indirect media effects. *Polit. Res. Q.* 48:313–28

Golden D, Poterba J. 1980. The price of popularity: the political business cycle reexamined. *Am. J. Polit. Sci.* 24:696–714

Goodhart CAE, Bhansali RJ. 1970. Political economy. *Polit. Stud.* 18:43–106

Goodman S, Kramer G. 1975. Comment on Arcelus and Meltzer, the effect of aggregate economic conditions on congressional elections. *Am. Polit. Sci. Rev.* 69:1255–65

Haller HB, Norpoth H. 1997. Reality bites: news exposure and economic opinion. *Public Opin. Q.* 61:555–75

Hetherington M. 1996. The media's role in forming voters' national economic evaluations in 1992. *Am. J. Polit. Sci.* 40:372–95

Hibbing J. 1987. On the issues surrounding economic voting: looking to the British case for answers. *Comp. Polit. Stud.* 20:3–33

Hibbing J, Alford J. 1982. Economic conditions and the forgotten side of congress: a foray in U.S. Senate elections. *Br. J. Polit. Sci.* 12:505–13

Hibbs DA. 1982. President Reagan's mandate from the 1980 elections: a shift to the right? *Am. Polit. Q.* 10:387–420

Hibbs DA. 1987. *The American Political Economy: Macroeconomics and Electoral Politics*. Cambridge, MA: Harvard Univ. Press

Hibbs DA. 1992. Partisan theory after fifteen years. *Eur. J. Polit. Economy* 8:361–73

Hibbs DA. 1993. *Solidarity or Egoism*? Aarhus, Denmark: Aarhus Univ. Press

Hibbs D, Rivers D, Vasilatos N. 1982. On the demand for economic outcomes: macroeconomic performance and mass political support in the United States, Great Britain, and Germany. *J. Polit.* 43:426–62

Hoffman S. 1992. Delusions of world order. *NY Rev. Books* 39(7):37–43

Holbrook T. 1996a. *Do Campaigns Matter?* Thousand Oaks, CA: Sage

Holbrook T. 1996b. Reading the political tea leaves: a forecasting model of contemporary presidential elections. *Am. Polit. Q.* 24:506–19

Holbrook T, Garand J. 1996. Homo economus? Economic information and economic voting. *Polit. Res. Q.* 49:351–75

Irwin G, Van Holsteyn J. 1997. Where to go from here? Revamping electoral politics in the Netherlands. *West Eur. Polit.* 20(2):93–118

Jacobson GC. 1989. Strategic politicians and the dynamics of U.S. House elections, 1946–86. *Am. Polit. Sci. Rev.* 83:773–93

Jérôme B, Jérôme V, Lewis-Beck MS. 1999. Polls fail in France: forecasts of the 1997 legislative election. *Int. J. Polit. Forecasting* 15:175–84

Jérôme B, Lewis-Beck MS. 1999. Is local politics local? French evidence. *Eur. J. Polit. Res.* 35(March):181–97

Kenski H. 1977. The impact of economic conditions on presidential popularity. *J. Polit.* 39:764–73

Kernell S. 1978. Explaining presidential popularity. *Am. Polit. Sci. Rev.* 71:44–66

Key VO. 1964. *Politics, Parties, and Pressure Groups.* New York: Crowell. 5th ed.

Key VO. 1966. *The Responsible Electorate.* New York: Vintage

Kiewiet DR. 1983. *Macroeconomics and Micropolitics: The Electoral Effects of Economic Issues*. Chicago: Univ. Chicago Press

Kiewiet DR, Rivers D. 1985. A retrospective on retrospective voting. In *Economic Conditions and Electoral Outcomes: The United States and Western Europe*, ed. H Eulau, MS Lewis-Beck, pp. 207–31

Kiewiet DR, Udell M. 1998. Twenty-five years after Kramer: an assessment of economic retrospective voting based upon improved estimates of income and unemployment. *Econ. Polit.* 10:219–48

Kinder D, Adams G, Gronke PW. 1989. Economics and politics in the 1984 American presidential election. *Am. J. Polit. Sci.* 33:491–515

Kinder D, Kiewiet DR. 1979. Economic discontent and political behavior: the role of personal grievances and collective economic judgements in congressional voting. *Am. J. Polit. Sci.* 23:495–527

Kinder D, Kiewiet DR. 1981. Sociotropic politics: the American case. *Br. J. Polit. Sci.* 11(April):129–41

Kramer G. 1971. Short-term fluctuations in U.S. voting behavior, 1896–1964. *Am. Polit. Sci. Rev.* 65:131–43

Kramer G. 1983. The ecological fallacy revisited: aggregate- versus individual-level findings on economics and elections, and sociotropic voting. *Am. Polit. Sci. Rev.* 77:92–111

Lafay JD. 1985. Important political change and the stability of the popularity function: before and after the French general election of 1981. In *Economic Conditions and Electoral Outcomes: The United States and Western Europe*. ed. H Eulau, MS Lewis-Beck, pp. 78–97. New York: Agathon

Lafay JD. 1991. Political dyarchy and popularity functions: lessons from the 1986 French experience. See Norpoth et al 1991, pp. 123–39

Lafay. JD 1993. Les prévisions des modèles politico-économiques. *Figaro* (19 mars):IX

Lafay JD, Servais M. 1995. Des sondages préélectoraux aux modèles politico-économétriques. *Figaro*(4 mai):XV

Lancaster T, Lewis-Beck MS. 1989. Regional vote support: the Spanish case. *Int. Stud. Q.* 33:29–43

Lanoue DJ. 1994. Retrospective and prospective voting in presidential-year elections. *Polit. Res. Q.* 47:193–205

Lecaillon J. 1981. Popularité des gouvernements et popularité économique. *Consummation* 3:17–50

Lewis-Beck MS. 1980. Economic conditions and executive popularity: the French experience. *Am. J. Polit. Sci.* 24:306–23

Lewis-Beck MS. 1986. Comparative economic voting: Britain, France, Germany, Italy. *Am. J. Polit. Sci.* 30:315–46

Lewis-Beck MS. 1985. Pocketbook voting in US national election studies: fact or artifact? *Am. J. Polit. Sci.* 29:348–56

Lewis-Beck MS. 1988. *Economics and Elections: The Major Western Democracies*. Ann Arbor: Univ. Michigan Press

Lewis-Beck MS. 1995. Comparaison de prévision des élections présidentielles en France et aux États-Unis. *J. Société Stat. Paris* 136(1): 29–45

Lewis-Beck MS. 1997. Who's the chief? Economic voting under a dual executive. *Eur. J. Polit. Res.* 31(3):315–25

Lewis-Beck MS, Mitchell G. 1990. Modelos transnacionales de voto economico: estudio de un conjunto de paises europeos. *Revista Inst. Estud. Econ.* 4:65–81

Lewis-Beck MS, Nadeau R. 2000. French electoral institutions and the economic vote. *Electoral Stud.* 19: In press

Lewis-Beck MS, Rice T. 1984. Forecasting U.S. House elections. *Legis. Stud. Q.* 9:475–86

Lewis-Beck MS, Rice T. 1992. *Forecasting Elections.* Washington, DC: Congressional Quarterly Press

Lewis-Beck MS, Tien C. 1996. The future in forecasting: prospective presidential models. *Am. Polit. Q.* 24:468–91

Lockerbie B. 1991. Prospective economic voting in U.S. House elections, 1956–1988. *Legis. Stud. Q.* 16:239–61

Lockerbie B. 1992. Prospective voting in presidential elections, 1956–1988. *Am. Polit. Q.* 20:308–25

MacKuen M, Erikson R, Stimson J. 1992. Peasants or bankers? The American electorate and the U.S. economy. *Am. Polit. Sci. Rev.* 86:597–611

Markus G. 1988. The impact of personal and national economic conditions on the presidential vote: a pooled cross-sectional analysis. *Am. J. Polit. Sci.* 32:137–54

Markus G. 1992. The impact of personal and national economic conditions on presidential voting, 1956– 1988. *Am. J. Polit. Sci.* 36: 829–34

Marra RF, Ostrom CW. 1989. Explaining seat change in the U.S. House of Representatives, 1950–1986. *Am. J. Polit. Sci.* 33:541–69

Miller WL, Mackie M. 1973. The electoral cycle and the asymmetry of government and the opposition popularity: an alternative model of the relationship between economic conditions and political popularity. *Polit. Stud.* 621:263–79

Mondardi F. 1994. Primary voters as retrospective voters. *Am. Polit. Q.* 22:88–103

Monroe KR. 1978. Economic influences on presidential popularity. *Public Opin. Q.* 42: 360–69

Monroe KR. 1984. *Presidential Popularity and the Economy*. New York: Praeger

Mosley P. 1978. Images of the "floating voter": or the "political business cycle" revisited. *Polit. Stud.* 26:375–94

Mueller J. 1970. Presidential popularity from Truman to Johnson. *Am. Polit. Sci. Rev.* 64: 18–34

Mueller J. 1973. *War, Presidents, and Public Opinion*. New York: Wiley

Mutz D. 1994. Contextualizing personal experience: the role of the mass media. *J. Polit.* 56:689–715

Nadeau R, Blais A. 1993. Explaining elections outcomes in Canada: economy and politics. *Can. J. Polit. Sci.* 26:775–90

Nannestad P, Paldam M. 1994. The VP function: a survey of the literature on vote and popularity functions after 25 years. *Public Choice* 79:213–45

Nannestad P, Paldam M. 1995. It's the government's fault! A cross-section study of economic voting in Denmark, 1990/93. *Eur. J. Polit. Res.* 28:33–62

Nannestad P, Paldam M. 1997. From the pocketbook of the welfare man: a pooled cross-section study of economic voting in Denmark, 1986–1992. *Br. J. Polit. Sci.* 27:119–37

Nannestad P, Paldam M. 2000. Into Pandora's box of economic evaluations. A study of the Danish macro VP-function 1986–1997. *Electoral Stud.* 19: In press

Norpoth H. 1985. Politics, economics and the cycle of presidential popularity. In *Economics and Electoral Outcomes*, ed. H Eulau, MS Lewis-Beck, pp. 167–86. New York: Agathon

Norpoth H. 1987. Guns and butter and government popularity in Great Britain. *Am. Polit. Sci. Rev.* 81:949–60

Norpoth H. 1996a. The economy. In *Comparing Democracies: Elections and Voting in Global Perspective*, ed. L LeDuc, RG Niemi, P Norris, pp. 299–318. Thousand Oaks, CA: Sage

Norpoth H. 1996b. Presidents and the prospective voter. *J. Polit.* 58:776–92

Norpoth H. 1996c. Of time and candidates: a forecast for 1996. *Am. Polit. Q.* 24:443–67

Norpoth H, Lewis-Beck MS, Lafay JD. 1991. *Economics and Politics: The Calculus of Support*. Ann Arbor: Univ. Michigan Press

Oppenheimer B, Stimson J, Waterman R. 1986. Interpreting U.S. congressional elections: the exposure thesis. *Legis. Stud. Q.* 11:227–47

Pacek AC. 1994. Macroeconomic conditions and electoral politics in East Central Europe. *Am. J. Polit. Sci.* 38:723–44

Pacek AC, Radcliff B. 1995. Economic voting and the welfare state: a cross-national analysis. *J. Polit.* 57:44–61

Paldam M. 1991. How robust is the vote function? A study of seventeen nations over four decades. See Norpoth et al 1991, pp. 9–32

Paldam M, Nannestad P. 2000. What do voters know about the economy? A study of Danish data, 1990–1993. *Electoral Stud.* 19: In press

Paldam M, Schneider F. 1980. The macroeconomic aspects of government and opposition popularity in Denmark 1957–1978. *Natl. Økonomisk Tidsskrift* 118:149–70

Parker G. 1986. Economic partisan advantages in congressional contests: 1938–1978. *Public Opin. Q.* 50:387–401

Partin R. 1995. Economic conditions and gubernatorial elections: is the state executive held accountable? *Am. Polit. Q.* 23:81–95

Pissarides CA. 1980. British government popularity and economic performance. *Econ. J.* 90:569–81

Powell GB, Whitten GD. 1993. A cross-national analysis of economic voting: taking account of the political context. *Am. J. Polit. Sci.* 37:391–414

Powers DV, Cox JH. 1997. Echoes from the past: the relationship between satisfaction with economic reforms and voting behavior in Poland. *Am. Polit. Sci. Rev.* 91:617–33

Price S, Sanders D. 1995. Economic expectations and voting intentions in the UK, 1979–1987: a pooled cross-section approach. *Polit. Stud.* 43:451–71

Radcliff B. 1994. Reward without punishment: economic conditions and the vote. *Polit. Res. Q.* 47(3):721–31

Remmer KL. 1991. The political impact of economic crisis in Latin America in the 1980s. *Am. Polit. Sci. Rev.* 85:777–800

Romero DW, Stambough SJ. 1996. Personal economic well-being and the individual vote for congress: a pooled analysis, 1980–1990. *Polit. Res. Q.* 49:607–16

Rosa JJ, Amson D. 1976. Conditions économiques et elections: une analyse politico-économetrique (1920–1973). *Rev. Française Sci. Polit.* 26:1101–24

Rosenbaum DE, Lohr S. 1996. *NY Times.* Aug 3

Rosenstone S. 1982. Economic adversity and voter turnout. *Am. J. Polit. Sci.* 26:25–46

Sanders D. 1991. Government popularity and the next general election. *Polit. Q.* 62:235–61

Sanders D. 2000. The real economy and the perceived economy in popularity functions: how much do the voters need to know? *Electoral Stud.* 19: In press

Sanders D, Marsh D, Ward H. 1991. Macroeconomics, the Falklands War and the popularity of the Thatcher government: a contrary view. *Br. J. Polit. Sci.* 20:161–84

Sanders D, Ward H, Marsh D, Fletcher T. 1987. Government popularity and the Falklands War: a reassessment. *Br. J. Polit. Sci.* 17:281–313

Sears DO Lau RR. 1983. Inducing apparently self-interested political preferences. *Am. J. Polit. Sci.* 27:223–52

Schneider F, Frey BS. 1988. Politico-economic models of macroeconomic policy: a review of empirical evidence. In *Political Business Cycles*, ed. T Willett. Durham, NC: Duke Univ. Press

Simon DM, Ostrom CW, Marra RF. 1991. The president, referendum voting, and subnational elections in the United States. *Am. Polit. Sci. Rev.* 85:1175–92

Southwell PL. 1996. Economic salience and differential abstention in presidential elections. *Am. Polit. Q.* 24:221–36

Stigler G. 1973. General economic conditions and national elections. *Am. Econ. Rev. Pap. Proc.* 63:160–67

Suzuki M, Chappell HW. 1996. The rationality of economic voting revisited. *J. Polit.* 58:224–36

Tufte ER. 1975. Determinants of the outcomes of midterm congressional elections. *Am. Polit. Sci. Rev.* 69:812–26

Tufte ER. 1978. *Political Control of the Economy*. Princeton, NJ: Princeton Univ. Press

Weatherford MS. 1978. Economic conditions and electoral outcomes: class differences in the political response to recession. *Am. J. Polit. Sci.* 22:917–38

Whiteley PF. 1986. Macroeconomic performance and government popularity in Britain: the short-run dynamics. *Eur. J. Polit. Res.* 14: 45–61

Wilkin S, Haller B, Norporth H. 1997. From Argentina to Zambia: a world-wide test of economic voting. *Electoral Stud.* 16:301–16

Wlezien C, Erikson R. 1996. Temporal horizons and presidential election forecasts. *Am. Polit. Q.* 24:492–505

Annual Review of Political Science
Volume 3, 2000

CONTENTS