Pergamon

Electoral Studies 19 (2000) 255–273

Electoral Studies

www.elsevier.com/locate/electstud

Major's lesser (not minor) effects: prime ministerial approval and governing party support in Britain since 1979

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Abstract

Recent studies have challenged a long-standing conventional wisdom that British prime ministers have little or no influence on party support. This research is based largely on data gathered during Margaret Thatcher's lengthy term in office. Given her enormous salience and the powerful emotions that her policies and personality evoked, the conclusion that voters' evaluations of prime ministerial performance *typically* are very influential may be unwarranted. This paper addresses the possibility by comparing the impact of prime ministerial approval on governing party vote intentions during the Thatcher and Major eras. Time series analyses of error correction models of Conservative Party support for the 1979–1996 period reveal that prime ministerial approval had stronger short- and long-run effects on vote intentions during the Thatcher years. However, both kinds of effects remained statistically significant and substantively important when Major was prime minister.

Keywords: Cointegration; Economic evaluations; Error correction; Prime ministerial approval; Party support

1. Introduction

Recent research has challenged long-standing beliefs that public images of party leaders have little or no influence on public support for British political parties. Much

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0261-3794/00/$ - see front matter
PII: S0261-3794(99)00051-7

of the data used in this research was gathered during Margaret Thatcher's lengthy tenure as prime minister. Given her great salience on the political stage and the powerful emotions that her policies and personality evoked, this evidence may be anomalous. If so, the inference that party leader images *typically* have strong effects on party support is mistaken. The Conservative Party's continuing hold on the reins of power under the leadership of John Major for several years after Mrs Thatcher's ouster provides an opportunity to investigate the impact of two successive prime ministers on party support while holding the identity of governing and opposition parties constant. This article does so by analyzing the short- and long-run effects of prime ministerial approval on the dynamics of Conservative vote intentions during the Thatcher and Major years.

We begin by delineating three positions in the continuing controversy concerning party leader effects on party support in Britain. Since an assessment of party leader effects must be made within the context of more general analyses of the political economy of party support, we also review unresolved debates about the impact of different kinds of economic evaluations. After presenting time series data from monthly Gallup surveys on variations in governing party (Conservative) vote intentions and prime ministerial approval over the July 1979–December 1996 period, we specify and estimate four rival error correction models of these voting intentions. To test the exogeneity of prime ministerial approval vis-à-vis governing party support, we develop models of factors affecting public evaluations of prime ministerial performance. Next, the hypothesis that 'the incumbent matters' is tested. For this purpose, the vote intention models are re-estimated with 'leader change' interaction terms to accompany the 'main effect' variables that capture the short- and long-term effects of prime ministerial approval on Conservative support. The conclusion reprises principal findings and discusses implications for future research.

2. Party leaders and party support: debates and dynamics

The original hypothesis in the British voting and elections literature is that voters' reactions to party leaders are inconsequential. Similar to many other variables that are deemed significant in other political milieus, party leader images belong to the realm of 'embellishment and detail' (Pulzer, 1967, p. 98). Reduced to its essentials, the story of British electoral politics is one where the overpowering long-term forces generated by a dominant social class cleavage eclipse all other variables—including party leader images. Since the late 1960s, the credibility of this once widely accepted claim has faded concomitant with recognition that the ability of class divisions to structure political choice has weakened substantially (see, e.g. Franklin, 1985; Sanders, 1997). However, many scholars continue to discount the importance of leader effects (see, e.g. Goodhart and Bhansali, 1970; Butler and Stokes, 1976, chap. 16; Rose, 1980; Sarlvik and Crewe, 1983, pp. 132–133; Crewe, 1985, p. 183; Bartle et al., 1997). These analysts do not dispute the possibility that leader images may exert *some* influence, but they contend that leader effects are dwarfed by other factors, especially economic ones. As Butler and Stokes (1976) (p. 244) put it: "...the pull

of the leaders remains but one among the factors that determine transient shifts of party strength; it is easily outweighed by other issues and events of concern to the public, including the movements of the economy, which do so much to set the climate of the party battle."

Recent empirical analyses dispute these claims that party leaders matter little or not at all by demonstrating that leader images have major influences on voting behavior (e.g. Graetz and McAllister, 1987a,b; Miller et al., 1990, chap. 7; Stewart and Clarke, 1992; Crewe and King, 1994) in successive general elections. Leader images also exercise strong effects on vote intentions in the interval between elections (e.g. Norpoth, 1992; Clarke and Stewart, 1995; Nadeau et al., 1996; Clarke et al., 1997). These findings can be understood in terms of the aforementioned erosion of class–party linkages, as well as by the declining strength of identification with both major parties (Crewe et al., 1977; Clarke and Stewart, 1984; Sanders, 1997). The resulting 'dealignment of degree' (Clarke and Stewart, 1984) means that the electorate is susceptible to short-term forces of various kinds. Some of these forces are generated by voters' reactions to changing economic conditions but, pace Butler and Stokes (1976) and others (e.g. Goodhart and Bhansali, 1970), party leader images also have strong effects.

The importance of party leaders in British electoral politics is not difficult to understand. Given their commanding position on the political stage, leaders come to symbolize other, more abstract, entities such as their party's issue positions, platform, and performance in the economic and other policy realms. As a result, leaders become the subjects of structured perceptions in the public mind. Voters use these perceptions to assess leaders' suitability for elective and, especially, government office (Marcus, 1988; Miller et al., 1986; Bean and Mughan, 1989). Some of those who argue for strong leader effects contend that these effects have become more powerful over time because an American-style presidentialization of the office of the prime minister is underway (e.g. Foley, 1993; Mughan, 1993, 1997). This trend has been both stimulated and accompanied by growing media coverage of the prime minister and, to a lesser extent, opposition party leaders. The increasing importance of prime ministers is reflected in the dominant roles that they (and their opposition party counterparts) play in their parties' national election campaigns and their sizable imprints on voting behavior.

The presidentialization hypothesis is intuitively plausible because it recognizes undeniable salience and influence of party leaders in contemporary British politics. However, it may be argued that the hypothesis does not provide a fully adequate account of prime ministerial or opposition leader effects on party support. In particular, the general claim advanced in several recent studies that prime ministers matter for governing party support needs to be modified to allow for the possibility of *incumbent* effects. Although, in the contemporary era, prime ministers invariably attract great public attention, any given individual may possess and project personal and political characteristics which differ considerably from those of predecessors or successors (see, e.g. Foley, 1993, chap. 1). Thus, the strength of the effect of images of prime ministers, including those from the same party, on governing party support can be expected to vary from one incumbent to the next. The shift from Thatcher

to Major—from a 'lady-not-for-turning' to 'a decent man, by all accounts'—in November 1990 constitutes a hitherto neglected, 'real-world' experiment that enables us to test the 'incumbent matters' hypothesis with available time series data.

Assessing the impact of prime ministerial approval on governing party vote intentions requires the specification and estimation of multivariate models of the political economy of party support. Consonant with other recent studies of the dynamics and determinants of vote intentions in Britain (e.g. Clarke and Stewart, 1995; Clarke et al., 1997), prime ministerial approval is modeled together with four economic evaluation series that vary in terms of self/society referents and retrospective/prospective time horizons. Over the past decade, analyses of the effects of these evaluations have contributed significantly to understanding how the economy affects voters' party support decisions. In this paper, the PR (personal retrospective) model reflects the 'pocketbook voting' emphasis of early 'reward–punishment' explanations of electoral choice. However, both PR and its widely accepted NR (national retrospective) counterpart (e.g. Key, 1968; Fiorina, 1981; Norpoth, 1992) have been challenged by the PP (personal prospective) and NE (national prospective) models. In Britain, the PE or 'Essex' model specifies that macroeconomic conditions (especially interest and taxation rates) influence voters' assessments of their personal financial prospects. In turn, these personal economic expectations (what media commentators on British politics call the 'feel good factor') drive governing party support (e.g. Sanders 1991, 1993; Sanders et al., 1987). In the United States, the NE model has been championed by MacKuen et al. (1992) in their widely cited analyses of factors affecting the dynamics of presidential approval.

3. Modeling Conservative Party support and prime ministerial approval

In recent years, some studies of the political economy of public support for political parties and their leaders (e.g. Beck, 1992; Clarke and Stewart 1994, 1995; see also Smith, 1993) have used what econometricians call 'error correction models' (see, e.g. Hendry, 1995) to address the threats to inference that arise when analyzing nonstationary variables. Such models are attractive because they enable analysts to specify both short- and long-run relationships among nonstationary variables, provided such variables cointegrate (see, e.g. Charemza and Deadman, 1997). Preliminary analyses suggest that Conservative vote intentions[1] and prime ministerial approval[2] may cointegrate. Both series are nonstationary (see Appendix A). Also,

[1] The Gallup vote intention questions are: (a) 'If there were a General Election tomorrow, which party would you support?' (b) [If 'don't know'] 'Which party would you be most inclined to vote for?' Conservative vote intentions are calculated as the sum of the percentages of respondents answering 'Conservative' to (a) or (b).

[2] The Gallup prime ministerial approval question is: 'Are you satisfied or dissatisfied with [name] as Prime Minister?' Prime ministerial approval is measured as the percentage saying they are 'satisfied'.

Fig. 1 reveals that they tracked each other very closely over the July 1979–December 1996 period. Their bivariate correlation (r) is fully +0.91, and it is very strong during both the Thatcher (r=+0.88) and the Major (r=+0.96) eras. Regressing Conservative support on prime ministerial approval (Engle and Granger, 1987; see also Engle and Yoo, 1991) provides statistical evidence that the two series do, in fact, cointegrate. The regression coefficient for prime ministerial approval is correctly (positively) signed and highly significant (t=31.27), and the variance explained is substantial (adjusted R^2=0.82). Moreover, as is required if the series cointegrate, the regression residuals constitute a stationary series (t=−5.89).[3] Vote intentions and prime minis-

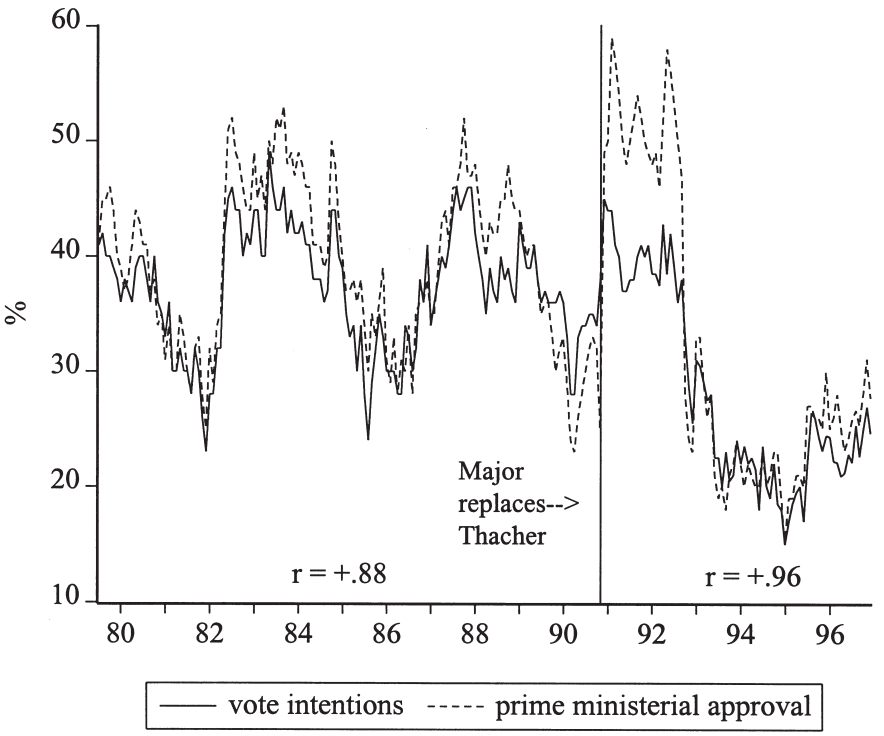

Fig. 1. Conservative vote intentions and prime ministerial approval, July 1979–December 1996.

[3] Johansen tests (Charemza and Deadman, 1997, pp. 170–178; Harris, 1995, chap. 5) also indicate that Conservative vote intentions and prime ministerial approval cointegrate. With three lags in the VAR and assuming no deterministic trend in the data, the LR test statistic is 30.00. Since the critical value (p=0.05) is 19.96, one may reject the null of no cointegrating vectors. Then, testing for one versus two cointegrating vectors, the LR test statistic is 1.95. Since this is less than the critical value (p=0.05) of 9.24, one fails to reject the null of a single cointegrating vector. These inferences remain unchanged if one increases the lag length or assumes a deterministic trend in the data.

terial approval have much weaker relationships with the four economic evaluations[4] (average r=+0.291 and +0.345, respectively), and regressions involving the two political variables and the four economic ones (each considered one at a time) indicate that the former do not cointegrate with the latter. Taken together, these results indicate that it is appropriate to model Conservative vote intentions in error correction form, with the error correction mechanism defined by the cointegrating relationship between Conservative support and prime ministerial approval.

To address the aforementioned controversies concerning which kinds of economic evaluations influence governing party support, four error correction models are estimated. Each model incorporates a different subjective economic evaluation variable. The models are specified as follows:

$$\Delta\text{CONS}_t=\beta_0+\beta_1\Delta\text{PMSAT}_t+\beta_2\Delta\text{SUBEC}_t+\beta_3\text{ECM}_{t-1}+\Sigma\beta_{4-k}\text{EVENTS}_t \quad (1)$$
$$+\varepsilon_t$$

where CONS is Conservative support (vote intentions); PMSAT is prime ministerial approval; SUBEC is subjective economic evaluations; ECM is error correction mechanism; EVENTS is various political events; ε is the error term $\sim N(0,\sigma^2)$; Δ is the difference operator; and β is the regression coefficient. The ECM is measured as the residuals from the cointegrating regression of Conservative support on prime ministerial approval, i.e. $\text{ECM}_t=\text{CONS}_t-\alpha_0-\alpha_1\text{PMSAT}_t$. EVENTS include separate variables for the Falklands War (May and June 1982), the poll tax (April 1990), the ERM currency crisis (September 1992), Major's reselection as Conservative party leader (July 1995), the (temporary) effects of the 1983, 1987 and 1992 general elections, and a summary variable that indexes many of the miscellaneous pro- and anti-Conservative events that occurred between 1979 and 1996. Parameter estimates are obtained by OLS regression.

Preliminary analyses indicate that two of the specific events variables (the June 1982 version of the Falklands War intervention and the 1987 general election) are not statistically significant. When the models are reanalyzed without these two variables, the several remaining event variables continue to behave as expected; in every case their coefficients are statistically significant ($p\leq<0.05$) and properly signed (Table 1). The coefficients for the subjective economic evaluations indicate that personal retrospective and prospective judgments have significant effects ($p\leq0.05$), whereas the impact of national prospective judgments is marginal ($p\leq0.10$) and that of national retrospective judgments is insignificant. Encompassing tests (e.g. Hendry,

[4] The subjective economic evaluation questions are: (a) personal prospections—'How do you think the financial situation of your household will change over the next 12 months?' (b) personal retrospections—'How does the financial situation of your household now compare with what it was 12 months ago?' (c) national prospections—'How do you think the general economic situation in this country will develop over the next 12 months?' (d) national retrospections—'How do you think the general economic situation in this country has changed over the last 12 months?' The response categories are: 'get(got) a lot better', 'get a little better', 'stay the same', 'get a little worse', 'get a lot worse'. The economic evaluation variables are constructed by subtracting the percentage offering negative responses from the percentage offering positive ones.

Table 1
Error correction models of the effects of prime ministerial approval and subjective economic evaluations on Conservative Party support, 1979M8–1996M12[a]

Predictor variable	Model			
	PE	PR	NR	NE
Constant	0.15	0.15	0.15	0.14
Prime ministerial approval	0.38a	0.39a	0.39a	0.39a
Error correction mechanism ($t-1$)	−0.25a	−0.25a	−0.25a	−0.26a
Economic evaluations				
△Personal prospective (t)	0.06c	X	X	X
△Personal retrospective (t)	X	0.07c	X	X
△National retrospective (t)	X	X	0.02	X
△National prospective (t)	X	X	X	0.02d
Falklands War				
May 1982	6.02a	8.50b	6.08b	6.26a
Poll Tax	−3.10c	−3.82b	−3.37b	−3.24b
Major reselected Tory leader	4.84b	4.70b	4.99b	4.99b
Political events	1.52a	1.46a	1.51a	1.51a
National elections				
1983	2.59c	2.74c	2.82c	2.79c
1992	4.40a	4.53a	4.54a	4.46a
Currency crisis	−0.63c	−0.64c	−0.63c	−0.62c
Model diagnostics				
Adj. R^2	0.56	0.56	0.55	0.55
SEE	1.91	1.91	1.92	1.92
Serial correlation				
d	2.20	2.19	2.20	2.21
LM	17.45	19.80	15.99	17.13
Functional form	0.29	0.03	0.00	0.00
Normality	4.79	4.46	6.21*	7.27*
Heteroscedasticity				
General	0.00	0.00	0.00	1.19
ARCH(1)	0.09	0.03	0.01	0.08

[a] Note: a, $p \leq 0.001$; b, $p \leq 0.01$; c, $p \leq 0.05$; d, $p \leq 0.10$ (one-tailed test); *, $p \leq 0.05$. X, variable not included in model.

1995, chap. 14) confirm these findings; the two personal economic evaluation models encompass their national rivals (data not shown). However, these tests fail to make a clear case on behalf of either the personal prospections model or the personal retrospections model. The former cannot encompass the latter, and the latter cannot encompass the former.

The effects of prime ministerial approval are of particular interest. Shifts in prime ministerial approval have an immediate impact on Conservative support, with the regression coefficients being virtually invariant (range +0.38 to +0.39, $p \leq 0.001$) in the four models. The significance of the error correction mechanism reveals that prime ministerial approval also has long-run effects. Consistent with the negative

feedback theory underlying an error correction specification (see, e.g. Hendry, 1995), the ECM coefficients are negatively signed and less than 1.0 in absolute value. Their size (range −0.25 to −0.26) indicates that a shock to Conservative support, of whatever origin, is eroded by the cointegrating relationship between that support and prime ministerial approval at a rate of approximately 25% per month, starting in the month after the shock occurred.

Can we believe the stories these models are telling us? A battery of diagnostic tests for serial correlation, functional form, normality, and heteroscedasticity (Hendry, 1995) indicates an affirmative answer to this question. Other than very mild normality violations in two cases, the four models perform very well on these tests (Table 1). The models also explain substantial amounts of variance (adjusted R^2 varies from 0.55 to 0.56) in Conservative vote intentions, and standard errors of estimate are reasonably small (range 1.91–1.92) given the 0–100 point metric of the dependent variable.

Another consideration when assessing the adequacy of the governing party support models concerns the relationship between Conservative vote intentions and prime ministerial approval. In the party support models, prime ministerial approval is specified as exerting a contemporaneous (time *t*) impact. This is appropriate *if* approval is weakly exogenous to support (e.g. Hendry, 1995, chap. 5). In previous studies analysts (e.g. Goodhart and Bhansali, 1970; Sanders et al., 1987) have expressed doubts about whether the exogeneity condition is met, and used these doubts to justify omitting prime ministerial approval from party support models.[5] However, one may move beyond conjecture to empirical investigation. The first step in testing for the exogeneity of prime ministerial approval is to specify and estimate a model of prime ministerial approval. We do so using the four types of subjective economic evaluations and several of the event variables discussed above. Also included is a dummy variable for the change in Conservative leadership that occurred when the Tories ousted Mrs Thatcher in favor of Mr Major in November 1990. The model is:

$$\Delta \mathrm{PMSAT}_t = \beta_0 + \beta_1 \Delta \mathrm{SUBEC}_t + \beta_2 \mathrm{NEWPM}_t + \Sigma \beta_{3-k} \mathrm{EVENTS}_t + \varepsilon_t$$

where PMSAT is prime ministerial approval; SUBEC is subjective economic evaluations; NEWPM is the change in prime minister from Thatcher to Major; EVENTS is political events; ε is the error term $\sim N(0,\sigma^2)$; Δ is the difference operator; and β is the regression coefficient.

Regression analyses reveal that most of the predictor variables behave as anticipated. For example, all four types of subjective economic evaluations have significant effects (Table 2), with encompassing tests indicating that the national retrospective variant of the prime ministerial approval model encompasses its three rivals (data not shown). Salient events had very sizable and permanent impacts, with prime ministerial approval rising sharply as a result of the Falklands War (by 14–15%), and

[5] The failure to establish the weak exogeneity of prime ministerial approval vis-à-vis Conservative vote intentions would not warrant the inference that approval does not affect vote intentions. Rather, it would suggest that one should proceed to estimate the parameters of a *system* comprised of vote intention and approval equations.

Table 2
Models of the effects of subjective economic evaluations on prime ministerial approval, 1979M7–1996M12[a]

Predictor variable	Model			
	PE	PR	NR	NE
Constant	0.05	0.04	0.05	0.05
Economic evaluations				
△Personal prospective (*t*)	0.11b	X	X	X
△Personal retrospective (*t*)	X	0.07d	X	X
△National retrospective (*t*)	X	X	0.07a	X
△National prospective (*t*)	X	X	X	0.06a
Falklands War				
May 1982	7.87b	8.50b	7.30b	8.21b
June 1982	7.08b	6.74c	6.39c	6.61c
Poll Tax	−2.99d	−2.97d	−2.73d	−2.97d
Political events	2.02a	1.97a	2.08a	2.06a
National elections				
1983	2.51	2.60	1.89	2.12
1987	2.36	2.29	1.75	2.18
1992	3.13d	3.72c	2.93d	3.13d
Thatcher→Major	21.78a	21.61a	20.98a	20.03a
Currency crisis	−18.36a	−18.83a	−18.12a	−18.72a
Major reselected Tory leader	6.38c	6.62c	6.45c	6.67c
Model diagnostics				
Adj. R^2	0.43	0.41	0.44	0.43
SEE	2.91	2.96	2.88	2.91
Serial correlation				
d	2.39	2.36	2.36	2.28
LM	18.13	17.99	20.94	16.04
Functional form	0.12	1.32	0.38	0.50
Normality	3.26	4.57	4.30	3.35
Heteroscedasticity				
General	1.12	1.06	1.04	1.19
ARCH(1)	0.16	0.11	0.00	0.06

[a] Note: a, $p \leq 0.001$; b, $p \leq 0.01$; c, $p \leq 0.05$; d, $p \leq 0.10$ (one-tailed test). X, variable not included in model.

falling dramatically (by 18–19%) as a consequence of Britain's departure from the exchange rate mechanism (the currency crisis) in September 1992. And, net of these several influences, the replacement of Thatcher by Major was responsible for a 21% increase in public satisfaction with prime ministerial performance. As in the case of Conservative support, the prime ministerial approval models have reasonable goodness-of-fit statistics (adj. R^2=0.41–0.43, SEE=2.28–2.36), and they perform very well on various diagnostic tests (see Table 2).

The second and third steps in testing for the weak exogeneity of prime ministerial approval vis-à-vis Conservative support employ the models for these variables (see, e.g. Charemza and Deadman, 1997, pp. 228–230). We first re-estimate the prime

ministerial approval models, including the error correction mechanism from the Conservative support models. As is required for weak exogeneity, the ECM term is insignificant in these analyses. Next, we re-estimate the Conservative support models, including the residuals from the prime ministerial approval models (absent the ECM term) as an additional variable. As is required for weak exogeneity, this residual variable is statistically insignificant.

Providing empirical warrant for the weak exogeneity requirement strengthens the case for the Conservative vote intention models presented above. These models forcefully testify that prime ministerial approval judgments were important motors of governing party support throughout the Thatcher and Major years. However, they do not address the hypothesis that the impact of these judgments varies by prime minister. Specifically, did public assessments of Margaret Thatcher's performance as prime minister have a larger effect on Conservative vote intentions than those made about her successor, John Major? We consider this question in the next section.

4. Do incumbents matter?

The 'presidentialization' hypothesis and the 'incumbent matters' hypothesis both state that the effects of prime ministerial approval on governing party support vary. The presidentialization hypothesis specifies a long-term trend—the impact of prime ministerial approval has increased steadily over time regardless of who the incumbent happens to be. Prime ministerial approval effects on governing party support are thus stronger for each successive prime minister. In contrast, the 'incumbent matters' hypothesis asserts that the impact of prime ministerial approval is always significant (at least in the contemporary era of substantial partisan dealignment and massive media coverage of the prime minister), but varies in strength according to who occupies Number 10. As observed in the Introduction, the availability of data for nearly 18 years of uninterrupted Conservative government with two prime ministers, each in office for substantial portions of this period, provides an excellent opportunity to test these rival hypotheses.

In the context of time series analysis, the 'presidentialization' and 'incumbent' hypotheses both suggest that the coefficient measuring the impact of prime ministerial approval on governing party support has dynamic properties. Although there are various diagnostic procedures for detecting the presence of time-varying parameters (see, e.g. Hendry, 1995, pp. 78–85), some (e.g. Chow, CUSUM, CUSUMSQ tests) are *general* tests for parameter stability. As such, they should be used in conjunction with a procedure that enables one to spotlight (possibly changing) values of particular parameters in a multivariate model. For this latter purpose, one may employ recursive regression techniques and plot the evolution of the parameter of interest (Hendry, 1995, pp. 78–82).

Recursive estimates of the Conservative support models show that the prime ministerial approval parameter estimate displays considerable volatility in the early Thatcher years, and a precipitate drop beginning exactly at the time (November 1990) when Thatcher was replaced by Major (see Fig. 2). Volatility in a coefficient during

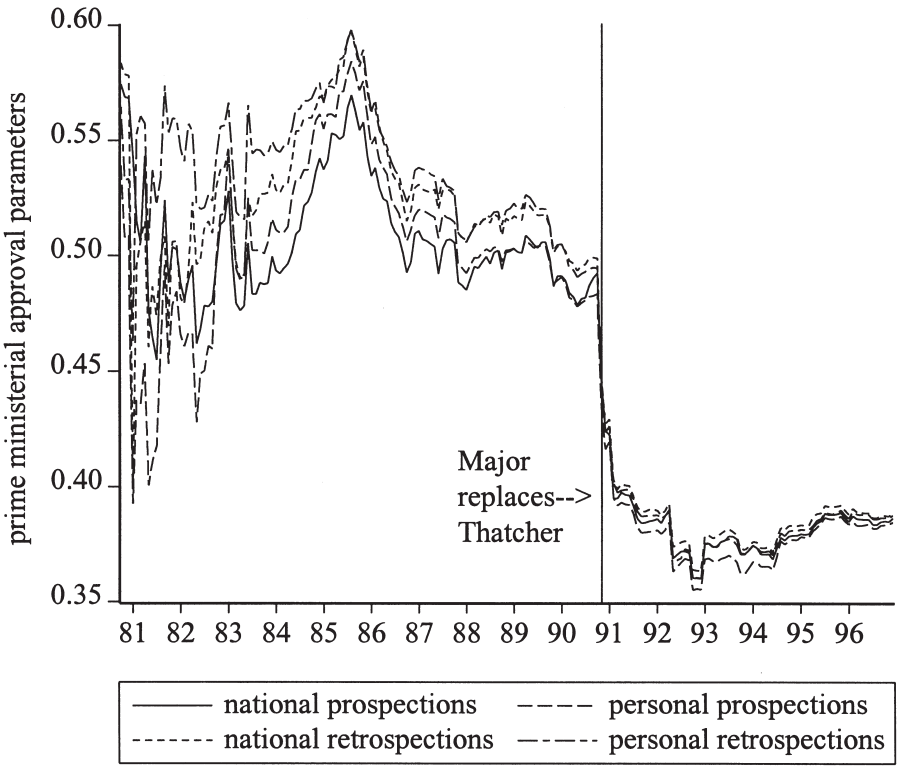

Fig. 2. Recursive regression estimates of prime ministerial approval parameters in economic evaluation models of Conservative Party support, October 1980–December 1996.

the early part of the time interval covered by the recursive regression procedure does not surprise since near the beginning of the time series model parameters are being estimated using small amounts of data. More interesting is the sharp *decrease* in the value of the parameter coincident with the transition from Thatcher to Major. This large downward movement is consistent with the 'incumbent matters' hypothesis. As also required by this hypothesis, the prime ministerial approval coefficient remains statistically significant throughout the Major era (data not shown). Additional, more general, evidence of parameter instability in the Conservative support model (personal economic expectations variant) is provided by *N*-step increasing Chow tests (Doornik and Hendry, 1994, pp. 328–329). Fig. 3 depicts the *F*-test statistics for increasing sample sizes scaled by the critical values for a sequence of tests at the 0.05 level of probability. The dark horizontal line at 1.0 thus shows the 5% critical value. As the figure shows, the explanatory power of the model changes significantly in late 1990—precisely at the time when Major replaced Thatcher.

Although suggestive, the visual evidence in Figs. 2 and 3 does not constitute a formal test that there was a statistically significant downward shift in the impact of prime ministerial approval per se at the time of the Tory leadership change. To

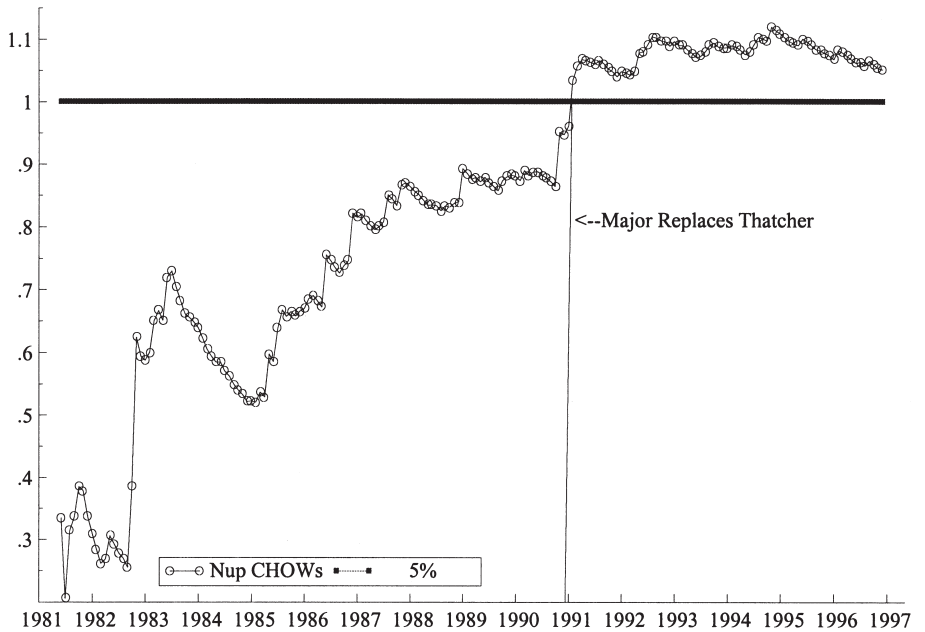

Fig. 3. *N*-step increasing Chow tests, Conservative Party support model.

conduct such a test, we re-estimate the four Conservative vote intention models including an interaction term, as well as a main effect term, for prime ministerial approval. The interaction term is constructed by multiplying the (differenced) prime ministerial approval variable by a 0–1 dummy variable scored 0 until November 1990 and 1 afterward. Given the hypothesis that the impact of prime ministerial approval on Conservative support was smaller when Major rather than Thatcher was in office, the expectation is that the prime ministerial approval interaction term will be statistically significant and carry a *negative* sign. Since the error correction mechanism also involves prime ministerial approval, we construct a second interaction term by multiplying the ECM variable by the Thatcher-to-Major dummy variable. In keeping with the hypothesis that the long-run cointegrating relationship between prime ministerial approval and Tory support weakened after Major replaced Thatcher, the ECM interaction term should be statistically significant and have a *positive* sign. Recall that, in keeping with its negative feedback properties, the coefficient for an error correction mechanism should be negatively signed. Thus, a significant positive sign for the ECM interaction variable indicates that the overall (main plus interaction) effect of the vote intention–prime ministerial approval error correction mechanism weakened during the Major years.

The coefficients for the re-estimated Conservative support models are presented in Table 3. Consonant with expectations, the interaction terms for the prime ministerial approval variable are statistically significant and negatively signed. The main effect terms also remain significant and properly (positively) signed. The latter coefficients

Table 3
Error correction models of the effects of prime ministerial approval and subjective economic evaluations on conservative party support, 1979M8–1996M12, with short- and long-run party leader interaction effects[a]

Predictor variable	Model			
	PE	PR	NR	NE
Constant	0.31c	0.31c	0.31c	0.31c
Prime ministerial approval	0.49a	0.50a	0.50a	0.50a
PM interaction effect	**−0.20b**	**−0.21b**	**−0.21b**	**−0.21b**
Error correction mechanism ($t-1$)	−0.32a	−0.33a	−0.34a	−0.34a
ECM interaction effect	**0.17c**	**0.18c**	**0.18c**	**0.18c**
Economic evaluations				
Personal prospective (t)	0.06c	X	X	X
Personal retrospective (t)	X	0.07c	X	X
National retrospective (t)	X	X	0.01	X
National prospective (t)	X	X	X	0.02d
Falklands War				
May 1982	4.88b	5.08b	4.93b	5.08b
Poll Tax	−2.68c	−3.36b	−2.92c	−2.80c
Major reselected Tory leader	5.16b	5.02b	5.32b	5.32b
Political events	1.45a	1.40a	1.44a	1.44a
National elections				
1983	2.49c	2.63c	2.71c	2.69c
1992	4.47a	4.59a	4.59a	4.52a
Currency crisis	−0.64c	−0.65c	−0.64c	−0.64c
Model diagnostics				
Adj. R^2	0.57	0.57	0.56	0.57
SEE	1.87	1.87	1.89	1.88
Serial correlation				
d	2.24	2.22	2.23	2.24
LM (12)	15.94	17.63	14.86	15.71
Normality	4.17	4.18	5.34	6.08c
Heteroscedasticity				
General	21.79	25.37	23.64	22.35
ARCH(1)	0.13	0.02	0.01	0.03

[a] Note: a, $p \leq 0.001$; b, $p \leq 0.01$; c, $p \leq 0.05$; d, $p \leq 0.10$ (one-tailed test). X, variable not included in model.

range from +0.49 to +0.50 across the four models, thereby indicating that during the Thatcher years a 10-point change in prime ministerial approval would cause Conservative vote intentions to vary by approximately 5%. During the Major years, the interaction terms come into play, with the sum of the main and interaction effects varying from +0.29 to +0.31 across the four models. Wald tests (e.g. Charemza and Deadman, 1997, pp. 63–68) confirm that these combined main and interaction effects are statistically significant in all four analyses (Table 4). These test results mean that prime ministerial approval continued to affect Conservative vote intentions when

Table 4
Wald tests for zero restrictions on sums of main and interaction coefficients for short- and long-run effects of prime ministerial approval on Conservative Party support[a]

Party support model	χ^2 test statistic	
	Short-run effect	Long-run effect
Personal prospective (PE)	33.29 (0.000)	5.74 (0.017)
Personal retrospective (PR)	33.28 (0.000)	5.52 (0.019)
National retrospective (NR)	32.68 (0.000)	5.53 (0.019)
National prospective (NE)	32.06 (0.000)	5.85 (0.016)

[a] Note: numbers in parentheses are *p* values.

Major was in office. However, the short-run effect of prime ministerial approval declined by approximately 40% when Major, rather than Thatcher, was Tory leader.[6] Major's influence was such that a 10-point change in public evaluations of his performance as prime minister produced a 3% movement in support for his party. Since prime ministerial approval varied by fully 44% during Major's term, ceteris paribus, changes in evaluations of his performance were sufficient to alter Conservative vote intentions by approximately 13%.

Coefficients for the ECM interaction terms also behave as anticipated—they are statistically significant and positively signed in all four models. ECM main effect coefficients also remain significant and continue to carry negative signs. Their magnitudes indicate that, during the Thatcher years, shocks to Tory vote intentions eroded at a rate of approximately 33% per month. The size of the ECM interaction terms (+0.17 to +0.18) suggests that the strength of the long-term cointegrating relationship between Conservative support and prime ministerial approval was cut by nearly 50% after Major replaced Thatcher. Wald tests demonstrate that the ECM effect on Conservative support, if substantially weakened, remained statistically significant during Major's term as prime minister (Table 4). When he occupied Number 10, the long-term cointegrating relationship between prime ministerial approval and Conservative support remained in place, but its strength was such that shocks to the latter eroded at a rate of only about 20% per month. The weakening of the prime ministerial approval–governing party support nexus after November 1990 thus provided enhanced opportunities for various short-term forces to exert longer-lasting influences on Tory vote intentions than had been the case when Mrs Thatcher had been in office. In the event, many of these forces, and prime ministerial approval itself, worked to drive Conservative support sharply downwards in the period between the 1992 and 1997 general elections. This series of anti-Conservative factors did much to pave the way for Labour's dramatic victory in the latter of these contests.

[6] The calculation is $((0.5-0.3)/0.5)\times100=40\%$.

5. Conclusion: party leaders and party support

We have argued that public images of prime ministers deserve prominence in models of the political economy of governing party support in Britain. Empirical analyses support this claim. Net of the impact of various types of subjective economic evaluations and several other significant variables, prime ministerial approval had important long- and short-run influences on Conservative party support over the 1979–1996 period. These findings are consistent with the observation that British prime ministers are highly salient figures on the political stage. However, the analyses also demonstrate that 'the incumbent matters'. John Major was not Margaret Thatcher, and both the short- and the long-run effects of voters' evaluations of his performance as prime minister on Tory vote intentions were substantially less than those of his predecessor. This downward shift in the *impact* of prime ministerial approval on Conservative support in the Major years should not be confused with changes in prime ministerial approval per se. Thatcher's replacement by Major prompted a huge (24%) jump in prime ministerial approval which, in turn, helped to produce a very sizable (11%) increase in the Conservative vote intention share. Collectively, these results emphasize that leader effects on governing party support have two important dimensions—level of popularity and level of impact. The latter, as well as the former, varies from one leader to the next and merits our attention.

On May 1, 1997, British voters decided that 'New Labour' should be Britain's new government. By so doing, they made Labour leader, Tony Blair, the new prime minister. Although it is too soon to conduct time series analyses of public evaluations of Blair's prime ministerial performance on Labour support, recent research (Clarke et al., 1998) indicates that Blair and his predecessors (Smith and, briefly, Kinnock) powerfully influenced Labour's vote intention share as an opposition party in the period between the 1992 and 1997 general elections. This finding, taken together with the results presented in this article and other recent studies, strongly suggest that, as in the cases of Thatcher and Major, public evaluations of Mr Blair's performance will significantly affect governing party support while he and his party occupy the government benches. More generally, the assumption that leader effects will continue to exist is eminently sensible given the ongoing glare of publicity on British prime ministers and their opposition rivals. Party leaders are their parties' chief spokespersons, and their actions do much to shape the policies, personnel and processes that collectively define party images in the public mind. A new prime minister and a new governing party will provide important new opportunities to test the hypothesis that leader images are key elements in the political economy of party support in contemporary Britain.

Appendix A

Serious threats to inference arise when analyzing nonstationary (or nearly nonstationary) data (e.g. Granger and Newbold, 1974; DeBoef and Granato, 1997; see also Smith, 1993). Thus, we begin by testing the stationarity of Conservative

party support (vote intentions), prime ministerial approval, and the four types of subjective economic evaluations discussed above. Our time series data for these variables cover the July 1979–December 1996 period. Dickey–Fuller (Dickey and Fuller, 1979) tests reveal that Conservative support, prime ministerial approval, and personal and national retrospective economic evaluations are all nonstationary in their original level form, but become stationary when first differenced (Table 5, Panel A). Personal and national prospective economic evaluations are stationary in levels. KPSS tests (Kwiatkowski et al., 1992) were conducted as a further check for nonstationarity. Unlike Dickey–Fuller tests, the null hypothesis for KPSS tests is that a series is stationary. Testing with a recommended lag truncation parameter of 4, the null is rejected at the 0.05 level for Conservative vote intentions, prime ministerial approval, personal economic prospections and personal economic retrospections. It is rejected at the 0.10 level for national economic retrospections, and fails to be rejected for national economic prospections.

Perron tests (Perron 1989, 1990) provide additional evidence. In his reanalysis of the study by Nelson and Plosser (1982) of the (non)stationarity of macroeconomic series, Perron (1989) demonstrated that unit-root tests may mislead (i.e. fail to reject

Table 5
Dickey–Fuller unit-root tests for stationarity of Conservative Party support, prime ministerial approval and subjective economic evaluations, 1979M8–1996M12 (Panel A) and Perron unit-root tests for stationarity of Conservative Party support, prime ministerial approval and subjective economic evaluations,1979:08–1996:12 allowing for changing mean at Thatcher to Major shift (Panel B)[a]

Variable	Original series	Differenced series
Panel A[b]		
Conservative Party support	−2.60*	−16.69
Prime ministerial approval	−2.69*	−15.28
Subjective economic evaluations		
Personal prospective	−3.55A	−17.12
Personal retrospective	−2.28*A	−19.45
National retrospective	−2.99**	−16.14
National prospective	−4.91A	−18.08
Panel B[c]		
Conservative Party support	−3.40*B	−16.83
Prime ministerial approval	−3.32*	−15.41
Subjective economic evaluations		
Personal prospective	−3.66**B	−17.22
Personal retrospective	−2.21*B	−19.67
National retrospective	−2.99*	−16.27
National prospective	−4.97B	−18.00

[a] Asterisks indicate that the test fails to reject the null hypothesis of unit root: *$p \leq 0.05$; **$p \leq 0.01$. A, augmented Dickey–Fuller test; B, augmented Perron test.

[b] All tests conducted using MacKinnon (1991) critical values. Regressions include constant but no linear trend. Tests conducted with trend term show that trend is not significant ($p \geq 0.05$) in all cases.

[c] All tests conducted using Perron (1990) critical values. Regressions include constant but no linear trend.

the null hypothesis of nonstationarity) when series undergo structural breaks. Given our interest in the impact of a change in the incumbent prime minister, we investigate the possibility that such a break occurred when Thatcher was replaced by Major in November 1990. Using techniques devised by Perron (1990), we perform unit-root tests allowing for a shift in the mean of the series at that time. The results show that all series are nonstationary in levels, but are stationary in differenced form (Table 5, Panel B).

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