The electoral geography of recession: local economic conditions, public perceptions and the economic vote in the 1992 British general election

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Recent debates in the analysis of electoral behaviour indicate the importance of local economic conditions in accounting for the geography of the vote. Where local economies are strong and strengthening, support for the government is high; where local economies are weak, government support is low. However, research has been hampered by a lack of appropriate data on local economic conditions. In this paper, some newly available estimates of local economic conditions and of voters' perceptions of their regional economies are employed to provide insights into how local economic context affected voter choice at the 1992 British general election. A three-stage analysis reveals the importance of voters' evaluations of their regional economy: these evaluations were not reducible to voters' evaluations of the national economy or of their own domestic situations; they were shaped by economic conditions in particular places. But distinct regional variations in British voting persist, even when we control for local economic conditions. The housing slump stood out as an important factor in influencing voters' perceptions, although voters experiencing mortgage difficulties in 1992 did not appear to change their vote as a result. Labour gained support in seats which were badly affected by negative equity.

key words Britain electoral geography logistic regression regional economies government support economic evaluations

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Introduction: contextual effects and electoral geography

The emergence of a strong regional geography in the vote over the last twenty years has provided a dominant theme in the analysis of British electoral behaviour. Both academic and journalistic accounts have drawn attention to the clear trend for the Labour party to increase its electoral support in the north of the country and within major cities, while the Conservatives have built up support in the south, the suburbs and in rural areas. Between 1979 and 1987, this regional divide widened rapidly, leading to discussion of 'a nation dividing' in terms of its politics (Johnston *et al.* 1988). At the 1992 general election, the divide narrowed: the Conservatives lost some ground and Labour gained in the south of the country, while the opposite happened further north. But, although it was less pronounced than in other recent elections, the regional electoral divide remained, although it has changed over time.

However, there is strong controversy over how the divide can be accounted for. For some analysts, the divide represents a distinct regional dimension in British politics, with voters taking at least some of their political cues from their local and regional contexts (ibid). For others, geographical context plays little or no part in forming voters' opinions which are instead the result of each individual's background, experiences and evaluations: the regional divide is purely an artefact of the geography of individual voters, an accidental by-product rather than an electoral cleavage in its own right (McAllister and Studlar 1992; Rose and McAllister 1990). At its root, this controversy can be reduced to an argument over whether - and how - geography matters in contemporary electoral politics. Are voters influenced by where they live or by who they are?

To date, this debate has been caught in an impasse. Measuring the importance or otherwise of geographical context upon the vote has depended in large part upon the research strategy adopted. The main data sources for the analysis of British elections have not been adequate to the task. Studying constituency results provides evidence which seems to support the geographical context argument but is subject, of course, to the risk of ecological fallacy (Pattie et al. 1994). Similarly, the main social surveys (including the British election study (BES) (Heath 1993)) have tended to concentrate very much on individual and national factors, and have asked little which allows any direct evaluation of what voters think about their geographical contexts. As a result, whether or not analysts find evidence for geographical influences on the vote has depended on how they have chosen to interpret the indirect evidence.

That said, there are a priori grounds for expecting that voters from similar social backgrounds living in different parts of the country will think about politics and government performance in different ways and will vote accordingly. An emerging and important area of research in political science has looked at the impact of economic conditions and voters' evaluations of the state of the economy upon voting behaviour (Lewis-Beck 1988; Sanders 1995). The literature suggests that voters use the economy as a yardstick against which to measure government performance. Voters support parties which deliver economic prosperity and vote against parties which preside over recessions. Clearly, voters are likely to judge the government on the state of the national economy. Furthermore, they are likely to consider their own individual economic circumstances. Part of the voting decision therefore comes down to the question 'is the national economy improving and am I becoming better off?'.

However, it is equally clear that 'the economy' is not uniform across the country. Throughout the 1980s and 1990s, for instance, regional and local economies have often developed on divergent paths, with some areas enjoying prolonged booms while others were mired in recession. What voters thought about the state of the economy, and hence how they evaluated the competing claims of the political parties, may well have depended not only on how they saw the national economy and their personal circumstances but also on the state of the economy in their locality and their wider region. Clearly, for some voters, all three levels of economic experience may work in the same way, reinforcing their evaluation of the government's competence. But for others, they may pull in different directions. A voter may be personally affluent and think that the national economy is growing; both factors which an economic voting argument would suggest predisposed her to supporting the government. But if s/he lives in an economically depressed region, s/he might to some extent discount the good news about the economy and become less well-disposed towards the government. To the extent that this takes place, there is evidence that geographical context, as expressed through local and/or regional economic circumstances, has some independent impact upon voting behaviour.

Building on that logic, in this paper we investigate the role of local economic context in influencing voting decisions during the 1992 British general election. Some work has already been carried out on this subject (e.g. Owens and Wade 1988) but, as with other analyses of the geography of the vote, in the absence of more direct measures, it has had to rely on inferring the importance of local and regional economies from other variables or from ecological models. Johnston *et al.* (1988), for instance, point to regional variations in voters' evaluations of their personal circumstances: this provides suggestive but not conclusive evidence. The impasse over the correct interpretation of the regional divide in British politics remained. New data are now available, however, which provide a way forward. At the level of individual voters' views and perceptions, the 1992 *BES* (the flagship survey of the British electorate) contained questions not only on voters' perceptions of personal and national economic well-being but also, for the first time, questions on their perceptions of the state of the regional economy, allowing us to differentiate between the three levels of economic influence outlined above (Johnston and Pattie 1995; Pattie and Johnston 1995).

Research on the geography of the economic vote has also drawn on 'objective' measures of local economic conditions. Conventionally, this has meant the use of constituency unemployment rates (Owens and Wade 1988), although recent work has looked at local taxation too (Johnston and Pattie 1992). Even so, this remains a small base from which to work, especially given that, throughout the 1980s and early 1990s, the Conservative government was regularly re-elected, despite record levels of unemployment. This they achieved largely because a majority of the population remained unaffected by unemployment and saw their living standards rise over the period. Other, more wide-ranging measures of local economic performance are needed, therefore, in order to extend the analysis. Here again, we are helped by newly available data. New estimates of housing market conditions in individual constituencies also allow us to add further 'objective' information on local economic conditions to our analysis.1 These new data allow us to investigate the role of geographical context on economic voting more clearly than has hitherto been possible. In this paper, we employ them together to provide the clearest test thus far of the independent effects of geographical context on the vote. By combining voters' own evaluations of their regional economic circumstances with data on local economic conditions, it is possible, we argue, to break out of the impasse which has developed around the competing interpretations in this literature.

Measuring economic evaluations

In the following analyses, we investigate voters' retrospective evaluations of the state of the economy (that is, their evaluations of how things have changed in the recent past, as opposed to their views on how things will change in the

future). Analysis is restricted to these retrospective evaluations because the 1992 BES did not contain questions on prospective evaluations. In some respects this is unfortunate, since much recent work has emphasized the importance of voters' levels of optimism about the economic future (Sanders 1991, 1992, 1995; Sanders et al. 1987). However, because of the design of the BES, prospective evaluations are likely to be misleading. Survey work for the 1992 BES took place after, not before, the election. During the immediate aftermath of an election (and 1992 was no exception), governments tend to enjoy a 'honeymoon' period, during which they experience growing popularity and public belief in the efficacy of their policies increases. Answers to questions on prospective evaluations are, therefore, liable to be coloured by the election outcome as voters became more optimistic about the future in the immediate aftermath of the election (Denver et al. 1993).

Voters' retrospective evaluations of the economy are measured at three different scales: the national, the regional and the personal.² In each case, voters were asked to compare conditions in 1992 with ten years previously and to say whether they felt the country, their region and their household respectively had become more prosperous, had stayed the same or had become less prosperous. In addition, the regional and personal retrospective evaluation questions included riders which asked respondents to state whether they thought the government was responsible for their regional or personal economic circumstances. Clearly, the question of responsibility is important. If voters feel that the government is responsible, they are likely to reward or punish it accordingly. If, however, they feel that the government is not responsible, they may well be less likely to be influenced in their voting decisions by their economic evaluations. In later analyses, we study interaction effects to estimate the extent to which this takes place.

'Objective' measures and constituency economic conditions

As we have argued above, Britain's economic geography may well have played an important part in accounting for the geography of party support at successive elections during the 1980s and 1990s. During that period, changes in the economic geography matched changes in the electoral geography. For the national economy, 1979 to

a ŝi	Percentage	Percentage change in unemployment			
	unemployment 1991	1983–6	1987–9	1989-91	
Scotland	8.7	1.0	-3.7	-0.6	
Wales	8.7	0.6	-4.7	1.4	
North England	10-4	0.7	-4.2	0.5	
Northwest	9.4	0.4	-4.0	0.9	
Yorkshire and Humberside	8.7	1.1	-5.1	1.3	
East midlands	7.2	0.5	-3.6	1.8	
West midlands	8.6	0.0	-4.8	2.0	
East Anglia	5.8	0.5	-3.7	2.2	
Southwest	7.1	0.8	-3.6	2.6	
Southeast	7.0	0.6	-2.9	3.1	

Table I The changing regional geography of unemployment

Source: Central Statistical Office (1992, Table 3.16)

1992 represents a complete economic cycle from recession to boom and back to recession. In the early 1980s, British manufacturing industry was severely affected by global recession and unemployment grew rapidly, from about 1 million registered out of work when the Conservatives took office in 1979 to a peak of over 3 million in 1986.

By the middle of the decade, the economy was recovering. Inflation, identified as the main economic evil by the government, had, after initially rising rapidly in 1979 and 1980, fallen steadily. Service sector-led growth had taken off. Headline unemployment, though still stubbornly high, had begun to fall steadily from 1986. Consumer spending was rising and the government embarked on a populist series of tax-cutting budgets. Rising property prices, which grew particularly steeply towards the end of the decade, brought the promise of rapid wealth accumulation for home owners (a group which increased in size in Britain during the 1980s as a result of a variety of factors, including the government's policy of selling council houses to tenants). The government began to talk of an 'economic miracle'.

However, the economic boom of the late 1980s fuelled inflationary pressures. By the end of the decade, the government once more had to introduce deflationary measures. Interest rates were raised, putting an abrupt stop to the housing boom as the costs of mortgage repayments rose. Deflationary policies coincided with the onset of another global recession and the economy went into a prolonged slump. Unemployment began to rise again.

This cycle of boom and bust was not felt equally in all parts of the country. During the early 1980s, the decline of manufacturing industry hit the traditional industrial regions of the north and the midlands disproportionately hard (Dorling 1995). Unemployment there grew quickly and recovery, when it did come, was particularly slow and limited (Pattie and Johnston 1990). In the south, however, the service sector-led economy was not so badly affected by the recession of the early 1980s and the region was at the forefront of the mid to late 1980s boom. Unemployment in the south was consistently much lower than the national average and fell faster than average during the recovery (Table I). Pressure on the housing markets of the south produced an appreciable and rapid rise in the value of owner-occupied property there, which filtered only slowly out to other regions (Table II). Home owners in the south saw (what was for most) their major asset appreciate rapidly in value, faster and to higher levels than home owners elsewhere in the country (Hamnett 1983, 1989; Saunders 1990). Differing regional economic trajectories during the decade produced an increasingly polarized nation. By the end of the 1980s, regional statistics suggested a growing divide between an affluent south and a poor north (Lewis and Townsend 1989).

The new recession of the early 1990s, however, did much to narrow the regional divide which had opened during the 1980s. It affected the service sector and struck first and hardest in the previously affluent south of the country. Unemployment rates in the south began to rise while they

	Property price	Percentage change in property price			Percentage negative
	(£000s)	1983–6	1987–9	1989–91	1993
Strathclyde	42.44	13.39	19.65	11.95	6.66
East central Scotland	47.01	12-25	26.16	8.66	1.12
Rural Scotland	39.19	8-60	27.98	23.06	2.07
Rural north	51.81	21-43	47-02	6.29	11.08
Industrial northeast	38-27	12.98	31.59	6.83	5.53
Merseyside	46.99	8-31	44.01	22.17	8.72
Greater Manchester	48.68	17.82	48.97	4.98	8.05
Rest of northwest	57.04	20.32	51.06	11.22	10.83
West Yorkshire	47.34	14.40	49.49	9.33	5.89
South Yorkshire	41.10	12.35	43-16	12.01	6-27
Rural Wales	45.05	13.14	49.18	2.26	10.05
Industrial South Wales	43-61	21.54	35.99	-0.82	4.14
West midlands conurbation	51.86	18.15	47.39	6.36	9.81
Rest of west midlands	59.68	23.85	52.84	3.07	18-39
East midlands	51.71	28.32	44.24	3.70	28-13
East Anglia	57.02	40-31	31.15	-12.91	27.34
Devon and Cornwall	59.27	30.71	46.52	-10.72	33-66
Wessex	63.94	37.02	32.99	-6.11	36-53
Inner London	78-15	62.34	13.14	1.81	39.83
Outer London	86.38	56.72	16.19	-3.38	39.36
Outer Metropolitan	84-86	50-91	25.37	-6.91	34.29
Outer southeast	68.78	43.38	32.60	-10.90	38.79

Table II The changing regional geography of the housing market

Source: Unpublished building society data (see Dorling and Cornford 1995; and footnote 1)

were still falling gently further north (Table I; Green et al. 1994). Property prices were still growing in the north of the country, albeit at markedly lower rates and from lower starting levels than prices in the south at the height of the property boom. But in the south, and particularly in the southeast, prices were falling rapidly (Table II; Hamnett 1993). Some home owners, again particularly in the southeast, found that, as a consequence of the slump, they held negative equity: their homes were worth less than the value of their mortgage, making it very difficult for many of them to sell up and move (Dorling 1993; Gentle et al. 1994). Far from being a motor for wealth creation, for many people home ownership threatened to be a route to rising personal indebtedness.

The changing regional geography of the British economy matches the country's changing electoral geography over the same period. The government lost support in regions which were worst hit by the effects of economic change and gained votes in regions where the local economy was relatively buoyant, producing a widening regional divide in voting between 1979 and 1987, and a slight narrowing of the gap in 1992 (Johnston *et al.* 1988; Johnston and Pattie 1992; Pattie *et al.* 1994). That said, even though the size of the regional economic divide declined in 1992, there was still an appreciable north–south divide in voting.

Specifying a model

On the basis of the above discussion, it is possible to suggest three scales in which economic conditions in the run-up to an election might affect voters' decisions: national, regional and personal. At all three scales, economic effects on the vote can work through either 'objective' factors or through voters' perceptions. Most likely, voters' perceptions are the product of various objective conditions and the actual voting decision is a product of both perceptions and 'real' circumstances. To take this into account, we adopt a three-step analysis. The first step demonstrates that, in their perceptions of economic conditions, voters did distinguish between the different spatial scales. In the second step, we model voters' perceptions of economic conditions. In the third step, we model their actual voting choices.

In later analyses, we control for a range of factors which are widely seen as influences on voting: class, housing tenure, age, employment status, education and region. We also include a variable measuring whether respondents felt they were facing difficulties in paying their mortgage, a potentially important factor in the housing recession conditions of the 1992 election.³ Since these factors are likely to impact upon voters' perceptions of economic conditions, they are also used to try and account for those evaluations. In addition, we employ the 'objective' measures of constituency economic conditions in Tables I and II: unemployment rates in December 1991 and housing market conditions in the run-up to the 1991 election. These measures allow us to assess the extent to which voters' economic perceptions were in line with their local economic conditions and, in the thirdstage models, the extent to which local economic conditions had an independent impact on voting in 1992. Analysis was restricted to those respondents who gave answers to all the questions employed below. In addition, all analyses used weighted data to take into account the existence of Scottish oversampling in the 1992 BES.

Step 1: distinguishing between personal, regional and national economic evaluations

It is conceivable that voters do not differentiate between their own, regional and national prosperity. If that is the case, then voters who feel they personally have become better off will also feel their region and the country as a whole is becoming more affluent. Clearly, this will have some basis in reality in that, if regional and national prosperity is increasing, some voters must also enjoy rising living standards. However, it is equally obvious that not all voters will live in circumstances where their 'real' personal, regional and national economies are all moving in the same direction. Take, for instance, the example of an individual living in Merseyside during the late 1980s. The national economy was booming but the regional economy was still deep in recession and neither necessarily determines her own economic circumstances. For our thesis to hold, we need to demonstrate that respondents' answers to the question concerning the state of their region's economy are not a simple function of their evaluations either of their personal circumstances or of the national economy.

It is hardly surprising to find that there is a reasonable correlation between voters' opinions of

Table III National, regional and individual retrospective economic evaluations, 1992

a) National vs personal economic circumstances over last ten years

	Personal economy			
	Got better %	Stayed same %	Got worse %	
National economy				
got better	50.6	36.1	19.8	
stayed same	16.2	22.7	20-4	
got worse	33-2	41.2	59.8	
N	495	1201	680	

b) National vs regional economic circumstances over last ten years

	Regional economy				
	Got better %	Stayed same %	Got worse %		
National economy					
got better	51.7	37.3	22.3		
stayed same	19.7	25.0	17.8		
got worse	28.6	37.7	59.8		
N	577	793	1007		

c) Personal vs regional economic circumstances over last ten years

	Regional economy				
	Got better %	Stayed same %	Got worse %		
Personal economy					
got better	31.8	19.1	15.9		
stayed same	50.2	55-1	47.2		
got worse	18-1	25.9	36.9		
N	577	793	1007		

Source: Heath (1993)

economic conditions at the three scales we use here (Table III). But the important point to note here is that personal, regional and national evaluations are not one and the same thing. To take a few illustrative examples, half of those who felt that their personal economic circumstances had improved over the previous decade also felt that the nation

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had become more prosperous but, by the same token, half felt that the national economy had remained the same or had become worse over the same period. Similarly, while 60 per cent of those who felt that their region had become less prosperous over the previous ten years believed that the national economy had moved in the same direction, 40 per cent disagreed. Even more striking, while 37 per cent of the voters who felt their region had become less prosperous since 1982 believed that their household had become less prosperous too, 63 per cent disagreed, feeling that their personal circumstances had at least remained constant or had improved, despite the state of the regional economy.

The implication is clear. Respondents were differentiating between three different things when asked about national, regional and household prosperity. Their economic evaluations were not all of a piece but depended on the scale in question. Voters were sophisticated readers of a complex and multifaceted economic geography. However, this begs the question: what shaped voters' economic evaluations and, in particular, were regional evaluations sensitive to differences in regional and local 'objective' economic conditions? The next step in the analysis considers this question.

Step 2: modelling economic evaluations

We investigate voters' economic evaluations using logistic regression models, with economic evaluations as the dependent variables. Six models were fitted:

- 'national better': those who thought the national economic situation had improved over the previous ten years (coded 1) versus all other respondents (coded 0);
- 'national worse': those who thought the national economic situation had become worse over the previous ten years (coded 1) versus all other respondents;
- 'personal better': those who thought their household had become more prosperous over the previous ten years (coded 1) versus all other respondents (coded 0);
- 'personal worse': those who thought their household had become less prosperous over the previous ten years (coded 1) versus all other respondents;
- 'regional better': those who thought the economic situation in their region had improved over

the previous ten years (coded 1) versus all other respondents (coded 0); and

 'regional worse': those who thought the economic situation in their region had become worse over the previous ten years (coded 1) versus all other respondents (coded 0).

The independent variables in the equation included the individual- and constituency-level factors outlined above. Each of the individual-level variables was recoded as a set of dummy variables (one for each category) and one category, which served as a comparison group, was omitted from each variable.⁴ All independent variables were entered into the equations together. The results report the equation coefficients and their standard errors (see Table IV).⁵

Broadly speaking, the equations fit our expectations. Respondents' retrospective economic evaluations at the 1992 election were, not surprisingly, influenced quite strongly by their own circumstances and by local circumstances which were liable to have an immediate impact upon them personally. Compared to those who were out of work, most other groups of voters were more likely to feel that the national and regional economies had improved over the previous decade and that their household had become more prosperous, and were less likely to feel that they had become less prosperous. For instance, respondents who were in work were 2.6 times more likely to feel that, other things being equal, their household had become more prosperous than those of unemployed respondents.6 Respondents' housing tenure was also linked to their evaluations of economic trends at all three scales investigated here. Compared to owner-occupiers, council tenants were more likely to feel that things had become worse in their households, their regions and in the country as a whole.

Education and class influenced perceptions of personal and regional economic circumstances. Other things being equal, voters with at least some educational qualifications were more sanguine about how their household prosperity and the economy of their region had shifted over the previous decade than were respondents with no qualifications. This was especially marked among graduates, who were 3.5 times more likely to feel that their household had become more prosperous and twice as likely to feel that their region had become more affluent than were those with no qualifications. Social class also had a consistent Table IV Logistic regression: accounting for personal and regional economic evaluations by personal characteristics and constituency economic conditions

a 82 - 1.413	National, better	National, worse	Personal, better	Personal, worse	Regional, better	Regional, worse
Employment status (base='out of v	vork')					
In paid work	0.74 (0.24)*	-0.61 (0.19)*	0.97 (0.34)*	-1.37 (0.20)*	0.64 (0.27)*	-0.37 (0.19)
In full-time education/training	0.51 (0.45)	-0.55 (0.41)	1.11 (0.55)*	-0.45 (0.44)	1.10 (0.47)*	-0.36 (0.42)
Sick/retired	0.54 (0.27)*	-0.39 (0.22)	0.64 (0.40)	-0.74 (0.23)*	0.17 (0.32)	-0.19 (0.23)
Home care	0.61 (0.27)*	-0.44 (0.22)*	0.52 (0.39)	-0.86 (0.23)*	0.50 (0.31)	-0.35 (0.23)
Age (base='18-30')						
31-45	-0.16 (0.13)	0.18 (0.13)	0.14 (0.15)	0.32 (0.16)	-0.20 (0.15)	0.44 (0.13)*
46-65	-0.18 (0.14)	0-20 (0-14)	-0.33 (0.17)	0.59 (0.17)*	-0.23 (0.16)	0.54 (0.14)*
66+	-0.02 (0.20)	-0.05 (0.19)	-0.76 (0.29)*	0.38 (0.22)	0.16 (0.23)	0.19 (0.20)*
Education (base='no qualifications')					
School gualifications	0.35 (0.15)*	0.09 (0.14)	0.82 (0.19)*	-0.50 (0.17)	0.33 (0.17)	-0.10 (0.14)
Apprenticeship, etc.	0.21 (0.13)	0.05 (0.12)	0.35 (0.18)	-0.31 (0.14)*	0.46 (0.15)*	-0.18 (0.12)
Vocational gualification	0.27 (0.15)	0.13 (0.15)	0.78 (0.19)*	-0.30 (0.17)	0.36 (0.17)*	-0.14 (0.15)
Degree	0.28 (0.20)	0.22 (0.19)	1.25 (0.23)*	-0.90 (0.27)*	0.74 (0.21)*	-0.49 (0.21)*
Tenure (base='owner-occupier')						
Council tenant	-0.77 (0.16)*	0.51 (0.14)*	-0.14 (0.22)	0.47 (0.14)*	-0.29 (0.18)	0.35 (0.14)*
Other renter	-0.05 (0.18)	0.04 (0.18)	-0.34 (0.27)	0.48 (0.19)*	-0.14 (0.21)	0.26 (0.18)
Class (base='professional and man	agerial')					
Routine non-manual	-0.04 (0.13)	0.19 (0.13)	-0.64 (0.16)*	0.06 (0.15)	-0.30 (0.14)*	0.16 (0.13)
Skilled	-0.15 (0.14)	0.18 (0.14)	-0.77 (0.18)*	0.13 (0.16)	-0.39 (0.16)*	0.25 (0.14)
Semi/unskilled	-0.22 (0.15)	0.28 (0.14)*	-0.51 (0.18)*	0.21 (0.16)	-0.38 (0.17)*	0.15 (0.14)
Mortgage (base='no mortgage')						
Mortgage, no difficulty	-0.03 (0.13)	-0.06 (0.12)	0.72 (0.16)*	-0.69 (0.16)*	0.07 (0.14)	-0.06 (0.13)
Mortgage, in difficulties	-0.20 (0.15)	0.11 (0.14)	-0.07 (0.19)	0.52 (0.16)*	-0-10 (0-17)	0.02 (0.15)
Region (base='Scotland and Wales')					
North England	-0.02 (0.15)	0.07 (0.14)	0.20 (0.20)	-0.03 (0.16)	-0.12 (0.18)	0.11 (0.14)
Midlands	0.28 (0.17)	-0.30 (0.16)	0.40 (0.23)	-0.41 (0.19)*	-0.13 (0.20)	-0.40 (0.17)*
Southwest	-0.06 (0.22)	-0.14 (0.21)	0.59 (0.28)*	-0.46 (0.24)	0.08 (0.25)	-0.25 (0.21)
Southeast	0.37 (0.21)	-0.56 (0.20)*	0.27 (0.27)	-0.36 (0.23)	0.53 (0.24)*	-0.37 (0.20)
London	0.36 (0.24)	-0.48 (0.22)*	0.35 (0.30)	-0.58 (0.26)*	0.72 (0.26)*	-0.62 (0.23)
Constituency-level variables						
House price, 1991 (£000s)	0.00 (0.00)	-0.00 (0.00)	0.01 (0.00)*	-0.01 (0.00)*	0.01 (0.00)*	-0.01 (0.00)*
Change in house price, 1989-91	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.01 (0.01)	0.00 (0.00)
Negative equity, 1993	-0.01 (0.00)*	0.01 (0.00)*	-0.01 (0.01)	-0.02 (0.00)*	-0.00 (0.00)	0.00 (0.00)
Percentage unemployed, 1991	-0.01 (0.02)	0.02 (0.02)	-0.00 (0.03)	-0.01 (0.02)	-0.03 (0.03)	0-09 (0-02)*
Constant	-1.37	-0.02	-3.17	0.47	-1.95	-0.23
-2 log likelihood	3060-50	3268-85	2431-29	2845.79	2633-14	3238-38
Improvement (df=27)	129-99*	98.08*	368-88*	349.90*	197-60*	194.48*

Notes: Standard errors in parentheses; *significant coefficients Source: Heath (1992)

impact on personal and regional evaluations. Compared to members of the professional and managerial class, members of all social classes were less likely to report that their household or regional circumstances had improved and were more likely to feel that they had worsened.

The housing slump stands out as an important factor influencing voters' perceptions of their own living standards in a direct way. Voters who felt that they were having no difficulties paying their mortgage were more likely to report that their household income had improved than were those who were having problems or who had no mortgage, other things being equal. The slump seems to have brought perceptions of personal hardship to a group, especially those who had only recently become home owners, which would previously have expected to enjoy rising standards of living and growing wealth.

The results discussed above clearly suggest that respondents' personal, regional and national economic evaluations were influenced in part by their personal circumstances. In general, individuals in less affluent groups were less sanguine about economic conditions at all scales than were individuals in more affluent social positions. But were respondents' economic evaluations shaped merely by their own circumstances or were they also influenced by the wider economic context within which they found themselves, at the level both of the constituency and of the region? The evidence in the logistic regressions suggests they were sensitive to their wider contexts, especially when evaluating their personal and regional circumstances. At a constituency level, local housing market conditions, which could potentially have a direct impact upon the living standards of individual voters there, were closely associated with personal economic evaluations. The higher the average property prices in a seat in 1991, the more likely respondents were to feel that they personally had become better off and that their region had become more prosperous. On the other hand, voters who felt worse off or who felt their region was in relative economic decline were more likely to live in areas with low property prices.

As we have seen, the property market acted as a major wealth-creator during the 1980s for longtime home owners living in areas where property values grew rapidly (although to realize that wealth, they would have had to either buy a smaller property or move to a region where house prices were not as high). The property recession of the early 1990s notwithstanding, it is hardly surprising, therefore, that voters in these regions still felt better off and were more likely to feel that their region had prospered, other things being equal, than did voters in other parts of the country.

Voters' evaluations of the state of their regional economies were also affected by local unemployment rates in the run-up to the 1992 election. The higher the proportion of a constituency's electorate registered as out of work in December 1991, the more likely were electors living there to think that the region's economy had become less prosperous over the previous decade.

In addition to the effects of individual and constituency-level factors, voters in some regions were also likely to think in particular ways about the state of the economy. Reflecting the geography of the 1980s' boom, residents in London and the southeast were more likely than were residents of Scotland and Wales to feel that the national economy had become stronger since 1982. Furthermore, they were also more likely to feel that their region had become more prosperous over the same period of time. The crucial point here, of course, is the ten-year time horizon in the economic evaluation questions. While recession had taken hold in the south of the country in the early 1990s, it would not appear to have been sufficient by early 1992 completely to overturn the general perception of rising living standards there since 1982. To that extent, the government may well have been able to avoid the worst effects of the new recession on its electoral support: while affected by short-term problems, voters in the key southern region had longer memories of affluence to draw on. They were also, of course, still living in a more affluent region than their fellow voters elsewhere in the country, even though the differential had narrowed.

The overall picture, then, is clear. Voters' opinions of the state of the economy, whether at the scale of their own household, their region or the country as a whole, were influenced in predictable and generally comprehensible ways, not only by their individual circumstances but also by the constituency and regional contexts in which they lived. Even when we control for personal background, both the state of the local economy and the region of residence were important independent influences on economic evaluations. In deciding how well or how badly the government had handled the economy, voters were drawing not only on their own experiences and on national economic trends but also on what they saw happening around them in their localities and regions. An otherwise affluent individual living in a constituency with a high rate of unemployment, for instance, would be less likely to feel that the regional economy was performing well than would a similarly affluent individual living in a constituency with low unemployment. The above analyses demonstrate the importance of local and regional economic context in shaping voters' perceptions of a key element in the government's electoral armoury: the state of the economy.

Step 3: accounting for the vote in 1992

Voters' economic evaluations are based largely upon their experiences, both within their households and within their local and regional contexts. But regional economic evaluations are more than simple projections of personal circumstances. However, in terms of the potential implications for 156

Britain's electoral geography, this means little unless there is a clear link between economic conditions and evaluations, at personal, local and national scales, and the vote. The third and final stage of our modelling strategy, therefore, regresses party support at the 1992 election both against factors linked to voting in the psephology literature (class, housing tenure, age, education and region) and against our various measures of economic evaluations and conditions. This allows us to see the effects of economic conditions on the vote. having controlled for other factors which are related both to voting and to likely economic circumstances. Again, we are particularly interested in how regional economic evaluations and constituency economic conditions fare, once we have controlled for other, more conventionally used, influences on the vote. To the extent that they emerge as independent influences on voting, we argue that they demonstrate the impact of voters' local and regional economic context upon their party choice.

Three logistic regression equations were fitted, one for each of the main parties. In each, the dependent variable was a dummy, coded 1 for the party in question and 0 for all other respondents (Table V). The independent variables were the same as those adopted in Table IV with a few additions, including the personal, regional and national retrospective economic evaluation variables (Table III). A three-fold classification was used for these variables, comparing those who thought things had become better, those who thought they had stayed the same and those who thought things had become worse; for all three variables, the category omitted comprised those voters who felt things had become better.7 In addition, we included whether respondents held the government responsible for either their personal or their regional prosperity (there was no equivalent question for the national economic evaluation question); the comparison group here comprised those who did not hold the government responsible. Some experimenting with alternative model specifications revealed that, for both personal and regional evaluations, there was a significant interaction effect: how people voted was linked to the interaction between their economic evaluations and who they held responsible for the state of the economy. The interaction terms were therefore included in the model. Once again, all variables were added to the equations together;

coefficients and standard errors are reported in Table V.

The 'control' variables (class, tenure, age, education and region) were related to party support in expected ways. Conservative voters, for instance, were more likely to be in work or home carers than to be unemployed; they were also more likely to be old than young, to be home owners than council tenants and to live in the south and midlands of England than in Scotland and Wales. Manual workers were markedly less likely to vote Conservative than were those with professional and managerial jobs. The Conservatives did relatively badly, however, among those with a university degree: voters in this group were less likely to vote for the party than were voters without a degree.

Labour, meanwhile, was most likely to gain support from the young and the middle-aged, from manual workers, from council tenants and from people living in the north (voters in the midlands. where Labour support grew most in 1992, were as likely to support the party as voters in Scotland and Wales; voters throughout southern England, however, were less likely to support Labour than were their Celtic counterparts). The party did worse amongst those with intermediate educational qualifications than among those with no qualifications (intriguingly, those with university or school qualifications were no less likely to support Labour than were those with no qualifications, suggesting a strong Labour base among the highly educated).

The Liberal Democrats, meanwhile, were predominantly a party of the well-qualified (other things being equal, for instance, graduates were 4-63 times more likely to vote Liberal Democrat in 1992 than were people with no qualifications) and the party did better in the southeast, southwest and north of England than in Scotland, Wales or the midlands.

However, the main interest for this paper is the impact of local economic context upon voting decisions. As we would expect from conventional economic voting accounts, voters were influenced by their evaluations of the state of the national economy and by their views of their personal economic circumstances. Once other individual factors such as class and tenure had been taken into account, voters who felt that the national economy had become worse over the preceding decade were over 3.5 times less likely to vote for the government (the Conservatives) in 1992 and

Table V Logistic regressions: vote by personal characteristics and constituency economic conditions, 1992

	Conservative	Labour	Liberal Democrat
Employment status (base='out of work')			
In paid work	0.65 (0.28)*	-0.07 (0.21)	0.13 (0.29)
In full-time education/training	-0.19 (0.58)	-0.30 (0.48)	1.46 (0.49)*
Sick/retired	0.59 (0.32)	0.30 (0.26)	-0.35 (0.34)
Home care	0-69 (0-32)*	-0.11 (0.26)	0.01 (0.34)
Age (base='18-30')	150703037037730		001 (001)
31-45	0.04 (0.15)	-0.13 (0.16)	0.24 (0.19)
4665	0.27 (0.16)	-0.21 (0.17)	0.16 (0.20)
66+	0.63 (0.23)*	-0.65 (0.24)*	0.42 (0.29)
Education (base='no qualifications')			0 12 (0 2))
School gualifications	-0.02 (0.17)	-0.21 (0.17)	0.61 (0.22)*
Apprenticeship, etc.	0.07 (0.14)	-0.41 (0.15)*	0.58 (0.19)*
Vocational gualification	-0.22 (0.17)	-0.37 (0.19)*	0.86 (0.21)*
Degree	-0.74 (0.22)*	0.08 (0.26)	1.53 (0.26)*
Tenure (base='owner-occupier')		000 (0 20)	100 (020)
Council tenant	-1.14 (0.18)*	0.40 (0.16)*	-0.14 (0.22)
Other renter	-0.62 (0.21)*	0.39 (0.22)	-0.28 (0.27)
Class (base='professional and managerial')	0 02 (0 21)	000 (022)	-0.28 (0.27)
Routine non-manual	0.18 (0.14)	0.10 (0.17)	0.25 (0.19)
Skilled	-0.30 (0.16)	0.57 (0.17)*	-0.23 (0.18)
Semi/unskilled	-0.56 (0.17)*	0.76 (0.17)*	-0.27 (0.20)
Mortgage (base='no mortgage')	-0.50 (0.17)	0.76 (0.17)	-0.25 (0.21)
Mortgage no difficulty	-0.08 (0.14)	-0.01 (0.16)	0.04 (0.18)
Mortgage, in difficulties	-0.24 (0.16)	0.29 (0.18)	-0.04 (0.18)
Region (base-'Scotland and Wales')	-0.24 (0.10)	0.29 (0.18)	-0.08 (0.20)
North England	0.29 (0.18)	0.40 (0.16)*	0 50 (0 24)*
Midlande	0.80 (0.20)*	0.20 (0.20)	0.59 (0.24)*
Southwest	0.01 (0.25)*	-0.20 (0.20)	0.41 (0.27)
Southeast	0.72 (0.23)*	-0.77 (0.27)*	0.90 (0.31)*
London	0.73 (0.24)	-0.32 (0.23)*	0.92 (0.31)*
National extractions (NIP: hass - (act hottor))	0.74 (0.28)	-0.26 (0.28)	0.26 (0.36)
Same	0.77 (0.12)*	0.04 (0.14)*	0.01 (0.10)
Same	-0.77 (0.13)*	0.96 (0.16)*	0.01 (0.18)
Paragonal astroomenting (PR: base - (not botter())	-1.30 (0.12)	1.32 (0.14)*	0.34 (0.15)*
Personal retrospective (PK; base= got better)	0.00 (0.15)	0.00 (0.10)	
Same	-0.02 (0.15)	-0.08 (0.19)	0.26 (0.19)
worse	0.05 (0.20)	-0.07 (0.24)	0.20 (0.27)
Regional retrospective (RR; base= got better)	0.15 (0.15)	2.5.4 (2.5.5)	
Same	-0.15 (0.17)	0.16 (0.22)	-0.28 (0.22)
worse	0.50 (0.19)*	-0.50 (0.25)*	-0.13 (0.24)
Personal blame (PB; base='not government')			
Government	0.06 (0.27)	-0.31 (0.33)	-0.22 (0.39)
Regional blame (RB; base='not government')			12102000000
Government	0.14 (0.19)	0.31 (0.24)	-0.56 (0.25)*
PK-PB			
Same* government	-0.39 (0.30)	0.69 (0.36)	0.19 (0.43)
Worse* government	-1.20 (0.34)*	0.86 (0.39)*	0.66 (0.47)
RR*RB			
Same* government	0.34 (0.25)	0.01 (0.30)	0.19 (0.34)
Worse* government	-1.45 (0.26)*	1.02 (0.31)*	0.71 (0.32)*
Constituency-level variables	0.01 (0.00)		15272-00
House price, 1991 (£000s)	0.01 (0.00)*	-0.01 (0.00)*	0.00 (0.00)
Change in house price, 1989–91	-0.00 (0.00)	0.00 (0.00)	0.01 (0.00)*
Negative equity, 1993	-0.01 (0.01)	0.02 (0.00)*	0.00 (0.01)
Percentage unemployed, 1991	-0.06 (0.03)*	0.06 (0.03)*	-0.07 (0.03)*
Constant	-0.43	2.16	0.07
-2 log likelihood	2109.45	-2.10	-2.8/
Improvement (df=30)	722 00*	502 70*	19/2-35
miprovement (di=59)	755.00	393-79-	159-31-

Notes: Standard errors in parenthesis; *significant coefficients Source: Heath (1992)

over 3.5 times more likely to vote Labour than were voters who felt that it had improved. Similarly, voters who felt that their household had become relatively less affluent over the previous ten years and who blamed the government for that were (as indicated by the significant interaction term, PR*PB) much less likely to vote Conservative and much more likely to vote Labour than voters

who did not. So far, it could be argued that our results merely confirm existing understandings of voting decisions: electors are influenced by their social backgrounds and by their evaluations of personal and national economic circumstances. The novel element here is our ability to investigate independently the impact of voters' views on what had happened to their region's economy and of actual economic conditions in constituencies, having controlled for these conventionally used factors. The results are clearly supportive of our thesis: voters take their local and regional economic contexts into account when deciding which party to support, particularly for the Conservative and Labour parties. Even when we allow for national economic trends and for the backgrounds, economic circumstances and evaluations of individual voters, there is still evidence to suggest that the electorate is also influenced by what it sees around it, at least in terms of local and regional economies. Voters who felt that their region had become worse off and who felt that the government was responsible were much less likely (4.3 times) to support the government and much more likely (2.4 times) to support Labour in 1992 than voters who did not. These effects are ceteris paribus. Even if voters had felt personally more affluent and thought that the country as a whole was becoming more prosperous (both of which would raise their chance of supporting the government), living in a relatively depressed region (and holding the government responsible for the state of the regional economy) would have reduced their chance of supporting the government and boosted that of their voting for the main opposition party. Voters, then, do think about their regional and local economic contexts when deciding which party to support and these geographical contexts provide an independent factor in their thinking.

Economic conditions in individual constituencies also had an influence on voting choice, once again independent of the other variables controlled for in the equations. Other things being equal, voters living in areas with relatively high property values and relatively low unemployment rates before the 1992 election were more likely to vote Conservative and less likely to vote Labour than were voters living in areas with lower property values or higher unemployment. Voters were more likely to vote Labour, not only in seats with low property prices and high unemployment but also in seats badly affected by negative equity. The Liberal Democrats did relatively well in seats where unemployment was low in 1991. Although this performance of an opposition party goes against a strict reading of the regional economic vote model, it reflects the relatively suburban and rural, middle class base of the Liberal Democrats. With few exceptions, the party has not been wellrepresented in the major inner-city areas where unemployment is highest.

Conclusions

As with much previous work, our analyses show that vote choices in British elections are strongly influenced by personal attributes such as class, age, housing tenure and education. We also confirm that voters' personal economic circumstances are important influences on how they judge the various parties: other things being equal, those who feel they are becoming relatively more affluent over time are more likely to support the incumbent party of government than are those who feel they are becoming less affluent. Who voters are, and what they think of national circumstances, is an important influence on why they vote as they do.

The novelty of the findings reported above, however, is in their clear demonstration that local context is an important influence on voting choice, over and above the characteristics of individual voters. Voters' evaluations of their regional economic circumstances emerged as important influences on their vote, even when controlling for personal social and economic characteristics. In short, when they themselves were affluent, voters who felt they lived in relatively declining regions were less likely to vote for the government than were similarly placed voters who felt that their region had become better off. Furthermore - and again holding other factors equal - the economic state of a constituency had an impact on how people living there voted: the worse the local economy, the less likely voters were to support the government and the more likely they were to support the opposition. Voters were not only well aware of what was happening economically in their area but they also carried this awareness with them into the polling booth. Local and regional economic contexts played a significant role in shaping voters' decisions, over and above their personal situations. Where people lived and the state of their local economy were undeniable factors behind how they voted in 1992.

In the introduction, we discussed the impasse which has developed in the literature on the link between geographical context and voting; between a 'sceptical' position, which argues that context is not particularly important, and a 'political geography' position, which argues that people's evaluations of government are shaped, in part, by what they see around them in their localities and regions. By differentiating between voters' individual, regional and national economic evaluations, the material advanced here provides the strongest evidence so far for the 'political geography' interpretation and, we would argue, takes the debate out of that impasse.

We have, therefore, provided a demonstration of the importance of local and regional economic contexts as independent factors in people's political thinking and their electoral behaviour. However, our findings also contain a further challenge for geographical analysis. Regional location was significant in all of the voting equations set out in Table V. Where voters live remains an important element in accounting for why people vote as they do, even when we allow for individual circumstances, for the state of the constituency's economy and for voters' evaluations of their regional economies. Local and regional economic contexts are important, therefore, but they do not, in themselves, 'explain away' the north-south electoral map of British voting. The challenge for future analyses is further to uncover the contextual dimensions underlying this regional geography of voting beyond both egocentric and sociotropic influences.

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Notes

1 In the analyses reported in this paper, local economic conditions are assessed by two groups of measures. First, for each respondent's constituency, local unemployment rates are measured using the proportion of the constituency electorate who were registered as unemployed in December 1991. Secondly, local housing market conditions in each seat are assessed using three variables derived from the records of a major national building society (see Dorling 1994; Dorling and Cornford 1995; Dorling et al. 1992; Gentle et al. 1994). Average property prices for parliamentary constituencies were estimated using a sample of property sale and mortgage records (including over a million individual records) which extended from 1980 to 1991. Each property purchase was postcoded and its parliamentary constituency was derived from the postcode. A' weighted average of the market prices of four types of dwellings was calculated for each constituency for each calendar year. This ensured that an unusual mix of dwellings being sold in any particular year in a constituency did not unduly influence the average housing price estimates for that area at that time. In the following analyses, we use the average constituency property price for 1991, expressed in thousands of pounds. The second variable draws on the same average property price estimates and measures the change in constituency average property prices between 1989 and 1991 as a percentage of the 1989 price; this allows an estimation of the effects of the housing slump (which began to bite in 1989) on local property prices prior to the election. The third variable gives estimates of the number of mortgage borrowers in each constituency with negative equity (Dorling 1993). For these estimates, the recent changes in property prices reported by the Halifax Building Society at the postal county level are used to estimate the current market value of the property occupied by households who bought between 1988 and 1991. The figures used were calculated for the third quarter of 1993 but the geographical pattern they contain is very similar to that which would have existed at the time of the 1992 election: the overall level was simply more severe (which makes the estimates more robust as larger proportions of households are involved than would otherwise have been the case). The building society sample used for the housing market estimates contains

details of 1 million mortgages. As a consequence, the errors associated with the estimates are trivial, especially when compared to those associated with the 1992 *BES* data. In addition, the aggregate estimates employed here match those made by the Bank of England and those of the Woolwich Building Society.

2 The questions were worded as follows:

National evaluations: And looking back over the last ten years, would you say that Britain's economy has got stronger, got weaker, or stayed about the same?

Regional evaluations: Compared with other parts of Britain over the last ten years, would you say that (in ENGLAND: *this part of Britain*; in SCOTLAND: *Scotland*; in WALES: *Wales*) has been getting more prosperous than average, stayed about average, or been less prosperous than average?

Personal evaluations: Compared with British families in general over the last ten years, would you say that your household's income has risen more than average, stayed about the same, or fallen more than average?

3 In the following analyses, respondents' social class is divided into four groups: professional and managerial; routine non-manual; skilled manual; and semi/unskilled manual. Housing tenure is divided into owner-occupiers; council tenants; and other tenants (including private and housing association tenants). Employment status is defined as unemployed; in work; in full-time education or training; sick or retired; and home carers. Education was divided into those with no qualifications; those with school-level qualifications; apprenticeships; vocational qualifications; and degree holders. Six regions were employed: Scotland/Wales; north England; midlands; southwest; southeast; and London. Respondents' mortgage payment problems were measured by a three-category variable: respondents with no mortgage; those with a mortgage but experiencing no difficulties in paying it; and those with a mortgage who reported payment problems.

4 The omitted categories were (for employment status) respondents registered as out of work; (for age) aged 18–30; (for education) with no educational qualifications; (for housing tenure) owneroccupiers; professional and managerial workers; (for mortgage difficulties) those with no mortgage; and (for region) those living in Scotland and Wales.

- 5 Only those coefficients which are at least 1.96 times larger than their standard error are significant at the 95 per cent level.
- 6 Logit coefficients are the natural logs of the odds of an occurrence. They can, therefore, be expressed more intuitively as odds by taking natural antilogs. So a logit coefficient of 0 equates to odds of 1/1, or

a 50/50 chance; a logit coefficient of 1 equates to odds of 2.718/1.

7 Alternative versions of the models have been run using the full five-fold classification of the economic evaluation questions (lot better; little better; same; little worse; lot worse). This made no substantial difference to the results but did have adverse implications for the number of cases in individual cells.

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