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Electoral Surprise and the Midterm Loss in US Congressional Elections

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Alberto Alesina and Howard Rosenthal argue that surprise about the outcomes of US presidential elections accounts for two important features of the American political economy: the regular loss of votes experienced by the president's party in midterm congressional elections, and the systematic relationship between the party of the incoming president and macroeconomic performance. Scholars recently have begun conducting rigorous tests of the relationship between surprise and economic performance, but no similar empirical work exists on how surprise affects midterm elections. In this article, we offer the first direct test of the proposition that electoral surprise drives the midterm loss. Our analysis shows that the more surprised moderate voters are about the outcome of a presidential election, the lower the probability that they will support the president's party in the following midterm contest.

Alberto Alesina and Howard Rosenthal argue that surprise about the outcomes of US presidential elections accounts for two important features of the American political economy: the systematic relationship between the party of the incoming president and macroeconomic performance, and the regular loss of votes experienced by the president's party in midterm congressional elections.[1]

To establish a link between electoral surprise and the macroeconomy, the authors develop a model in which individuals respond rationally to government policy, given available information. In their model, economic actors know that the Democratic party is more inflation-prone than its Republican counterpart, so they design wage contracts based on their beliefs about each party's chances of winning the White House in the upcoming presidential election. Unless some party is expected to win with a probability of 1, actors hedge by basing their contracts on a rate of inflation somewhere between the ideal levels of the two parties. When a new administration enters office, it enjoys a window of opportunity to manipulate the economy before actors, who now know that inflation will differ from their pre-electoral expectations, re-draft their contracts to reflect the new political reality. Thus, the model predicts short-run expansions at the beginning of Democratic administrations and short-run contractions at the outset of Republican ones.

[1] Alberto Alesina and Howard Rosenthal, *Partisan Politics, Divided Government and the Economy* (Cambridge: Cambridge University Press, 1995).

The authors also contend that electoral surprise helps explain why, in nearly every midterm congressional election this century, the share of votes going to the party of the president has declined relative to levels two years earlier. In on-year elections, individuals cast co-ordinated presidential and congressional votes without knowing for certain who the next president will be. When the uncertainty is removed at the midterm, some voters will turn against the president's party in order to balance the president's power and produce more centrist government policies. The Alesina–Rosenthal model thus predicts that the party of the president will *always* suffer a midterm loss of votes, which should vary in magnitude depending on the degree of electoral surprise.

Empirical work on these predictions remains limited. In their book, Alesina and Rosenthal do not develop a measure of electoral surprise that could be used to evaluate their hypotheses. More recently, scholars have begun quantifying surprise and assessing its impact on economic growth,[2] but no empirical paper exists on how surprise affects the midterm loss. The impact of surprise on midterm elections thus remains an open question.

In this article, we offer the first direct test of the proposition that electoral surprise contributes to the midterm loss. Using panel data from the 1956–58, 1972–74 and 1992–94 National Election Studies, we investigate the effect of electoral surprise on voter support for the president's party in midterm congressional elections. Our results support the Alesina–Rosenthal account of the midterm loss: the more surprised that moderate voters are about the outcome of a presidential election, the lower the probability that they will support the president's party in the midterm contest.

THE ALESINA–ROSENTHAL MODEL

The Alesina–Rosenthal model of American national elections builds on the work of previous scholars who contend that some voters prefer divided government, rather than control of the presidency and Congress by a single political party.[3] These scholars argue that policy results from a compromise between the executive and the legislature and is, therefore, somewhere between the preferences of the two branches. When Republican presidents are forced to bargain with Democratic Congresses, they must accept more liberal polices than they would under unified government; analogously, Democratic presidents find

[2] Alberto Alesina, Nouriel Roubini and Gerald D. Cohen, *Political Cycles and the Macroeconomy* (Cambridge, Mass.: MIT Press, 1997); Douglas A. Hibbs, Fredrik Carlsen, and Elin Foss Pedersen, 'Electoral Uncertainty, Long-Term Wage Contracts and Partisan Output Cycles' (unpublished manuscript, presented at Annual Meeting of the Midwest Political Science Association, Chicago, 1997).

[3] Morris P. Fiorina, 'The Reagan Years: Turning to the Right or Groping Toward the Middle?' in Barry Cooper, Allan Kornberg and William Mishler, eds, *The Resurgence of Conservatism in Anglo-American Democracies* (Durham, NC: Duke University Press, 1988); Morris P. Fiorina, *Divided Government* (New York: Macmillan, 1992); Everett C. Ladd, 'On Mandates, Realignments, and the 1984 Presidential Election', *Political Science Quarterly*, 100 (1985), 1–25.

it necessary to sign more conservative legislation under divided government than they would otherwise prefer. Thus, divided government can serve the interests of moderate voters, particularly in periods when political parties advocate extreme policies. It follows that moderate voters may split their tickets – endorsing one party for the presidency and another for the Congress – to prevent policy from becoming too conservative or too liberal.

Alesina and Rosenthal incorporate the insights of this literature into a new formal model of voting. In their model, two political parties are arrayed on a single left–right, liberal–conservative dimension according to their respective ideologies. Voters are arrayed on the same left–right scale and promote government policy that is as close as possible to their 'ideal point'. For convenience, we identify two types of voters: those whose ideal points reside to the left of the Democratic party or to the right of the Republican one (extremists); and those whose ideal points lie between the two parties (moderates). Extremist voters always want government to be unified in the hands of their favoured party, whereas moderate voters may prefer divided government to balance one party against the other. So far, the Alesina–Rosenthal model is consistent with the spirit of the previous literature.

Alesina and Rosenthal add, however, that Americans have *two* opportunities to promote divided government. The first opportunity, as previously noted, arises during the on-year election when voters cast ballots for both the president and the Congress. A second opportunity occurs during the congressional midterm election. At the midterm, moderate voters possess full knowledge of the president's partisan affiliation and can tailor their congressional vote to dilute the president's power. For instance, moderates who know that a Republican is controlling the White House may vote Democrat in the midterm election, thereby promoting middle-of-the-road policies. Extreme voters, of course, will continue voting for their favoured party, just as they did during the on-year election.

This innovation by Alesina and Rosenthal may help explain the midterm loss. Controlling for voter turn-out, the midterm loss occurs when some Americans who supported the president's party in the on-year congressional election subsequently turn against that party at the midterm. Extreme members of the electorate are unlikely to switch their votes in this manner because they remain firmly committed to one party. Thus, the midterm loss is most likely to arise from the behaviour of moderates, who could conceive of transferring their votes from one party to the other in order to strike a balance between the two. [4]

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[4] Several other explanations of the midterm loss exist in the literature. Robert S. Erikson ('The Puzzle of Midterm Loss', *Journal of Politics*, 50 (1988), 1011–29) groups these explanations into four categories: regression to the mean (Barbara Hinckley, 'Interpreting House Midterm Elections: Toward a Measurement of the In-Party's "Expected" Loss of Seats', *American Political Science Review*, 61 (1967), 694–700; James E. Campbell, 'Explaining Presidential Losses in Midterm Congressional Elections', *Journal of Politics*, 47 (1985), 1140–57); surge-and-decline (Angus Campbell, 'Surge and Decline: A Study of Electoral Change', in Angus Campbell, Philip E.

Alesina and Rosenthal actually contend that the loss is driven by a subset of moderates who were surprised by the outcome of the presidential election. The concept of surprise is essential to the Alesina–Rosenthal model and deserves some elaboration. According to the authors:

Voters are uncertain of the preferences of other voters. In some elections, the mood of the electorate may take a leftward swing. In others, the pendulum swings to the right. These swings make electoral results *ex ante* uncertain; even though the policies proposed by the two parties are known in advance, electoral results cannot be predicted with complete certainty.[5]

Voters must, therefore, make forecasts about elections and decide how much confidence to place in those forecasts.

If moderates want to balance against the president in the on-year election, they must act on their best guess about who the president is likely to be. Suppose that, on the eve of the presidential election, some moderates expect a Republican to capture the White House. Many of these moderates, thinking that they are balancing against the incoming Republican president, will vote Democrat in the on-year legislative contest. If, contrary to expectation, a Democrat wins the presidency, 'surprised moderates' will take corrective action at the midterm by switching their legislative votes from Democrat to Republican, thereby weakening the power of the Democratic party. The greater the degree of surprise, the higher the probability that vote-switching will occur. We should not expect such vote-switching from moderates who accurately predict the presidential outcome with a high degree of confidence, since they take the correct identity of the president into account when casting their on-year legislative votes.

In short, the Alesina–Rosenthal model implies that, as moderate voters become more surprised about the outcome of the presidential election, their probability of supporting the president's party at the midterm should decline. We used individual-level data to test this prediction. In the next section, we describe our test and present the results.

TESTING THE MODEL

We tested the predictions of the Alesina–Rosenthal model against data from every National Election Study (NES) panel survey that included a presidential election followed by a midterm congressional race. In each panel (1956–58, 1972–74, 1992–94) the same individual was interviewed at least three times: before and after the on-year election and again following the midterm contest. The data, therefore, enabled us to track the voting behaviour of individuals from one election to the next. The surveys also included a battery of political and socio-economic questions, allowing us to discern which voters were moderates and which ones felt surprised by the outcome of the presidential election. This rich source of individual-level data provided a basis for determining whether surprised moderates contributed to the midterm loss.

Dependent and Explanatory Variables

To test the model, we constructed a dichotomous dependent variable coded 1 if the respondent voted for the party of the president in the midterm election to the House of Representatives and coded 0 otherwise. In pooled data from all three NES panel surveys, 44.3 per cent of respondents received a score of 1 on the dependent variable. By comparison, 48.8 per cent voted for the party of the incoming president in the House elections that took place two years earlier. The difference between these figures represents the midterm loss. In our sample, support for the party of the president was 4.5 percentage points lower at the midterm than in the on-year.[6]

According to the logic of Alesina and Rosenthal, the more surprised a moderate voter felt about the results of the presidential election, the lower her probability of supporting the president's party in the midterm contest. Thus, the dependent variable should be negatively correlated with an interaction term equal to the product of two factors: (1) the respondent was politically moderate and therefore had an incentive to balance; and (2) the respondent was surprised by the outcome of the presidential election.

The first component of our interaction term was a four-point measure of

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[6] To test the Alesina–Rosenthal model of vote-switching between the on-year and the midterm, we restrict our attention to voters who turned out in both elections. Of course, part of the midterm loss may be driven by variation in turn-out from one election to the next. If we broaden the sample to include respondents who voted in at least one of the elections, the midterm loss in the pooled dataset rises to 6.9 per cent.
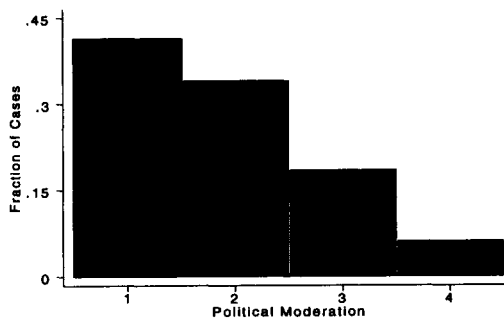
Fig. 1. Political moderation

Note: Individuals coded 1 were least moderate, while those coded 4 were closest to the centre of the political spectrum and therefore had the greatest incentive to balance one party against the other.

political moderation. In all three NES panels, respondents were asked to identify their partisan affiliation at the midterm on a scale of 0 to 6, which we re-coded on a 1–7 interval to eliminate the zero. A score of 1 meant that the respondent was a strong Democrat, whereas a 7 denoted that the respondent identified strongly with the Republican party. Intermediate scores implied weaker partisan affiliation, with a 4 indicating that the respondent was a pure independent. Using this 1–7 scale, we assigned a score of 4 to self-professed independents, a 3 to those who leaned slightly towards one party or the other, a 2 to those who inclined more heavily, and a 1 to those who identified most strongly with either the Democratic or the Republican party. A histogram of the moderation variable appears in Figure 1.[7]

The other component of our interaction term was a measure of surprise. In the three NES panels, individuals were asked to answer the following pair of questions: 'Who do you think will be elected president in November?' and 'Do you think the presidential race will be close?' By answering these two questions, each respondent revealed her forecast for the presidential election and how certain she felt about that prediction.[8] We created a four-point scale based on the answers to these two questions. Respondents who predicted the winner

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[7] Results reported in this article are robust to alternative measures of moderation. The simplest measure of political moderation is an indicator variable coded 1 if the respondent did not identify strongly with either party (affiliation = 3 to 5). Our preferred measure, a four-point scale, contains more information and rests on the intuition that moderation is a matter of degree, but the results were qualitatively similar when we substituted the dummy variable in place of our four-point measure.

[8] Alesina and Rosenthal assume that all voters experience the same degree of surprise about the outcome of the presidential election. In reality, people vary in their expectations. We take advantage of this variability by creating an individual-level measure of surprise and investigating its effect on the behaviour of voters.
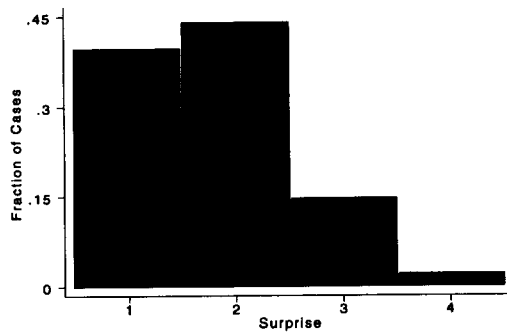
Fig. 2. *Surprise about the outcome of presidential elections*

Note: Most voters felt little or no surprise about the outcome of presidential elections, but some voters (coded 3 and 4) predicted the winner incorrectly, and a handful committed this error with considerable confidence (coded 4).

correctly and doubted that the election would be close were coded as 1, since these respondents were not surprised when they learned which candidate won the election. Individuals who predicted correctly but thought the election would be close, indicating somewhat less confidence in their prediction, were coded as 2. In the next category, 3, we placed respondents who guessed the winner incorrectly but believed the race would be tight. Finally, we assigned a 4 to any individual who made the wrong forecast and felt confident enough to conclude that the race would not be close. A histogram of this variable appears in Figure 2.

Our interaction term was the product of moderation and surprise. When the respondent was a strong partisan who correctly foretold the presidential election with a high degree of certainty, the interaction term assumed a value of $1 \times 1 = 1$. At the opposite extreme, a middle-of-the-road voter who mis-guessed the result with considerable confidence was coded as $4 \times 4 = 16$, the maximum value in our dataset. Like its two components, the distribution of the interaction term was skewed towards 1, with a mean of 3.3 and a standard deviation of 2.1. Only 6.3 per cent of the respondents in our pooled sample received interaction scores of 8 or more. Recall, however, that the midterm loss in our dataset was only 4.5 per cent, so surprised moderates could have been responsible for the phenomenon.

Beyond our interaction term, several other variables seem likely to influence voting in congressional elections. Other things equal, an individual who votes for the president's party in the on-year election should be more likely to back that party at the midterm than a respondent who supports the opposition in the previous election. The probability of voting for the president's party at the midterm should also be higher, the stronger the respondent identifies with that

political party and the more the respondent's personal income has risen. Finally, support for the president's party should be stronger if the incumbent congressman belongs to that party, since it is well known that incumbents enjoy an electoral advantage over their challengers.

Thus, we included four controls: a dummy variable coded 1 if the respondent voted for the president's party in the on-year House election; a seven-point measure of partisan identification coded 7 if the respondent identified strongly with the president's party and 1 if the individual affiliated strongly with the opposing party; a trichotomous variable coded 1 if personal income improved, 0 if it had not changed, and − 1 if it had declined during the past year; and another three-point variable coded 1 if the incumbent representative belonged to the president's party, − 1 if she belonged to an opposition party, and 0 if there was an open seat.[9]

To summarize, higher values of the interaction term should lead to lower probabilities of supporting the president's party; our four control variables, by contrast, should have the opposite effect. We used logistic regression to see whether the data were consistent with these hypotheses.

Results

The results of our analysis, which appear in Table 1, support the predictions of Alesina and Rosenthal. For the pooled dataset, the estimated coefficient on the interaction term is negative and different from zero at conventional levels of confidence.[10] Our control variables also exert the anticipated effect on the dependent variable, although we cannot conclude with much confidence that the apparent effect of improvements in personal income is not due to chance alone.

The estimates in Table 1 are difficult to interpret directly, but we can use them to calculate quantities that are more intuitive and substantively interesting. For instance, we can create a 'hypothetical voter' by assigning values to each explanatory variable. Then, using the estimated coefficients and the logistic transformation, we can calculate the voter's probability of supporting the president's party in the midterm election and see how this probability changes

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[9] We could not control for each respondent's perceptions of changes in national, as opposed to personal, economic conditions, because the requisite data were not available for 1958 and 1974. Several studies suggest, however, that national economic conditions exert little influence on the midterm vote. See, for example, Robert S. Erikson, 'Economic Conditions and the Congressional Vote: A Review of the Macrolevel Evidence', *American Journal of Political Science*, 34 (1990), 373–99.

[10] The estimated coefficient also carries the anticipated sign when each of the three panels is analysed in isolation, though it is not always statistically distinguishable from zero with 95 per cent confidence, due to limited degrees of freedom. Introducing a fixed effect for each election does not affect our conclusions. Finally, the results are qualitatively similar when we estimate a nested model in which respondents first decide whether to vote and then decide whether to cast their ballots for the president's party. The interaction term does not affect a voter's propensity to turnout, but it does increase the probability of turning against the president's party at the midterm.

TABLE 1   *Explaining Votes for the President's Party in Midterm Elections*

Explanatory variables	Logit estimates			
	Parameter	S.E.	t-statistic	p-value
Interaction term (moderation × surprise)	−0.10	0.04	−2.97	0.003
Voter supported president's party in on-year	1.62	0.17	9.44	0.000
Voter identifies with president's party	0.66	0.04	15.45	0.000
Voter's family income is improving	0.03	0.10	0.30	0.762
Incumbent belongs to president's party	0.87	0.10	8.90	0.000
Constant	−3.40	0.22	−15.27	0.000

Notes: Number of observations = 1,517. Log-likelihood = −524.56. Robust standard errors were calcuated using the Huber–White procedure.

as we increase the voter's levels of surprise and moderation. According to the Alesina–Rosenthal model, the probability should fall as the voter becomes more surprised or moderate, holding other variables constant. We expect the drop in probability to be greatest when both surprise and moderation move from their lowest to their highest values. By examining the magnitude of this reduction in probability, we can obtain an estimate of the substantive impact of surprise and moderation on midterm voting behaviour.

We followed this approach, with one caveat: the coefficients reported in Table 1 were estimated with uncertainty, so any probabilities calculated from the estimates must be uncertain, as well. We conducted simulations designed to take this uncertainty into account. As a first step, we drew 1,000 simulated sets of coefficients from their sampling distribution: a multivariate normal distribution with mean equal to the vector of estimated coefficients and variance equal to the variance–covariance matrix of the estimates. Next we fixed family income and incumbency at their intermediate values (0 in both cases), and we set vote in the on-year election at 1, indicating that the respondent had supported the president's party two years earlier. Then, for each of the 1,000 simulated sets of coefficients, we allowed surprise and moderation to rise from 1 to 4 and calculated the impact of these changes on the probability of voting for the president's party in the midterm election.[11] Finally, we plotted smoothed histograms of the simulated changes in probability.

The smoothed histograms, which appear in Figure 3, clearly show that the probability of supporting the president's party declines as surprise and moderation increase. In each graph, the change in probability is measured along the horizontal axis, while the vertical axis gives the density – an estimate of how likely a given change in probability would be across repeated simulations. A negative change in probability implies that voters are less likely to back the party of the president during the midterm election, whereas a positive change means that they are more likely to endorse the president's party. To help distinguish between negative and positive changes, the graphs contain vertical lines at zero. The average change in probability across 1,000 simulations appears in the upper left corner.

Each row of graphs in Figure 3 illustrates the effect of increasing surprise while holding moderation constant. For instance, when moderation is 3 (the middle row in the matrix of graphs), a jump in surprise from 1 to 2 lowers the probability of supporting the president's party by 0.06, on average. The smoothed histogram falls almost entirely to the left of the vertical zero-line, giving us considerable confidence that higher levels of surprise will lessen support for the president's party. Reading across the middle row, we see that an increase in surprise from 1 to 3 causes the expected probability to fall by 0.13,

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[11] In our calculations, we always fixed party identification at a value that seemed appropriate, given the moderation score and the on-year vote. For instance, when moderation was lowest, we set party identification at 7, but when moderation achieved its maximum of 4, we assigned a party identification of 4, implying equidistance between the Democrats and the Republicans.
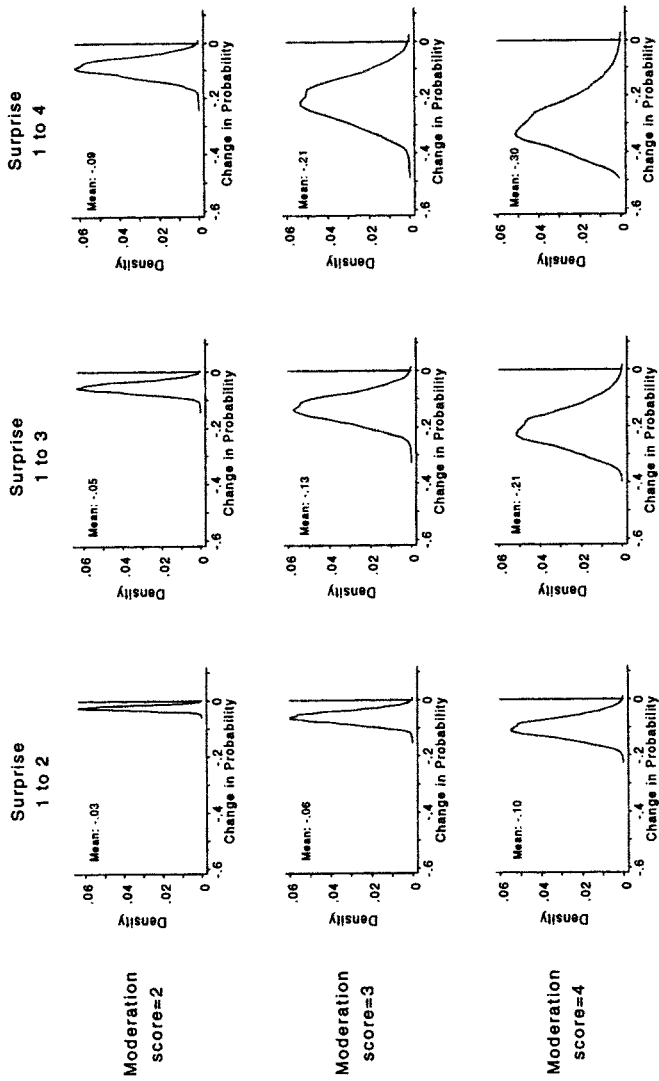
Fig. 3. Effect of surprise on probability of voting for the president's party

Note: For any level of moderation, an increase in electoral surprise (e.g., a rise from 1 to 3) reduces the probability of voting for the party of the president in midterm elections. This effect becomes more striking at higher levels of political moderation.

while changing surprise from its minimum to its maximum value cuts the probability by 0.21, on average. At the same time, the histograms become wider as one moves from left to right, indicating that the estimated impact becomes less certain. Thus, we can say with 95 per cent confidence that increasing surprise from 1 to 2 will cause the probability to fall by at least 0.02 but no more than 0.10. The comparable interval for a change in surprise from 1 to 4 is much wider: the drop in probability could be anywhere between 0.07 and 0.35, though it will be 0.21 on average.

As expected, these effects become more pronounced for highly moderate voters (moderation = 4) and considerably weaker as voters move away from the centre of the political spectrum (for example, moderation = 2). When moderation assumes a value of 1, a case not shown in Figure 3, an increase in surprise from its lowest to its highest value causes the probability of supporting the president's party to drop by a mere 0.02, on average. This result makes sense, since surprise should not alter the voting behaviour of an individual who identifies strongly with either the Democrats or the Republicans.

We draw several conclusions from Figure 3. First, for any level of moderation, an increase in electoral surprise tends to reduce the probability of voting for the party of the president in midterm elections. Secondly, this effect is more striking, the less strongly the voter identifies with one of the political parties. These results seem consistent with the hypothesis that, within the sub-class of moderate voters, electoral surprise contributes to the midterm loss. Finally, the estimated effects are more variable at higher levels of surprise and moderation.

To further quantify the effects of surprise, we examined a counterfactual: if the 1992 presidential election had been more surprising than it actually was, how much greater would the 1994 midterm loss have been? In our dataset, approximately 66 per cent of the respondents correctly predicted that Bill Clinton would take the White House, while 30 per cent thought that George Bush would win a close race, and 4 per cent anticipated a Bush landslide. Consequently, the average level of surprise on our four-point scale was 2.2. The 1994 midterm loss in our dataset was 5.5 per cent, a bit lower than the actual loss of 6.3 per cent across the country as a whole. We investigated how the loss would have varied if surprise had been higher or lower than 2.2 for all voters.

As a first step, we drew 1,000 sets of parameters from a multivariate normal sampling distribution with means equal to the coefficients reported in Table 1. Next, we allowed each voter to assume her self-reported values for all explanatory variables except surprise, which we fixed at 1, indicating that the voter predicted the presidential election accurately with a high degree of confidence. Using the drawn parameters, we then simulated 1,000 elections and recorded the magnitude of each midterm loss. We repeated this process three more times, setting surprise at progressively higher levels (2, 3, 4).

The results appear in Figure 4, which uses box plots to display the distribution of simulated midterm losses for each level of surprise. The horizontal line drawn through the middle of each box represents the median, and the upper and
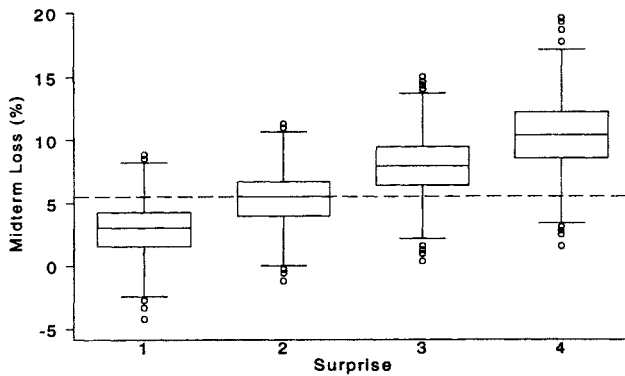
Fig. 4. Counterfactual analysis of the 1994 midterm election

Note: This figure shows how the 1994 midterm loss might have varied if the prior presidential election had been more or less surprising than it actually was. The dashed horizontal line at 5.5 indicates the true midterm loss in our dataset.

lower edges of the box indicate the location of the first and third quartiles. Whiskers protrude from the top and the bottom of each box; the upper whisker extends from the third quartile to a distance 1.5 times greater than the height of the box, while the lower whisker stretches downward an equal distance from the first quartile. Points beyond these whiskers are plotted as circles.

The figure shows that, if all voters had expected Bush to win in a landslide (surprise = 4), the average midterm loss would have been 10.4 per cent, nearly double the loss in our sample. If voters had unanimously expected a Bush victory but anticipated a close race (surprise = 3), the loss would have been roughly 7.9 per cent. Most respondents in our sample thought that Clinton would win a tight election. The boxplot corresponding to a surprise level of 2 shows what might have happened if all voters shared that assessment. Under this scenario, the predicted loss would have been 5.5 per cent. Finally, suppose that all voters had predicted an overwhelming victory for Clinton (surprise = 1). In that case, the midterm loss would have been 3 per cent, on average. Our counterfactual experiment thus illustrates how surprise can exert a powerful influence on the magnitude of the midterm loss.

To confirm the validity of our results, we evaluated how well our model fitted the data when the predicted probability of supporting the president's party was low, high or somewhere in-between. First, we calculated, for each respondent in the dataset, a predicted probability of voting for the president's party at the midterm. Next, we sorted these probabilities from lowest to highest and divided them into ten groups of equal size. Within each group, we calculated the average predicted probability and compared it to the actual proportion of respondents who voted for the president's party. We were looking for a close correspondence between the two values, which would show that our model predicted accurately.
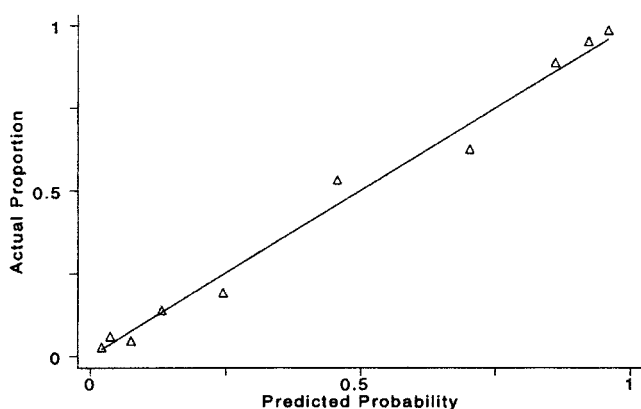
Fig. 5. The model fits the data

Note: This figure shows a near 1:1 relationship between the actual proportion of voters who supported the party of the president and the predicted probabilities produced by our model.

Figure 5 plots the actual proportions against the predicted probabilities for each of the ten groups in our dataset. All ten points fall very close to the superimposed 45-degree line, signalling a good match between the predicted and the actual values. We can, therefore, have considerable confidence in the appropriateness of our model.[12]

CONCLUSION

In this article, we have presented the first direct tests of the proposition that electoral surprise contributes to the midterm loss. Our findings support the theoretical work of Alesina and Rosenthal, whose formal model predicts that the more surprised moderate voters are about the outcome of the presidential election, the lower the probability that they will support the president's party in the midterm contest. Our results should be of interest not only to students of US presidential and congressional elections, but also to researchers concerned with the political determinants of economic cycles. Alesina and Rosenthal contend that surprise accounts not only for the midterm loss but also for the correlation between macro-economic performance and the party of the incoming president. Evidence presented in this article suggests that electoral surprise is indeed an important explanatory variable, one that influences voter behaviour and may affect the economy, as well.

[12] In fact, a bivariate linear regression of the actual proportions on the predicted probabilities produces an estimated slope of 1.01 with a standard error of 0.025 and an estimated intercept that cannot be distinguished from zero. These results suggest a near-perfect 1:1 relationship between predicted and actual values.

APPENDIX: DESCRIPTION OF THE DATA

With the exception of our incumbency measure, all variables in the analysis were based on information in the 1956–58, 1972–74 and 1992–94 National Election Studies.[13] Incumbency data for House elections in 1958 and 1974 came from Gary King;[14] data for the 1994 midterm election were collected from *Congressional Quarterly*.[15] Table A1 provides descriptive statistics for the variables discussed in the article.

TABLE A1   *Descriptive Statistics*

Variable	Mean	Std. dev.	Min.	Max.
Voter supported president's party in on-year	0.49	0.50	0	1
Voter supported president's party at midterm	0.44	0.50	0	1
Voter identifies with president's party	3.82	2.29	1	7
Voter's degree of political moderation	1.89	0.91	1	4
Voter's surprise about presidential election	1.79	0.76	1	4
Interaction term (moderation × surprise)	3.30	2.09	1	16
Voter's family income is improving	0.05	0.78	− 1	1
Incumbent belongs to president's party	0.03	0.92	− 1	1

Note: Number of observations, 1,517.

[13] University of Michigan Survey Research Center, *American Panel Study, 1956, 1958, 1960* (computer file), ICPSR edn. (Ann Arbor, Mich.: Inter-University Consortium for Political and Social Research , 1971); University of Michigan, Center for Political Studies, *American National Election Series, 1972, 1974, 1976* (computer file), 2nd ICPSR edn. (Ann Arbor, Mich.: Inter-University Consortium for Political and Social Research, 1979); Steven J. Rosenstone, Warren E. Miller, Donald R. Kinder and the National Election Studies, *American National Election Study, 1994: Post-Election Survey [Enhanced with 1992 and 1993 Data]* (computer file), conducted by University of Michigan, Center for Political Studies, 2nd ICPSR edn. (Ann Arbor, Mich.: Inter-University Consortium for Political and Social Research, 1995).

[14] Gary King, *Elections to the United States House of Representatives, 1898–1992* (computer file). ICPSR version (Ann Arbor, Mich.: Inter-University Consortium for Political and Social Research, 1995).

[15] 'Results of the 1994 Election', *Congressional Quarterly Weekly Report*, 53 (1995), 1090–7.