

How does the economy shape policy preferences?[☆]



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ABSTRACT

How do changes in the economy translate into shifts in aggregate preferences for a more or less activist government in the U.S.—a construct referred to as “policy mood”? Existing theories pose alternative explanations based on either a Maslow Hierarchy of Needs model, where citizens prefer an activist federal government to expand the social safety net when the economic future looks bright (Durr, 1993), or a Phillips Curve model (Erikson et al., 2002), in which the objective economic maladies of inflation and unemployment drive policy mood. We show that neither of these explanations withstands empirical scrutiny when analysis is extended beyond the time period of the original authors’ work, suggest the existing wisdom tying the economy to policy mood is wrong, and offer some alternative avenues to pursue in search of an answer to the question: What moves policy mood?

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1. What moves public opinion?

The American public’s appetite for an activist government varies over time, and that variation is both substantial and systematic. We saw it in calls to shrink government across the board and cut taxes in the early 1980s, and to invest in the future by funding education and overhauling health care following the 2008 election. Stimson (1991) was the first to conceptualize and measure these broad waves of public preferences, what he called “policy mood.” Policy mood captures more than Americans’ opinions on single policy issues like the environment or health care. It is the overall predisposition of the public to favor or oppose an active federal government to solve society’s problems. Stimson showed that we could extract from a very imperfect survey record enough information to measure policy mood.

Why, at some times, does the American public prefer an activist, liberal government, and at others a smaller, more

conservative one? The literature suggests the answer lies in the public’s thermostatic response to policy outputs (Wlezien, 1995),¹ and offers two contrasting avenues by which the economy may influence policy mood.² Durr (1993) argues a positive economic outlook makes citizens more willing to support expensive (liberal) policy, what we call the macro politics version of Maslow’s Hierarchy of Needs Model. Erikson et al. (2002) argue economic policy needs dictated by economic conditions drive policy mood: inflation produces demands for less government and unemployment for more, a process they call the macro politics version of the Phillips Curve Model.

We elaborate on these theoretical explanations for policy mood and summarize the authors’ empirical findings. There is competing evidence about how the economy

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¹ Both Durr and Erikson, MacKuen, and Stimson’s analyses share this premise and both find support that policy feedback is at work, and as such, we do not focus on it theoretically here.

² Analysis of the behavior of policy mood in more specific policy domains such as racial policy (Kellstedt, 2003) and preferences toward the death penalty (Baumgartner et al., 2008) have additionally focused on the role of the media. In addition, recent work by Kelly and Enns (2010) suggests that the dynamics of inequality help to shape policy mood.

influences policy mood based on these analyses, which are themselves based on different time periods, and use different aggregation intervals. All of it is outdated. We begin our analysis by estimating the two theoretical models using quarterly data 1968Q2–1988Q1, with our best effort at replicating the data used by the original authors. Then we extend the analyses through 2010Q3 and examine how the estimates change over time in a series of rolling regressions. We show that neither theoretical model can explain policy preferences over the full time period. Existing theories are both theoretically and empirically inadequate. They may have described behavior in the past, but they don't work in today's macro political environment. We offer some reasons this may be true and suggest avenues for future research.

2. Policy mood

Our interest is in understanding policy mood (or simply mood). It was developed in the U.S. context by [Stimson \(1999\)](#), and taps into the public's relative preferences for a more or less interventionist government. The original theoretical motivation behind the study of mood was to investigate whether variations in the public's preferences caused elected representatives to shift policy in response (they do; see [Stimson et al., 1995](#)). Mood has repeatedly been used by scholars with different theoretical interests. As an independent variable, mood has been used to explain legislative gridlock ([Binder, 1999](#)), Supreme Court decisions ([Casillas et al., 2011](#)), and election outcomes ([DeBoef and Stimson, 1995](#)). As noted above, and explored below, mood has also been studied extensively as a dependent variable, which becomes our focus for the remainder of this article.

3. Durr: a macro politics version of Maslow's Hierarchy of Needs Model

[Durr \(1993\)](#) offered the first theoretical account of the causes of mood. In his story, economic expectations, policy feedback and the Vietnam War exhibit a long run equilibrium relationship with policy mood.³ Our focus here is on his argument about the role of the economy. He argued society always has problems, and an active federal government provides solutions to them. This liberal and expensive policy agenda can only be supported when the public expects the economy to produce jobs and tax revenues. When the public expects, in the future, considerable economic safety, it is willing to pay for the broadening of

the social safety net for everyone. But when the public expects a gloomy economic future, it's everyone for themselves. Thus, the model echoes Maslow's famous Hierarchy of Needs ([Maslow, 1970](#)).^{4,5}

Durr analyzed quarterly data from 1968Q2–1988Q1 to test his theory. He found: people were more willing to embrace expensive liberal policy when they expected the economic future to be bright; as policy outcomes became more liberal, the public wanted them less; policy mood quickly responded to changes in both policy outcomes and economic expectations that disrupted their long-run equilibrium relationship with mood; and Vietnam increased demand for more liberal policy.

4. Erikson, MacKuen, and Stimson: Phillips Curve

In the EMS story, policy outcomes and the economy also drive mood. The economic underpinnings of the dynamics of mood grow out of the prescribed policy response to the twin economic maladies of inflation and unemployment. They argued that increases in inflation produce conservative movement in mood as the public demands austerity while increases in unemployment lead to liberal mood by driving up the demand for more services in a self-described macro politics version of the classic trade-off identified in the Phillips Curve (2002:232).

Erikson, MacKuen, and Stimson test their theory using biennial data from 1953 to 1996, modeling levels of mood as a function of lagged mood, lagged policy output, current inflation, and current changes in unemployment.^{6,7} Like Durr, they found conservative policy output produced liberal shifts in mood. In addition, they found increases in unemployment were accompanied by liberal shifts in policy preferences; these effects carried forward but dissipated reasonably quickly; and inflation did not significantly affect policy mood.

5. Durr and EMS: then and now

In order to compare and assess how these theoretical arguments fare today, we follow Durr and estimate error correction models (ECMs) of mood using quarterly data, first covering the time period of Durr's analysis (1968Q2–1988Q1) and then extending the analysis through 2010Q3.⁸ The variables used in the analysis are the same as those used in the Durr and EMS specifications. We translated the

³ Durr's inclusion of policy outcomes predated Wleziens's thermostatic theory, but his argument is the same as that offered by Wleziens.

⁴ As in Maslow's hierarchy, security (including economic security) must be present before individuals are willing to pursue higher goods having to do with the welfare of others.

⁵ [Stevenson \(2001\)](#) likened Durr's theoretical model to a classic consumer choice problem. Consumers (public) want to buy goods (policy) to maximize their utility subject to a budget constraint (the national economy). They can buy goods on the left (expensive) and on the right (less expensive). When the economy looks good and there is more money to buy them, the decreasing marginal value of income means they maximize their utility by buying more goods on the left thereby solving problems we all want to solve.

⁶ See Table 9.3, page 348. In addition, using annual data from 1956 to 1996, they find evidence that mood shifts in a conservative direction when the inflation rate increases and moves in a liberal direction when unemployment increases but this annual model does not allow for the effects of policy output.

⁷ [Stevenson's \(2001\)](#) comparative study of the Phillips Curve theory finds that rising inflation and unemployment both lead to a more conservative public.

⁸ Tests of the time series properties of the variables allow us to reject the null hypotheses that the series are unit root processes so that we can proceed treating the variables as stationary time series and estimate the ECM in one step. The ECM estimates changes in mood as a function of changes in the independent variables as well as lagged levels of these variables and mood. Specifically: $\Delta Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \beta_0 \Delta X_t + \beta_1 X_{t-1} + \epsilon_t$. See [DeBoef and Keele \(2008\)](#).

Table 1
Error correction models of domestic policy mood.

	Durr 1968Q2–1988Q1	Durr 1968Q2–2010Q3	EMS 1968Q2–1988Q1	EMS 1968Q2–2010Q3
Policy mood _{t-1}	-0.431* (0.103)	-0.194* (0.047)	-0.470* (0.106)	-0.221* (0.050)
Economic expectations _{t-1}	0.033 (0.028)	0.019 (0.013)		
Δ Economic expectations _t	-0.048 (0.071)	-0.004 (0.051)		
Inflation _{t-1}			-0.297* (0.147)	-0.113+ (0.066)
Δ Inflation _t			-0.171 (0.343)	-0.090 (0.204)
Unemployment _{t-1}			-0.370+ (0.199)	-0.126 (0.103)
Δ Unemployment _t			0.850 (0.784)	1.006* (0.485)
Policy outcomes _{t-1}	-0.210* (0.093)	-0.108* (0.048)	-0.123 (0.097)	-0.107* (0.047)
Δ Policy outcomes _t	0.003 (0.272)	-0.212 (0.203)	-0.077 (0.268)	-0.216 (0.200)
Vietnam war _{t-1}	3.633* (1.089)	1.474* (0.591)	3.542* (1.094)	1.689* (0.637)
Constant	32.27* (8.92)	14.96* (4.47)	37.15* (8.27)	19.41* (4.24)
Long run multipliers				
Economic expectations	0.079 (0.058)	0.081 (0.064)		
Inflation			-0.635* (0.271)	-0.523+ (0.267)
Unemployment			-0.567 (0.384)	-0.416 (0.468)
Policy outcomes	-0.424* (0.208)	-0.571* (0.239)	-0.224 (0.194)	-0.478* (0.202)
RMSE	2.08	1.96	2.05	1.93
R	0.18	0.13	0.21	0.16
N	78	168	78	168

* $p < .05$, + $p < .10$.

EMS specification to quarterly data and generalized their autoregressive distributed lag (ADL) specification to the ECM estimated by Durr.⁹ This allows us to compare the theoretical specifications as closely as possible and to eliminate data-based and model-based explanations for differences in findings.¹⁰

We break down our findings to consider evidence with regard to a) error correction, b) policy feedback, c) economic expectations and conditions, and d) model fit. The results of our test of the Durr and EMS theories in Durr's period of analysis are given in Table 1, Columns 1 and Column 3. The full time period results are given in Columns 2 and 4.

6. Then: 1968Q2–1988Q1

6.1. Error correction

Estimating an error correction model allows us to easily isolate how quickly policy mood adjusts when the relationship between mood and the set of independent variables in the model are out of their long-run equilibrium relationships. Durr estimated that policy mood would adjust very quickly to disturbances in this relationship, at a rate of 65% per quarter. We find that adjustment to be

⁹ The primary advantages of the ECM are that it allows us to directly estimate the rate at which mood changes in response to movement in the independent variables and that it is a general specification that encompasses the ADL model such that the ADL estimated by EMS is a more restricted version of the model we estimate. Specifically, the ADL estimates levels of mood as a function of current and lagged levels of the RHS variables, including mood: $Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \beta_0 X_t + \beta_1 X_{t-1} + \epsilon_t$.

¹⁰ As neither of the original datasets is available and recreating the same measures is not possible (see the Online Appendix for details), replication is not strictly possible. We do, however, follow the instructions for constructing the variables laid out by the original authors. One important distinction between our data and that used by Durr and EMS is that our mood measure is based on a much richer survey database and is therefore a more reliable measure than that used, in particular, by Durr.

somewhat slower, at a rate of about 45%, whether we adopt Durr's Maslow model or EMS's Phillips Curve model (the error correction coefficient is the coefficient on lagged policy mood). The obvious explanation is the vintage of the policy mood measure and its improved reliability.¹¹ The similarities in the error correction rate suggests that policy mood itself is moderately autoregressive, that it evolves slowly, a finding that sits reasonably well with our understanding of public preferences.

6.2. Policy feedback

Policy outcomes have the predicted negative effect on policy mood. In the long run, when policy outcomes are conservative in one quarter, policy mood shifts in a liberal direction to maintain the long-run policy mood equilibrium. The size of the total effect we estimate using Durr's specification is twice that estimated using the EMS specification, and the latter is not significant. Short run changes are not significant in either model.

6.3. The economy

We find no support for Durr's theory relating economics to policy mood. While economic expectations are positively signed, the p -value is only 0.24 and the effect size is itself very small. In comparison, we see some support for the economic story told by EMS. Inflation has a negative impact on policy mood: when inflation is high in one quarter, in the following quarter public preferences are for government to cut public spending. A (large) one-point increase in inflation produced an average of just under a one-third-point drop in policy mood in the next quarter, and an expected long-run change of almost two thirds of a point. Increases in unemployment also led to preferences for less

¹¹ Other explanations include differences in measurement of the other explanatory variables. See the Online Appendix.

government in the long run (although the long-run multiplier, or LRM,¹² is not significant), and short-run changes in unemployment had no effect on preferences, in contrast to the EMS story.

A final note on this time period. Neither model fits the data well. Changes in policy mood have a standard deviation of 2.34 and the root mean squared errors (RMSEs) of the models are 2.08 and 2.05, respectively, so that the reduction in prediction error given the model covariates is small.¹³

7. Now: 1968Q2–2010Q3

The results over the longer time period (see Table 1, Columns 2 and 4) tell a somewhat different story.

7.1. Error correction

The error correction coefficients drop substantially and similarly in both the Durr and EMS models when we extend the analysis forward in time. When the long-run equilibrium is shocked, the results implied by each model now suggest that policy mood will move quite slowly back toward equilibrium, re-equilibrating at a rate of about 20% in each subsequent quarter. One explanation for this drop is purely statistical: a slow return to equilibrium can only be estimated when there is a long enough time period over which to observe and estimate slow return. Another explanation is that the responsiveness of policy mood in the latter half of the data has slowed considerably, that preferences are “stickier.” We return to this point later.

7.2. Policy feedback

In the Durr specification, policy outcomes remain an important predictor of changes in policy mood. The total impact has grown about 34% (note the estimate of the LRM) compared to the early period. This growth in effect size comes entirely via the dynamic multiplier effect of policy mood—the estimated coefficient on lagged policy outcomes is itself smaller. The effect of policy outcomes is also significant in the EMS specification in this longer time period, although it is not quite as large as in Durr's specification.

7.3. The economy

Once again, we see no evidence that economic expectations affect policy mood in either the short or long run. Durr's argument gets no traction in the data. The EMS Phillips Curve story receives only limited support. Inflation continues to have a negative impact on changes in policy mood, but the effect is very modest for our full time period.

If quarterly inflation took its highest value since 1992, slightly over 5%, policy mood would only be about six tenths of a point more conservative than it would be if inflation were at 0. A one-point increase in inflation will produce an expected long run decrease in policy mood of about half a point, but this is primarily due to the stickiness of policy mood in our full time period. Thus, increases in inflation are expected to produce more conservative policy mood in our full time period, conforming to the EMS theory, but the effect is substantively quite small. We suspect that this arises from the low levels of inflation since the mid 1980s and the attendant lack of public concern with it.

Unlike inflation, unemployment has continued to be salient in political discourse in recent years, and has considerable short-term effects on policy mood for our full time period. A standard-deviation change in unemployment over this period (0.35) has a predicted effect of moving policy mood approximately one point in a liberal direction. This is a sizable effect, and one in line with the EMS Phillips Curve theory. However, unemployment has no significant long-run impact on policy mood, and what long-term effect it has is in the opposite direction that EMS predict.

Thus, our EMS model of policy mood for our full time period finds inflation to have a modest effect on mood in the expected direction, and unemployment to have an insignificant long run effect on mood contrary to the expected direction. These findings do not fit with any of the previous examinations of the Phillips Curve story (EMS biennial, EMS annual, or Stevenson comparative) and suggest that it is not confirmed empirically and unable to explain the dynamics of policy mood over time. In particular, it is difficult to imagine how the key explanatory variables of this model can explain considerable long-term variation in policy mood, since inflation has only a small impact on mood and unemployment has no significant long-run effect. Only policy outcomes have a consistent and robust effect on mood, functioning again as Wlezien's “thermostat” regardless of the model we use for the data.¹⁴

Fit of the models over this longer time period is slightly poorer than over the shorter time period. This is particularly striking given the poor fit over the shorter time period. The standard deviation of changes in policy mood in this time period is 2.08. The RMSE associated with the Durr specification is 1.96 and with the EMS specification is 1.93.

8. Rolling along

In order to better see the effects of the economic variables over time, we estimated a series of rolling regressions. Specifically, we estimated a series of regressions for the Durr and EMS specifications on 10- and 20-year successive moving windows from 1968Q2 through 2000Q4 (and

¹² LRMs, presented at the bottom of Table 1, give the total, hence long run, effect of a unit change in an independent variable on the dependent variable that is cumulated over time.

¹³ It is important to note that we cannot compare fit with Durr's original results, as the policy mood measure is of a different vintage and we do not know the standard deviation of his policy mood measure.

¹⁴ The effects of policy feedback on mood here mirror the findings of Wlezien's, Durr's, and EMS' analyses, and provide additional evidence of the validity of our key dependent variable. Despite using different vintages of policy mood and different time windows, all four of these analyses find this strong relationship, which would be unlikely if more robust measurement of mood over time somehow weakened its conceptual validity.

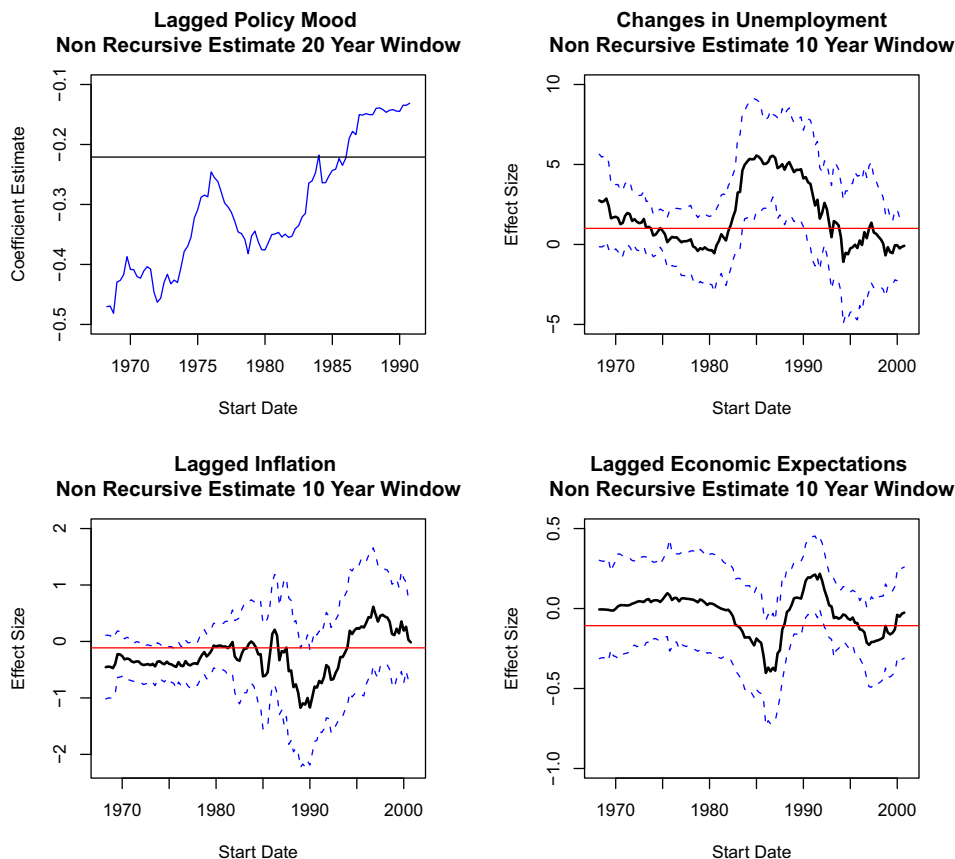


Fig. 1. Rolling regressions.

1990Q4), and extracted the estimates of each of the coefficients and their standard errors. In Fig. 1, we present the path of the coefficient estimates for the key economic variables from the models over a 10-year window and the error correction coefficient from the EMS model over a 20-year window.¹⁵ Lines are added to Fig. 1 for the point estimates from the full-period estimation. One glaring point stands out from all three of the coefficient figures on the economy: estimates spend nearly half of their time in positive territory and half of their time in negative territory. It is also clear that the standard-error bounds seldom exclude zero, but this is less surprising given that each point estimate is based on 40 observations, a small but not trivial number of observations. These figures suggest, along with the results presented in Table 1, that neither the Maslow nor Phillips Curve macro politics story is empirically satisfying.

The final figure presents the error correction coefficient estimate path based on a 20 year moving window ($T = 20$). We can see that, while the speed of adjustment to disequilibrium varied over time, in general it steadily

decreased. Because each point estimate is based on the same number of observations, this cannot be due to the statistical explanation offered above. Instead, either the public's preferences over domestic policy have themselves become progressively more sticky, and/or policy sentiment contains less measurement error, and/or the model is poorly specified. The first possibility seems highly credible. The American public has grown increasingly ideological over time (Abramowitz and Saunders, 2008), such that the percentage of Americans who favor liberal or conservative government policies *regardless of economic conditions* has probably gone up considerably during our full time period (1968–2010). As a result, we might expect policy mood to become stickier over time. The second possibility seems likely in a world where surveys are more frequently fielded while, at the same time, response rates are dropping, thus yielding concerns about the representativeness of surveys. The third possibility strikes us as very real and returns us back to the questions we (re-)posed at the outset: What explains policy mood? What are we missing?

9. What's missing?

The statistical analysis suggests, at best, that our theoretical stories explaining Americans' public policy

¹⁵ The error correction coefficient path for the Durr model is essentially the same.

preferences help us to understand a little bit about those preferences some of the time over the last 50 years. A more circumspect view, we believe, challenges both the Maslow and Phillips Curve macro politics stories about policy mood and leaves open the question of what explains policy mood. Why don't these theories fare better? And how should scholars explain the relationship between the economy and policy mood?

There are some simple reasons that these explanations for changes in policy preferences don't do better. First, different aspects of the economy are salient at different times. Most obviously in these analyses, inflation all but disappeared as a problem after the mid 1980s. In the most recent economic turmoil, unemployment/jobs, income inequality, economic growth, the budget deficit, and health care costs have been the chief concerns facing Americans. The significance of a given economic variable in a model might be expected to parallel its significance in the public mind. However, if that is the case, then we would expect economic expectations to be a stronger predictor of mood. Economic expectations should take into account whatever aspects of the economy are salient to the public.

Second, party prescriptions for economic problems have changed. For much of the post-WWII era, the Republican Party and Democratic Party differed in their emphasis on the importance of fighting inflation and unemployment, but mostly agreed on the prescription for each problem: spend to fight unemployment, tighten spending to fight inflation. Since the early 1980s, however, Democratic and Republican Party elites have polarized (Abramowitz and Saunders, 1998; McCarty et al., 2006), and their policy prescriptions have polarized with them. Today, Democrats usually seek to fight unemployment by increasing Keynesian spending, while Republicans primarily advocate tax cuts.

This point generalizes. Both the Durr and EMS theoretical stories are based on assumptions that Americans respond uniformly to the same objective or subjective economy. Durr's model assumed that Americans believe solving society's problems requires the government to spend money, and the EMS model assumed that Americans effectively switch their ideology when economic maladies change, but these assumptions may be false. Party polarization among the elites and in the populace suggests that different segments of the population, namely Democrats/liberals and Republicans/conservatives, see the solutions to problems (and the problems themselves) in very different ways. Democrats are more likely to prefer an activist government and Republicans a smaller government (Abramowitz and Saunders, 2008), and this is no doubt usually true *regardless* of economic expectations or conditions.

Where do we go from here? We suggest that any model of public policy preferences must meet two conditions. First, a model of public policy mood needs to recognize that not all segments of the public define social problems in the same way, or share beliefs about the best way to solve problems. Different principles guide how the parties believe social problems should be solved. One potential avenue to explore is to look at policy mood for Democrats and Republicans separately.

Second, we know that citizens reward incumbent presidents for a strong economy by supporting them. It may be that when the president's party shepherds the economy successfully, he receives public support to move domestic policy in the direction he prefers: that is, Democratic presidents may receive support for more liberal policy and Republican presidents for more conservative policy. Any model of public policy preferences must also account for incumbency effects.

These two things may interact. A strong economy and a Republican president may predict more conservative mood overall, but with a disproportionate share of the shift driven by independents and moderates. Republicans might increase their support for more conservative policies only modestly, since they are already supportive of these policies. Democrats might shift their mood little or not at all in response to a strong economy under a GOP president, since they support liberal policies regardless of economic conditions. Future work on policy mood should keep this potential interaction in mind.

10. Conclusion

The potential mechanisms by which the economy influences Americans' preferences for more or less government involvement in social problems are complex. Neither the Maslow model nor the Phillips Curve model are capable of adequately or consistently accounting for changes in mood for a liberal or conservative government over the last 50 years. The avenues for future exploration we have proposed just touch the surface. Further theoretical development is needed. In a time when budget deficits are large, national debt is growing, social problems (as well as their costs) are similarly growing, and the economy is struggling, understanding how the economy shapes Americans' preferences for government to be more or less active in solving social problems presents an important problem.

Appendix A. Supplementary material

Supplementary data related to this article can be found online at <http://dx.doi.org/10.1016/j.electstud.2013.05.002>.

References

- Abramowitz, A.I., Saunders, K.L., 1998. Ideological realignment in the U.S. electorate. *Journal of Politics* 60, 634–652.
- Abramowitz, A.I., Saunders, K.L., 2008. Is polarization a myth? *Journal of Politics* 70, 542–555.
- Baumgartner, F.R., De Boef, S.L., Boydston, A.E., 2008. *The Decline of the Death Penalty and the Discovery of Innocence*. Cambridge University Press, New York.
- Binder, S.A., 1999. The dynamics of legislative gridlock, 1947–96. *American Political Science Review* 93 (3), 519–534.
- Casillas, C.J., Enns, P.K., Wohlfarth, P.C., 2011. How public opinion constrains the U.S. supreme court. *American Journal of Political Science* 55, 74–88.
- DeBoef, S., Stimson, J.A., 1995. The dynamic structure of congressional elections. *Journal of Politics*, 57, 630–648.
- DeBoef, S., Keele, L., 2008. Taking time seriously. *American Journal of Political Science* 52, 184–200.
- Durr, R.H., 1993. What moves policy sentiment? *American Political Science Review* 87, 158–170.

- Erikson, R.S., MacKuen, M.B., Stimson, J.A., 2002. *The Macro Polity*. Cambridge University Press, New York.
- Kellstedt, P.M., 2003. *The Mass Media and the Dynamics of American Racial Attitudes*. Cambridge University Press, New York.
- Kelly, N.J., Enns, P.K., 2010. Inequality and the dynamics of public opinion: the self-reinforcing link between economic inequality and mass preferences. *American Journal of Political Science* 54, 855–870.
- Maslow, A., 1970. *Motivation and Personality*, second ed. Harper and Row, New York.
- McCarty, N., Poole, K.T., Rosenthal, H., 2006. *Polarized America: the Dance of Ideology and Unequal Riches*. MIT Press, Cambridge.
- Stevenson, R.T., 2001. The economy and policy mood: a fundamental dynamic of democratic politics? *American Journal of Political Science* 45, 620–633.
- Stimson, J.A., 1991. *Public Opinion in America: Moods, Cycles, and Swings*. Westview Press, Boulder, CO.
- Stimson, J.A., 1999. *Public Opinion in America: Moods, Cycles, and Swings*, second ed. Westview Press, Boulder, CO.
- Stimson, J.A., MacKuen, M.B., Erikson, R.S., 1995. Dynamic representation. *American Political Science Review* 89, 543–565.
- Wlezien, C., 1995. The public as thermostat: dynamics of preferences for spending. *American Journal of Political Science* 39, 981–1000.