Dynamic Economic Voting: What Makes the Economy Matter?

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Abstract

Theories of economic voting assume governmental evaluations accurately reflect changing economic conditions. Citizens, however, view the economy and government through a partisan filter, making the degree and direction of the response to stimuli conditional on party politics. A strong attachment to the incumbent's party leads to more positive political evaluations and a more rosy economic outlook. Out-partisans discount positive economic and political news. As partisan cleavages increase, the connection between economic perceptions and political evaluations decreases. This poses a problem for retrospective voting and democratic accountability which require voters to accurately assess economic performance and assign reward or blame accordingly.

"[T]he electorate's response to the economy is one under which voters reward the government for the conditions they welcome and punish the government for the conditions they dislike."
— Butler and Stokes (1969, 392)

The economic voting literature is built upon the thesis that voters attribute responsibility for economic performance to the governement (Campbell, Converse, Miller, and Stokes 1960; Butler and Stokes 1969; Lewis-Beck and Stegmaier 2007). Presidents are punished for poor economic times and rewarded for economic prosperity. Researchers debate whether current conditions (Key 1966; Norpoth 1996) or future expectations (Downs 1957) are more predictive; and whether individuals place more weight on their own financial circumstances or the state of the country as a whole (Nadeau and Lewis-Beck 2001). Irrespective of the causal mechanism, economic explanations predominate studies of presidential approval.

Yet this almost singular focus on economics can lead to an overstatement of the dominance of economic explanations. This assumption—that all presidencies are defined by the economy—does not always hold. For example, Barack Obama's approval ratings, particularly among Republicans, are far lower than would be expected based on the economic growth during his tenure. Although the pattern of higher approval when the economy is performing well and lower approval during periods of recession is frequently observed, economic conditions and perceptions are not the only determinants of presidential approval. The importance of the economy in determining presidential popularity may vary if non-economic factors, such as party politics, alter the evaluative criteria used to judge presidential performance. In other words, economic voting is a dynamic process and the relationship between political and economic evaluations is time-varying. An increased reliance on the perceptual screen of partisanship renders economic perceptions less predictive of political evaluations than in other, less polarized periods.

I address the topic of dynamic economic voting (EV)—that the link between the economy and candidate assessment changes in strength over time—by analyzing the relationship between presidential approval and consumer sentiment during two very different presidential administrations. The Clinton presidency was one of peace, prosperity, and relative unity,

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while the G.W. Bush presidency was defined by crises, economic struggle, and political division. The stark difference in economic trajectory and degree of polarization during these two administrations provides an excellent opportunity to explore the fluid relationship between political and economic evaluations both within and between presidencies. I find the correlation between approval and consumer sentiment to be consistently positive and stable during the Clinton years and extremely variable–and often negative–during the Bush era. Changes in the strength of this relationship are attributable to changing party politics rather than the often offered economic explanations.

1 Economics and Political Evaluations

Scholars have written thousands of pages on the relationship between politics and economics, typically focusing on the way economics affect political appraisals and vote choice. Many studies have explored which objective measures of economic performance matter most for political evaluations (e.g. Goodhart and Bhansali 1970; Kramer 1971; Alesina, Londregan, and Rosenthal 1993; Arcelus and Meltzer 1975; Mueller 1970). Still other studies have explored which type of economic evaluations matter. In 1957 Downs wrote that voters should be forward-looking when evaluating various parties and candidates. That is, voters should consider the proposed policies of each party and vote for the party whose policies would maximize the individual voter's utility. Key (1966) empirically tested Downs's model to determine whether voters vote prospectively, as the theory would suggest, or if they actually vote retrospectively. Many others since have found that voters behave retrospectively, making their choices based on past economic performance rather than the promise of future economic change (e.g. Nickelsburg and Norpoth 2000; Norpoth 1996; Alesina, Londregan, and Rosenthal 1993; Fiorina 1978, 1981; Lanoue 1994; Gelpi, Reifler, and Feaver 2007; Nannestad and Paldam 2000). Citizens are also more responsive to sociotropic conditions, or changes in the national economy, than changes to their own pocketbooks (Erikson, MacKuen, and Stimson 2002; Kinder and Kiewiet 1981).

Objective economic conditions are only one piece to the economic voting puzzle. Subjective economic evaluations, or consumer sentiment, contain other information not found in objective economic variables (Keynes 1936; Katona 1975). There is disagreement in the literature, however, regarding the relationship between consumer confidence and politics. Consumer sentiment has been found to affect many aspects of political life including macropartisanship (Erikson, MacKuen, and Stimson 2002) as well as presidential and congressional approval (MacKuen, Erikson, and Stimson 1992; Durr, Glimour, and Wolbrecht 1997; Box-Steffensmeier and Tomlinson 2000). Politics has also been shown to affect consumer sentiment at the aggregate (De Beof and Kellstedt 2004; Norpoth 1996; Evans and Pickup 2010) and individual levels (Conover, Feldman, and Knight 1986; 1987). Consumer sentiment increases in the period leading up to elections and subsequently declines post-election because of the political environment rather than objective economic conditions (Hardouvelis and Thomakos 2007). This debate leads to the conclusion that the relationship between the ICS and presidential approval is one of reciprocal causality.

2 Partisanship and Polarization

Although more recent work has incorporated the idea of reciprocal political and economic evaluations (at least methodologically), most economic voting studies still assume the economy and economic evaluations are consistently important predictors of presidential approval. The endogenous nature of partisanship, however, creates a dynamic relationship between the economy and presidential popularity. Party politics have the ability to alter the importance of economic performance in evaluating presidential approval.

Partisanship shapes economic evaluations by biasing perceptions of economic conditions and political performance (Evans and Pickup 2010; Enns, Kellstedt, and McAvoy 2012; Lebo and Cassino 2007). Rather than objectively responding to economic information as it is received, partisans rely more heavily on party and other elite cues when forming economic judgements. Through the process of motivated reasoning, partisans place heavier weight on

information that comports with their prior beliefs and discount counter-attitudinal information (Lodge and Taber 2005, 2013). In terms of economic voting, partisans will dismiss or downplay positive economic information when the president is of the other party, and exaggerate or seek out negative economic news (Lebo and Cassino 2007).

In the aggregate, increased ideological extremity and strengthening party ties lead to partisan polarization. Be it as a response to deep ideological division at the elite level (Fiorina and Abrams 2009), income inequality (McCarty, Poole, and Rosenthal 2006), or as a result of ideological sorting (Abramowitz and Saunders 2008), polarization has important effects on the political system. At the elite level, polarization leads to gridlock and decreased legislative productivity (McCarty 2007). Polarization at the mass level can have positive effects including increased political participation (Abramowitz and Saunders 2008); however, there are also negatives associated with an increase in partisanship. The tendency toward biased information processing increases as partisan attachment strengthens (Campbell et al. 1960; Lebo and Cassino 2007). Polarization also increases partisan animosity, or the likelihood of viewing the other party as being "bad for America" (Pew 2014). The coupling of motivated reasoning and partisan animosity has the ability to alter the evaluative criteria used to assess governmental performance.

Polarization Hypothesis: As polarization increases, the strength of the relationship between politics and economics weakens.

Diminished ties between governmental and economic performance are attributable to an increased reliance on partisan heuristics. When presented with negative economic news, in-partisans discount this information and remain as (or only slightly less) supportive of the president and bullish in their economic views. Should in-partisans become less supportive or have a less rosy economic outlook, the magnitude of the decrease will be smaller than would be expected were partisanship not considered. Out-partisans presented with the same negative information will respond in the opposite manner. Rather than remaining supportive and confident, out-partisans will exaggerate the magnitude of the change and reduce their

approval and economic evaluations accordingly. Were the economy improving, out-partisans would remain stable or slightly more supportive and confident while in-partisans respond in an exaggerated, positive manner. The same patterns of biased information processing emerge regardless of the stimulus, be it economic, political, or an external crisis or scandal. Counter-attitudinal information produces little effect while attitude conforming information is relied upon heavily.

If the relationship between governmental and economic support is contingent on the degree of partisan polarization, the findings of existing economic studies may be time-bound. Ignoring the political context may overestimate the effects of economic voting and bias the effect of other variables downward. In reality, it is not simply that as the economy goes, so goes approval. The process is dynamic, with periods during which approval is a stronger or weaker predictor of economic perceptions. Eras and countries with a strong degree of economic voting may exhibit such patterns due to lower levels of partisanship. Likewise countries and time periods that exhibit little connection between the economy and politics may have deep partisan cleavages. Allowing for a fluid relationship between economic evaluations and approval both within and between presidencies acknowledges the role of context in opinion formation. What is more, the importance of the economy does not simply vary for short periods but can be substantially reduced for an entire presidency.

3 Data and Method

3.1 Comparing Two Presidencies

The administrations of Bill Clinton and George W. Bush provide excellent periods in which to explore the way polarization shapes political and economic evaluations. While temporally proximate administrations, the two presidencies varied greatly, both in terms of political and economic conditions and the external environment more generally. More than any other issue, the economy was Clinton's ticket into office. As the sign in his 1992 campaign headquarters said, "It's the economy, stupid," and Clinton ended up being a popular president during a

period of economic growth and stability. Although Clinton was impeached and ultimately acquitted, the stock market surged, Silicon Valley flourished, and consumer sentiment was at an all-time high.

Economically, Clinton's presidency was a foil to the recession-plagued Bush years. After September 11th, the economy went into recession and recovered only to collapse again a few years later. Traditional theories of economic voting predict that Clinton would benefit from consumer optimism while Bush's job approval would suffer due to consumer pessimism. Economic trajectory, however, is not the only contextual difference between the two administrations. These theories fail to take into account polarization that can attenuate the effect of economic evaluations. Despite campaign promises to the contrary, George W. Bush was a strongly polarizing president. The divisiveness of the Bush presidency stands in contrast to the relative unity of the Clinton era (Jacobson 2007). When the public is political divided, however, this should lead to a lower correlation between consumer sentiment and job evaluations, as approval will be more reflective of the public's partisan divides rather than economic conditions.

3.2   Assessing the Dynamic Relationship

In order to assess the extent to which political polarization affects economic voting during the 1993–2008 period, it is necessary to obtain estimates of the time-varying relationship between political and economic evaluations. To measure political evaluations, I use the monthly percentage of respondents reporting approve to the Gallup's question "Do you approve or disapprove of the way _____ is handling his job as President?" I call this national, or overall, approval. Consumer sentiment is measured using the Index of Consumer Sentiment (ICS) complied by the Michigan Survey of Consumers. Collected monthly, the overall index is a mix of sociotropic and pocketbook questions about current economic conditions and economic expectations. As shown in Figure 1, consumer sentiment and approval are quite variable within and across presidencies. During the Clinton administration, both exhibit an upward, though not monotonic, trajectory. The picture is decidedly less rosy during the

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Bush presidency, with lower levels on average and a decline throughout the administration.

(Figure 1 about here)

The Tse test for constant correlations indicates the relationship between approval and the ICS is non-constant over time. A Dynamic Conditional Correlation (DCC) model of national presidential approval and consumer sentiment provides estimates of the strength of the relationship at time t. DCC comes from multivariate generalized autoregressive conditional heteroskedasticity (GARCH) models and estimates a weighted average of correlations in two steps. In the first step, univariate GARCH models are used to estimate the volatility parameters. The residuals from the first stage are then used to estimate the time-varying correlation matrix (Engle 2002; Lebo and Box-Steffensmeier 2008). The dynamic correlations are plotted in Figure 2.[1]

(Figure 2 about here)

Figure 2 graphically represents the concept of dynamic EV. While there is some variation in the strength, the relationship between consumer sentiment and overall approval is consistently positive during the Clinton presidency. Although Clinton's personal life was a circus, his approval remained high due to the health of the economy and, in turn, his high approval ratings helped create a rosy economic outlook. The picture for the Bush presidency is quite different. The correlation between approval and consumer sentiment was at its lowest point after 9/11 and remained strongly negative throughout the subsequent recession. As the economy improved, the correlation became positive preceding the 2002 midterm election and remained positive throughout much of 2003, reaching a peak with the commencement of the Iraq war. During the election period, the economy continued to improve while Bushs approval slid, returning the relationship to negative territory. With the recession in 2007 and Bush's approval at an all-time low, the correlation was once again positive by the end of his second term.

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[1]EV and polarization are not cointegrated and there is no significant error correction.

3.3 Polarization in the Electorate

Although national approval ebbs and flows, this level of aggregation masks substantial heterogeneity in evaluations of presidential performance, as shown in Figure 3. In-partisans, respondents identifying as members of the president's party, show consistently higher approval than out-partisans. In contrast, out-partisan approval is lower and more volatile. The difference in in-party and out-party approval, otherwise known as the approval gap, provides monthly measure of partisan polarization. Increased polarization, as measured by an increase in the approval gap, is expected to have a negative effect on the correlation between overall approval and consumer sentiment. That is, as partisan cleavages widen, the relationship between politics and economics should weaken due to increased reliance on partisan cues rather than economic or governmental performance information.

(Figure 3 about here)

For presidents to be punished for poor economic times, presidents need to be seen as responsible for economic conditions (Peffley 1984). Attribution of responsibility is affected by individual factors like political sophistication (Gomez and Wilson 2001), economic ideology (Rudolph 2003), and partisanship (Rudolph 2003; McAvoy and Enns 2010; Lebo, McGlynn, and Koger 2007). Institutional arrangements including federalism (Arceneaux 2006) and divided government (Lewis-Beck 1988; Lowry, Alt, and Ferree 1998; Paldam 1991; Nicholson and Woods 2002) also influence the public's ability to credit or punish the president for economic conditions. If presidents are not thought to be as culpable for poor economic times during periods of divided government, this lack of responsibility dilutes the effect of economic perceptions on presidential approval during these periods. To wit, a measure of divided government, defined as at least one chamber under the control of the opposition party, is included.

Beyond attribution of responsibility, the emergence of other salient issues also causes the importance of the economy to wane. Elections, scandals, and rally events affect the

linkage between economics and politics (see also Kernell 1978; MacKuen 1983; Ostrom, Jr., and Simon 1985; Brody 1991; Nickelsburg and Norpoth 2000). Relevant interventions are included to account for political events during each presidency.

As the authors of The American Voter observed, "prosperity clearly benefits the administration party, but it has nothing like the magnitude of the effect that would result from economic distress" (1960, 555). While presidents benefit from good economic times, they are punished more severely when conditions worsen (e.g. Bloom and Price 1975; Nannestad and Paldam 1997; Kappe 2012). The models are also saturated with economic variables that have been shown to affect both consumer sentiment and presidential approval to capture the response to changing economic conditions. These include the monthly inflation and unemployment rates, as well as monthly real disposable income and periods of recession.

3.4 Modeling strategy

Granger causality tests provide inconclusive evidence regarding the temporal ordering of changes in polarization and EV. In other words, changes in polarization do not always temporally precede changes in the strength of the relationship between politics and economics. This is unsurprising given the endogenous nature of economic and political evaluations. In order to address this endogeneity, equations are specified for the marginal processes of EV and the approval gap. The variables have been fractionally differenced to create stationary series and avoid over-differencing (Clarke 2003)[2] The resulting equation predicting the strength of EV is:

$$\Delta^d EV_t = \beta_0 + \sum_{l=0}^{2} \zeta \Delta^d polarization_t + \sum_{l=0}^{k} \psi \Delta^d economy_t + \sum_{l=0}^{z} \Phi \Delta^d politics_t + \varepsilon_t$$

where ζ is a vector of coefficients for the polarization variable; ψ is a vector of coefficients for the economic variables; Φ is a vector of coefficients for the political variables; β_0 is a constant, and ε is the error term $N(0, \theta^2)$. Δ^d indicates that a variable has been fractionally

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[2]The inflation and unemployment rates are close to unit roots and as such have been first-differenced

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differenced.

The polarization equation is:

$$\Delta^d Polarization_t = \beta_0 + \sum_{l=1}^{3} \Gamma \Delta^d economy_t + \sum_{l=0}^{z} \Omega \Delta^d politics_t + \varepsilon_t$$

where Γ is a vector of coefficients economic variables and the vector of coefficients for the political variables is represented by Ω.[3] As with the EV equation, Δ^d indicates that a variable has been fractionally differenced and ε is the error term. A two-equation near-VAR was estimated using Seemingly Unrelated Regression (Kmenta 1997).[4]

4 Findings

Table 1 presents the results of the EV equation from the near-VAR. As shown, the link between economic and governmental support is contingent on party politics. Although there is no significant contemporaneous effect, increased polarization has a negative effect on the strength of the relationship between economics and politics at a lag of one. In other words, as the approval gap increases in June, there is a reduced correlation between approval and the ICS in July. Partisanship distorts economic perceptions while at the same time altering political evaluations. By viewing economic and political conditions through an increasingly partisan lens, evaluations of both become even more removed from economic and political reality. Although the gap between economic perceptions and government support is increasing, it is impossible to say whether this widening is due to the two series heading in opposite directions or one remaining stable while the other diverges. Regardless, the strength of economic voting decreases as partisan cleavages deepen.

Other political factors also affect the connection between economic perceptions and presidential approval. Divided government, as expected, has a negative effect on economic voting.

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[3]The dynamic conditional correlations are not a significant predictor of polarization. As such, they have been excluded from the polarization model.

[4]To remain agnostic about the lag structure, three lags were chosen for most variables. Due to the inflation and unemployment rates being released at the end of the month, contemporaneous effects are omitted.

During periods of divided government, the increased difficulty in attributing responsibility for economic conditions loosens the tie between economic and political evaluations. Similarly, the connection is also diminished during honeymoon periods. While the divided government effect stems from difficulty assigning reward or blame, the honeymoon effect is likely due to an increase in approval without a corresponding increase of equal magnitude in consumer confidence. Economic voting is strengthened during presidential election months, indicating the attribution of responsibility is functioning as expected around elections. The effect does not, however, reach traditional levels of significance.

(Table 1 about here)

These results also indicate the hegemony of economic conditions may be overstated in the literature. Overall, objective economic conditions have little effect on the strength of the economic vote. Changes in disposable income do significantly strengthen the bond between approval and consumer confidence. However negative economic news, such as increased inflation and the start of a recession do not effect the conditional correlation as expected. Traditional theories of economic voting would predict an asymmetric response to changing consumer sentiment during this period, with a stronger correlation expected as the economy struggles. Unemployment and inflation have a positive effects as expected, but are insignificant predictors of EV. Conversely, the start of a recession reduces economic voting rather than strengthening it as the literature would suggest. This could be a result of poor economic times causing consumer confidence to decline faster than approval. In other words, although both series are tracking downward, consumer sentiment is turning south quickly while partisan motivated reasoning slows the decline of overall approval.

5 Discussion

The existing economic voting literature has found the parameters measuring the strength of the economic-political linkage to be unstable. The analysis above shows this dynamic relationship varies systematically due to party politics. As partisan polarization increases,

the explanatory power of economic perceptions and presidential approval is significantly reduced. Accounting for biased information processing due to partisan predispositions also alters the relationship between poor economic conditions and government support. Rather than seeing a stronger relationship during economic declines, the reverse is true. This change can be explained by the asymmetric responses of in- and out-partisans to economic and political news.

Although the dynamic nature of economic voting can be a nuisance from a modeling perspective, it is also normatively problematic. For retrospective voting to be an adequate means of ensuring democratic accountability, voters are required to accurately assess economic performance and assign reward or blame accordingly. If polarization is able to alter the evaluative criteria used to assess political performance, the link between policy outputs and electoral rewards and punishments is compromised. By engaging in partisan motivated reasoning, citizens are responding to partisan, rather than performance, cues.

Partisan divisions have the ability to alter the relationship between presidential approval and consumer sentiment, but polarization may affect components of presidential approval and consumer sentiment as well. For example, economic prospections and retrospections may respond differently to changes in polarization. Furthermore, in lieu of consistently voting prospectively or retrospectively, polarization may cause some voters to rely more on prospective criteria.

Future work should also examine the economic and foreign policy dimensions of approval separately. While the two dimensions are positively correlated and tend to track together, partisan polarization is likely to effect the economic approval series more than foreign policy approval. If polarization causes economic and political evaluations to become divorced from reality, increased partisanship should disproportionately affect the economic dimension. Although polarization is not expected to greatly alter the connection between foreign policy and policy approval due to citizen inattention and lack of knowledge, it should reduce the importance of the foreign policy dimension as a component of overall approval.

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Likewise, dynamic EV is likely also modified by media coverage of the president and the economy. In addition to filtering information about the objective state of the economy that, in turn, affects presidential approval, the media also transmits information about presidential performance to the public. Media sentiment toward the president is a function not only of the president's handling of the economy but also elite evaluations of the president's other domestic and foreign policies. By including a measure of media coverage, future work can control for a potential influence on dynamic EV.

Lastly, portraying elections as simply whether or not the economy matters is wrong and short-sighted. The power of economic confidence to shape political evaluations can be even greater than typically assumed when polarization is low. When polarization is high, as it was during the Bush administration and remains today, economic perceptions play a less important role in determining presidential approval.

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Figure 1: Political and Economic Evaluations, 1993-2008
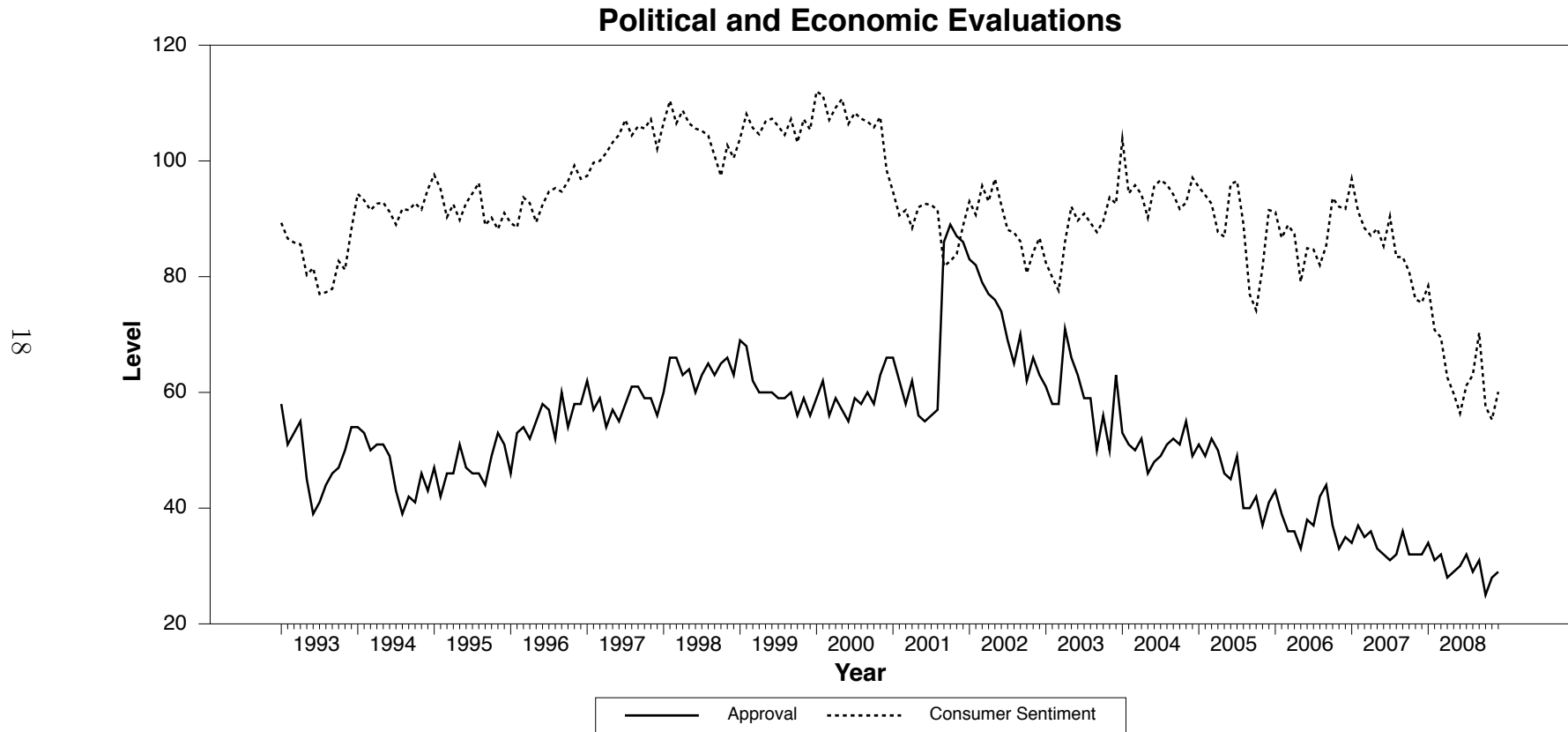

Political and Economic Evaluations

Figure 2: Dynamic Correlations - Political and Economic Evaluations, 1993-2008
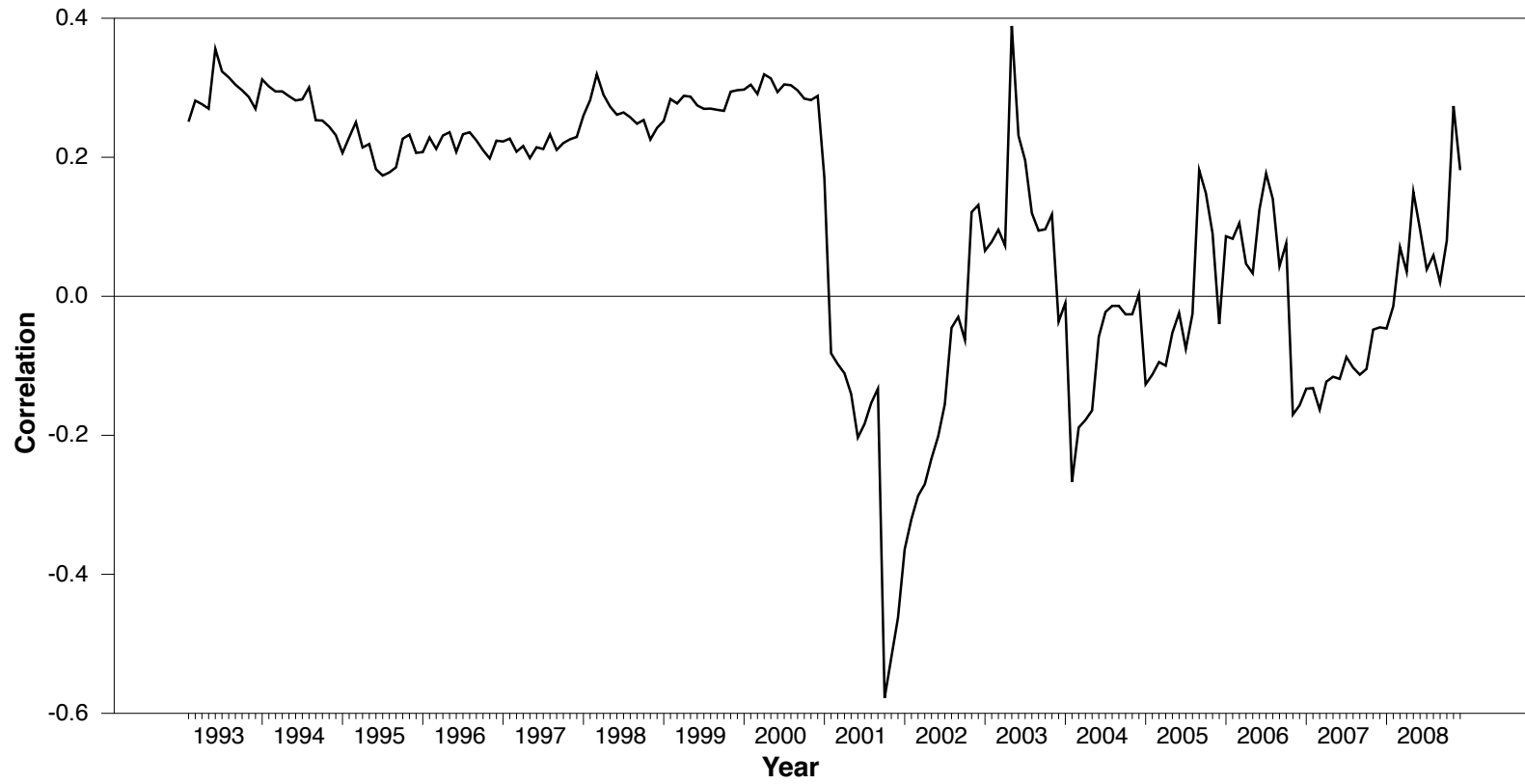
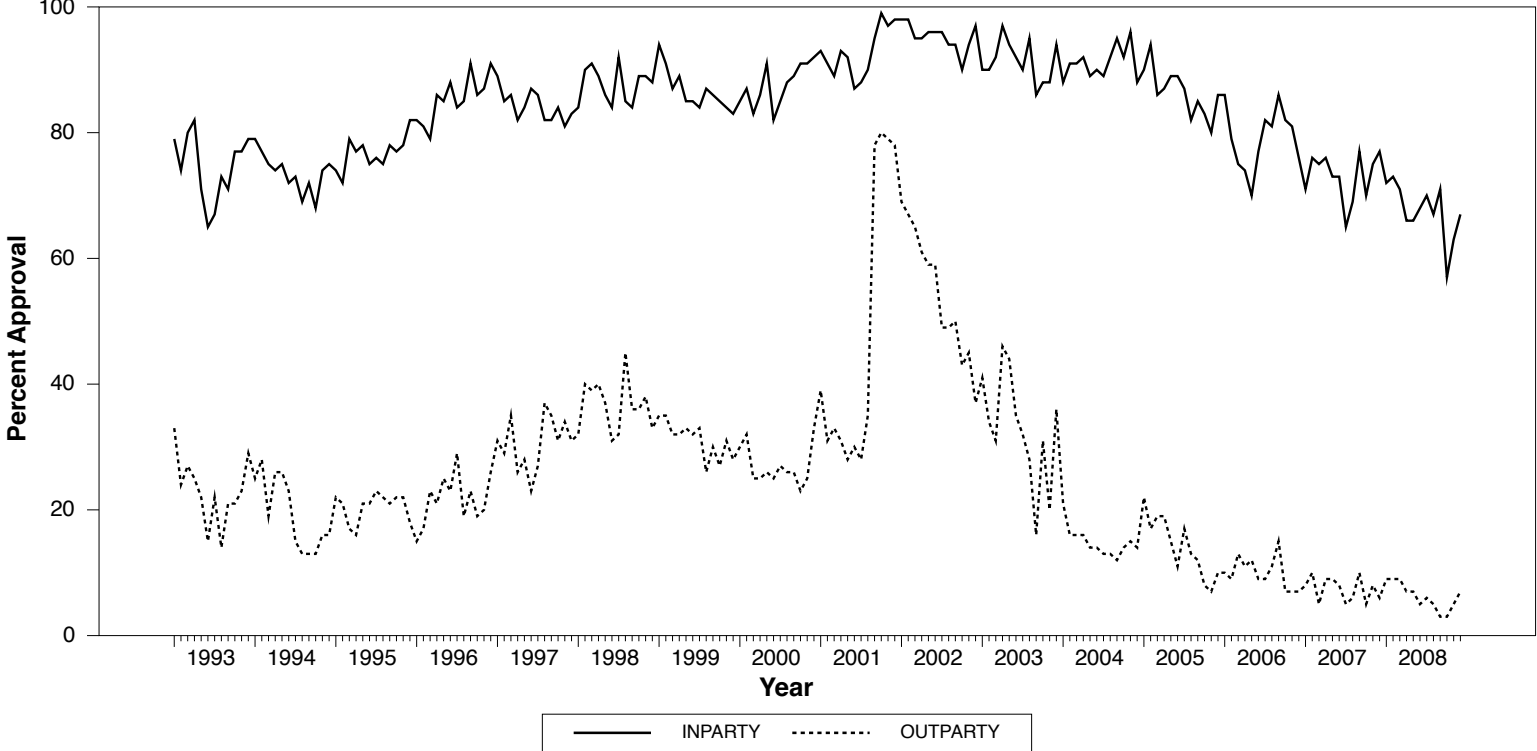Figure 3: Polarization: Approval by In-Party Status, 1993-2008

Table 1: Near-VAR of DEV and Partisan Polarization – No ECM

	EV			Polarization		
	Coefficient	(Std. Error)	p-value	Coefficient	(Std. Error)	p-value
Polarization	-0.06	(0.06)	0.17			
Polarization$_{t-1}$	-0.14*	(0.07)	0.03			
Polarization$_{t-2}$	-0.03	(0.07)	0.32			
Inflation$_{t-1}$	0.09	(0.76)	0.46	0.12	(0.75)	0.44
Inflation$_{t-2}$	0.41	(0.88)	0.32	-0.81	(0.95)	0.195
Inflation$_{t-3}$	-1.51*	(0.86)	0.04	1.38	(0.88)	0.06
Unemployment$_{t-1}$	1.81	(2.52)	0.24	-3.83	(2.57)	0.07
Unemployment$_{t-2}$	1.08	(2.56)	0.34	-2.54	(2.54)	0.16
Unemployment$_{t-3}$	2.35	(2.57)	0.18	1.16	(2.60)	0.33
ICS				0.08	(0.10)	0.2
ICS$_{t-1}$				-0.19*	(0.10)	0.025
ICS$_{t-2}$				0.05	(0.10)	0.295
Recession	1.46	(3.07)	0.32			
Recession$_{t-1}$	-5.19*	(3.10)	0.05			
Recession$_{t-2}$	-1.10	(2.64)	0.34			
RDI	0.01*	(0.00)	0.00			
RDI$_{t-1}$	-0.00	(0.01)	0.17			
Divided Gov't$_{t-1}$	-3.64*	(2.19)	0.05			
Pres. Election	4.45	(2.76)	0.06	3.15	(2.35)	0.09
Pres. Election$_{t-1}$	-1.61	(2.83)	0.29	3.98	(2.60)	0.065
Honeymoon	-22.49*	(4.06)	0.00	0.92	(3.94)	0.405
Honeymoon$_{t-1}$	8.29*	(4.54)	0.04	0.38	(3.88)	0.46
Interventions						
Missile Attack	7.82*	(4.50)	0.04			
Lewinsky	0.24	(3.80)	0.48	-15.09*	(3.83)	0
Lewinsky$_{t-1}$	-1.98	(3.82)	0.30	-7.62*	(3.83)	0.025
Bush v. Gore$_{t-1}$	-13.59*	(4.49)	0.00			
9/11$_{t-1}$	-51.85*	(5.58)	0.00	-38.04*	(4.85)	0
9/11$_{t-2}$	-2.10	(5.57)	0.36	-8.53*	(4.89)	0.04
Midterm 2002	19.08*	(4.45)	0.00	13.19*	(4.74)	0.005
WMD	-22.72*	(4.67)	0.00	14.30*	(4.92)	0
Midterm 2006	-22.75*	(4.66)	0.00			
Iraq Invasion$_{t-1}$	22.54*	(3.26)	0.00			
Constant	0.39	(0.79)	0.31	0.05	(0.56)	0.47
N=189	RMSE= 4.34	$\chi^2 = 297.68$		RMSE= 4.66	$\chi^2 = 112.79$	

Appendix A: ICS and Approval Error Correction

Some studies have found approval and the ICS to be co-integrated (e.g. De Boef and Kellstedt 2004). Although co-integration tests do not provided evidence of a long-term equilibrium relationship during the period in question, a fractional error correction mechanism (FECM) may be included. The resulting equation predicting EV is:

$$\Delta^d EV_t = \beta_0 + \sum_{l=0}^{2} \zeta \Delta^d polarization_t + \sum_{l=0}^{k} \psi \Delta^d economy_t + \sum_{l=0}^{z} \Phi \Delta^d politics_t + \beta_1 \Delta^d ECM_{t-1} + \varepsilon_t$$

where ζ is a vector of coefficients for the polarization variable; ψ is a vector of coefficients for the economic variables; Φ is a vector of coefficients for the political variables; β_0 is a constant, and ε is the error term $N(0, \theta^2)$. β_1 is the coefficient for the ECM. Δ^d indicates that a variable has been fractionally differenced.

The polarization equation is:

$$\Delta^d Polarization_t = \beta_0 + \sum_{l=1}^{3} \Gamma \Delta^d economy_t + \sum_{l=0}^{z} \Omega \Delta^d politics_t + \varepsilon_t$$

where Γ is a vector of coefficients economic variables and the vector of coefficients for the political variables is represented by Ω. As with the EV equation, Δ^d indicates that a variable has been fractionally differenced and ε is the error term.

The results of the FECM model are presented in Table A. The polarization findings remain substantively unchanged.

Table A: Near-VAR of EV and Partisan Polarization Including a FECM

	EV			Polarization		
	Coefficient	(Std. Error)	p-value	Coefficient	(Std. Error)	p-value
Polarization	-0.07	(0.06)	0.12			
Polarization$_{t-1}$	-0.13*	(0.07)	0.04			
Polarization$_{t-2}$	-0.02	(0.07)	0.37			
Inflation$_{t-1}$	-0.12	(0.74)	0.44	0.11	(0.75)	0.44
Inflation$_{t-2}$	-0.01	(0.87)	0.50	-0.85	(0.95)	0.19
Inflation$_{t-3}$	-1.02	(0.85)	0.12	1.40	(0.88)	0.06
Unemployment$_{t-1}$	1.35	(2.47)	0.29	-3.86	(2.57)	0.07
Unemployment$_{t-2}$	0.43	(2.51)	0.43	-2.59	(2.54)	0.16
Unemployment$_{t-3}$	1.63	(2.53)	0.26	1.15	(2.60)	0.33
ICS				0.08	(0.10)	0.20
ICS$_{t-1}$				-0.20*	(0.10)	0.02
ICS$_{t-2}$				0.05	(0.10)	0.30
Recession	0.98	(3.01)	0.37			
Recession$_{t-1}$	-6.24*	(3.05)	0.02			
Recession$_{t-2}$	-2.09	(2.60)	0.21			
RDI	0.01*	(0.00)	0.01			
RDI$_{t-1}$	-0.00	(0.00)	0.19			
Divided Gov't$_{t-1}$	-2.51	(2.18)	0.13			
Pres. Election	4.08	(2.70)	0.07	3.14	(2.35)	0.09
Pres. Election$_{t-1}$	-2.49	(2.79)	0.19	3.99	(2.60)	0.07
Honeymoon	-23.25*	(3.98)	0.00	0.88	(3.94)	0.41
Honeymoon$_{t-1}$	9.84*	(4.47)	0.02	0.38	(3.88)	0.46
ECM$_{Approval\&ICS}$	-0.28*	(0.09)	0.00			
Interventions						
Missile Attack	7.59*	(4.40)	0.04			
Lewinsky	0.05	(3.72)	0.50	-15.08*	(3.83)	0.00
Lewinsky$_{t-1}$	-1.78	(3.74)	0.32	-7.59*	(3.83)	0.03
{Bush v. Gore}$_{t-1}$	-16.46*	(4.49)	0.00			
9/11$_{t-1}$	-57.01*	(5.73)	0.00	-37.97*	(4.85)	0.00
9/11$_{t-2}$	-2.10	(5.44)	0.35	-8.65*	(4.89)	0.04
Midterm 2002	18.14*	(4.36)	0.00	13.18*	(4.74)	0.01
WMD				14.32*	(4.92)	0.00
Midterm 2006	-20.94*	(4.60)	0.00			
Iraq Invasion$_{t-1}$	21.67*	(3.20)	0.00			
Constant	0.46	(0.77)	0.28	0.05	(0.56)	0.47
N=189	RMSE= 4.34	$\chi^2 = 298.06$		RMSE= 4.66	$\chi^2 = 112.79$	

Appendix B: Structural Break

Traditional theories of economic voting predict the correlation between economic conditions and presidential approval will be at least as strong, if not stronger, during periods of recession compared to periods of economic growth. Often studies of economic voting focus far too much on prosperity while ignoring (or giving short shrift to) the peace dimension of presidential approval. The same can be said of the treatment of political scandals and other issue areas, such as the environment or social issues. Not only do these studies undersell the potential of other issues to overshadow economics, but they simultaneously both under- and overstate the importance of economics as determinants of presidential approval and vice versa. When presidencies are dominated by non-economic concerns, the predictive power of economics is diminished and may remain low for an entire administration.

Although Congress never officially declared war, George W. Bush was very much a wartime president. After the September 11th terrorist attacks in the first year of his presidency, Bush authorized the invasion of Afghanistan in October of 2001. Almost a year and a half later, the president also sent troops into Iraq. More than simply a rally event that affected Bush's approval for over three years, 9/11 fundamentally altered the basis on which Bush's performance would be evaluated. After September 11th, G.W. Bush became a foreign policy president. A critic reviewing the findings above may dismiss them as simply an artifact of September 11th, a unique event that, coupled with two recessions, unsurprisingly led to a temporarily perverse relationship between politics and economics. Presidential approval is, after all, a function of peace and prosperity and Bush enjoyed neither. Such criticism, however, is short-sighted.

I find the correlation between economics and approval to be stronger during the peace and prosperity than during times of war and recession. Even when accounting for the potential new regime post-9/11, the significant effect of polarization persists. In fact, polarization does not become a significant predictor of EV until the post-9/11 period. If the terrorist attacks of September 11th altered the way citizens appraise economic and political performance, it

only served to further decouple politics from economics and allow partisan biases to flourish.

Table B: Near-VAR Estimates Pre- and Post-9/11 (EV equation only)

	Pre-9/11			Post-9/11		
	Coefficient	(Std. Error)	p-value	Coefficient	(Std. Error)	p-value
Polarization	0.02	(0.04)	0.31	-0.08	(0.10)	0.22
Polarization$_{t-1}$	-0.02	(0.04)	0.36	-0.22*	(0.13)	0.05
Polarization$_{t-2}$	-0.04	(0.04)	0.14	-0.02	(0.14)	0.44
Inflation$_{t-1}$	0.07	(0.80)	0.47	0.09	(1.43)	0.48
Inflation$_{t-2}$	0.14	(0.81)	0.43	-0.41	(1.34)	0.38
Inflation$_{t-3}$	-0.43	(0.83)	0.30	-1.90	(1.34)	0.08
Unemployment$_{t-1}$	1.51	(1.51)	0.16	-1.15	(5.30)	0.42
Unemployment$_{t-2}$	-0.55	(1.59)	0.37	0.57	(5.14)	0.46
Unemployment$_{t-3}$	-1.47	(1.54)	0.17	6.78	(5.35)	0.11
Recession				-1.33	(4.41)	0.38
Recession$_{t-1}$	-23.55**	(3.34)	0.00	-0.11	(4.49)	0.49
Recession$_{t-2}$	-3.11*	(1.79)	0.04	0.32	(4.35)	0.47
RDI	0.00	(0.00)	0.33	0.02**	(0.01)	0.02
RDI$_{t-1}$	0.01**	(0.00)	0.01	-0.01	(0.01)	0.08
Divided Gov't$_{t-1}$	-1.81	(1.26)	0.08	-0.65	(4.48)	0.44
Pres. Election	-0.60	(1.29)	0.32	11.66	(7.60)	0.06
Pres. Election$_{t-1}$	2.06	(1.27)	0.06	-9.32	(9.23)	0.16
Honeymoon	-26.83**	(1.88)	0.00			0.00
Honeymoon$_{t-1}$	22.10**	(2.81)	0.00			0.00
Missile Attack	8.86**	(1.76)	0.00			0.00
Lewinsky	0.57	(1.53)	0.36			0.00
Lewinsky$_{t-1}$	-0.04	(1.54)	0.49			0.00
Bush v. Gore$_{t-1}$	-11.53**	(1.73)	0.00			0.00
9/11$_{t-1}$				-56.75**	(8.19)	0.00
9/11$_{t-2}$				-3.47	(8.80)	0.35
Midterm 2002				18.92**	(5.74)	0.00
Midterm 2006				-23.88**	(6.18)	0.00
Iraq Invasion$_{t-1}$				22.65**	(4.40)	0.00
Constant	-0.72	(0.66)	0.14	1.83	(1.61)	0.13
	N=101	RMSE= 1.67	$\chi^2 = 334.50$	N=88	RMSE= 5.72	$\chi^2 = 157.82$