Presidential Agenda-Setting on the Economy during the "Great Recession"

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Presidents are often identified as the most significant agenda-setters in the policy making process. However, agenda-setting theory indicates significant limitations on presidential leadership, particularly under certain policy contexts. In order to assess the presidency's capacity to lead the systemic agenda in the context of an economic downturn, I analyze President Obama's public relations efforts on the economy from January 2009 through May 2012. Specifically, I track the amount of attention given the economy in Obama's public speeches and remarks and assess the degree to which they impacted or responded to media coverage of the economy and public concern for and confidence in the economy at both a weekly and monthly level. The findings suggest that the president's attention to the economy was largely responsive to shifts in media attention and public opinion on the economy. This was especially the case with regard to the president's attention to jobs and unemployment. However, Obama's public leadership efforts on the topics of debt and spending directly impacted media coverage and indirectly affected public opinion on the economy.

Introduction

The ability to influence the policy agenda and the broader systemic agenda is an important component of presidential leadership and is of primary importance to the distribution of power in American politics. Presidents are the "principal instrument" for nationalizing policy debates (Schattschneider 1960, 14) and agenda-setting research has emphasized the significance of presidents in setting the national policy agenda (Baumgartner and Jones 1993; Kindgon 1995). The significance of agenda setting to presidential leadership is apparent when we examine the institutional resources devoted to it by recent White Houses, best exemplified by the extensive communications operations devoted to affecting the broader systemic agenda (Cohen 2010; Kumar 2007; Maltese 1994; Stuckey 2008).[1] Through the "permanent campaign," recent presidents have attempted to lead the systemic agenda using a number of strategies, ranging from nationally-televised addresses to travelling across the country pushing their policies to local audiences (Cohen 2010; Kernell 2007). Such leadership is particularly significant early in a president's term of office, as they translate campaign promises into policy (Bose 2016).

More broadly, presidential public leadership efforts largely focus on two types of leadership: changing public preferences and agenda setting. For a number of reasons, the former has met largely with failure by recent presidents (Edwards 2003, 2009, 2012; although, see Canes-Wrone 2006). However, agenda setting provides presidents with an important opportunity to affect media coverage of their policies, and hence the public's priorities (Eshbaugh-Soha and Peake 2011). Despite its significance to presidential leadership, scholars have mixed opinions on the degree that presidents are able to influence the broader systemic agenda (Cohen 1995; Edwards and Wood 1999; Eshbaugh-Soha and Peake 2011; Rutledge and Larsen-Price 2014; Young and Perkins 2005). A key finding of the research, however, is that presidents rely on the news media in their efforts to lead the public, given the degree of influence media have on the public's agenda (Iyengar 1991; McCombs 2004).

The president's reliance on the news media presents a significant challenge, given the fickleness of modern media and their proclivity to shift focus to stories besides the president's priorities. Moreover, media's focus on "soft news" over policy-related "hard news" (Baum 2003) and their emphasis on political conflict increase the difficulty of leading the media (Baum and Groeling 2010). Analyses of the direct relationship between the president's public statements and media coverage indicate that presidents are often unsuccessful in their efforts to lead the media's agenda (Edwards and Wood 1999), although there is some variance based on policy areas (Larsen-Price and Rutledge 2013), prior issue salience, and the strategy employed by the president (Eshbaugh-Soha and Peake 2011).

Analysis of presidential leadership of public opinion indicates that the more recent presidents have had a difficult time leading the public (see Rottinghaus 2010), and changes in news media coverage of politics may be one reason (Cohen 2008). For example, the ratings of televised presidential addresses have decreased over time (Baum and Kernell 1998; Edwards 2003), making it more difficult for presidents to reach an audience unfiltered. As they rely on the media to deliver their messages, presidents understand the difficulty this reliance presents. President George W. Bush, for example, routinely complained about how the national press filtered his messages, and in response to this belief, he altered his communications strategy to focus more on local media and audiences (Edwards 2007; Eshbaugh-Soha and Peake 2008). President Barack Obama leveled similar complaints with regard to the media, stating, "In this political environment, what I haven't always been successful at doing is breaking through the noise and speaking directly to the American people…"[2] President Trump has also complained about the media filter, instead emphasizing the use of Twitter and other social media platforms to deliver his message, as well as focusing on what he considers to be less hostile news outlets, like Fox News.

An important theme in presidential agenda-setting research is that policy contexts matter considerably (Eshbaugh-Soha 2006; Rutledge and Larsen-Price 2014). When we consider economic policy, specifically, the state of the economy is likely to greatly influence whether presidents are able to lead the systemic agenda or whether they are likely to be responsive to the systemic agenda. Given the overwhelming context of the "Great Recession" during Obama's first term as president, one would expect very limited presidential agenda-setting leadership. Prior research on economic agenda setting, specifically, while covering multiple presidential administrations did not consider the degree to which an economic calamity, like the "Great Recession," might limit presidential leadership. For example, Eshbaugh-Soha and Peake's research (2005; 2011), for the most part, examined the dynamics of attention to the economy from 1980 through 2000. Does the presence of an economic crisis expand or limit the president's capacity for agenda leadership?

The present study adds to existing research by assessing the dynamics of presidential economic agenda setting during the "Great Recession," using similar data and methodology as prior research. I apply agenda-setting theory to President Obama's efforts to lead the media and public during his first term, using data from Obama's speeches and remarks, media coverage of the economy, and various measures of public opinion. The findings are largely consistent with prior research and demonstrate the durability of agenda-setting theory. The findings suggest that the president's attention to the economy was largely responsive to shifts in media attention and public opinion on the economy. However, Obama's public leadership efforts on the topics of debt and spending directly impacted media coverage and indirectly affected public concern for these economic issues.

President Obama's Early Efforts to Lead the Public on the Economy

Two key domestic issues dominated President Obama's first term in office. Obama's focus on the economy, as will be seen, was primarily a response to the "Great Recession" crisis and the overwhelming public concern for economic issues. The second key Obama priority was clearly an effort on the part of the president to fulfill a critical campaign promise to reform the health care system. On health care reform, while the president was ultimately successful in setting the agenda and enacting landmark legislation (Bose 2016), his efforts to get the public behind his policy failed to alter public preferences on health care. Rather, as Edwards (2012) has shown, Obama's efforts to lead the public on health care did more to solidify opposition among the public than it did to alter preferences toward supporting the president's proposals.[3]

In terms of the economy, while Obama's initial efforts on the federal stimulus were successful, in that they appear to have increased public support for the $787 billion stimulus plan passed in February, 2009 (Rottinghaus 2010: 214-215), public assessments of his handling of the economy (and, thus, his overall approval ratings) decreased steadily during his first few years in office. On a range of economic policies, Obama was simply unable to move public preferences toward his favored policy positions (Edwards 2012), although in many instances early on his preferences were aligned with a plurality of voters (Canes-Wrone and Kelly 2013). Both of Obama's efforts to sell his major policies in 2009 met with little payoff in terms of shifting the public's policy preferences. In fact, this is unsurprising, given the inability of presidents to persuade the American public to adopt the presidents' policy stances (Edwards 2003; 2009; 2010). Does this mean, however, that going public is a defunct presidential leadership strategy, as Edwards (2012) concludes?

Presidential efforts at public leadership may engender benefits with regard to influencing the systemic agenda, i.e., those issues salient in the media and among the public. While the president may be unable to demonstrably shift public preferences on an issue, his or her efforts may place the issue onto the public and media's agendas and have the effect of pushing others in government (most notably Congress) to move on the perceived public problem. A corollary benefit may come if it is evident that the president is responding to the public's agenda, rather than leading it. Here, the perception that the president is doing something about a perceived public problem can serve to help the president move the rest of government to act on the problem, where it otherwise may not.

It is evident that President Obama led the public's agenda on health care and that this success may have contributed to his ultimate legislative victory (Eshbaugh-Soha and Peake 2011). Less clear, however, is the degree to which Obama led on the economy, despite a signature legislative success on the economic stimulus in February 2009. When he entered office in January, Obama's agenda was set for him due to the economic calamity that faced the nation as a result of the financial collapse in late 2008. The "Great Recession" dominated news coverage at the start of his term[4] and 79% of the public cited some component of the economy as the nation's most important problem, according to the Gallup Poll. It is clear, then, that on the economy, President Obama was responding to the public's agenda, rather than leading it as he was able to do later in the year on health care. Obama went public to show that he was tackling job number one (the economy), making several trips spanning the nation pushing his economic stimulus and trumpeting his success following its passage in early February. His efforts had all of the trappings of a typical "going local" effort (Cohen 2010).[5]

Despite Obama's success on the economic stimulus, the economy remained the number one priority of the American public. Media coverage also remained relatively high through 2010, though at times other issues competed with the economy for attention from the news media. Also, public concern for the economy increased markedly early in 2010 and again late in the year. As unemployment continued its march upward, peaking at 10% in October 2009, public concern for unemployment, as a specific economic problem, started to increase reaching a high of 31% as a "most important problem" in the Gallup Poll. President Obama responded with increased public relations and legislative efforts for the extension of unemployment benefits and job creation during the remainder of 2010 and into 2011.

In April 2011 and later that summer, the federal debt became a critical issue in Washington, despite not having registered higher than 11% in Gallup's "most important problem" question over the previous two years. Republicans decided to make funding the government's obligations and the debt ceiling a partisan issue, drawing Obama into a pitched battle over the debt. The conflict over the debt increased coverage of the economy and public concern for the economy increased markedly during the summer of 2011. Specific responses regarding the debt as a "most important problem" also increased, hitting 17% during April and August. This provided an important political opportunity for President Obama to emphasize responsibility in tackling the debt (Canes-Wrone and Kelly 2013), while refocusing attention back to an issue that remained high on the public's agenda: unemployment.

Following the battle over the debt ceiling, Obama shifted his public efforts to pushing his jobs plan. His public relations efforts on behalf of the jobs plan followed a similar pattern that was used for health care reform in 2009, though on a smaller scale and with little legislative success, as it was dead on arrival in the Republican controlled House of Representatives. During August, 2011, Obama travelled to five different states pushing his jobs plan. He followed that up with seven more "going local" trips and a national address before a joint session of Congress in September and five more domestic trips in October.[6] Obama's focus on economic issues clearly shifted from talk on the debt to talk on jobs during these efforts, as can be seen in the data graphed in Figure 1. The data indicate a similar shift by Obama toward unemployment during the first half of 2012, as he geared up for reelection.

While the above discussion suggests Obama led on the economic agenda, determining with some degree of certainty whether or not Obama's public relations efforts on the economy were largely responsive or constituted agenda-setting leadership requires more sophisticated analysis. I start with a basic theory.

Theoretical Expectations

According to Eshbaugh-Soha and Peake (2011), the president's relationship with the public, particularly with regard to agenda setting, involves both leadership and responsiveness. They argue that existing public opinion and media coverage largely "shape opportunities for the direction and extent" of presidential agenda-setting (79). The president's relationship with the public is affected by the president's ability to "break through the noise" of modern news media (getting the news media to cover the president's issues), such that presidential influence on the public's agenda is likely to be indirect, through the news media. This expectation is referred to as the "indirect leadership hypothesis" (67). The hypothesis rests on the well-established causal link between news coverage of issues and public concern for issues (McCombs 2004). Additionally, Eshbaugh-Soha and Peake (2011) argue that those issues that are especially salient to the public and media are likely to engender responsiveness on the part of the president. They refer to this as the "salience hypothesis" (67). Soroka (2002) makes similar arguments for a salience hypothesis in his work on policy agenda setting in Canada.

In line with this salience hypothesis, I expect to find President Obama's attention to the economy to be highly responsive to media coverage of the economy and public concern for the economy. My expectation for responsiveness, here, is due to the context in which Obama was inaugurated: in the midst of the "Great Recession," public concern for the economy stood at 79% in January, 2009. When one looks at a subset of economic issues, it is clear that unemployment is much more salient to the public than are other economic issues, such as the debt and federal spending.[7] In the analyses to follow, I disaggregate the president's emphasis on each of these subsets of economic issues in his speeches and remarks. Given the salience hypothesis, then, I expect to find a very responsive president, in general, on economic issues. However, I expect variation with regard to the separate economic topics, with the president's attention to unemployment being primarily responsive and his attention to debt and spending providing greater opportunities for agenda-setting leadership.

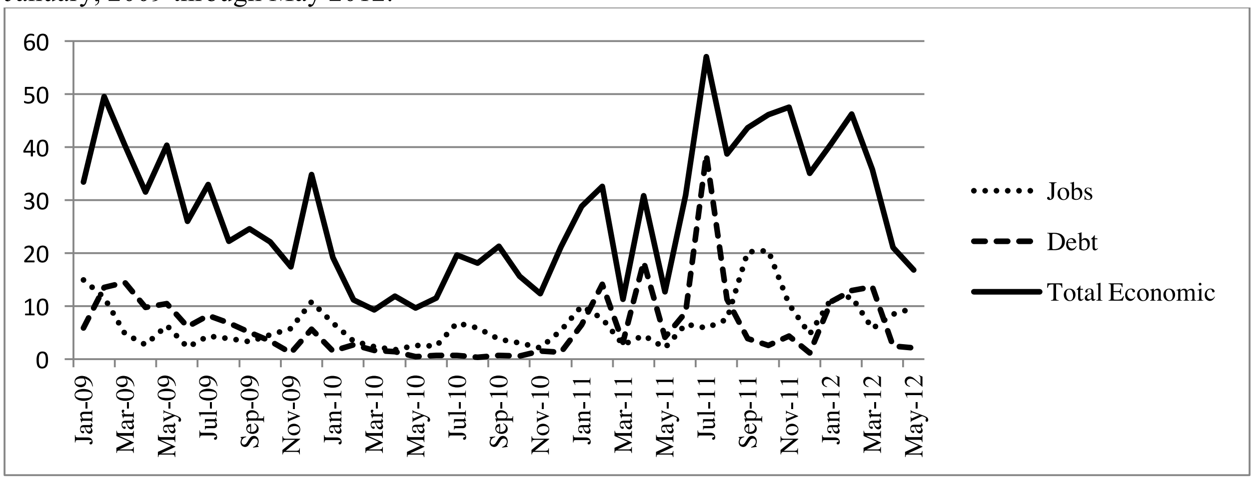
It should be stated from the outset that the context of the "Great Recession" presents a hard test for presidential agenda-setting leadership of the public. While the crisis situation may present an opportunity for the president to push Congress to act, the relationship between presidential rhetoric and public opinion is likely to be responsive, given the salience hypothesis discussed above. That said, any finding of presidential effects on public opinion, given this context, would be especially noteworthy.

Data

In order to test the degree to which President Obama was leading or responding to the systemic agenda with regard to the economy, I first had to come up with an appropriate measure of the president's agenda. Using prior research on presidential agenda setting as a guide (Edwards and Wood 1999; Eshbaugh-Soha and Peake 2005), I used presidential speeches and remarks in the *Public Papers of the Presidents*.[8] Specifically, coders read all of President Obama's public remarks, recording the location of the remarks, his audience, and the total number of paragraphs in each document that contained public utterances by the President. The documents included speeches made before a variety of audiences (both local and national), remarks to reporters, press conferences, and interviews. While reading through the documents, coders counted the number of paragraphs uttered by Obama devoted to some aspect of the economy and noted the number of paragraphs in each qualifying document devoted to separate economic categories.[9] The measures were aggregated to the weekly and monthly level January 20, 2009 through June 3, 2012, giving a total N of 176 and 41, respectively.[10]

In Figure 1, I graph Obama's rhetoric on the economy as a percentage of all rhetoric at the monthly levels, separating out remarks on jobs, debt, and a summed category of all economic issues.[11] Figure 1 shows a substantial drop-off of Obama's public attention to economic issues during 2010. This is probably a result of the 2010 congressional midterm election, major events that occurred during that year (e.g., the BP oil spill in the Gulf of Mexico), the president's final efforts on pushing health care through Congress during the year's first three months, and the uptick in attention to foreign policy in the summer of 2010. The graph also demonstrates that a very high percentage of Obama's remarks have emphasized the economy in some fashion. Finally, the data suggest that there may be competition between economic issues. This is especially clear for the separate economic issues of jobs and the federal debt. Take, for instance, the data from the last half of 2011. Obama's economic rhetoric focused heavily on the federal debt at the same time that the debate over raising the debt ceiling was ongoing in Washington. Immediately following that debate, Obama worked to shift attention away from the debt crisis to his jobs program, and the data clearly show that shift occurring in September.

Figure 1. The Monthly Percentage of President Obama's Public Rhetoric Devoted to Economic Issues, January, 2009 through May 2012.

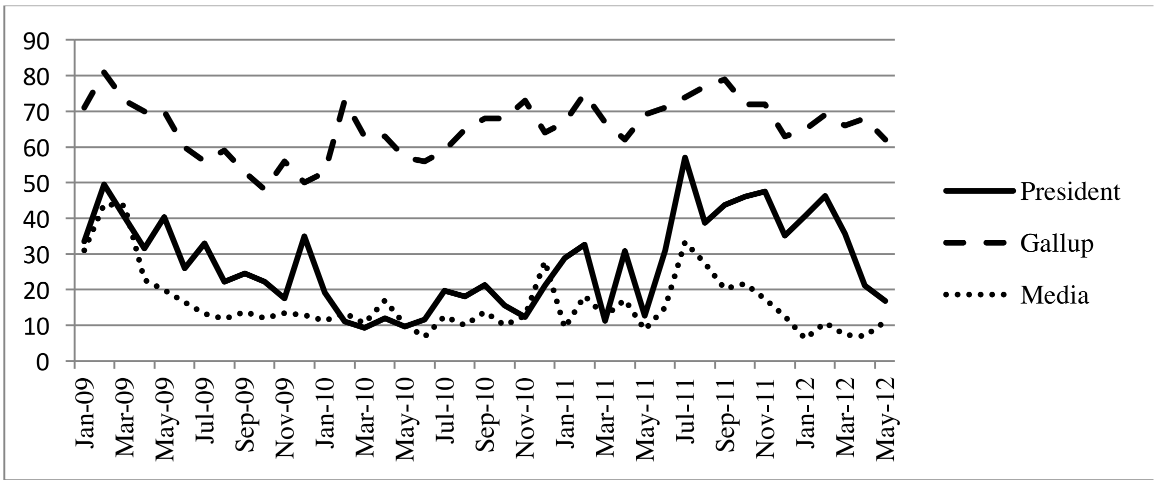


To measure media attention to the economy, I used the News Coverage Index from the Pew Research Center's Project for Excellence in Journalism (PEJ).[12] The PEJ data include weekly samples of dozens of outlets from print, network TV, cable, online and radio. The purpose of the index is to "determine what is being covered and what is not—a broad sense of the American news agenda."[13] The measure is superior to prior efforts to measure the news agenda, which are typically limited to a single news outlet (e.g., the *New York Times*, Baumgartner and Jones 1993) or a single media sector (e.g., network TV news, Wood and Peake 1998). Given the recent changes in media, which have made the president's efforts at public leadership more difficult (Cohen 2008), a broad measure of the news agenda using a variety of sources encompassing a wide range of media sectors is important if we are to make conclusions regarding presidential leadership in the "new media age."

The PEJ data are reported as a percentage of the news hole for the top ten story topics for each week. For all of the weeks within our time period (2009 through May 2012), the economy (or economic crisis) was a top-10 story.[14] The economy was the most consistent, ongoing top-10 story for the period, routinely scoring as the top story on the news agenda and among the top two or three stories otherwise.[15] The PEJ data are available weekly and I aggregated them to the month for the monthly analyses reported below.

To measure the public's agenda, I use aggregate responses to Gallup's "most important problem" (MIP) question. Gallup asks this question on a monthly basis so I am able to develop a monthly series, which includes responses indicating the following categories as most important problems: the economy, unemployment/jobs, and debt/spending. I also add all three of these totals to create a single measure for all economic issues.[16] There is no weekly measure of the public's concern for the economy and computing a weekly variable is not plausible when using time series methods.[17] However, as a proxy for the public's concern for the economy, I use the three-day rolling average of Gallup Daily's Economic Confidence indicator, which combines responses to Gallup's Economic Conditions and Economic Outlook measures.[18] The measure tracks respondent ratings on the health of the economy, as well as opinion on whether economic conditions are improving or getting worse.

Figure 2. The Monthly Percentage of President Obama's Public Rhetoric Devoted to Economic Issues, Percentage of Respondents Citing Economic Issues as Most Important Problem (Gallup), and Percentage of the News Hole Devoted to Economic Issues (Media), Jan. 2009 – May 2012.



I graph each of the monthly measures in Figure 2. Three clear trends are evident from the graphed data in Figure 2. First, the economy was considered the "most important problem" for a *majority* of Americans, according to the Gallup Poll, over the entire time frame, with one exception: October, 2009, when it dipped to 48%. The average monthly percentage of respondents citing some aspect of the economy as the most important problem during the time frame is 66. As discussed above, public concern for the economy was very high (79%) at the beginning of Obama's presidency, well above the average. A second important point is that there is a great deal of variability in both monthly news coverage of the economy and presidential rhetoric on the economy, but attention across the time period was relatively high. The average monthly percentage of Obama's rhetoric that was devoted to the economy is 27.6. The economy filled, on average, 16.3% of the news hole according to the PEJ data.[19] Finally, there is a strong relationship between monthly news coverage and presidential rhetoric on the economy.[20]

Similar patterns emerge in the weekly data. Gallup's Economic Confidence indicator shows strongly negative opinions on the economy throughout the time period; however, there is significant variation around the average of -31.6. There is a strong relationship between Obama's rhetoric on the economy and news coverage of the economy (r = 0.46). A similarly high correlation, though negative, exists between Obama's rhetoric and Gallup's Economic Confidence indicator (r = -0.48).[21] Simple correlations indicate that the three series representing presidential rhetoric, media coverage, and public concern for the economy co-vary significantly. We require more sophisticated time series analyses, however, to test whether or not Obama's rhetoric is responding to or leading media coverage or public opinion.

When analyzing agenda setting, it is also critical to account for the objective state of the economy. There are a variety of economic measures available at the monthly level, including the unemployment rate (as reported by the US Bureau of Labor Statistics) and the misery index (which is the unemployment rate plus the inflation rate). I employ each of these measures, where appropriate, to control for the objective state of the economy. There are more limited data available at the weekly level, however. I employ weekly changes in the Dow Jones Industrial Average (DJIA) as a control variable at the weekly level (Eshbaugh-Soha and Peake 2005).

Additional variables that might influence presidential and media attention to the economy include exogenous international or domestic events[22] and a national election.[23] Measures accounting for each of these concepts are included in the analyses reported below. Because issues compete for attention, focusing events involving issues unrelated to the economy are likely to divert both presidential and media attention from the economy to other issues (Jones and Baumgartner 2005). The same is likely for a national election. Elections garner a great deal of presidential and media attention, and the media are likely to attend less to the economy during the election season. Finally, I include a seasonal variable to account for the decreased number of presidential remarks during the December holiday season.[24]

Statistical Methods

I use Vector Autoregression (VAR) methodology to evaluate the causal directions of the relationships between presidential rhetoric, news coverage, and public concern for the economy, estimating models that are similar to those reported in prior research (see Edwards and Wood 1999; Wood 2007). Since our theory indicates that reciprocal causation is likely between presidential rhetoric, news coverage, and public opinion, imposing parameter restrictions in order to identify a structural equation model is inappropriate. VAR also allows us to assess whether Obama's speeches impact public opinion indirectly, through its impact (if any) on media coverage of the economy. This is an important consideration, given the significance of the news media to the president's relationship with the public, particularly with regard to agenda setting.

VAR can be viewed as a multivariate extension of the Granger (1969) approach to causal inference. Each endogenous variable, in our case Obama's attention to the economy, news coverage of the economy, and public concern for the economy, is regressed on lagged values of itself, as well as lagged values of the other endogenous variables in the system.[25] Relationships are evaluated by conducting joint hypothesis tests for the blocks of lags associated with each variable. It is appropriate to conclude that one endogenous variable "Granger causes" another endogenous variable in the system when joint exogeneity tests indicate that changes in the first variable in one month (or week) independently affect the second variable.[26]

Following convention (see Wood 2007), I illustrate the direction and duration of the relationships using moving average response (MAR) graphs because the Granger tests are suggestive of an underlying causal relationship and they provide no information with regard to the direction or duration of the relationship.[27] MAR graphs account for positive feedback in the system, an important attribute of agenda-setting processes (Liu, Lindquist, and Vedlitz 2011; Wolf, Jones and Baumgartner 2013). Wood (2007) contends that Granger tests are not definitive evidence of a causal (or lack of a causal) relationship, so it is appropriate to inspect the MAR graphs whether or not causality is indicated by a statistically significant Granger test. It is the MAR simulations that account for the potential for dynamic feedback, which may dampen or accentuate relationships between endogenous variables.

Agenda-setting research should also account for policy and politically related exogenous variables, in order to more effectively control for context (Delshad 2012). I treat the following variables as exogenous within the VAR models analyzing economic agenda setting: events, elections, a seasonal variable to represent the December holiday season (see above), and the indicators representing the state of the economy (the misery index and, for the weekly analysis, changes in the DJIA). A VAR model with variables treated as a priori exogenous is often referred to as an ARX model (Wood and Peake 1998, 177). Although we cannot simulate the effects of changes in exogenous variables, the VAR models that are reported include coefficients and significance tests for each exogenous variable.

Results

I conducted two batteries of hypothesis tests using the monthly and weekly data series. In the first set, I analyzed the monthly data for all economic issues combined, jobs/unemployment, and debt/spending separately. In the second set, I conduct similar tests on the weekly data.

Table 1. Granger F-Tests for Monthly VAR of Obama's Public Remarks (President), News Coverage Index (Media), and Public Concern for the Economy (Gallup), 1/2009-5/2012[28]

Independent Variable	All Economic Issues (Model 1)	Jobs (Model 2)	Debt/Spending (Model 3)	Dependent Variable
President	(0.037)→	(0.000)→	(0.409)	
Media	(0.092)→	(0.028)→	(0.813)	President
Gallup MIP	(0.511)	(0.292)	(0.965)	
State of Economy				
Events	NEG		NEG	
Elections	POS	POS		
Holiday				
President	(0.145)	(0.201)	(0.834)	
Media	(0.311)	(0.000)→	(0.009)→	Media
Gallup MIP	(0.061)→	(0.064)→	(0.708)	
State of Economy				
Events		NEG	NEG	
Elections	NEG	NEG	NEG	
Holiday				
President	(0.668)	(0.978)	(0.403)	
Media	(0.707)	(0.928)	(0.191)	Gallup MIP
Gallup MIP	(0.000) →	(0.003)→	(0.024)→	
State of Economy	POS	POS		
Events	NEG			
Elections				
Holiday	NEG	NEG		

Note: Numbers in parentheses are *p*-values. The arrows indicate that an independent variable Granger causes the dependent variable at a significance level of .01. POS indicates a positive relationship for an exogenous control variable, whereas NEG indicates a negative relationship.

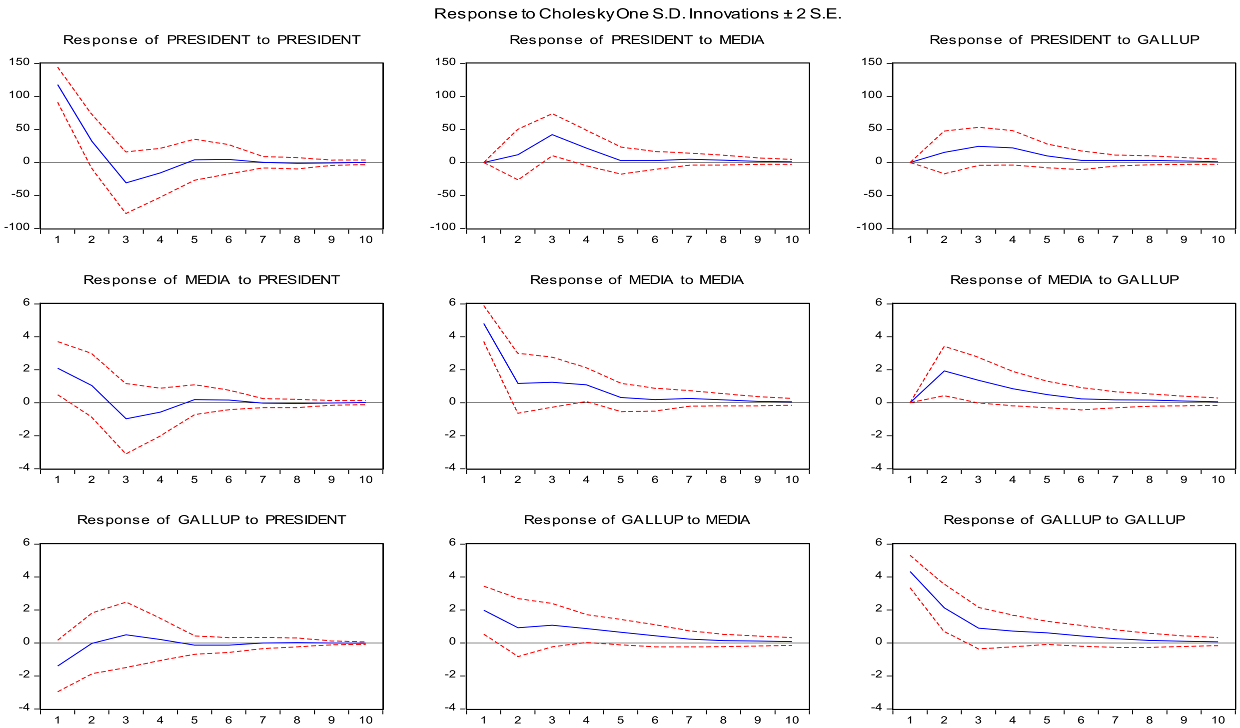
Monthly Analysis of the Economic Agenda

The VAR results for the monthly data on the economy are presented in Table 1 and Figures 3 through 5. Recall that the Granger tests in the VAR system are only suggestive of a causal relationship, so the results should be interpreted with that understanding in mind. One should closely examine the MAR graphs presented in each of the figures. Taking the analysis covering all economic issues first, the VAR results at the monthly-level indicate limited Granger causation between the three variables (see Table 1, Model 1), which is unsurprising given the low N of the analysis. The tests indicate that public concern for the economy (Gallup MIP) Granger causes news coverage of the economy and that media coverage of the economy Granger causes presidential attention to the economy. The F-tests indicate that the president's speeches have little causal effect on the media or public concern.

The MAR graphs are more encouraging in that they indicate additional significant, but short-lived, causal relationships in the VAR system. For example, the graphs indicate that the relationship between media coverage and Obama's rhetoric is reciprocal (see the graphs in Figure 3, column 1, row 2; and Figure 3, column 2, row 1). There is an estimated brief response of one month by the news media to increased presidential attention to the economy.[29] There is also a corresponding, although delayed, response by the president to an increase in media attention. The president's response is substantively significant, with an estimate of nearly 50 paragraphs of attention following a significant increase in media coverage. Such an increase represents a significant response, given that the average weekly number of paragraphs devoted to all economic issues is about 75. The delayed response is also interesting, as it may reflect the desire by the president to emphasize other issues with the eventual realization that he had no choice but to address the economy (see Eshbaugh-Soha and Peake 2011, 140). The MAR graphs also indicate a reciprocal relationship between media coverage and public concern for the economy (Figure 3, column 2, row 3; and column 3, row 2). The simulations estimate about a brief two percent increase in respondents citing the economy as the most important problem following a significant increase in media coverage. The response by the media to public concern is delayed by one month but endures for about two months.

In addition to analyzing the president's attention to all economic issues in the aggregate, Table 1 also presents results specific to the issues of jobs/unemployment and debt/spending. Recall from above, the expectation here is that the president is likely to be most responsive on the highly salient issue of unemployment, given its close association with presidential approval ratings and reelection prospects. As a corollary, I expect greater opportunities for the president to lead on the issue of debt and spending, given that it is not traditionally a concern of the public.

Figure 3. Moving Average Response (MAR) Graphs for All Economic Issues (Monthly)[30]



The results presented in Table 1 and Figures 4 and 5 lend some support for these expectations. First, for jobs and unemployment, from Table 1, media coverage of the economy Granger causes presidential attention to unemployment, and public concern for unemployment Granger causes media coverage of the economy. The MAR graphs in Figure 4 confirm that each of these relationships are positive—an increase in media coverage of the economy leads to a delayed but significant response in presidential rhetoric (JOBS) on unemployment (see Figure 4, row 1, column 2). Again, the delay is similar to that found by Eshbaugh-Soha and Peake (2011, 140), who analyzed Presidents Reagan through Clinton. Second, while the Granger tests indicate no causal relationships on the issues of debt and spending, the MAR graphs in Figure 5 indicate that increased attention by the president (DEBT) leads to a statistically significant response by both the media and public opinion (see Figure 5, column 1, rows 2 and 3). Thus, an increase in presidential attention to debt and spending increases media coverage of the economy, as well as public concern for the deficit. The response is estimated to last about two months for both the public and media. Taken together, the results support the salience hypothesis. President Obama's remarks on the debt had a greater impact on the media's agenda and public concern for the deficit; whereas, his remarks on unemployment were largely responsive to media coverage and public concern for the issue.

Figure 4. Moving Average Response (MAR) Graphs for Jobs/Unemployment (Monthly)[31]

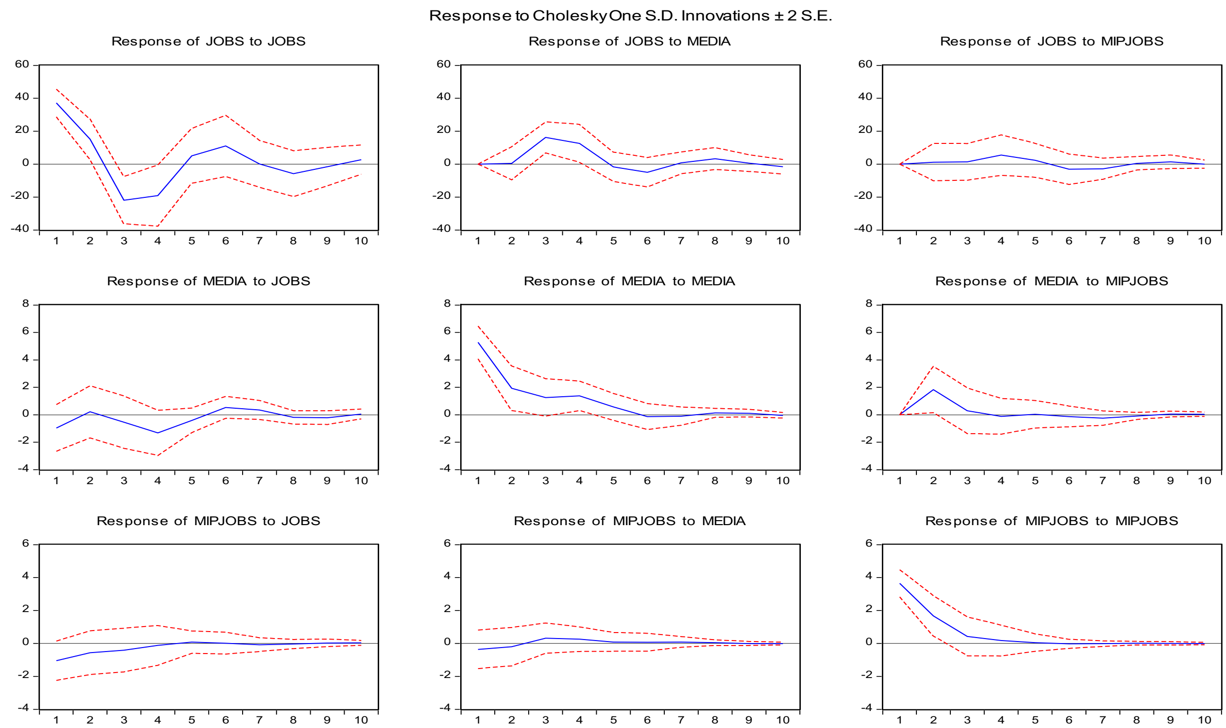
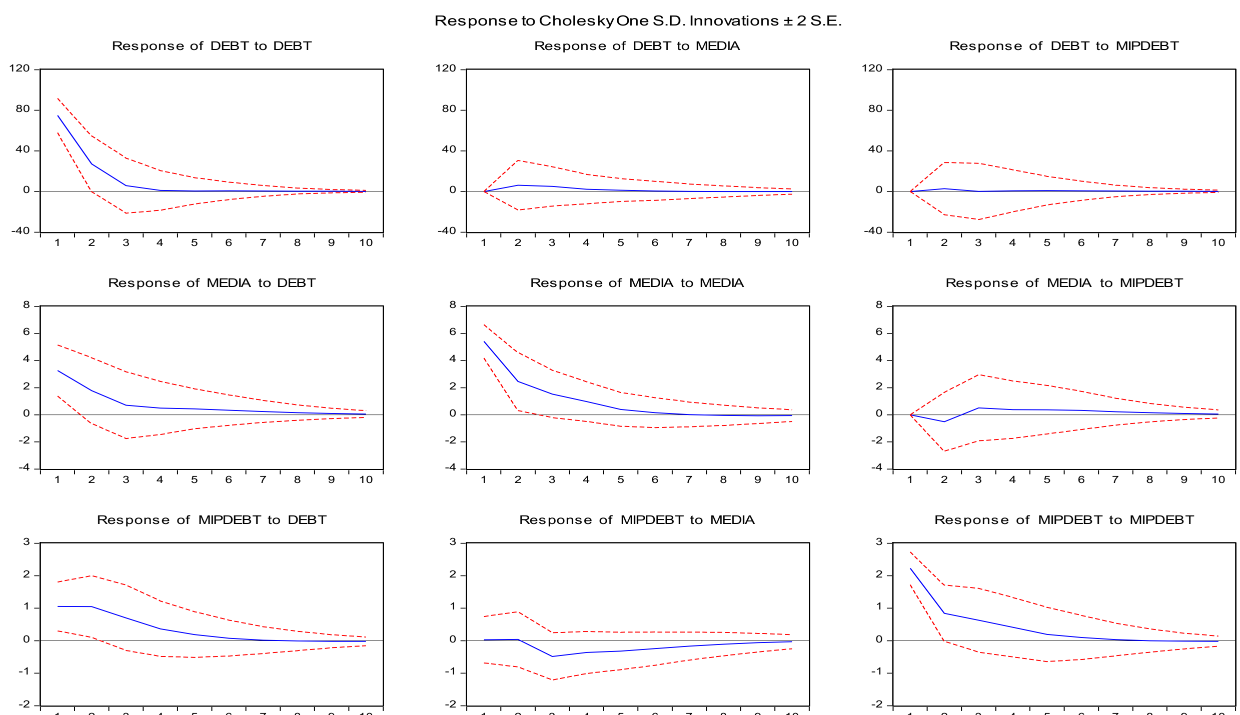


Figure 5. Moving Average Response (MAR) Graphs for Debt/Spending (Monthly)



Weekly Analysis

Table 2 presents the Granger test results from the weekly VAR models, with the corresponding MAR graphs displayed in Figures 6 through 8. Taking presidential attention to all economic issues (model 1) first, the Granger tests indicate Obama was highly responsive to both media coverage and economic confidence. Both variables Granger cause Obama's rhetoric on the economy. The Granger tests also indicate a reciprocal relationship between media coverage and economic confidence, as each appears to impact one another.

The MAR graphs presented in Figure 6 provide additional evidence and information regarding each of these relationships. First, the responsiveness of the president is verified (see Figure 6, column 2, row 1; and column 3, row 1). An increase in media coverage of the economy leads to a positive response by the president that endures for roughly three weeks, which is both statistically and substantively significant. The relationship between the president's attention to the economy and economic confidence is negative—such that improving public assessments of the economy lead to decreased presidential attention to the economy over time and falling assessments increase presidential attention. The president's response endures for several weeks. The reciprocal relationship between public opinion and media coverage is also confirmed in the MAR graphs (see Figure 6, column 2, row 3; and, column 3, row 2), and the relationship is a negative one—increased economic confidence leads to decreased media coverage and increased media coverage leads to decreased economic confidence.

Table 2. Granger F-Tests for Weekly VAR of Obama's Public Remarks (President), News Coverage Index (Media), and Economic Confidence, 1/19/09-5/28/12[32]

Independent Variable	All Economic Issues (Model 1)	Jobs (Model 2)	Debt/Spending (Model 3)	Dependent Variable
President	(0.373)	(0.000)→	(0.000)→	
Media	(0.007)→	(0.003)→	(0.247)	President
Confidence	(0.000)→	(0.014)→	(0.352)	
DJIA				
Events	NEG			
Elections	POS	POS		
Holiday	NEG	NEG	NEG	
President	(0.374)	(0.423)	(0.004)→	
Media	(0.000)→	(0.000)	(0.000)→	Media
Confidence	(0.000)→	(0.000)→	(0.000)→	
DJIA	NEG	NEG	NEG	
Events	NEG	NEG	NEG	
Elections	NEG	NEG	NEG	
Holiday				
President	(0.246)	(0.915)	(0.466)	
Media	(0.029)→	(0.022)→	(0.066)→	Confidence
Confidence	(0.000)→	(0.000)→	(0.000)→	
State of Economy	POS	POS	POS	
Events				
Elections				
Holiday	POS	POS	POS	

Note: Numbers in parentheses are *p*-values. The arrows indicate that an independent variable Granger causes the dependent variable at a significance level of .01. POS indicates a positive relationship for an exogenous control variable, whereas NEG indicates a negative relationship.

The Granger tests in Table 2 (Model 2) suggest that the president's attention to jobs and unemployment is responsive to media coverage to the economy and economic confidence. The MAR graphs in Figure 7 (column 2, row 1; and, column 3, row 1) verify that the president is highly responsive in his attention to unemployment, which supports the theoretical expectations. As media coverage of the economy increases, the president's attention to unemployment also increases; and, as economic confidence improves, the president's attention to unemployment decreases. Thus, falling public assessments of the economy increase presidential attention to unemployment and jobs.

The analysis of the president's attention to debt and spending indicate that Obama was able to lead media attention on this aspect of the economy. The Granger tests reported in Table 2 (Model 3) indicate that presidential remarks on debt and spending Granger cause media attention to the economy. Moreover, the relationship between the media and economic confidence is again reciprocal, suggesting that if the president can increase media attention to the issue of debt and spending, he can indirectly influence economic confidence through the media, as well. The MAR graphs in Figure 8 reveal that media coverage to the economy responds significantly to an increase in presidential attention to debt and spending issues (see Figure 8, column 1, row 2). The simulations estimate a corresponding eight percent increase in the percentage of the news hole addressing the economy over a period of five weeks.

Figure 6. Moving Average Response (MAR) Graphs for All Economic Issues (Weekly)[33]

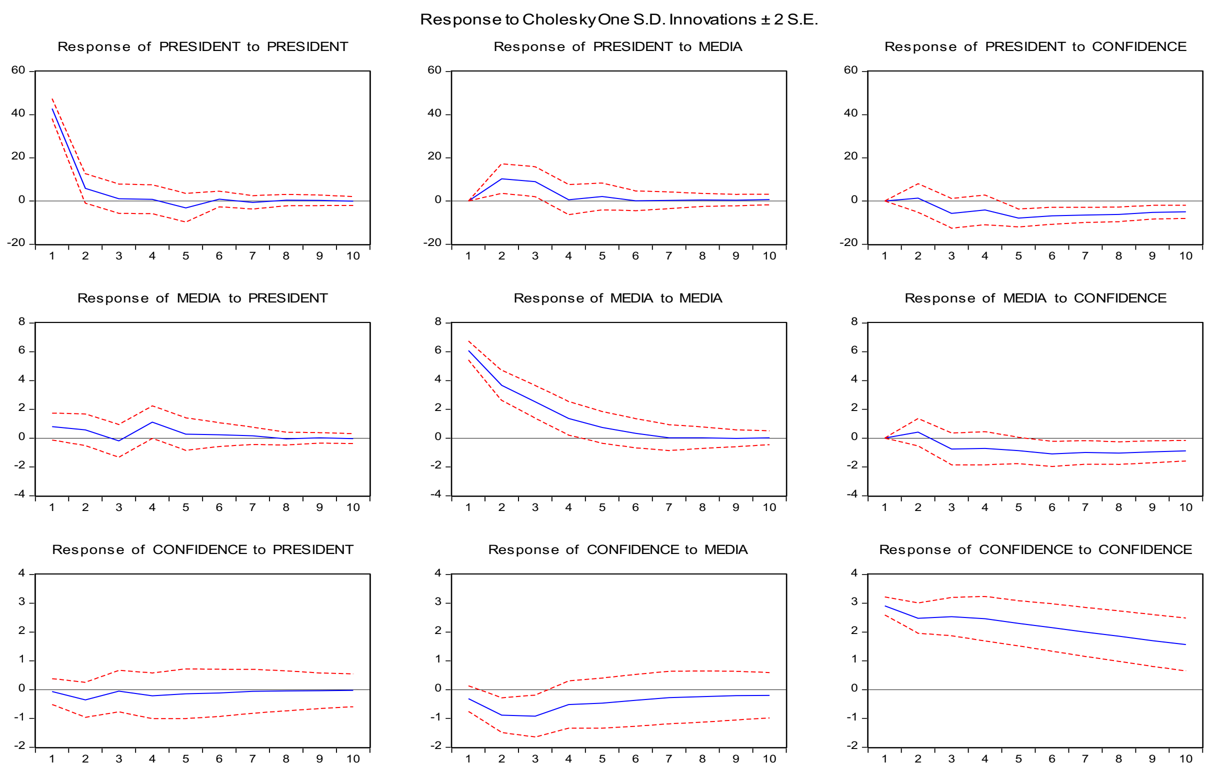


Figure 7. Moving Average Response (MAR) Graphs for Jobs/Unemployment (Weekly)[34]

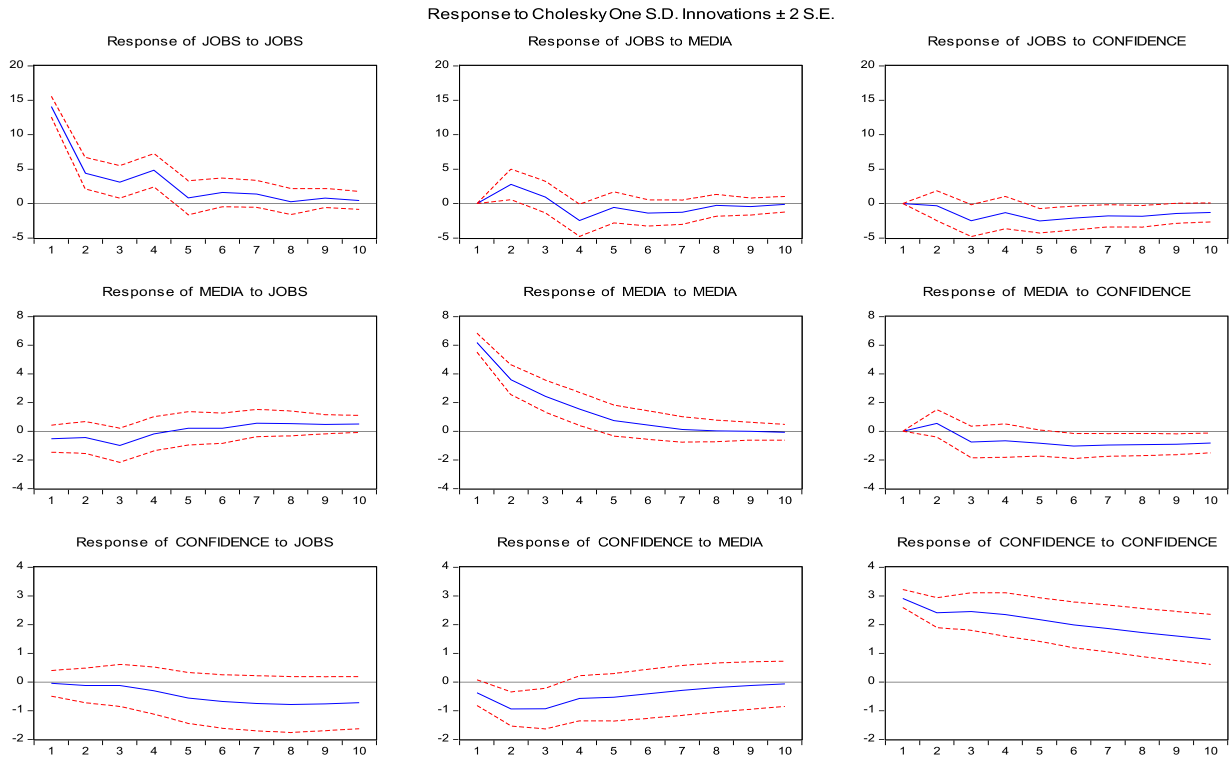
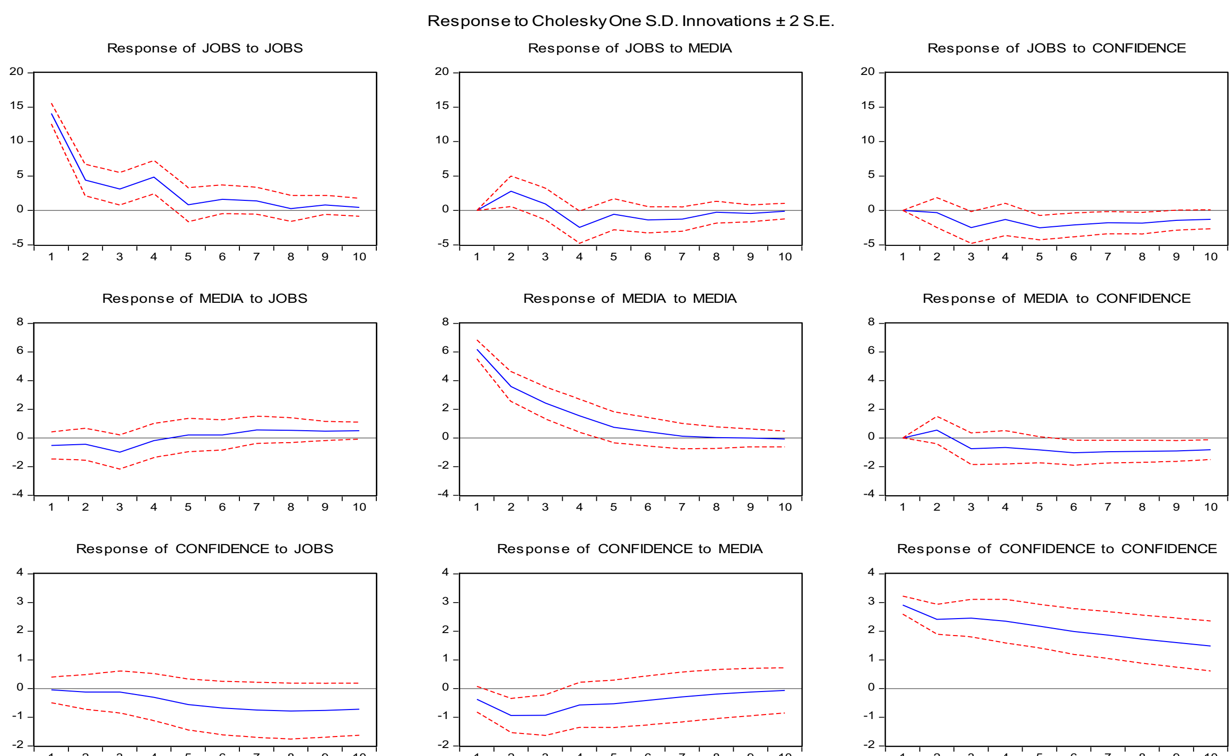


Figure 8. Moving Average Response (MAR) Graphs for Debt/Spending (Weekly)[35]



Regarding the exogenous variables that were entered into the VAR models as controls, the findings indicate that the state of the economy has little direct influence on presidential attention to economic issues. The lack of a direct effect does not mean, however, that worsening economic conditions do not lead to presidential attention, because a worsening economy increases media coverage and alters public assessments of the economy, which lead to presidential responses. For example, in the weekly analysis, weekly gains in the DJIA decrease media attention to the economy and improve the public's economic confidence. Worsening unemployment also increases public concern for the economy in the monthly analysis. The lack of a direct effect may be a result of weak economic measures (especially the weekly DJIA), or may indicate the president would likely focus on other issues absent a media or public response. Our analysis does not let us make such fine tuned conclusions. As expected, the events series tended to depress presidential and media attention to economic issues. An election season appears to increase overall presidential attention to the economy, particularly in terms of jobs, but not with regard to presidential attention to debt and spending. On the issues of debt and spending, Obama talked less during the election season, focusing more on unemployment, suggesting that Obama was most responsive with his economic rhetoric during periods preceding the midterm and presidential elections. Such responsiveness during electoral periods comports with prior findings regarding presidential congruence and public opinion (Canes-Wrone and Shotts 2004; Canes-Wrone and Kelly 2013).

Overall, the VAR results provide additional support for the argument that presidential attention to economic issues is largely responsive to media attention to economic issues, but that the president is most responsive on issues that are especially salient to voters and most likely to impact the president's approval ratings and reelection. Economic issues of lower salience and less tied to presidential approval and reelection offer the president the opportunity to lead the agenda, with the best examples of such issues being the federal deficit, debt and spending.

The results presented above correspond fairly well with the results presented in prior research on economic agenda setting for earlier presidents. To illustrate, Eshbaugh-Soha and Peake (2005) found that President George H. W. Bush was more responsive to media coverage to the economy than were Reagan or Clinton and surmise that this was largely a result of the recession that Bush had to deal with. While the "Great Recession" was clearly more pronounced, taken together, the results suggest that opportunities for agenda leadership are substantially constrained by the economic context. In the case of President Obama, his economic agenda was clearly set for him with the "Great Recession" at the start of his term; however, pitched battles with Republicans on spending and the federal debt, as well as his own legislative efforts (e.g., the economic stimulus), afforded him the opportunity to influence the economic agenda. Moreover, on issues related to the debt and spending, Obama was able to indirectly influence public opinion through his ability to influence media coverage of these issues. Eshbaugh-Soha and Peake (2005) found that Clinton and Reagan were also able to lead the agenda on these issues. They argue that this was largely a result of favorable circumstances for each president and the relatively low salience of these issues to the public.

Conclusion

Existing research has established that recent presidents have limited capacity for leadership of the public, especially when we consider leadership as altering public preferences on policy issues (Edwards 2003; 2009; Rottinghaus 2010). Despite this limited capacity, presidents continue to "go public" at high rates (Kernell 2007; Kumar 2007), although their tactics in going public have changed in recent years as a result of changing political and media contexts (Cohen 2010). Given these difficulties in presidential leadership, why do presidents continue to expend so many political resources trying to lead the public?

The benefits that accrue from agenda setting and presidential responsiveness to demands for action on public problems provide some important answers to this puzzle of presidential leadership.[36] Recent research by Eshbaugh-Soha and Peake (2011) indicates that the president's agenda is largely responsive on highly salient issues, such as the economy, but even so, there is substantial payoff for presidential efforts at political leadership in the form of maintaining media (and thus, public) attention to presidential priorities and pushing others in government to address key public problems. Their time series analysis on economic issues covers recent presidents through Bill Clinton. I use a similar approach to analyze the first term of the Obama presidency, using different media data and at both monthly and weekly time frames.

While the results of the present study largely corroborate prior research, the analysis is an important extension of this earlier work because of the overriding context presented by the "Great Recession" during Obama's first term. While recessions occurred during the periods studied in earlier research, they were not as profound as what Obama faced. Thus, Obama's first term presents a difficult case for presidential agenda leadership given the place afforded the economy on the nation's policy agenda at the start of 2009.

As expected, given the economic context and high salience of economic issues, President Obama's public relations on the economy during his first term was largely responsive to both media coverage of the economy and public concern for the economy. Obama was especially responsive with his rhetoric related to unemployment and jobs, a highly salient economic issue and one tied directly to evaluations of his stewardship of the economy. This does not mean, however, that Obama was unable to lead during this time frame. His public relations efforts on debt and spending influenced both the media's agenda, and thus indirectly, public opinion. This is an important finding, as prior research (Eshbuagh-Soha and Peake 2005) has demonstrated that issues related to the deficit and spending provide an important opportunity for presidential agenda leadership, given their relatively low salience, generally, compared to other economic issues.

The impact on public concern (positive) and public confidence (negative) that resulted from increased media coverage stemming from Obama's rhetoric on debt and spending present somewhat of a catch-22 for the president, however. When the president attends to economic issues, public concern may increase (indirectly, as a result of increasing media coverage) and public confidence in the economy may decrease. Such shifts in public opinion are not helpful for building the president's political capital, although they might move others in government (most notably, Congress) to act on the president's economic policy proposals. This was clearly Obama's strategy during 2011 and 2012. Even so, this leadership conundrum with regard to public relations on the economy is clearly evident in Obama's public relations efforts.

To be sure, the analyses above may underplay President Obama's success as an agenda leader, especially when we consider the difficult test provided by the overbearing issue of the economy during the "Great Recession." As discussed above, Obama met with successful agenda-setting leadership on health care reform. He was also able to push a major banking regulation package and three important free-trade agreements through Congress in 2010. Obama met with surprising successes in December 2010, following the shellacking Democrats took in the congressional midterm elections, passing an extension of the Bush tax cuts and ratification of the New START treaty with Russia. A key component of each of these policy successes was

Obama's capacity to influence the agenda—both the media and public agendas, but also the agendas of others in Washington. In each of those cases, contexts mattered greatly, considering that the Democrats controlled both chambers of Congress and the presence of unified government increased Obama's influence on the congressional agenda (see Edwards and Barrett 2000). Even so, the results reported here indicate that the president's public relations efforts are a critical component of the presidency's agenda-setting capacity and were a contributing factor to Obama's policy successes during his first term in office.

There are two significant trends in political behavior and presidential use of media that provide future researchers possible avenues of inquiry. The public and much of the media they consume are significantly more polarized today (and during the Obama presidency) than during previous presidencies. With this increase in polarization, we are likely to see differences in how media outlets and the public respond to presidential leadership. Work by Edwards (2012) points to this polarization as one reason why Obama's impact on the public's preferences was muted—Republicans, in effect, tuned him out. This could also carry over to right-leaning media, like Fox News. Additionally, recent trends in social media use by presidents are unaccounted for in the present study, as the measures of presidential attention focus on President Obama's spoken words. President Obama's two campaigns revolutionized the use of social media in presidential elections and he made use of various social media platforms while in office. Such platforms may capture some of what is in the present study (e.g., a speech posted on Instagram would be in the data), but not all, and as the first social media president, Obama made propitious use of the medium. The impact of social media on presidential leadership and agenda setting is certainly worthy of future study. This is especially the case for President Donald Trump, given his habitual use of Twitter to make policy pronouncements. Trump's tweets certainly garner significant media attention; although it is too soon to know what impact this new strategy has in terms of leading the policy agenda.

References

Baum, Matthew A. 2003. *Soft News Goes to War: Public Opinion and American Foreign Policy in the New Media Age*. Princeton, NJ: Princeton University Press.

Baum, Matthew A., and Samuel Kernell. 1999. "Has Cable Ended the Golden Age of Presidential Television?" *American Political Science Review* 93: 99-114.

Baum, Matthew A., and Tim J. Groeling. 2010. *War Stories: The Causes and Consequences of Public Views of War.* Princeton University Press.

Baumgartner, Frank and Bryan D. Jones. 1993. *Agendas and Instability in American Politics*. Chicago: University of Chicago Press.

Bose, Meenekshi. 2016. "Hitting the Ground Running Twice," Ch. 1 in *The Quest for Leadership*, ed. Michael A. Genovese. Amherst, NY: Cambria Press.

Canes-Wrone, Brandice. 2006. *Who Leads Whom? Presidents, Policy, and the Public*. Chicago: University of Chicago Press.

Canes-Wrone, Brandice, and Jason P. Kelly. 2013. "The Obama Presidency, Public Position-Taking, and Mass Opinion." *Polity* 45: 85-104.

Canes-Wrone, Brandice, and Kenneth W. Shotts. 2004. "The Conditional Nature of Presidential Responsiveness to Public Opinion." *American Journal of Political Science* 48: 690-706.

Cohen, Jeffrey E. 1995. "Presidential Rhetoric and the Public Agenda." *American Journal of Political Science* 39: 87-107.

Cohen, Jeffrey E. 2008. *The Presidency in an Era of 24-Hour News*. Princeton, NJ: Princeton University Press.

Cohen, Jeffrey E. 2010. Going Local: Presidential Leadership in the Post-Broadcast Age. Cambridge, MA: Cambridge University Press.

Delshad, Ashlie B. 2011. "Revisiting 'Who Influences Whom?' Agenda Setting on Biofuels." *Congress & the Presidency* 39: 177-98.

Edwards, George C., III. 2003. *On Deaf Ears: The Limits of the Bully Pulpit*. New Haven, CT: Yale University Press.

Edwards, George C., III. 2009. *The Strategic President*: *Persuasion and Opportunity in Presidential Leadership*. Princeton, NJ: Princeton University Press.

Edwards, George C., III. 2010. "Barack Obama's Leadership of the Public." Paper presented at the Midwest Political Science Association Meetings, Chicago, IL, April, 2010.

Edwards, George C., III. 2012. *Overreach: Leadership in the Obama Presidency*. Princeton, NJ: Princeton University Press.

Edwards, George C., III, and Andrew W. Barrett. 2000. "Presidential Agenda Setting in Congress." In *Polarized Politics: Congress and the President in a Partisan Era*, ed. Jon R. Bond and Richard Fleisher. Washington, DC: CQ Press, 109-33.

Edwards, George C., III, and B. Dan Wood. 1999. "Who Influences Whom? The President, Congress, and the Media." *American Political Science Review* 93: 327-44.

Eshbaugh-Soha, Matthew. 2006. "The Conditioning Effects of Policy Salience and Complexity on American Political Institutions." *Policy Studies Journal* 34: 223-43.

Eshbaugh-Soha, Matthew, and Jeffrey S. Peake. 2005. "Presidents and the Economic Agenda." *Political Research Quarterly*: 127-38.

Eshbaugh-Soha, Matthew, and Jeffrey S. Peake. 2008. "The Presidency and Local Media: Local Newspaper Coverage of President George W. Bush." *Presidential Studies Quarterly* 38: 606-27.

Eshbaugh-Soha, Matthew, and Jeffrey S. Peake. 2011. *Breaking through the Noise: Presidential Leadership, Public Opinion, and the News Media*. Stanford, CA: Stanford University Press.

Granger, Clive W. J. 1969. "Investigating Causal Relations by Econometric Models and Cross-Spectral Models." *Econometrica* 37: 424-38.

Iyengar, Shanto. 1991. *Is Anyone Responsible?* Chicago: University of Chicago Press.

Jones, Bryan D., and Frank Baumgartner. 2005. *The Politics of Attention: How Government Prioritizes Problems*. Chicago: University of Chicago Press.

Kingdon, John W. 1995. *Agendas, Alternatives, and Public Policies*, 2nd ed. Boston: Little, Brown.

Kumar, Martha Joynt. 2007. *Managing the President's Message: The White House Communications Operation*. Baltimore: Johns Hopkins University Press.

Larsen-Price Heather A., and Paul E. Rutledge. 2013. "Follow the Leader: Issue-Dependent Representation in American Political Institutions." *Congress & the Presidency* 40: 1-26.

Liu, Xinsheng, Eric Lindquist, and Arnold Vedlitz. 2011. "Explaining Media and Congressional Attention to Global Climate Change, 1969-2005: An Empirical Test of Agenda-Setting Theory." *Political Research Quarterly* 64: 405-19.

Maltese, John Anthony. 1994. *Spin Control: The White House Office of Communications and Management of Presidential News*. Chapel Hill, NC: University of North Carolina Press.

McCombs, Maxwell E. 2004. *Setting the Agenda: Mass Media and Public Opinion*. Cambridge, UK: Polity Press.

Peake, Jeffrey S., and Matthew Eshbaugh-Soha. 2008. "The Agenda-Setting Impact of Major Presidential TV Addresses." *Political Communication* 25: 113-37.

Rottinghaus, Brandon. 2010. *The Provisional Pulpit: Modern Presidential Leadership of Public Opinion*. College Station, TX: Texas A&M University Press.

Rutledge, Paul E., and Heather A. Larsen Price. 2014. "The President as Agenda Setter-in-Chief The Dynamics of Congressional and Presidential Agenda Setting." *Policy Studies Journal* 42 (3): 443-63

Schattschneider, E. E. 1960. *The Semi-Sovereign People*. New York: Holt, Rinehart,and Winston.

Simms, Christopher A. 1980. "Macroeconomics and Reality." *Econometrica* 48: 1-48.

Soroka, Stuart N. 2002. *Agenda-Setting Dynamics in Canada*. Vancouver: University of British Columbia Press.

Stuckey, Mary E. 2008. *Jimmy Carter, Human Rights, and the National Agenda*. College Station, TX: Texas A&M University Press.

Wolfe, Michelle, Bryan D. Jones and Frank R. Baumgartner. 2013. "A Failure to Communicate: Agenda Setting in Media and Policy Studies." *Political Communication* 30-175-92.

Wood, B. Dan. 2007. *The Politics of Economic Leadership*. Princeton, NJ: Princeton University Press.

Wood, B. Dan, and Jeffrey S. Peake. 1998. "The Dynamics of Foreign Policy Agenda Setting." *American Political Science Review* 92: 173-84.

Young, Garry, and William B. Perkins. 2005. "Presidential Rhetoric, the Public Agenda, and the End of Presidential Television's 'Golden Age.'" *Journal of Politics* 67: 1190-205.

Endnotes

[1] Presidents since 1980 average about 400 public speeches per year, compared to about 150 speeches per year during the 1950s and 1960s (Eshbaugh-Soha and Peake 2011, 6).

[2] Interview with George Stephanopoulos of ABC News on January 20, 2010.

[3]A full discussion of Obama's efforts to lead the public and impact the agenda on health care is beyond the scope of the current article. For an extended discussion of Obama's efforts to impact the systemic agenda on health care reform, see Eshbaugh-Soha and Peake (2011, 174-79).

[4] According the Pew Research Center's PEJ, the economic crisis filled between 44 and 47% of the news hole during the last week of January and the first two weeks of February.

[5] Prior to congressional passage of the stimulus on February 11, Obama delivered speeches on the economy in Elkhart, Indiana, Ft. Meyers, Florida, and Springfield, Virginia. Followings its passage, Obama delivered speeches in East Peoria, Illinois, Denver, Colorado (where he signed the American Recovery and Reinvestment Act of 2009), and Mesa, Arizona. In total, Obama held 22 events between his inauguration and the end of September, 2009, where he delivered extended remarks on the economy before local audiences outside of the DC area (Eshbaugh-Soha and Peake 2011, chapter 6).

[6] The trips counted here only include trips where policy-related speeches were delivered to local (nonpartisan) audiences outside of the Washington, DC region. Thus, trips where the president exclusively delivered remarks at Democratic fundraising events are excluded in the count of trips.

[7] Clear evidence exists for this contention in the data discussed below. For example, the average monthly percentage of respondents citing unemployment as the "most important problem" in the Gallup Poll was 23.9 for 2009 through 2011. For the debt/federal spending, the percentage was just 8.5. Both figures are quite high in comparison to the historical averages reported by Eshbaugh-Soha and Peake (2011, 130, n. 9), reflecting the high relative salience of economic issues during Obama's first term and an average monthly unemployment rate of 9.25 percent for the years 2009 through 2011.

[8] The *Public Papers* are available online at http://www.presidency.ucsb.edu/. We searched the papers based on year (e.g., 2009), which yields a listing of all documents in the *Papers* for the year. We only read documents that included public utterances by President Obama, so statements by the press office, written statements, proclamations, executive orders, treaty transmittal documents, etc., were excluded from our analysis.

[9] The separate categories include: jobs & unemployment; debt, deficits, spending and the budget; inflation, prices, banking, and housing; international trade; and, other. The categories were summed to create an all-economic issues count, which is used for the bulk of the analyses reported below. Admittedly, counting paragraphs is less refined than counting sentences or words, as a paragraph might constitute just one sentence or numerous sentences. Counting paragraphs allows for direct comparison to prior studies that use this method. In the graphs below, I account for this by looking at the percentage of total rhetoric devoted to the economy. For the reader's reference, Obama averaged 277 paragraphs per week of spoken remarks, or over 1100 per month. Machine content coding of rhetoric provides another avenue for researchers doing this type of analysis. Here, researchers build a library of terms relevant to the topic and then run the text through analysis software. I elected for the human coding procedure, as I am more familiar with that approach having authored numerous published studies using it. Moreover, the coding required coders to distinguish between paragraphs emphasizing different economic topics (see above), which were more readily achieved using human coders.

[10] The data collection ended on June 3, 2012 for the simple reason that the media data used in the analysis (see below) was no longer collected by the PEJ. Rather than attempting to extend the PEJ's media data, which would have taken significant effort to replicate, I made the decision to end the analysis at this time point, making the reasonable judgment that the data series were long enough to conduct time series analysis.

[11] I use raw counts of paragraphs in the *Public Papers* in the analyses reported below. Percentages allow for more simplified and easy to read graphs of the data.

[12] An overview of the PEJ data can be found at the following link: http://www.journalism.org/datasets/. The actual data is located here: http://www.journalism.org/news_index/99.

[13] See http://www.editorandpublisher.com/news/first-of-pej-s-weekly-news-coverage-index-appears-tuesday/.

[14] Unfortunately, we are not able to separate out coding of media based on the same set of economic issues that we do for the presidential data (jobs, debt, etc.), as the PEJ data only report broad topic codes. Economic stories that made the top-10 lists include: economic crisis, the economy, auto industry, and taxes. The debt crisis, which occurred during the summer of 2011, is simply coded as the economy. There were four weeks of data (over the entire sample frame) where PEJ does not report top-10 stories for the week. To fill in for the missing data, we simply averaged the time period prior to and immediately following the missing data point. Unfortunately, the data series ends during the last week of June 2012.

[15] During 32% of the weeks covered by the time period, the economy or economic crisis was the number one news story, according to the News Coverage Index. It was always among the top-10 stories provided by the News Coverage Index. It was eclipsed periodically by major international events (e.g., unrest in the Middle East, the Japanese tsunami, the killing of Bin Laden and the earthquake that hit Haiti); domestic events (e.g., domestic terrorism and the Gulf oil spill); other domestic issues (e.g., health care reform); and coverage of elections (the 2010 congressional and the 2012 presidential election).

[16] The monthly average for 2009 through May 2012 for economy (general) is 32.8%. For unemployment, the average is 24.2%; and for debt, the average is 8.6%. The average total (which is a summation all economic responses reported by Gallup) is 65.5%.

[17] I could create a weekly measure by simply repeating the last reported value for each week, but this creates a data series that is nonstationary, which creates problems for time series analysis of the sort reported below.

[18] The time series is available from Gallup here: http://www.gallup.com/poll/122840/gallup-daily-economic-indexes.aspx. The measure is explained here: http://www.gallup.com/poll/113842/GALLUP-DAILY-Measures-Explained.aspx. The three-day rolling averages are aggregated to the weekly level for the analyses reported below.

[19] The standard deviation for the media series is 9. The standard deviation for the presidential rhetoric series is 12.8.

[20] The Pearson's r between the presidential rhetoric series and the media series is 0.55. There is also a relationship between the media series and the Gallup series ($r = 0.52$), and between the presidential rhetoric series and the Gallup series ($r = 0.45$).

[21] The Pearson's r between the media series and Economic Confidence is -0.62.

[22] I use a dummy variable to account for the onset of a major international or domestic event. Major international events include: unrest in the Middle East (starting in late January, 2011), the slaying of Osama bin Laden (early May, 2011), the earthquake in Haiti (January, 2010), and the tsunami in Japan (mid-March, 2011). The domestic event that had the greatest likely impact on attention to the economy included the Gulf oil spill (late April through June, 2010).

[23] A dummy variable was created for the 2010 midterm congressional race, coded 1 for the period August through November 2010. I added to this a variable for the 2012 presidential primaries and lead-up to the general election, coding 1 for the period September 2011 through May 2012.

[24] This variable is simply coded 1 for December (and 0 otherwise) in the monthly time series and coded 1 for the last 3 weeks in December and first week in January for the weekly time series.

[25] The method allows us to control for the history of a time series by taking into account multiple lags of all of the endogenous variables in the system. Lag lengths are determined using the Akaike Information Criteria test (Simms 1980).

[26] Like most time series techniques, VAR assumes that the endogenous variables in the system are stationary, meaning that the mean and autocovariances are not time dependent. I ran Augmented Dickey-Fuller tests in Eviews 7.2 in order to test for a unit root for each of the endogenous variables. The tests indicate that our weekly and monthly series for presidential rhetoric and media coverage are stationary. However, tests indicate that we cannot reject the null hypothesis that a unit root exists for our monthly Gallup MIP series and our weekly Gallup Economic Confidence series, indicating that these series are nonstationary. The test statistics were very close to rejecting the null (both at the .11 p-level). I differenced each of the series, which made each stationary, and re-ran each of the VAR models to determine whether the reported results between the other variables remain valid. Some minor differences exist between the Granger tests using the differenced data and the leveled data. However, no real differences emerged for the MAR graphs with regard to the direction and magnitude of the relationship. I report Granger tests and the MARs using the leveled (non-differenced) data, for ease of interpretation.

[27] MAR graphs track the responses of endogenous variables to simulated changes (called shocking) in each of the endogenous variables in the VAR system. MAR's use the VAR estimates for computing forecasts and the reports generated include 95% confidence intervals. See Wood and Peake (1998) and Wood (2007) for further explanation.

[28] Numbers in parentheses are p-values for the VAR Granger Causality / Block Exogeneity F-test. The shaded arrows indicate that the independent variable Granger causes the dependent variable at a significance level of 0.1. POS or NEG indicates the direction of a statistically significant ($p < 0.1$, two-tailed) exogenous variable coefficient. The N for each series is 41 (January, 2009 to May, 2012). The measure for the State of the Economy is the misery index. The VAR includes two lags. Gallup is the summed economic MIP responses for Model 1, unemployment MIP responses for Model 2, and debt/spending MIP responses for Model 3. The analysis was run with two lags.

[29] The MAR graphs included 95% confidence bands (the dashed lines in each graph). If the confidence band does not cross the zero axes, the indicated response is statistically significant. With regard to interpretation, the simulations indicate that, for example in Figure 3, the percentage of the news hole devoted to the economy increases by about two following an increase in presidential attention to the economy equal to one standard deviation (about 14 paragraphs, which is about half of the mean value for the series). An increase of two percentage points in the news hole is quite significant, as the mean value of the media news hole devoted to the economy is about 16%.

[30] President represents the number of monthly paragraphs devoted to all economic topics President Obama's public speeches and remarks (Jan. 2009 - May 2012). Gallup represents the percentage of respondents identifying unemployment at the "most important problem" in a given month in the Gallup Poll. Media represents the percentage of the news hole (all sectors) devoted to economic issues, as measured by PEJ.

[31] JOBS represents the number of monthly paragraphs devoted to the topic of jobs and unemployment in President Obama's public speeches and remarks (Jan. 2009 – May 2012). MIPJobs represents the percentage of respondents identifying unemployment at the "most important problem" in a given month in the Gallup Poll. Media represents the percentage of the news hole (all sectors) devoted to economic issues, as measured by PEJ.

[32] Numbers in parentheses are p-values for the VAR Granger Causality / Block Exogeneity F-test. The shaded arrows indicate that the independent variable Granger causes the dependent variable at a significance level of 0.1. POS or NEG indicates the direction of a statistically significant ($p < 0.1$, two-tailed) exogenous variable coefficient. The measure of the State of the Economy is the weekly change in the DJIA. Confidence is the Gallup Daily's Economic Confidence Indicator. The N for each series is 176 (weeks starting January, 19 2009 to May 28, 2012). The analysis was run with four lags.

[33] President represents the number of weekly paragraphs devoted to all economic topics President Obama's public speeches and remarks (January 19, 2009 – May 28, 2012). Confidence represents weekly averages for Gallup Daily's Economic Confidence Indicator. Media represents the percentage of the news hole (all sectors) devoted to economic issues, as measured by PEJ.

[34] JOBS represents the number of weekly paragraphs devoted to the topic of jobs and unemployment in President Obama's public speeches and remarks (January 19, 2009 – May, 28 2012). Confidence represents weekly averages for Gallup Daily's Economic Confidence Indicator. Media represents the percentage of the news hole (all sectors) devoted to economic issues, as measured by PEJ.

[35] Debt represents the number of weekly paragraphs devoted to the topic of debt, deficits and spending in President Obama's public speeches and remarks (January 19, 2009 – May 28, 2012). Confidence represents weekly averages for Gallup Daily's Economic Confidence Indicator. Media represents the percentage of the news hole (all sectors) devoted to economic issues, as measured by PEJ.

[36] Other benefits may accrue, as well, with regard to the president's rhetoric on the economy. For example, Wood (2007) has presented evidence that the tone of the president's economic rhetoric can directly impact public and investor assessments of the economy.