

**Economic Headline News
on the Agenda:
*New Approaches to Understanding
Causes and Effects***

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More than two decades of agenda-setting research have established our belief in the capacity of mass media news coverage to set the public agenda. Arguably, there is no other news topic where this effect has such potentially far-reaching consequences as economic news. Many have charged the media with portraying economic issues unfairly and excessively negatively in the newsroom pursuit of the vivid and the newsworthy, and foretold economic and political fallout as a result. From undermining consumer sentiment and delaying an anticipated economic upturn to losing a president his reelection, the potential consequences of agenda setting are now seen by many to extend well beyond issue salience, the original dependent variable of early agenda-setting research.

Criticism of economic news writers and fear of the impact that their stories and reports may have on the real world are based on three assumptions: (a) the media's portrayal of the economy is negatively biased, (b) economic news coverage is capable of shaping the public's perception of the nation's economic well-being, and (c) adverse economic news may itself ultimately influence the economic and political landscape.

Yet, when these assumptions are put to empirical test, findings are mixed concerning the direction and the degree of influence of economic news. In studies of this kind there are four key variables involved and interest centers on

the causes and effects among them: economic news coverage, the public's perception of the economic health of the economy (commonly measured as consumer sentiment or confidence), the actual state of the economy, and presidential popularity. In short, these variables encompass four very large and different empirical arenas—the economy, politics, people's perceptions, and the media. Given their disparity and the multitude of ways in which these variables may be measured, it is hardly surprising that investigations regarding the relationships between them have yielded mixed results. Many researchers have found media effects in general, and economic news effects in particular, on the other three variables, but the influence has also been found to work in the reverse direction—that is, some investigators have found the content of economic news stories to be determined by real-world economic conditions, prevailing consumer sentiment, and presidential approval.

Further, because of the difficulties of dealing simultaneously with four very different variables, most research efforts have been directed at determining the nature of bivariate relationships between some of these variables. Mixed findings may be due, in part, to their failure to take the effects of the other variables into account. Some studies have explored three variables in their analysis, for example, the relationship between economic news and consumer sentiment controlling for real-world conditions (e.g., Behr & Iyengar, 1985; MacKuen, 1981; Stevenson, Gonzenbach, & Prabu, 1991). And MacKuen, Erikson, and Stimson (1992) examined the relationships among all four variables (consumer sentiment, economic conditions, presidential popularity, and economic news) employing some of the time series techniques described in this chapter, but they used consumer perceptions of economic news rather than actual economic news reported in the press as their media variable.

Empirical investigations of these variables involve time series data and all of the series have distinct characteristics. For instance, macroeconomic time series tend to move in a secular way over time representing the growth and cyclical behavior of the actual economy. Presidential approval ratings have a tendency to wander around as if they had no fixed mean, their level depending on the prevailing climate of public opinion (*inter alia*). In a similar way, consumer sentiment series wander over large periods of time in a manner that shows no tendency to return to one constant level. Such time series are said to be nonstationary.

Many agenda-setting studies involving some of these variables have employed statistical analyses that do not take into account this dominant nonstationary characteristic of the data. Conventional statistical procedures call for detrending (and, hence, prefiltering) of the data before analysis can be performed, at the cost of losing valuable information and at the risk of wrongly determining the existence or absence of agenda-setting effects between series comprised of filtered or manipulated data.

A specific aim in this chapter is to draw attention to the usefulness of some recently developed time series methods for analyzing nonstationary data and their application to the empirical problem of detecting agenda-setting effects.

Given the dynamic nature of the agenda-setting process and the characteristics of the series representing the variables of interest, these techniques offer the ability to analyze the data in its original form. We illustrate this new approach by examining the evidence of long-term cause-and-effect relationships between economic headlines, consumer sentiment, real-world economic conditions, and presidential popularity in order to establish whether the assumptions about the effects of economic news that were discussed earlier have any empirical basis.

ECONOMIC HEADLINE NEWS: CAUSES AND EFFECTS

We begin with a very brief review of theories, empirical findings, and speculations that shed light on the potential interrelationships among these variables. First, there has been much research interest in the cause-and-effect relationship between economic news coverage and the economy. Addressing the question of who sets the media agenda, some investigators have tried to determine if there is any correspondence between actual economic conditions and the news items representing them to media audiences. The tendency for the media agenda to be influenced by, or to mirror reality, is an "event-centered theory" of media content (Gans, 1979). In looking for evidence of event-driven content in economic news coverage, some researchers have reported a failure of economic reporting to reflect actual economic conditions. For instance, the Institute for Applied Economics (1984) reported that, from July 1983 to December 1983, 95% of the economic statistics were positive, whereas 85% of the in-depth stories on network television were primarily negative. The Media Institute found that during the nonrecessionary period between 1982 and 1987, 4,500 out of 5,300 television stories on the economy had a negative tone (see Glassman, 1993). The absence of correspondence between economic reporting and real-world conditions has led some to charge that economic news content bears little association with the facts. Such evidence is often proffered to support the charge of media bias. Other researchers have focused their attention on the alternative direction of influence between these two variables; that is, the adverse effect of unfavorable news on subsequent economic performance. During the 1987 financial market fall, for instance, the use of alarming language and comparisons with the stock market crash of 1929 were seen as fanning the growing alarm and further weakening the markets (see Graber, 1993). More generally, the phrase *media malady* was coined to describe the role that negative news may play in delaying an otherwise anticipated economic upturn (Kurtz, 1990; see Stevenson et al., 1991). This alternative perspective invests considerable power in the media to impact the very economic environment it purports merely to describe.

The second assumption of economic news critics concerns the power of economic news to influence consumer sentiment, or more generally, the ability of the media to sway public opinion, a process immediately recognized by readers as the original subject of agenda-setting research (McCombs & Shaw, 1972). Agenda-setting investigations were first conducted in the context of national and local political elections and focused on the ability of the news media to lead the public in assigning relative importance to various public issues. It was not long before this notion was extended to other contexts. One context that has gained in importance is the impact of economic news on consumer confidence. Given the fact that individual consumer spending accounts for two thirds of the U.S. national expenditure, it is not surprising that the relationship between consumer confidence or sentiment and economic news reporting has been of interest. In particular, scholars have been concerned with establishing the direction of influence between them.

As would be predicted by agenda-setting theory, some studies have found economic news to be the determining influence on subsequent public opinion (Behr & Iyengar, 1985; Neuman, 1990). Yet others have reported the effect to be, at least initially, in the other direction. For example, Stevenson et al. (1991) found in their study that it was the media agenda that was influenced by public opinion, but the media "in turn picked up public concern and influenced public perception at a later date" (p. 13). This supports the counterintuitive (to agenda setting) that news reporting is itself consumer driven, whereby media personnel are merely providing news perceived as of interest to their audiences. Shoemaker and Reese (1991) described this influence as a market approach: Media content is driven by the editor's desire to give news consumers what they want in order to ensure large audiences for the products of their sponsors.

There have been attempts to resolve this rather confused picture and determine once and for all the direction of influence between economic reporting and consumer confidence. Testing causal effects in both directions for the period 1990 to 1993, Fan (1993) found that media effects dominated consumer sentiment effects. However, there was no control for real-world economic conditions in Fan's bivariate analysis. Real-world indicators need to be considered in order to test the sensitivity of economic news coverage to economic conditions and to distinguish between the effects of news coverage and real-world conditions on public opinion (Neuman, 1990).

Studies such as those by Behr and Iyengar (1985) and Stevenson et al. (1991) did treat economic indicators as a control variable, but with contradictory results. In the former study, the authors found media agenda setting effects on public concern for the topics of energy and inflation, but they found no agenda-setting effects for unemployment. For Stevenson et al., the issue was recession, and their results showed a predominant effect of public opinion on the media agenda, as already discussed.

When economic indicators are included in the analysis, but treated only as a control variable, one loses the opportunity to assess any role that economic news may play in influencing the state of the economy. Blood (1996), testing

for all possible directions in a 13-year data set that included a determining role for the economy itself, found that headlines concerning the general state of the economy had strong agenda-setting effects—but for the specific topics of recession and unemployment, which were more sporadically occurring events, headline numbers were driven by consumer sentiment over the long term. A recursive analysis in that study revealed that there were agenda-setting effects by recession headlines on consumer sentiment only during the periods when recession was occurring. This led the author to speculate that the detection of economic news agenda-setting effects is a function of the specific time periods examined, the nature and severity of prevailing economic events, and whether consumers feel themselves to be directly affected by such events or not.

Zucker (1978) was the first to argue that the obtrusiveness of an issue may be an important determining factor in whether or not agenda setting takes place. Although economic matters may be considered to be obtrusive compared to, say, many foreign policy issues, some economic events are likely to be more obtrusive than others. Economic issues that audiences experience directly and dramatically, such as unemployment or recession, may leave less room for media effects—except when editors respond with a plethora of bad news headlines, in which case consumer sentiment effects on media content are outpaced and media agenda-setting effects predominate. On the other hand, the general state of the nation's economic health may be a less obtrusive issue, leaving editors with the opportunity (and in some cases, perhaps, mission) to raise concern when the public does not anticipate or feel directly the effects of economic downturn.

The ability of economic news coverage to affect presidential popularity invests agenda setting with political consequences. For example, former President George Bush's failure to secure a second term of office was attributed in part to adverse economic news (see Graber, 1993). In their seminal work on this general topic, Iyengar and Kinder (1984) discovered that in paying attention to some problems and ignoring others, network television news programs alter the criteria by which viewers evaluate presidential performance, which they called the *priming effect*. Elsewhere, it has been noted that changes in presidential approval ratings are often highly correlated with the favorability of news stories (Graber, 1993).

As for the inverse direction, there is evidence that presidential popularity can have an effect on the economic news agenda. Stevenson et al. (1991) noted that the negative coverage of the economy revealed in their study appeared to grow as a result of Bush's approval ratings over his handling of the Gulf. They suggested the press may have turned adversarial eyes toward the economy at a time when Bush was strongly supported on foreign policy. Blood and Phillips (1995) found evidence that presidential popularity during the Gulf War period did indeed appear to spawn increasing numbers of negative economic headlines out of proportion with the actual economic conditions at that time, seemingly supporting the notion of an "adversarial press" suggested by the Stevenson et al. study.

When considering potential causes and effects between variables, it has been noted that the past values of a variable are often its own best predictor. For instance, in the early Charlotte study of media agenda setting, Shaw and McCombs (1977) performed a cross-lagged correlation on media content and public opinion at Times 1 and 2. Although they found evidence of newspaper influence on subsequent opinion, the largest correlation of all was the autocorrelation between the public agenda at Times 1 and 2, suggesting that the public was more affected by the stability of public opinion than by the media. Moreover, this correlation was close to unity. From a time series perspective, this suggests the presence of a unit root in the statistical mechanism behind a series. Unit root effects allow for the possibility that a series' own past history, dominated by the level of the immediately preceding value, will produce the best predictor of its future. In this respect, a unit root is more specific than an autocorrelation effect wherein a series is indeed influenced by its past history but not necessarily the level of its immediately preceding value.

A NEW STATISTICAL APPROACH

As indicated earlier, many agenda-setting studies have employed statistical analyses that do not take into account the dominant time series properties of the data, notably their inherent nonstationarity or tendency to drift over time. Techniques that have been developed in the field of econometrics over the last decade (see Hamilton, 1994, for an overview and references to the literature) allow for the analysis of nonstationary data in their original form to test for potential links or comovement between the series, as well as causal effects between them.

Recently, Blood and Phillips (1995) used some of these nonstationary time series techniques to examine the interrelationships of all four variables, controlling for the effect of each in a recession headline study that examined a 5-year time period straddling the Persian Gulf War. In this chapter, we use the Blood-Phillips methodology and extend the investigation of the interrelationships among these four variables to a much longer time frame, from June 1980 to December 1993, a period of history that saw the full and partial tenures of four presidencies (i.e., Carter, Reagan, Bush, and Clinton), times of economic expansion, and the occurrence of two economic recessions. The time series tools described in this chapter take into account the inherent time series properties of the data that have been mentioned already, such as their tendency to drift stochastically over time (which is manifest in the presence of unit roots), cointegrating links among them (Engle & Granger, 1987), differing degrees and directions of causal influence (as evidenced by Granger causal effects), and switching causal patterns that may be present over the whole time frame but may not apply to certain subperiods (as revealed by a recursive analysis).

The software package COINT 2.0 (see Ouliaris & Phillips, 1994) of time series procedures for unit root analysis and cointegrating regressions was used for the data analysis. Interested readers may refer to Blood (1996) for a detailed analysis of the results of this investigation, which are presented only in general terms here. The technical terms unit root, cointegration, Granger causality, and recursive analysis will be clarified for readers in our discussion of the statistical methodology used here and by references to the relevant statistical literature.

The Data

Time series data representing each of the variables were compiled from a variety of sources. Each series comprised 163 observations, covering the time period from June 1980 to December 1993 and the time unit of analysis was 1 month.

As a measure of present and prospective real-world economic conditions, the Leading Economic Indicator Index (issued by the U. S. Department of Commerce) was used. This is a composite measure comprising the following 11 leading indicators: average weekly hours for manufacturing, average weekly initial claims for unemployment, new orders of consumer goods and materials, vendor performance, contracts and orders for plant and equipment, building permits, changes in unfilled orders for durable goods, changes in sensitive materials prices, stock prices, money supply, and the index of consumer sentiment.

The monthly Index of Consumer Sentiment (ICS), compiled by the Survey Research Center at the University of Michigan, was selected for the consumer sentiment series used here. Our presidential popularity series was derived from the monthly aggregate percentage of approval ratings of the incumbent president's performance (e.g. "Do you approve or disapprove of the way Ronald Reagan is handling his job as President?") obtained from national opinion polls and archived at the Roper Center for Public Opinion Research at the University of Connecticut. Four different presidencies occurred within this time frame: the complete tenures of Ronald Reagan and George Bush, and the partial tenures of Jimmy Carter and Bill Clinton.

Representing economic news were headlines concerning the U.S. economy that were retrieved from the *New York Times* Library of the NEXIS database. The *New York Times* was chosen because of its position as an elite newspaper and model for other newspapers (Crouse, 1973; Kinder & Sears, 1985; Neuman, 1990; Stevenson et al., 1991; Winter & Eyal, 1981), as well as its influence on television network news coverage (Brown, 1971). Headlines rather than stories were selected to represent economic news because many researchers believe that headlines are powerful texts capable of wielding considerable influence on readers (Allport & Lepkin, 1943; Bleske, 1995a, 1995b; Blood, 1996; Blood & Phillips, 1995; Emig, 1928; Hilliard, 1991; Pasternack, 1987; Tannenbaum, 1953; Winship & Allport, 1943). When one also takes into account the possibility that headlines may not be representative of the stories they precede, but may present a biased perspective of the story (Pasternack, 1987), the case for

using headlines as a measure of economic news in agenda-setting studies rather than the content of the stories themselves becomes stronger still.

The series comprised only headlines describing the U.S. economy. This general topic was chosen in order to observe an ongoing generic pattern of economic news data over the time frame studied compared to more sporadically occurring economic news issues such as energy, inflation, recession, or unemployment. Headlines were coded according to whether the economy was portrayed in positive terms, negative terms, or mixed or neutral terms. Newspaper headlines are often difficult to comprehend because they can be "syntactically impoverished" and ambiguous as a result: for example, "Pentagon Plans Swell Deficit," and "Union Demands Increased Unemployment" (Perfetti, Beverly, Bell, Rodgers, & Faux, 1987). In such cases, ambiguous headlines were rated as neutral. The economic headline series was then transformed in order to orient it toward negativity; that is, unfavorable economic news. Only positive and negative headlines were included in the series (neutral and mixed headlines were excluded) and extra weight was given to front-page headlines.

Compilation of the series revealed the presence of emotive headlines that might well be perceived as capable of undermining consumer sentiment: for example, "The Week in Business, the Economy: God Help the American People" (6/1/80); "Economic Scene: Dancing On the Titanic" (6/13/80); "Around the Nation: Watch Out, It's The Economic Flu" (3/29/81); "Economic Scene: Is Depression Lurking?" (3/3/82); "Economic Scene: Is a Recession Coming in '85?" (11/2/84); "People Found Anxious on Economy and Goals" (6/8/88); "Currency Markets: Dollar Has Sharp Decline on Fears About Economy" (11/6/90); "School Districts Reeling in Weakened Economy" (6/5/91); "Weather and the Economy Fill Homeless Shelters" (1/5/92); and "Economic Scare Stories" (10/16/92). The series comprised 2,280 headlines in all, with 308 coded as positive, 596 as negative, 127 as mixed, and 1,249 as neutral.

There were considerably more negative than positive headlines, but this study did not reveal the very high levels of negativism reported elsewhere, such as the Media Institute's finding of 85% negativism in television news stories (see Glassman, 1993). On the other hand, these results may lend some support to Glassman's contention that newspapers' coverage of the economy typically is more balanced and less dramatic than television network news treatment.

STATISTICAL ANALYSIS AND RESULTS

Time series analyses were performed on the data series to test the nature and the direction of influence among the variables of interest. Each series was analyzed to isolate its principal characteristics (particularly the presence or absence of an autoregressive unit root), and tests for comovement (formally, cointegration; see Engle & Granger, 1987) between the series were conducted.

Vector autoregression was used to model the joint determination of the series, and tests for Granger causality were conducted to determine the nature and direction of causal influence among the series. Finally, recursive analysis was employed to assess whether the causal patterns observed over the whole data set were sustained over subperiods. The procedures followed in this analysis are described briefly along with the results obtained at each stage (see Blood, 1996, for a full description of procedures and findings).

First, each series was analyzed to identify its main features, particularly to determine whether the series were stationary or nonstationary. The leading example of a stochastically nonstationary series is a random walk. Unit root models allow for more general dependence over time than random walks but they have the same wandering characteristics. Many time series of economic data have been found to have unit root nonstationarity—some display secular growth characteristics (like Gross National Product), whereas others randomly wander like exchange rates. We sought to determine whether these features were evident in our four variables of interest: economic headline news, consumer sentiment, leading economic indicators, and presidential popularity. The tests used here come from the econometric literature and are the same as those used in Blood and Phillips (1995) for the shorter period 1989 to 1993.

The empirical results of the unit root tests revealed that the leading economic indicator, consumer sentiment, and presidential approval series are all nonstationary. These series are depicted with the economic headline series in Fig. 8.1. The nonstationarity of the consumer sentiment and presidential popularity series is clearly evident in this figure. The nonstationarity of the leading indicator series is less visually obvious due to the scale of this figure, but was

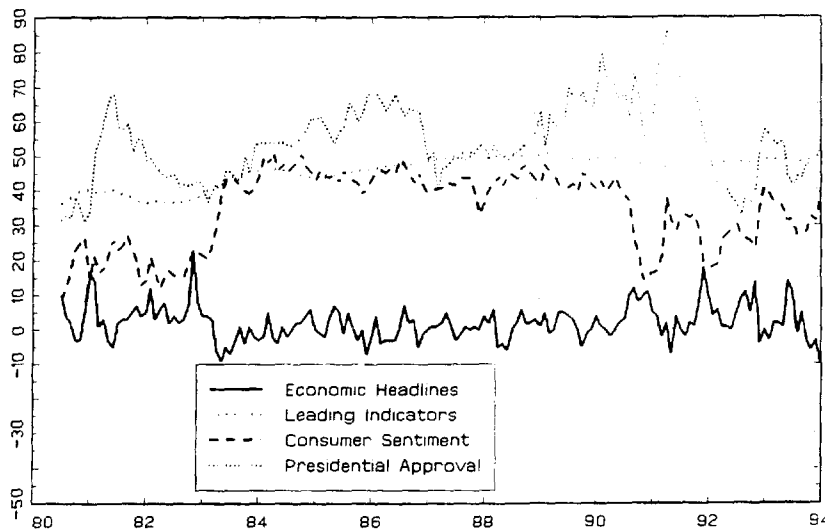


FIG. 8.1. Monthly time series 1980:6–1993:12.

strongly supported by the statistical test. Each of these three series shows a tendency to drift over time, in addition to having periods of decline during the 1982 and 1991 recessions.

There is no empirical evidence from the tests in support of a unit root for the economic headline series. The graph of this series (shown in Fig. 8.1) appears to be stationary throughout the entire time period, fluctuating around the same mean level, with some limited peaks of negative reporting around the recessions and periodic episodes of favorable economic headlines.

Of central concern are the potential linkages among the time series. For example, we are interested in whether movement in consumer sentiment is associated with changes in economic headlines over time. One way of exploring such linkages (without explicitly addressing causal effects) is to consider whether the series themselves move together in a meaningful way over time. When the time series are individually nonstationary, as three of our series are, such comovement is known in the econometric literature as *cointegration*. The concept of cointegration was introduced by Engle and Granger (1987) and statistical tests for the presence of cointegration have been developed by Phillips and Ouliaris (1990), Johansen (1988) and others. Empirical tests for comovement or cointegration in the series were conducted using the residual-based test procedure of Phillips and Ouliaris (1990).

To estimate the linkages among the series and allow for nonstationarities, a modified least-squares regression technique called fully modified (FM) regression (see Phillips & Hansen, 1990) was used. The results of this regression are analyzed in the same way as a conventional least-squares regression.

- Tests indicated a strong degree of comovement between economic headlines and leading indicators. The regression beta coefficients revealed a significant, negative relationship between the two series.
- Tests also indicated a strong degree of comovement between the headline series and consumer sentiment. Regression analysis revealed a significant, negative relationship between the series.
- Tests showed evidence for cointegration between presidential popularity and the headline series. Test results from the bivariate regression did not confirm a significant relationship at this stage.

Next, we used vector autoregressions (VARs) to explore linkages between the series over time and potential causal effects. VARs are helpful in our context because they allow for quite general temporal dependence as well as potential unit roots and comovement over time. The analysis of causal effects was conducted with four variable VARs to explore the direction of causality between leading indicators and headlines for each headline series.

VAR causality tests assess whether a series can be predicted better by using the history of other series as well as its own than it can be by using only its own past history. If such an improvement in prediction capability is found, one

deduces that there is explanatory power in the history of other series that is useful in predicting the future course of the given series. Such predictive capability is described as a causal effect, or Granger causality following the original work by Granger (1969). A recent exposition of the approach in the context of VARs was given by Lutkepohl (1993).

Wald tests were constructed to test the hypothesis of noncausality in the VARs, allowing for lag lengths in the autoregression from 1 to 6 lags (each lag represents 1 month).

- Strong evidence was manifested for media agenda-setting effects on consumer sentiment over the period of the study and at all lags. The sign of the influence was also in the expected direction and uniformly so, that is, the rising numbers of "ailing economy" headlines appeared to dampen subsequent consumer sentiment, and positive economic headlines boosted consumer sentiment.

- Further evidence of a strong media influence was manifested in the relationship between leading indicators and economic headlines, this time in the form of the so-called "media malady effect." Headlines had considerable long-term effects on the economy: With up to 5 lags (and marginally so with 6 lags) rising numbers of unfavorable economic headlines had an adverse effect on subsequent leading indicators and did so uniformly and persistently. As for the reverse effect, only with 3 lags (a 3-month period) was there any evidence that the leading indicators themselves had any influence on subsequent economic headlines. These results suggest that the amount and tone of economic news exerted a powerful influence on the economic environment and further, that the economic news agenda was generally not being set by prevailing economic conditions.

- An analysis of the causal relationship between presidential popularity and economic headlines revealed that, after the first lag (where the effect was insignificant), presidential popularity had a direct influence on subsequent numbers of "bad news" headlines; that is, an increasingly popular president appeared to inhibit unfavorable economic news over and above the prevailing economic conditions at the time. This finding supports Entman's (1989) argument that media content can display an evaluative bias in that journalists, sensitive to the prevailing popularity of the president in residence, are likely to be critical of presidents when they are unpopular but uncritical when their level of public support is high. Note that our investigation here focuses on headlines describing the general economy only. When examining recession headlines over the same time frame, Blood (1996) found brief displays of adversarial press behavior (Blood & Phillips, 1995; Stevenson et al., 1991) whereby journalists produced increasingly scathing reports (over and above prevailing economic conditions) about the recession at a time when Bush's popularity was highest during the Gulf War. This appears to have been an aberration to the general pattern seen over the long time frame examined here and we comment on this later.

- As for any influence of economic headlines on presidential popularity, there was no evidence of a priming effect here. The Blood (1996) study on a variety of different economic-related headlines revealed that headlines concerning unemployment did exhibit a priming effect on presidential approval. Clearly, not all issues on the economic agenda and their effects on the economic and political scene are the same: Presidential popularity may be particularly vulnerable to increasing waves of headlines announcing more layoffs.

As discussed earlier, the 13 years of data (1980–1993) covered in this study includes two periods of economic recession, a sustained economic expansion, and the full and partial tenures of four presidencies. With these subperiods that have very different economic and political characteristics, it is of interest to assess whether the causal patterns observed over the whole data set are sustained over the various subperiods. Recursive analysis allows the data to be informative about the presence of any regimes over subperiods of the sample by computing the test statistic of interest in a recursive way as one moves progressively through the time series. Recursive calculations allow the data to highlight points (or periods) in time where the test statistics undergo major changes. For example, the tests may indicate “acceptance” of the null hypothesis of no causality over the first part of the sample $t = m, \dots, M$, but rejection of the null over the full latter period $t = M + 1, \dots, N$ or a subperiod such as $t = M + 1, \dots, P$ where $P < N$. In such cases, the data point to M and P as potential break points in the sample; that is, points where there is a potential shift in regime.

The major interest here centers on the causal patterns and the extent to which these are sustained over subperiods of the full sample. Thus, the Wald statistics that test for causal effects were calculated recursively in the manner previously described for $m \leq n \leq N$. Here $N = 163$ and the starting value was set at $m = 26$, so that there were enough data (n) to initiate the recursion for a four-variable VAR with 4 lags.

- The recursive causality tests indicate that in the relationship between consumer sentiment and economic headlines, the predominating effect throughout the 13-year time period was that of economic headlines on consumer sentiment, lending support to the agenda-setting theory of media influence. Figure 8.2 graphs the results of the recursive analysis (shown here at 4 lags). Noteworthy is that long-term media effects that are shown here (i.e., media effects after a 4-month period) do not become significant until mid-1990, during the Bush presidency, and then remain so for the rest of the period. This suggests that during Bush’s presidential tenure there was a change in the dynamics of the press–consumer sentiment relationship that was then sustained throughout the rest of the time frame under study

- In the relationship between leading indicators and economic headlines, the recursive analysis confirmed the dominance of “media malady” effects (i.e.,

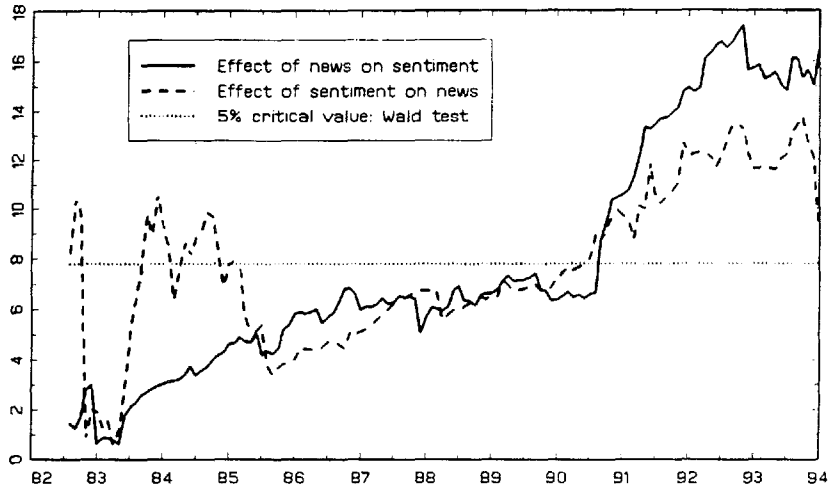


FIG. 8.2. Recursive causality analysis (news data = economic headlines).

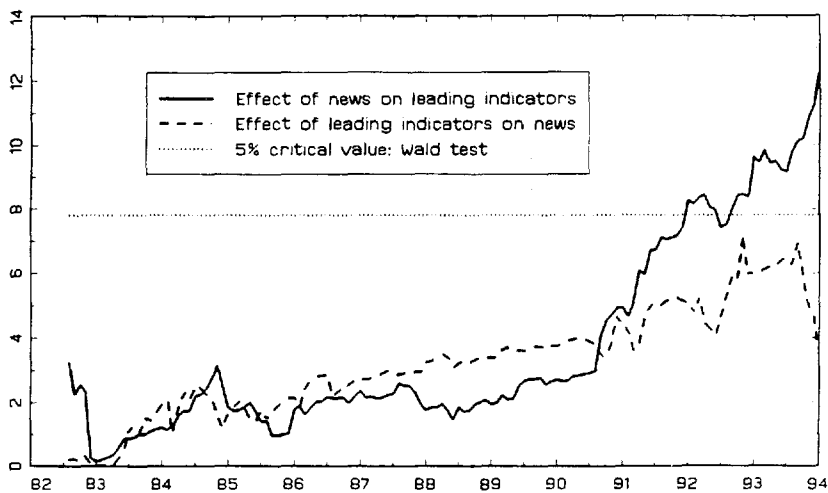


FIG. 8.3. Recursive causality analysis (news data = economic headlines).

media effects on leading economic indicators). However, it was revealed that the longer term influence (the impact of headlines on leading indicators 4 months later) only took effect at the close of 1991 and continued thereafter for the rest of the period (Fig. 8.3, shown at 4 lags). These results give some further evidence regarding the special nature of the 1991 subperiod when the dynamics between the press and real world economic conditions also appeared to change.

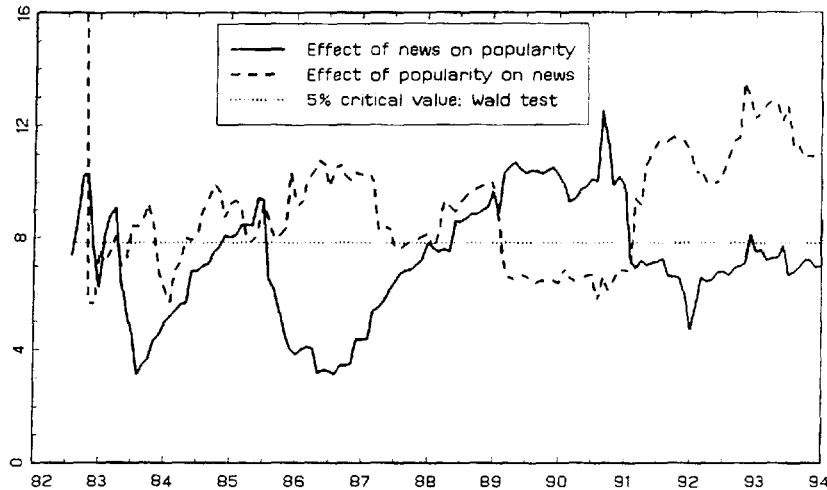


FIG. 8.3. Recursive causality analysis (news data = economic headlines).

• Prior causality tests between presidential popularity and headlines showed that the dominant influence overall was that of presidential popularity on subsequent numbers of economic headlines. However, recursive analysis uncovered brief periods of priming effects when headlines significantly influenced presidential popularity, notably during the 1989 to 1991 period, with the most dramatic peak occurring after mid-1990 (shown in Fig. 8.4 at 3 lags). Again, these results are consistent with the notion that there was an important shift in the causes and effects of the economic news agenda during this period of the Bush tenure, a time of war overseas and economic upheaval at home. They demonstrate the helpfulness of recursive analysis in detecting subperiods of change in empirical relationships under investigation that might otherwise go undetected.

DISCUSSION

The findings just outlined are part of a larger dissertation study by Blood (1996) that set out to explore the relationships between the press, the public, the presidency, and the economy over a time frame of extended economic and political changes. Using headlines to represent economic reporting and new statistical procedures from the field of econometrics to analyze the data, insights were gained on the relationships between the variables of interest that consolidate some earlier findings and speculations and challenge others. What follows is a summary of the main findings to emerge from this investigation, which cast light on the causes and effects of economic headline news.

- Although unfavorable economic headlines did dominate favorable headlines in this study, the proportion of negative headlines found was modest compared to the extraordinary levels of negativism reported by the Media Institute (Glassman, 1993). However, the less than two-to-one ratio of negative to positive headlines reported here may lend some support to Glassman's contention that newspapers' coverage of the economy typically is more balanced and less dramatic than television network news treatment.

- The statistical procedures used here allow for economic headline news, leading economic indicators, consumer sentiment, and presidential popularity to be analyzed simultaneously and in their original form. There is no need to alter the data before analysis by trend elimination or filtering, as the techniques are designed specifically for analyzing data that may be nonstationary. The procedures also allow for the effects of other variables in the system to be controlled for when the relationship and causal effects between two of the variables are being studied. The empirical results confirm the importance of controlling for real-world variables, as argued by MacKuen (1981) and Neuman (1990), but they also illustrate the important role that is played by the past history of the variables themselves, especially when there is evidence of unit root nonstationarity, as there is with the data analyzed here.

- A number of causal effects were uncovered by the VAR analyses. The findings provide clear empirical evidence in support of the agenda-setting effects of media influence, where the media are believed capable of having an important influence on people's attitudes and behavior. Here, negative economic headlines were found to have a significant and negative impact on subsequent consumer sentiment at all lag lengths. However, media influence was found to be more far reaching, extending to the economic environment. Economic headlines had an adverse effect on subsequent leading economic indicators up to a 5-month time lag, a finding that lends empirical support to accusations made by some in the early 1990s that excessive negative economic news had a depressing effect on the economy.

- As for relations between the press and the presidency, there was a persistent influence of presidential popularity on economic headlines, whereby rising approval ratings for the president discouraged negative headlines on the general topic of the economy, and falling approval ratings spawned increasing numbers of them, more than were warranted by the economic conditions prevailing at the time. However, recursive analysis revealed subperiods of a priming effect, where presidential popularity was affected by unfavorable economic headlines. This finding demonstrates the usefulness of a recursive analysis that can help to reveal subperiods of causal effects that would not otherwise be detected.

Evidence here and elsewhere (Blood, 1996; Blood & Phillips, 1995) also points to a disruption in long-established patterns of relationship among the press, the public, and the presidency over the 1990–1991 period, a time of foreign and economic upheaval for the Bush administration, when a president enjoying high approval ratings over his handling of the Gulf Crisis faced

increasing criticism from the press over his handling of the economy. Although this was undoubtedly a recessionary period at home, Blood and Phillips (1995) showed that the economic coverage of the recession was not related to the actual state of the economy at the time, as measured by the leading indicators. This raises the possibility of a pack journalism mentality (Graber, 1993) whereby news leaders set a norm for interpreting and reporting on the recession that was widely adopted and resulted in a deluge of negative headlines, with dampening effects on consumer sentiment and the economy as a result.

- Findings of powerful media effects here lend encouragement to agenda-setting researchers, as well as researchers in other fields of communication research, who seek media effects beyond the cognitive level. They should also be of some interest to economists with interests in the behavior of leading economic indicators and consumer sentiment. Our results offer a clear refutation of Linden's (1982) dismissal of economic news as an important influence on consumer confidence when he opined, "the average individual . . . does not, evidently, follow the economic news with any degree of sophistication but is quite responsive to personal day-to-day experiences" (p. 355). In short, media variables should not be overlooked when trying to understand the movements in these series.

- At the same time, the findings of powerful media effects on the economic and political landscape should raise some concerns for media scholars. Clearly, news organizations hold the power to effect change, or to maintain the status quo, in our social and economic systems. Although outside factors such as consumer sentiment, leading indicators, and even the popularity of the president may be seen to determine the media agenda at times, the ultimate driving force behind such effects may be the economic interests of the media organization owners themselves. Although it is critical that media content remains independent and devoted to the public welfare, it has been noted elsewhere that organizational interests, dictated by media ownership, may be the ultimate determinant of media content (Shoemaker & Reese, 1991). It is essential that media scholars closely monitor the influences on the production of economic news, cognizant of its potential to sway the public's assessment of the state of the economy and the presidency, and the very economy itself, to ensure that economic reporting is, in the end, determined by virtue of its service to the public good rather than by virtue of an economic impact designed to serve media ownership interests.

- Finally, media scholars must also be concerned with the capacity of media headlines to sway consumer sentiment and presidential popularity, and ultimately threaten the integrity of our democratic process of leader selection. Seymour Martin Lipset (cited in Patterson, 1993b) argued that George Bush lost his presidential reelection bid in 1992 not on the basis of the actual state of the economy, but on people's perceptions of the state of the economy. The findings here and elsewhere (Blood, 1996; Blood & Phillips, 1995) suggest that

it was media representations of the state of the economy rather than actual economic conditions that influenced people's evaluations of their president and the economic health of their nation. If so, then, the media may facilitate the selection of a political leader in our democracy, not on the basis of a rational choice, but on the basis of an irrational one.