

The Effect of the U.S. Economy on Presidential Elections: 1828-2008

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In the growing literature on presidential elections, economic circumstances hold a privileged position. A recent issue of *PS: Political Science and Politics* included a symposium on predicting the winner of the 2008 presidential election. With only one exception, the aggregate prediction models incorporated at least one aggregate economic indicator or aggregate public evaluation of economic circumstances. The various models included measures such as the second quarter gross domestic product (GDP), percent change in GDP, first half gross national product (GNP), a cumulative index of leading economic indicators, satisfaction with personal finances (e.g. “are you better off today than you were a year ago?”), and percent change in state and national per capita personal income. Despite the variety of economic indicators used and the variety of other explanatory variables in the models, all but one model correctly predicted the winner of the popular vote in 2008. Furthermore, aside from that one model, the vote share of the winner predicted by most of the models was within two percentage points of the actual popular vote share Obama received, and the average prediction was exactly—to the tenth of a percentage point—Obama’s margin.

Beyond recent forecasting, the literature on the economic dynamics of aggregate vote choice for the president is relatively longstanding and vast. Some of the earliest studies spurred by the theoretical work of Downs (1957) are the work of Kramer (1971) and Tufte (1978) who both find a strong relationship between the economy and the vote for president. This work on the economic determinants of aggregate vote choice has continued to the present with recent work including Dolan, Frensdreis, and Tatalovich (2008) and Fair (2009).

The influence of the economy on relatively recent presidential elections is well documented. However, while most scholars acknowledge the fundamental role of the economy

on modern presidential elections, we know considerably less about the influence of the economy on earlier presidential elections. A contributing factor to this gap in our knowledge is the confusion surrounding the definition of a “modern” presidential election. Scholars disagree about the onset of modern elections. Citing the substantial growth of the federal government and the enactment of legislation such as the Employment Act of 1946, the majority of the literature focuses on the effect of the economy only on modern presidents. Dolan, Frensdreis, and Tatalovich (2008) state, “passage of the Employment Act of 1946 marks the point at which economic stewardship—previously viewed as being best left outside the realm of government activity—was formally declared to be a primary responsibility of the federal government” (p. 12).

If we focus solely on the articles on the recent *PS* symposium (Campbell 2008), starting points for the analysis of modern presidential elections ranged included 1912, 1932, 1948, 1952, and 1972. While 1948 might be justified by reference to the Employment Act of 1946, the others dates are more difficult to explain in theoretical terms. The Federal Reserve Act was passed and the Sixteenth Amendment was ratified in 1913, suggesting 1912 is a relatively odd starting point. Presidency scholars often associate the early years of Franklin Roosevelt’s presidency with the beginning of what is referred to as the “modern” presidency, but if this is the temporal standard, then starting points prior to this time (1912 and 1932) are difficult to explain.

We argue that each of these starting points is theoretically arbitrary. Just as it is difficult to pinpoint the beginning of the modern presidency, so it is difficult to determine the date of the first modern presidential election. In his book, *The Modern Presidency*, Polsby characterizes this definitional uncertainty with surprising clarity:

When did the modern Presidency begin? By some standards with George Washington, who in his very person embodied the nation united. By others with Thomas Jefferson, who constructed and maneuvered the first presidential-

congressional alliance. Other Presidents have legitimate claims: Andrew Jackson, standard-bearer for the first mass party; Rutherford B. Hayes or Chester A. Arthur who neutralized the federal bureaucracies; or Grover Cleveland of Theodore Roosevelt, who consolidated the bureaucracies behind presidential priorities.

All these claims are just. It is certain that “modernization” is in no sense a monotonic unidirectional process. Each of the attributes I have named contributes to the modern Presidency, and the appearance of each therefore provides a legitimate point of departure for some purposes (1973: 7).

And what if economic circumstances have played an important role in presidential elections since the early days? What if the “legitimate point of departure” (Polsby 1973) for the economic dynamics of presidential elections is well before the Civil War? While a small number of scholars have studied the influence of the economy on presidential elections over the time period since the late nineteenth century, no one has studied the effect of the economy on presidents prior to 1872. However, there is evidence to suggest that the economy influenced even these early presidential elections. Distinct parties have contested presidential elections since 1828. If we are interested in the partisan impact of economic circumstances on presidential elections, 1828 is the earliest possible starting point. We examine the extent to which economic dynamics—widely-viewed as a distinctive aspect of later presidential elections (in some cases, a century or more later)—were actually present at the (partisan) beginning.

Our interest in the economic dynamics of presidential elections in the 19th century is not purely historical. In our willing—and largely unexamined—acceptance of the distinctiveness of the “modern presidency,” presidency scholars have failed to fully leverage the richness of the empirical record available to us. By allowing ourselves to arbitrarily limit our study to a select time period (after 1876 or 1912 or 1932 or 1936 or 1944), we have ignored the need to develop theories that account for the assumed changes that occur across these temporal boundary points. But change is endemic, and a better understanding of the presidency across time will provide a

better understanding of the current and future presidency. Coming to grips with the broader empirical record will, at the very least, force us to evaluate the assumptions we make about the distinctiveness of presidential eras.

Background on the Economy and Presidential Elections

The effect of the economy on modern presidential elections has been well established. As mentioned above, the work on forecasting presidential elections has exploded since the work of Kramer and Tufte in the 1970s (for examples see Abramowitz 1988, 2004, 2008; Campbell and Wink 1990; Fair 1978, 1982, 1988, 1996; Hibbs 1982; Lewis-Beck and Rice 1992; Holbrook 1996, 2001, 2004, 2008; Lewis-Beck and Tien 1996, 2001, 2004, 2008; Lockerbie 2004, 2008; Norpoth 1996, 2001, 2004, 2008; Wlezien and Erikson 1996, 2008; Bartels and Zaller 2001; Erikson and Wlezein 2008; Campbell 2004, 2008; Cuzan and Bundrick 2008). These models, using various aggregate political and economic variables, predict presidential election winners well in advance of Election Day. As Vavreck (2009) notes, “the striking thing about these forecasting models is that despite their differences they almost always generate the same predicted winner” (p. 36).

While forecasting presidential elections encompasses much of the study on the relationship between the economy and the president, the body of literature goes beyond just forecasting to examine more broadly the effect of the economy on the modern presidency. Lewis-Beck and Stegmaier (2007) take on the daunting task of reviewing over 100 studies of economic models of voting. Their review is comparative and, unlike much of the literature on the economy and the president, focuses mainly on micro-level survey research. Among the studies, they find overwhelming support for the influence of the economy on presidential vote choice. “Just as everyone wants peace abroad, they want prosperity at home. When

governments fail to deliver on that economic promise, citizens hold them accountable” (p. 532). Shapiro and Conforto (1980) also incorporate an individual-level variable in their study of the effect of the economy on the president. The question they use asks respondents whether their family is better or worse off financially than they were a year ago. This question is from the *Survey of Consumer Finances* and this study is one of the earliest to utilize this measure. Shapiro and Conforto do aggregate the responses so that they are able to include aggregate economic variables such as the unemployment rate, inflation, and per capita real disposable income. While Shapiro and Conforto use presidential approval rather than vote share, studying the period from 1947-1975, they find that fluctuations in inflation and unemployment significantly affect presidential approval.

Later work further explores the influence of the economy on presidential elections. In a parsimonious model, Erikson (1989) examines the effect of just the change in per capita real disposable income and aggregated candidate evaluations on presidential elections from 1948 through 1984. He finds that while both variables significantly impact the vote, the effect of income change is equal to, if not stronger, than the effect of candidate evaluations. “That the economy can match candidate evaluations in importance is an unexpectedly strong result” (p. 570). Alesina and Rosenthal (1995) utilize a more complex model to analyze the effect of the economy on presidential elections in their larger work on the intersection of partisanship, polarization, and split-ticket voting. They find that change in real GNP significantly influences presidential elections. Unlike the above works, their study begins at 1915 rather than after World War II.

Some of the most recent work on the effect of the economy on the president goes beyond a simple aggregate examination of the economy and presidential election outcomes. In their

study from 1949 to 2008, Dolan, Frensdreis, and Tatalovich (2009) examine how accurate individuals' perception of the economy is. Thus, their study demonstrates that not only do individuals' economic perceptions affect their vote choice, but also individuals' perception of the economy largely coincides with economic reality. Interestingly, this result holds for unemployment and the economy in general, but not for inflation. Vavreck (2009) also moves beyond an aggregate analysis of presidential elections and studies the relationship between economic voting and campaigns and candidate behavior from 1952 through 2008. She develops a typology of campaign behavior for clarifying candidates (candidates advantaged by the economy) and insurgent candidates (candidates not advantaged by the economy) and finds a strong connection between the economy and how presidential candidates campaign.

The Economy and the Early Presidency

As evidenced by the literature above, the economy plays a fundamental role on modern presidential elections. However, the influence of the economy on earlier presidential elections is less established. Vavreck (2009) even states, "the economy is the backdrop in front of which the great play of *modern* presidential campaigns is performed" (p. 166, emphasis added). A notable exception is the work of Lynch (1999, 2002). Lynch's work focuses on the effect of the economy on presidential elections starting with the late 19th century. Lynch (1999) examines presidential elections from 1872 to 1996. His study finds that changes in GNP and changes in inflation and deflation significantly affect presidential elections. In an in-depth examination of late 19th century elections, particularly the election of 1884, Lynch (2002) finds strong support for the role of the economy on campaigning and also election outcomes. Lynch (1999) asks, "Have political scientists underestimated the political impact of economic conditions on presidential elections in the late 19th and early 20th centuries?" (p. 829). Lynch's work clearly

demonstrates the influence of the economy on presidential elections even before the establishment of the modern presidency.

What about earlier presidential elections? There is evidence to suggest that the economy influenced these early presidential elections. From the very start of the fledgling United States, economic issues were front and center. Not only were they part of the impetus for the country's founding, but economic issues remained a centerpiece of the new nation. In *Federalist Paper No. 30*, Hamilton discusses why the new constitutional government must have the ability to tax stating the power to tax “must embrace a provision for the support of the national civil list; for the payment of national debts contracted, or that may be contracted; and, in general, for all those matters which will call for disbursements out of the national treasury” (p. 145). Less than 50 years later, Andrew Jackson, struggling with one of the prominent issues during his administration, the national bank, stated, “The bank Mr. Van Buren is trying to kill me, but I will kill it!” The prominence of these economic issues in government, such as taxation, the national bank, and others, seemed to bleed into the public sphere including presidential elections quite early.

Van Buren, Andrew Jackson's one-term Vice President whose administration directly followed the extremely popular presidency of Jackson, had to face the Panic of 1837 during his first term in office. The Panic which resulted in bank failure, food riots, and a five-year depression set the context for the 1840 presidential election. During Van Buren's bid for reelection in 1840, member of Congress, Charles Ogle (Whig-PA), in a now infamous speech against Van Buren, stated, “No Democrat with the interests of American workers at heart would purchase French comfortables, French bedsteads, and royal and imperial Wilton carpets at the hands of foreign artisans whilst our own cunning workmen almost perish for lack of bread”

(Gunderson 1956, p. 446). Voters primed by the depression and the Whig party's portrayal of Van Buren as a elitist out of touch with the American people, overwhelmingly voted in William Henry Harrison who received 234 electoral votes to Van Buren's 60.

The role of the economy on presidential elections is apparent even earlier in the work of Howe (2007):

Beyond the question of blame for the panic [of 1819] was the question, Where do we go from here? Some people argued that the most urgent priority must be economic recovery. They advocated restoration of business confidence, the reconstitution of the banking system, more tariff protection for producers, government-sponsored transportation projects, and renewed expansion of credit. Others, however, thought the most important issue was reform, moral as much as economic, to make sure no more panics occurred (146).

Howe finds that while the public did not hold the federal government responsible for the Panic of 1819, it "remains the only nationwide depression in American history when the voters did not turn against the administration in Washington" (p. 146-147).

Using this theoretical evidence as a starting point, this study seeks to examine the influence of the economy on presidential elections going back to 1828. The study begins with the election of 1828 because some of the earlier elections prove to be somewhat problematic. For example, the elections of 1800 and 1824 were decided by the House of Representatives, and prior to 1804 electors were unable to cast separate ballots for president and vice president, on occasion, leading to a president and vice president from different parties. This study also utilizes new economic data¹ which enable the study of presidential elections across a longer time period. Unlike the earlier work, this study includes an examination of potential outlier elections including the presidential election of 1864. Also, in this study, we provide a more complete

¹ Thanks to John Wallis for these economic data on federal expenditures and for suggesting www.measuringworth.com for the other economic data including real per capita GDP and inflation.

examination of the differences and similarities between the pre-modern and modern presidential time periods.

Data² and Methods

As discussed above, the presidential elections examined in this study are from 1828 to 2008. Unlike the vast majority of the work on the economy and presidential elections, this study uses the Electoral College vote rather than the popular vote. The dependant variable is the percentage of the two-party Electoral College vote received by the incumbent³. Following Fair (1996) two years are coded slightly differently. In 1912, the Electoral College votes for Taft and Theodore Roosevelt are combined. In 1924, 23 percent of Lafayette's votes are allocated to Coolidge and the rest to, John W. Davis, the Democratic nominee.

The analysis includes two main economic variables. The first is per capita real gross domestic product (GDP). It is expected that, all else equal, an increase in GDP will lead to an increase in the two-party Electoral College vote share received by the incumbent. This variable is measured as the percent change in GDP the year before the election to the year of the election. For example, the percent change in real per capita GDP for the 1828 presidential election is -1.66 percent which means that from 1827 to 1828 real per capita GDP declined by 1.66 percent. A more refined measure of economic growth such as the second quarter GDP (Abramowitz 2008), first half GNP (Lewis-Beck and Tien 2008), or change in GDP during the first three quarters of the election year (Fair 1996) would be preferable, but these sophisticated data are not available for the earlier election years included in our study.

² Full descriptions of the variables, sources, and descriptive statistics is in the appendix.

³ The incumbent is considered the literal incumbent president if one is running in the election or the party of the incumbent president if no actual incumbent is running.

The second economic variable included in the analysis is the inflation rate. Like GDP, the inflation rate is calculated as the percent change in inflation from the year before the election to the year of the election. We then square the inflation rate. Squaring the inflation rate allows the inflation term to read that any change in prices, whether positive or negative, affects the incumbent similarly. Furthermore, squaring the inflation rate increases the range for the inflation rate and distinguishes relatively small changes from larger changes in inflation. For example, the change in the inflation rate from 1879 to 1880 is 2.48 percent and becomes 6.15 percent when squared. The change in the inflation rate from 1835 to 1836 is a little over double that in 1880 at 5.62 percent, but becomes 31.58 percent when squared. The squaring of the inflation rate allows our variable to better capture how the public would perceive actual changes in inflation. It is expected that an increase in the inflation rate will lead to a decrease in the two-party Electoral College vote share received by the incumbent, all else equal.

A common theory in the literature on the modern presidency is that incumbents are held accountable for the economy because government has significant control over the economy. While this theory has come under questioning through the work of Lynch (1999, 2002), this study takes this theory into consideration by including a control for federal government expenditures as a percentage of the GDP.

Three other control variables are used in the analysis. The first is a measure of party performance which takes into consideration the incumbent party's performance in past elections since parties do not start from a blank slate at each election. This variable is measured "1" if the House of Representatives and the presidency are controlled by the same party at the time of the election and "0" otherwise. This is certainly a crude measure of party performance. Future iterations of this work will substitute the percentage of the midterm vote received by the

incumbent president's party in the most recent midterm election as is used by Lynch (1999).

These data are currently being collected so they were not available to use in the current analysis.

The next control variable is a measure of incumbency and whether the incumbent party has held the presidency for two or more terms. Lastly, a control variable is included for the election of 1864 to account for the Civil War and the unique circumstances surrounding this election.

To initially explore the data, scatter plots were created for GDP and the inflation rate and the incumbent two-party Electoral College vote share. The scatter plots are separated by time period.

[Figure 1 about here]

Figure 1 shows the incumbent two-party Electoral College vote share by GDP for 1828-1932.

While there is a lot of noise in the figure, there looks to be a slight trend where the vote share is higher for incumbents during election years with GDP growth. Figure 2 shows the same figure for elections from 1936 to 2008. The relationship between Electoral College vote share and GDP is much clearer in this plot. For the vast majority of presidential elections in the modern era, incumbents see an increase in their two-party Electoral College vote share as GDP increases.

[Figure 2 about here]

Figure 3 has the incumbent two-party Electoral College vote share by inflation rate for 1828-1932. The election of 1864 is not included in the plot because it is such a large outlier with a squared inflation rate of 632.02 percent. However, the rest of the elections are included in the scatter plot. Despite the exclusion of 1864, the figure is still difficult to read because of the presence of outliers skewing the plot. However, despite the noise, there appears to be at least a slight trend with elections occurring during higher rates of inflation leading to a lower vote share for the incumbent candidate.

[Figure 3 about here]

Figure 4 includes the incumbent two-party Electoral College vote share by inflation rate for 1936-2008.

[Figure 4 about here]

Similar to figure 3, figure 4 has a lot of noise in the plot. Unlike figure 3, the relationship between vote share and the inflation rate does not appear to be as strong as it is for presidential elections from 1828-1932. Also, noticeable in figure 4 is the lack of major fluctuations in the inflation rate across the elections. Compared to the pre-modern era, there is slightly less fluctuation in the inflation rate for the modern era of presidential elections.

To move beyond the bivariate scatter plots, a multivariate analysis was conducted using ordinary least squares regression. Three regressions were run using the data. The first utilizes the entire set of presidential elections from 1828 to 2008. The second model includes presidential elections from 1828 to 1932 while the third model includes presidential elections from 1936 to 2008 (Table 1).

Results

Mirroring much of the previous work on the effect of the economy on presidential elections, the first model includes the entire sample of presidential elections, except, as discussed above, our series extends back to 1828. In the full model, the percent change in real per capita GDP does not affect the two-party Electoral College vote share received by the incumbent candidate at statistically significant levels. The coefficient takes on the expected sign, but does not produce significant results. In contrast, the rate of inflation affects the vote share received by incumbents at statistically significant levels. For every one percent increase in the squared inflation rate, the two-party Electoral College vote share decreases by 0.23 percent for the

incumbent, all else equal. In regard to the control variables, federal government expenditures as a percentage of the GDP fails to reach statistical significance and the same with incumbency. However, party performance as measured by unified government does significantly affect the vote share received by incumbent presidential candidates. For incumbents of the same party as the House majority at the time of the election, the two-party Electoral College vote share increases by 15.71 percent for the incumbent, all else equal. The Civil War control variable also reaches statistical significance. Lincoln running in 1864 received 170.20 percent more of the vote share compared to incumbents running in election years not 1864, all else equal. Given the lack of participation by the South in the election, this result is not surprising.

[Table 1 about here]

Departing from much of the previous work on the economy and presidential elections, the next two models separate the presidential elections into two subsets with one set encompassing elections from 1828 – 1932 (the pre-modern era) and the other set encompassing elections from 1936 – 2008 (the modern era). Separating the models by era allows us to explore in more depth the possibility that the economy affected presidential elections differently in the pre-modern era than the modern era. The first noticeable difference in the separate models is that the explanatory power of each of the models increases substantially. The adjusted R^2 for model 2 is 0.576 so the model explains 57.6 percent of the variance in the Electoral College vote share of incumbents. For model 3, the adjusted R^2 is 0.658 meaning that the model explains 65.8 percent of the variance in the vote share of incumbents. These models provide much more explanatory power than the full model which only explains 30.9 percent of the variance in presidential incumbent vote share.

Another striking difference between the two models is that the economic variable that has a statistically significant effect on incumbent vote share is different. For presidential elections from 1828 – 1932, inflation significantly affects vote share with a one percent increase in inflation squared leading to a 0.28 percent decrease in the Electoral College vote share of the incumbent candidate. In the same model GDP does not have a significant effect on the electoral outcome. In contrast, for presidential elections from 1936 – 2008, the inflation rate does not significantly influence electoral outcomes, but GDP does with a one percent increase in real per capita GDP leading to a 5.66 percent increase in the Electoral College vote share of the incumbent candidate.

In regard to the control variables, federal government expenditures do not significantly affect election outcomes in either model. The Civil War continues to demonstrate a strong effect on incumbent vote share for the pre-modern presidential elections. Incumbency is significant, but only in the third model with candidates whose party has held the White House for two or more terms receiving 26.29 percent less of the Electoral College vote compared to candidates whose party has not commandeered the White House for two or more terms. This effect is not present for the earlier presidential elections and the coefficient is not even signed in the expected direction. Lastly, party performance is significant in both of the models although signed in the opposite direction. For presidential elections from 1828 to 1932, when the president and the House of Representatives are from the same party, the incumbent candidate receives an increase of 29.25 percent of the Electoral College vote share. For presidential elections from 1936 to 2008, when the president and the House are controlled by the same party, the incumbent candidate sees a decrease in the vote share of 18.69 percent. The conflicting results with the

party performance measure further emphasize the need to use a more refined measure than a unified House and White House.

Discussion and Conclusions

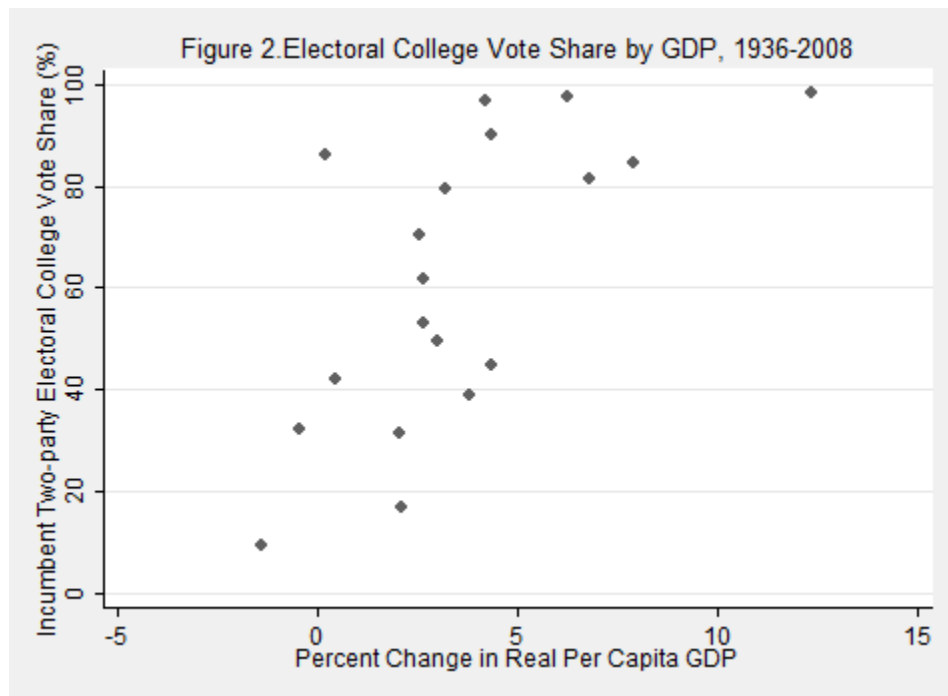
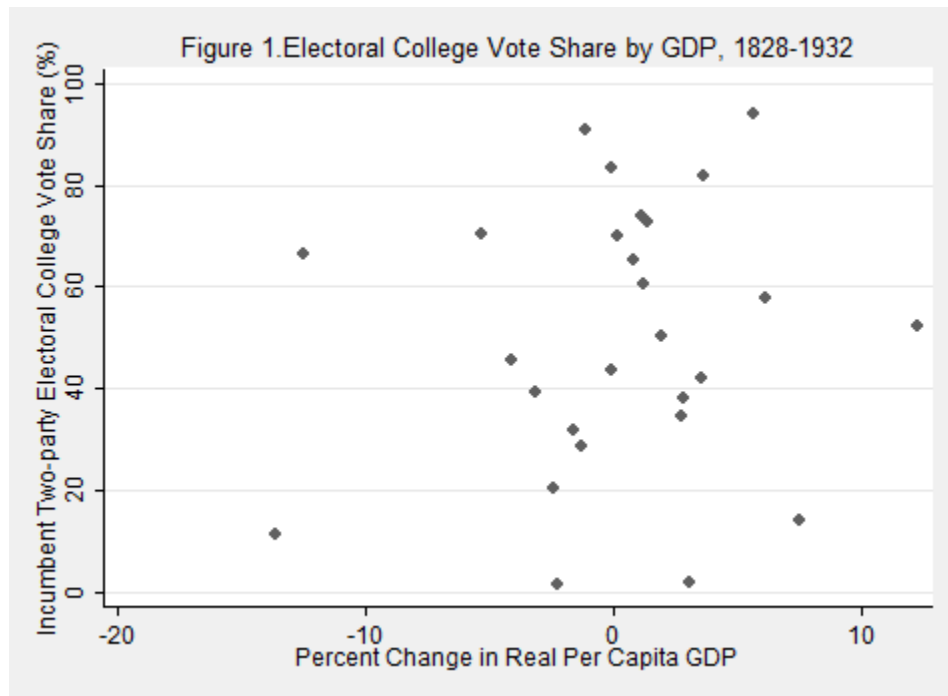
This analysis provides further evidence of the effect of the economy on presidential elections. Moreover, it provides new evidence that the economy played an important role in presidential elections even before the rise of the modern presidency and the expansion of federal authority over the economy. The most interesting finding in this exploratory analysis is that the economy appears to have distinct effects on presidential elections in different time periods.

Early presidential incumbents are affected more by the rate of inflation than GDP. While the effect appears to be small with a coefficient of 0.283, it is important to keep in mind that the average change in the rate of inflation squared is about 36 percent meaning that while a one percent increase in inflation squared may not change the vote share by much, a larger increase in inflation squared, such as 36 percent, has the potential to change the vote share by much more and potentially alter the outcome of the election. Modern presidential incumbents are not affected by inflation at all, but rather changes in GDP. A change of five percent in the Electoral College vote with every one percent increase in GDP is quite substantial considering it is 1/20 of the total possible Electoral College vote. These results fit well with preliminary analysis by Lynch (1999) who also found that inflation was a more powerful explanatory variable for elections in the late 19th and early 20th century and GDP was more powerful after 1946 and the enactment of the Employment Act.

As a potential explanation for the decline in the significance of price stability on presidential elections, we note that deflation—widely considered a more severe economic

calamity than inflation (excepting hyperinflation)—is quite common in the pre-World War II era (occurring on average every 20-25 years) and is almost entirely absent from the subsequent era. Thus, there is an economic rationale for the expectation that deviations from price stability should have far more significant electoral implications prior to 1936 than after. Similarly, the first six years of Franklin Roosevelt's administration witnessed a dramatic increase in the federal government's share of the American economy—a plausible reason for the increased significance of GDP growth on election returns.

Further work on the effect of the economy on presidential elections should include a more refined measure of party performance, as noted in detail above. Furthermore, it should explore other potential alterations to the model such as the use of more refined economic data through interpolation done by Balke and Gordon (1989) and a study restricting the model to actual incumbents as there is reason to believe that actual incumbents running are held more accountable for the economy than incumbents in party only. We are also very interested in developing a more effective means of estimating the changing economic dynamics of presidential elections. The temporal cut-point we use for this analysis can be justified in economic and political terms, but we are not convinced that a step-function change occurred. We hope to develop a modeling strategy that will allow us to evaluate the possibility of a more subtle evolution of the political economy of presidential elections. Finally, the results of this analysis suggest that further study of the influence of the economy across the full range of partisan presidential elections will provide important insights for our understanding of contemporary elections.



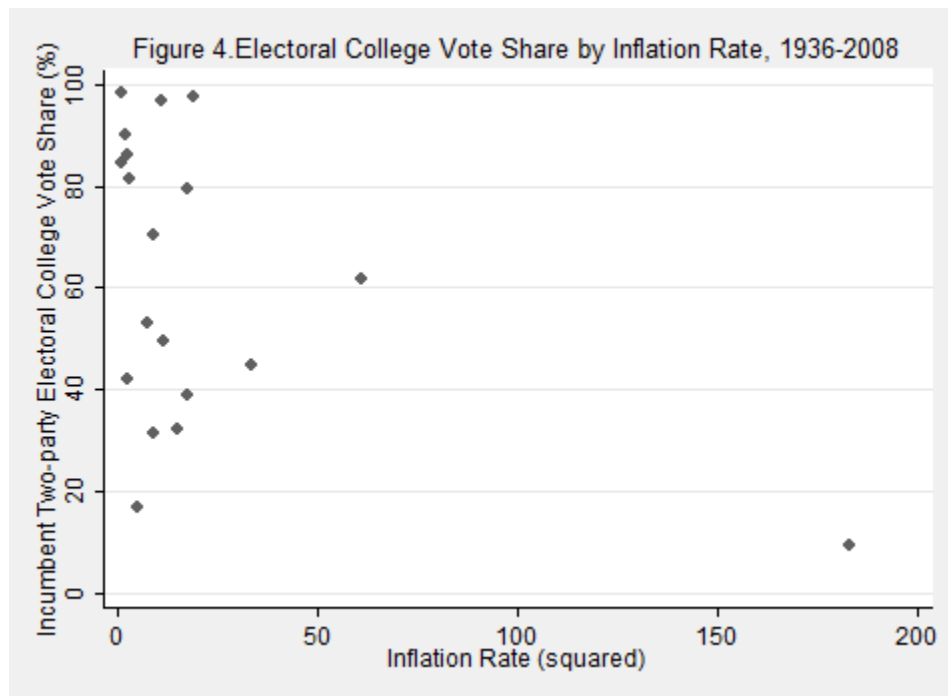
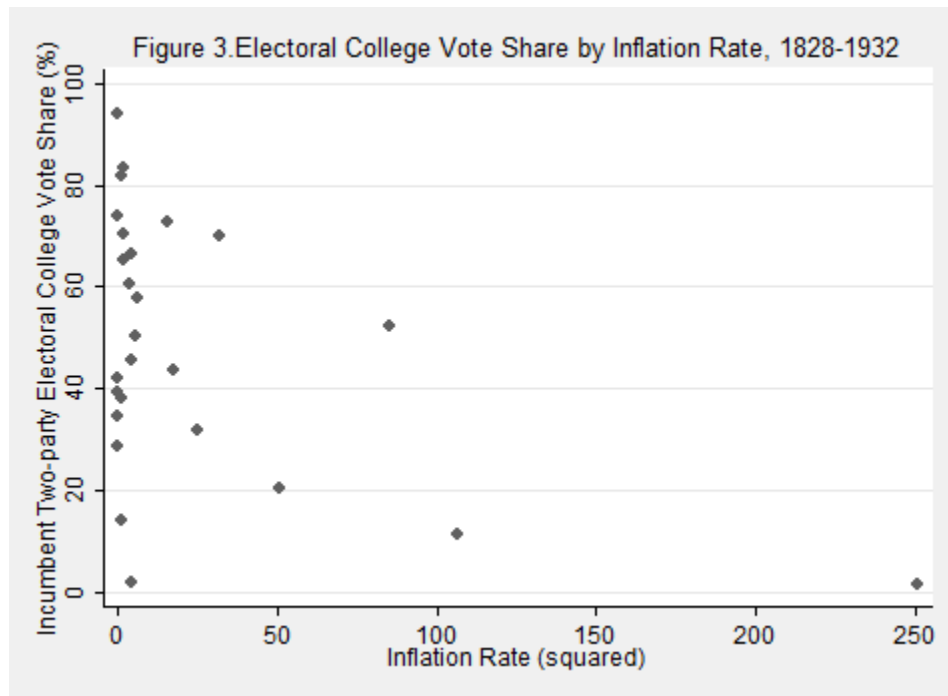


Table 1. Explaining Two-Party Electoral College Vote Share

	Electoral College Vote (1)	Electoral College Vote (2)	Electoral College Vote (3)
Real per capita GDP Growth	0.974 (0.765)	0.744 (0.715)	5.657** (1.517)
Inflation	-0.231** (0.074)	-0.283** (0.091)	-0.169 (0.111)
Federal Government Expenditures	0.499 (0.363)	5.013 (3.257)	0.422 (0.551)
Party Performance (Unified Government)	15.714** (6.971)	29.252** (7.068)	-18.686* (8.781)
Incumbency	-4.669 (7.036)	4.160 (7.183)	-26.287** (8.089)
Civil War	170.196** (50.481)	170.006** (48.268)	----
Constant	47.709** (6.623)	25.989** (8.785)	59.582** (14.109)
Adjusted R ²	.309	.576	.658
N	46	27	19

Notes: The coefficients presented above are OLS estimates with standard errors in parentheses.
*p<.05, **p<.01, two-tailed test of significance.

Table A.1. Variable Information

Variable	Description	Source
Electoral College vote	Two-party Electoral College vote share for the incumbent candidate	UCSB American Presidency Project
Real per capita GDP Growth	The percent change in real per capita GDP from the year before the election to the election year	Measuring Worth
Inflation	Inflation rate from the year before the election to the election year squared	Measuring Worth
Federal Government Expenditures	Federal Government Expenditures as a percentage of GDP	John C. Wallis, UCSB American Presidency Project, and Measuring Worth
Party Performance	Whether the president and the House of Representatives are controlled by the same party at the time of the election	Lynch 2002 (b)
Incumbency	Whether the incumbent party has controlled the presidency for two or more terms	N/A
Civil War	Whether the election year was the election of 1864	N/A

Table A.2.Values and Descriptive Data for All Variables

Election	Electoral College Vote	Real GDP Growth	Inflation	Fed. Govnt Expend.	Party Performance	Incumbency	Civil War
1828	31.80	-1.66	24.60	1.8	0	0	0
1832	81.72	3.64	0.90	1.5	1	0	0
1836	69.96	0.12	31.58	2.1	1	1	0
1840	20.41	-2.44	50.41	1.6	1	1	0
1844	38.18	2.83	1.25	1.3	0	0	0
1848	43.79	-0.05	17.14	1.9	0	0	0
1852	14.19	7.51	1.17	1.5	0	0	0
1856	60.42	1.2	3.65	1.7	0	0	0
1860	28.57	-1.33	0.00	1.5	0	0	0
1864	90.99	-1.13	632.02	9.1	1	0	1
1868	72.79	1.39	15.29	4.6	1	1	0
1872	94.08	5.65	0.00	3.4	1	1	0
1876	50.14	1.97	5.52	3.2	0	1	0
1880	57.99	6.14	6.15	2.6	0	1	0
1884	45.39	-4.1	4.24	2.1	0	1	0
1888	41.90	3.56	0.00	1.9	1	0	0
1892	34.36	2.72	0.00	2.1	0	0	0
1896	39.37	-3.19	0.00	2.3	0	0	0
1900	65.32	0.76	1.54	2.5	1	0	0
1904	70.59	-5.34	1.37	2.3	1	1	0
1908	66.46	-12.52	4.37	2.2	1	1	0
1912	1.81	3.07	4.24	1.8	0	1	0
1916	52.17	12.29	85.38	1.4	1	0	0
1920	1.51	-2.24	250.91	7.2	0	1	0
1924	73.82	1.13	0.03	3.3	1	0	0
1928	83.62	-0.09	1.90	3.0	1	1	0
1932	11.11	-13.62	106.30	7.9	0	0	0
1936	98.49	12.33	0.90	10.0	1	0	0
1940	84.56	7.87	1.02	9.9	1	1	0
1944	81.36	6.78	2.99	45.7	1	1	0
1948	61.59	2.61	60.68	13.2	0	1	0
1952	16.76	2.07	4.80	20.0	1	1	0
1956	86.23	0.19	2.22	17.4	0	0	0
1960	41.95	0.42	2.50	18.5	0	1	0
1964	90.33	4.34	1.80	19.0	1	0	0
1968	38.82	3.8	17.56	20.3	1	1	0
1972	96.83	4.19	10.96	19.6	0	0	0
1976	44.69	4.35	33.18	21.4	0	1	0

Table A.2.Values and Descriptive Data for All Variables, continued

Election	Electoral College Vote	Real GDP Growth	Inflation	Fed. Govnt Expend.	Party Performance	Incumbency	Civil War
1980	9.11	-1.42	182.79	22.1	1	0	0
1984	97.58	6.25	18.66	23.6	0	0	0
1988	79.33	3.17	17.14	23.8	0	1	0
1992	31.23	2.03	9.06	22.1	0	1	0
1996	70.45	2.54	8.70	20.3	0	0	0
2000	49.53	3	11.29	18.4	0	1	0
2004	53.26	2.65	7.08	19.9	1	0	0
2008	32.16	-0.48	14.75	20.5	0	1	0
Mean	54.49	1.59	36.04	10.08	0.46	0.50	0.02
Std. Dev.	27.57	4.84	101.75	9.94	0.50	0.50	0.15

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