ABSTRACT

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Most studies in the presidential elections literature include only a narrow subset of more recent presidential elections. This exclusion is particularly evident in work examining the relationship between economic issues and the vote for president where early presidential elections are routinely excluded. This exclusion is often done without much justification or by leaning on the poorly defined concept of the modern presidency either explicitly or implicitly by the sample used. However, there is evidence to suggest that the influence of the economy on the vote for president occurred much earlier than well into the 20th century. Diverging from most of the existing literature, this study examines the relationship between the economy and presidential elections from 1789 to 2008. The findings of this analysis are two-fold. First, the relationship between the economy and presidential elections is an enduring one. The impact of the economy on the vote for president has been present in varying degrees for almost every presidential election held in the U.S. The role of economic

issues in the vote for president is not limited to just more recent presidential elections. The second conclusion is that the relationship between the economy and presidential elections is changing over time. Even though economic issues have influenced presidential elections since the founding, the U.S. today is very different from the U.S.in the nineteenth and twentieth centuries. The political, economic, and social landscape of the United States has changed substantially over time. This work finds that the relationship between the economy and presidential elections is evolving in that the economic issues that influenced presidential elections in early U.S. history are different from the economic issues that have affected more recent presidential elections.

THE TRANSFORMATION OF THE ROLE OF THE ECONOMY IN U.S. PRESIDENTIAL ELECTIONS OVER TIME

By

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Dedication

To Jim

Acknowledgements

It was seven years ago when I started graduate school in a program far from Washington, D.C. At the time, my intended course of study was International Relations and Comparative Politics. I can recall one night during my first semester sitting in my room doing work with CSPAN pulled up on my computer. The House was debating the future of American troops in Iraq. The debate on CSPAN quickly pulled my attention completely away from my studies as I watched Representative Jean Schmidt in her now infamous statement attack Representative John Murtha. From there the debate quickly devolved. While the debate went downhill, I realized that my interest in American Politics was growing. Soon after, I decided to change my focus to American Politics and ended up transferring to the University of Maryland. While I was initially unsure about my choice to transfer, my decision to attend Maryland turned out to be the best decision I made.

This dissertation would not have been possible without the help of many individuals. I owe many thanks in general to the faculty of the Government and Politics Department at Maryland. They continually pushed me to do my best, and provided an extremely supportive environment in which to develop as a scholar. I also want to thank Ann Marie Clark and Cissy Roberts. Their assistance with the many required administrative tasks was invaluable and they both made navigating through the bureaucratic aspects of graduate school much easier. My path to graduation would have been much more difficult if it were not for the hard work of these two women.

Over the course of this dissertation, I was fortunate to receive valuable feedback from scholars not directly connected to the project including Lara Brown, Stephen Weatherford, and John Woolley. Also, part of this project was presented at the American Politics Workshop at Maryland where Irwin and I received excellent feedback that helped me refine many aspects of this dissertation.

Many thanks are owed to Ozan Kalkan and Patrick Wohlfarth for their invaluable assistance on the methods. Both Ozan and Patrick were extremely patient and willing to engage in lengthy conversations with me via email and in person about this project to my benefit.

Much of the work on my dissertation coincided with my work as a research assistant at the Federal Judicial Center (FJC). It would have been impossible for my time there to not impact my dissertation. In particular, I want to thank Emery Lee. Most of my time at the FJC was spent assisting Emery on projects. Working with Emery has had an indelible impact on me as a scholar. His advice and guidance were invaluable and I am a much better researcher today because of him.

I am indebted to my dissertation committee, Irwin Morris, Frances Lee, Ric Uslaner, David Karol, and John Wallis. Each provided valuable advice and feedback throughout the dissertation process. In particular, Irwin, my dissertation advisor, deserves special thanks. I was fortunate enough to work as Irwin's research assistant for two years during my tenure at Maryland. Working with Irwin sparked my interest in the presidency and directly led to this project. Irwin provided much needed focus to the project and deserves much of the credit for gently pushing me to finish.

I owe many thanks to my family, particularly my parents, Jim and Donna Gloekler. Even though they were unfamiliar with the graduate school process, they provided nothing, but loving support along the way.

No acknowledgement would be complete without thanking my biggest support through this process, my husband Jim. It is really impossible for me to recount all the ways in which he helped me finish this project. There were the countless hours of conversations about it, countless reading and re-reading of drafts, and the sacrificing of his own time so that I could focus on this project. During this process, we were blessed with our beautiful daughter, Louise, who always provided a much needed distraction. They both provided unconditional love and support and I could not have completed this dissertation without them.

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Any observer of presidential elections in recent history would be hard pressed to find a presidential election that, to a significant degree, did not involve economic issues. As a case in point, articles in *The New York Times*, *The Wall Street Journal*, and *The Washington Post* from just one week during the summer of 2012 include the headlines above, all of which are focused on the 2012 presidential election and the economy. The influence of the economy on presidential elections has been well documented in the scholarly literature. However, while most scholars acknowledge the fundamental role of the economy in more recent presidential elections, studies on the influence of the economy in earlier presidential elections are largely absent.

Almost all of the literature on the effect of the economy on presidential electoral outcomes excludes presidential elections from the nineteenth century (and

usually some elections from the twentieth century). This exclusion of presidential elections is often done without any clear reasoning behind the selection. In other words, scholars clearly denote which presidential elections are included in their sample, but typically neglect to explain why that particular set of elections has been chosen. In these instances, scholars most often start their sample with a presidential election in the 1930s or 1940s thereby implicitly limiting their studies to what many define as the modern presidency. However, when the selection of elections to study is not theoretically bound, it limits our general understanding of the role of the economy in presidential elections.

In the literature, this neglect of early presidential elections is so severe that no scholars have systematically studied the effect of the economy on presidential elections prior to 1872. However, there is evidence to indicate that the economy influenced even early presidential elections. As Smith (2005) notes, "certain issues have confronted most presidents over history; tax and tariff policy, for example was important for both George Washington and Bill Clinton, and for most presidents in between" (x). Thus, breaking from the existing literature, this work argues that the relationship between the economy and presidential elections has been an enduring one. The role of the economy in presidential elections is not a new phenomenon. Expanding the time period under study will allow for a broader understanding of the influence of the economy on presidential electoral outcomes.

This work also diverges from most of the existing literature in that it views the relationship between the economy and presidential elections as changing over time. The political, economic, and social landscape of the United States has changed

substantially from its founding to today. Thus, this work also argues that the relationship between the economy and presidential elections is an evolving one. To put it simply, the economic issues that influenced presidential elections in early U.S. history are different from the economic issues that have affected more recent presidential elections. Exploring the continuous, yet evolving relationship between the economy and presidential elections ultimately provides us with a more comprehensive understanding of the relationship between the two which may potentially lead to new insights on the role of the economy in future presidential elections.

Foundational Literature on the Economy and Presidential Elections

The literature on the economic dynamics of aggregate vote choice for the president is decades-old and extensive. Spurred by the theoretical work of Downs (1957) and Key (1966), research on this relationship burgeoned in the 1970s. From the earliest days of this literature, a strong relationship between the economy and electoral outcomes was evident.[1] Early studies on the effect of the economy on elections include Kramer (1971) and Stigler (1973). Kramer studies congressional elections from 1896 – 1964 and finds a strong relationship between changes in per capita real income and congressional electoral outcomes. Stigler studies a similar time period, but does not find a strong influence of the economy on congressional elections. While these early studies focus on congressional elections rather than presidential elections, they form the foundation for later work on the effect of the economy on presidential elections. Soon after Kramer and Stigler, Tufte (1978) and

[1] Dolan, Frendreis, and Tatalovich (2008) provide a description of this literature.

Fair (1978) examine the influence of the economy on presidential elections. Tufte studies the period from 1948 – 1976 and finds a strong relationship between the economy and the vote for president. Fair, aiming to test the theories of Downs (1957), Kramer (1971), and Stigler (1973), studies presidential elections from 1916 – 1976 and finds that changes in real per capita gross national product (GNP) and the rate of unemployment significantly influence presidential elections with GNP slightly outperforming unemployment.

Election Forecasting Literature

This early work on the economy and its influence on elections inspired two similar yet somewhat distinct veins of scholarship: election forecasting and economic voting. Election forecasting is the use of models tested by past elections to predict upcoming elections. One of the earliest works predicting presidential elections is by Fair (1982). Since the 1980s, the literature forecasting presidential elections has increased exponentially (for just some examples see Hibbs 1982; Abramowitz 1988, 2004, 2008; Fair 1988, 1996; Campbell and Wink 1990; Lewis-Beck and Rice 1992; Holbrook 1996, 2001, 2004, 2008; Lewis-Beck and Tien 1996, 2001, 2004, 2008; Norpoth 1996, 2001, 2004, 2008; Wlezien and Erikson 1996, 2004; Campbell 2004, 2008; Lockerbie 2004, 2008; Cuzan and Bundrick 2008; Erikson and Wlezien 2008).

The importance of the economy to presidential elections is highlighted by the fact that all of the models designed to forecast presidential elections incorporate at least one aggregate economic indicator or aggregate public evaluation of economic circumstances. While the economic measure used varies from changes in gross

domestic product (GDP) to a cumulative index of economic indicators to satisfaction with personal finances (e.g. "are you better off today than you were a year ago?"), etc., the message is clear that the economy matters to presidential electoral outcomes. What is most remarkable about the election forecasting models is that "despite their differences they almost always generate the same predicted winner" (Vavreck, 2009, 36). Forecasting for the presidential election of 2008 was no exception with all but one model in the October *PS: Political Science and Politics* election symposium correctly predicting the winner of the popular vote. Furthermore, excluding the incorrect model, the vote shares predicted by most of the models were within two percentage points of the actual popular vote share received by Obama and the average prediction was exactly, to the tenth of a percentage point, Obama's margin. The literature on election forecasting is certainly extensive. However, this project is not focused on forecasting future presidential elections, but rather is more firmly rooted in the economic voting literature.

Individual-Level Economic Voting Literature

Similar to the election forecasting literature in that its focus is on the effect of the economy on presidential elections, the economic voting literature differs from the forecasting literature in two key ways. First, studies of economic voting generally are not concerned with predicting future elections. These studies are more concerned with examining the influence of the economy on past voting. As Erikson (1989) states in his study on economic voting, "the major purpose of the statistical model is to advance the theory of election outcomes rather than to make predictions" (570). The

second difference is that the majority of these studies examine economic voting at an individual level. Economic voting studies are predominantly concerned with researching how economic factors influence the vote decisions of individuals whereas research involving election forecasting is focused on using aggregate data on the economy, and other factors, to predict the outcome of a future election. For some examples of the economic voting literature see Kinder and Kiewet 1979, 1981; Sears, Lau, Tyler, and Allen 1980; Fiorina 1981; Kiewet 1983; Lewis-Beck 1985; Markus 1988; MacKuen, Erikson, and Stimson 1992; Clarke and Stewart 1994; Erikson, MacKuen, and Stimson 2000; Gomez and Wilson 2001; Duch and Stevenson 2004.

Aggregate-Level Economic Voting Literature

While it would be ideal to study the impact of the economy on presidential elections at an individual level throughout history, it is not possible because of the lack of individual-level data for early presidential elections. Thus, this study relies on aggregate data to study the impact of the economy on presidential electoral outcomes. As mentioned above, while the vast majority of economic voting studies utilize individual-level data, a few economic voting studies employ aggregate-level data in their assessment of the role of the economy in presidential elections.

Shapiro and Conforto (1980) provide one of the earlier examinations of the president and the economy at an aggregate level. They incorporate an individual-level variable in their study which 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 aggregate the responses so that they are able to include aggregate economic variables in their model such as the unemployment rate, inflation, and per capita real disposable income (RDI). 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.

Another early study is by Erikson (1989) who, in his parsimonious model, examines the effect of 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. He writes "that the economy can match candidate evaluations in importance is an unexpectedly strong result" (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. Studying elections from 1915 through 1988, they find that change in real GNP significantly influences presidential elections. They further note that "the response of presidential vote to recent economic performance is clearly highly robust to model specification" (236).

Lynch (1999) also examines the role of the economy in presidential elections. Unlike the studies discussed above, his work focuses on the effect of the economy on presidential elections starting with elections in the late 19th century. Examining

presidential elections from 1872 to 1996, he finds that changes in GNP and in inflation and deflation significantly affect the vote for president.

Unlike the above studies, Cuzan and Bundrick (1996) focus on the influence of fiscal policy rather than the state of the economy on presidential elections. Studying presidential elections from 1880 through 1992, their findings suggest that fiscal policy affects presidential electoral outcomes independent of the state of the economy. They measure the state of the economy using the rate of growth and inflation. In their model, economic growth and inflation do not reach statistical significance. Thus, they make a claim for the inclusion of fiscal policy in studies of the economy and presidential elections.

The aggregate-level economic voting literature provides compelling evidence that on a macro level the economy significantly influences presidential electoral outcomes. However, as demonstrated by the number of studies discussed directly above, this literature is far from extensive. Furthermore, the conclusions we can draw from it about the relationship between the economy and presidential elections are limited because each study only examines a relatively small subset of more recent presidential elections.

Overview of the Study

This study analyzes presidential elections from the founding of the U.S. to 2008 in terms of how economic issues affected electoral outcomes. In particular, this work establishes that the economy has had an enduring effect in presidential elections, but also its role has evolved over time.

Chapter two is the first of two chapters that examines the enduring effect of the economy in presidential elections. In this chapter, the impact of the economy on the vote for president is analyzed for presidential elections from 1828 to 2008. Support is found for an enduring relationship between the economy and presidential elections. However, the pre-1828 elections are not suitable to include in the quantitative analysis so they are the focus of the next chapter.

Chapter three is the second chapter that takes up the question of whether the influence of the economy in presidential elections has been continuous across U.S. history. In this chapter, presidential elections from 1789 to 1828 are examined. Due to the idiosyncratic nature of many of the pre-1828 elections, they are excluded from the quantitative analysis in the previous chapter. Thus, chapter three engages in a historical analysis of the influence of the economy in these early elections and finds that economic issues were just as important historically as they are today. Together chapters two and three establish that the relationship between the economy and presidential elections is enduring. These analyses are original in that no other study on the economy and presidential elections examines presidential elections prior to 1872 and the studies that include elections even prior to 1930 are few and far between.

Even though the effect of the economy in elections has been continuous over time, it has not remained static. Thus, chapter four analyzes the evolving nature of the relationship between the economy and presidential elections. The relationship between the economy and the vote for president is dynamic in that the economic issues that influenced presidential elections in early U.S. history are different from the

economic issues that have affected more recent presidential elections. This chapter utilizes change point models to determine when these changes in the relationship between the economy and presidential elections occurred. The results suggest that the early 1920s serve as the turning point over which this change took place. It is in the early 1920s in the United States that the relationship between the economy and presidential elections changed with a decreased role for inflation and deflation and a more prominent role for economic growth in the vote for president.

Chapter five uses the change points established in the previous chapter to test the changing effect of the economy on presidential elections over time controlling for other factors. Specifically, this chapter explains why a shift in the relationship between the economy and presidential elections occurred in the early 1920s. It establishes the various internal and external forces that led to a fundamental change in the U.S. economy, the federal government's role in it, and the public's perception of itself and consequently the economy. The chapter then provides empirical evidence that price instability was more influential (compared to GDP) in presidential elections prior to the 1920s and GDP was more influential thereafter. This chapter demonstrates that the relationship between the economy and presidential elections has evolved over time and that a major shift between the two occurred in the early 1920s.

Chapter six summarizes the findings of the study. The work makes a strong case for a relationship between the economy and presidential elections in the U.S. that is enduring, but also evolving over time. Based on these findings, it is clear that future studies on the economy and the vote for president may benefit from taking a broader view of presidential elections rather than restricting the cases to only more recent

elections. Taking into account early presidential elections only serves to enhance our understanding of the dynamic role the economy plays in presidential elections.

Chapter 2: The Enduring Relationship between the Economy and Presidential Elections: Presidential Elections from 1828 – 2008

"[Real working people] live a great deal better than they did twenty-four years ago, in more comfortable homes and with more healthy and wholesome food."[2]

"Next Tuesday all of you will go to the polls, you'll stand there in the polling place and make a decision. I think when you make that decision, it might be well if you would ask yourself, are you better off than you were four years ago?"[3]

While the above quotations, both articulated during presidential campaigning, express strikingly similar sentiments, it is interesting to note that these statements were delivered nearly 100 years apart. The first, lesser-known statement was written in an 1884 editorial in the Republican newspaper the *New York Daily Tribune* hoping to boost support for James G. Blaine among voters in the upcoming election. The second, now infamous statement was asked by former President Ronald Reagan during a 1980 presidential debate.

The influence of the economy on presidential elections has been well documented, as discussed in detail in the previous chapter. However, while most scholars acknowledge the fundamental role of the economy in more recent presidential elections, the influence of the economy in earlier presidential elections is understudied. Citing the substantial growth of the federal government and the enactment of legislation such as the Employment Act of 1946, the majority of the

[2] "How Labor Fares," *New York Daily Tribune*, September 10, 1884, 4.
[3] Woolley, John T. and Gerhard Peters. "Presidential Debate in Cleveland, 10/28/1980," *The American Presidency Project* [online]. Santa Barbara, CA. Accessed 7/29/2010. < http://www.presidency.ucsb.edu/ws/?pid=29408>.

literature focuses on the effect of the economy only on more recent presidential elections. Dolan, Frendreis, 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" (12). While some scholars study the influence of the economy on presidential elections starting in 1913 (the year of the creation of the Federal Reserve System) or even the late nineteenth century, no scholars have systematically studied the effect of the economy on presidential elections prior to 1872. However, as the above quotation suggests and more substantive evidence indicates, the economy influenced even early presidential elections.

As discussed in the first chapter, this work argues three primary, but interrelated points. Chapter two takes up the first point which is that economics have always played a role in presidential elections in the United States. There is a dearth of research on the role of the economy in early presidential elections. This chapter establishes that the relationship between the economy and presidential elections has been an enduring one. The relationship is continuous in that the economy has played a role in presidential elections across time; its influence has not been limited to just recent presidential elections. While the quantitative evidence that the economy has affected electoral outcomes in early presidential elections is limited, there is a substantial amount of qualitative evidence to suggest a role for the economy in early presidential elections. Thus, by expanding the sample of elections included in the

analysis, this chapter systematically tests the claim that the relationship between the economy and presidential elections has been an enduring one.

Restricting the study of presidential elections to only more recent elections has limited our understanding of the role of the economy in presidential elections today and what we can expect the relationship between the two to be going forward. Exploring the enduring relationship between the economy and presidential elections provides us with a more comprehensive understanding of the role the economy plays in the vote for president which may lead to new insights on the role of the economy in future presidential elections.

A Narrow Subset of Presidential Elections is Used in Most Studies

As indicated by the research discussed in chapter one and above, early presidential elections are largely excluded from the literature on the economy and the vote for president. The exclusion of early elections is evident in that a narrow subset of presidential elections is used in most studies. In the literature on the economy and presidential elections, the study whose sample contains the earliest presidential election is Lynch (1999) whose analysis begins with the election of 1872. While his sample starting with presidential elections in 1872 is more inclusive than the rest of the literature, it still neglects all of the preceding contests which total to 21 presidential elections. Considering the 2008 election marked only the 56th presidential election held in the U.S., overlooking 21 presidential elections is not trivial.

This disregard for earlier presidential elections is standard practice in the literature on the economy and presidential elections. To illustrate, Table 2.1 lists a

Table 2.1: Time period starting points for aggregate-level economic voting literature and articles in the October 2008 election symposium in *PS: Political Science and Politics*

Study	Time Period Starting Point
Lynch 1999	1872
Cuzan and Bundrick 1996	1880
Cuzan and Bundrick 2008	1880
Norpoth 2008	1912
Alesina and Rosenthal 1995	1915
Fair 1978	1916
Shapiro and Conforto 1980	1947
Abramowitz 2008	1948
Campbell 2008	1948
Klarner 2008	1948
Erikson 1989	1948
Holbrook 2008	1952
Lewis-Beck and Tien 2008	1952
Erikson and Wlezien 2008	1952
Lockerbie 2008	1956

selection of works including aggregate-level economic voting studies and the forecasting literature from the 2008 presidential election and the starting point for the sample used in each study. As noted above, the earliest presidential election included in any of these studies is 1872 (Lynch 1999). Cuzan and Bundrick (1996, 2008) also start with presidential elections in the late nineteenth century and a couple of the other studies utilize presidential elections starting in the early twentieth century. However, in the table, and in the broader literature, the vast majority of studies use presidential elections starting in the late 1940s and early to mid-1950s. The latest time point used as the start of the sample of presidential elections included in the study is 1956 (Lockerbie 2008). In a study whose sample starts with the election of 1956 and ends with the election of 2008, the sample includes only 14 presidential elections. In other words, the previous 42 presidential elections are excluded from the analysis. Prima

facie, the table illustrates that early electoral contests are routinely excluded in the literature on the economy and presidential elections.

This discussion does not mean that every study about presidential elections must include every single presidential election. It is noted that even this project is unable to do so in the quantitative analysis for reasons that will be discussed in detail later in the chapter. However, it does invite presidential scholars to select their samples more purposefully. Unfortunately, most studies either neglect to provide a compelling reason for using the sample of presidential elections they are using or, if a reason is given, it is often not theoretically compelling. There are a few exceptions though. Of the studies listed in Table 2.1, only Alesina and Rosenthal (1995), Norpoth (2008), Shapiro and Conforto (1980), and Fair (1978) explicitly explain why they have selected their particular sample of presidential elections. The most detailed explanation is given by Alesina and Rosenthal whose study starts with the time point 1915. They use this year as their starting point because of complications due to Theodore Roosevelt's Bull Moose campaign in 1912 and also because of two important economic considerations.

> The first is that 1914 marks the beginning of a new financial and macroeconomic regime with the creation of the Federal Reserve System; Mankiw, Miron, and Weil (1990) provide convincing evidence that 1914 demarcates an important policy regime shift. The second argument is that the reliability of economic data before this date becomes much more questionable (see Romer (1989) and Balke and Gordon (1989)). (212)

Norpoth's starting point of 1912 is also logical because 1912 is the first year of presidential primaries and his election forecasting model is rooted in primary performance.

Shapiro and Conforto's (1980) reason for starting with 1947 is the availability of survey data and that "these years best reflect the public's awareness of the national economy. The tremendous growth of mass media, with unemployment rates and consumer prices widely reported, has made it easier for people to obtain information about the economy" (51). It is important to keep in mind though that their study deals with presidential approval and not electoral outcomes because presidential approval data for early presidential elections is nonexistent. Fair (1978) cites a more pragmatic reason for including presidential elections from 1916 onward which is that his equation does not fit earlier presidential elections well. "In particular, the elections of 1892, 1904, and 1908 are not explained well" (170). While this reason may be statistically appealing, it is somewhat lacking theoretically.

In regard to the rest of the studies from the table, Abramowitz (2008) and Erikson and Wlezien (2008) imply why their respective samples are limited, but the rest of the studies do not discuss why they use the samples they use. Abramowitz discusses how prior to 1948 there is no presidential approval data and no quarterly GDP data which are two key measures in his forecasting model. Erikson and Wlezien detail how their economic measure, which is an index of leading economic indicators, is only available starting in the late 1940s. Lynch (1999) provides an explanation for why his study includes presidential elections starting in 1872, but he does not explain why he excludes even earlier presidential elections. The rest of the studies (Campbell 2008, Cuzan and Bundrick 1996, 2008, Erikson 1989, Holbrook 2008, Klarner 2008, Lewis-Beck and Tien 2008, and Lockerbie 2008) provide no specific explanation for the sample of elections that they use.

The sheer number of studies of presidential elections that neglect to specifically explain why a particular sample was chosen highlights the fact that the exclusion of earlier presidential elections is often done without much thought. It is also interesting to note that almost all of the studies in the table that do not provide an explanation for their sample analyze presidential elections starting with the elections of 1948 and 1952. The heavy reliance of many studies on using samples starting with these presidential election years (or presidential elections around this time period) demonstrates that one convenient device for selecting a set of presidential elections without much thought is to default to a set of elections often defined as modern presidential elections. However, as we will see below this selection criterion can be problematic.

The Traditional/Modern Presidency Divide

According to Nichols (1994), the most cited work on the subject of the modern presidency[4] is Greenstein (1978). Greenstein identifies Franklin Roosevelt's administration as the start of the modern presidency. Under his administration "the presidency began to undergo not a shift, but rather a metamorphosis" (45). He goes on to describe four specific areas in which the presidency is systematically different from the preceding presidencies starting with Franklin Roosevelt's administration. This definition of the modern presidency is also described in Greenstein, Berman, and Felzenberg (1977). In this work Greenstein et al. state that the presidents before

[4]The focus of this project is on presidential elections. While this section focuses on the term modern presidency, it should be noted that modern presidential elections can be taken to mean presidential elections that occur during the period considered the modern presidency.

Franklin Roosevelt could decide how active they wanted to be in office, "but from the 1930s onward, as has often been noted, Presidents have had to be leaders whether they chose to be or not" (iii).

A quick examination of the presidency literature reveals the extensive use of the modern presidency concept with studies typically settling on Franklin Roosevelt as the start of the modern presidency. In his work on the presidency, Polsby (1973) discusses the concept of the modern presidency and concludes that for the purpose of his project Roosevelt is the start of the modern presidency. McConnell (1976) also considers Roosevelt as the start of the modern presidency. He states that "the modern model of a strong president has been Franklin D. Roosevelt. Few presidents have been so denounced for the vigorous exercise of presidential power as he" (15). McConnell further notes that all of Roosevelt's successors have been influenced by him. Shaw (1987) contemplates the concept of the modern presidency and also concludes that Roosevelt is the first modern president. He discusses how Franklin Roosevelt strengthened the presidency overall and it remains that way into the present.

Pfiffner (2008) also agrees that Roosevelt marked the beginning of the modern presidency. His sentiment mirrors that of Greenstein when he states that "the metamorphosis began with the presidency of Franklin Roosevelt and his presiding over major historical developments in the United States and the rest of the world through four elections" (2). A notable exception is Tulis (1987) who finds that the modern presidency in terms of rhetorical leadership begins with Theodore Roosevelt

or Woodrow Wilson. However, most of the presidency literature that references the modern presidency uses Franklin Roosevelt as the start of the modern presidency.

While the above work on the presidency explicitly defines and/or focuses on the concept of the modern presidency, even more widespread in the presidency (and presidential election) literature is the implicit use of the modern presidency concept. This use is most often observed in the time periods scholars select for their studies. In other words, studies whose sample of presidents or presidential elections center around the 1930s, 1940s, or even early 1950s ostensibly have implicitly accepted the modern presidency concept as the limiting factor in drawing their sample (unless, of course, they give another reason for their selection). Table 2.1 provides several examples including Campbell (2008), Erikson (1989), Holbrook (2008), Klarner (2008), Lewis-Beck and Tien (2008), and Lockerbie (2008). It is, of course, perfectly acceptable to focus a study on more recent presidential elections if the selection is meaningful to the goal of the research. As discussed above, Alesina and Rosenthal (1995) and Norpoth (2008) are good examples of studies where the sample of presidential elections is selected purposefully. However, one issue with the modern presidency concept is that it is often the case that studies limit their analyses to the modern presidents without any explanation or out of convenience rather than for theoretically sound reasons.

Another issue with the concept of the modern presidency is that there is not one accepted definition of it. The concept of the modern presidency "has been accepted largely on faith" (Nichols 1994, 2). Nichols states that "while many works use the term, few bother to provide a precise definition or an account of its origins"

(2). Narrowly focusing on the subset of presidents (or presidential elections) deemed modern without compelling theoretical or methodological (e.g. limited availability of particular variables) reasons may severely limit what conclusions can be drawn about the presidency. One example of how presidential studies restricted to the modern era can limit our understanding of the presidency is seen in the presidential rhetoric literature. Unlike most of the studies on presidential rhetoric, Teten (2007) examines all of the presidents and finds that many presidents considered traditional displayed modern tendencies in their rhetoric. Thus, he calls for studies of presidential rhetoric to reevaluate limiting themselves to the modern presidents. Teten (2008) states,

> The modern/traditional divide is overly simplistic and can be severely detrimental to the study and close examination of many of the presidents of the past and the changes and customizations that each one added to result in today's contemporary president. Instead of a black-and-white presidential history that dismisses some presidents because of their assumed lack of utility, scholars should reach into the presidential past of all officeholders for insight into the ways that problems were handled and issues addressed. (312)

The lack of clarity of the modern presidency concept is clearly seen in the debate over the start of the modern presidency. As demonstrated above, while Franklin Roosevelt is seen as the start of the modern presidency for many scholars, this starting point of the modern presidency is not without some debate. Nichols (1994) is one of the most outspoken critics of the modern presidency concept, hence the title of his book: *The Myth of the Modern Presidency*. He finds that while there is some foundation to the idea of the modern presidency, it is somewhat of a myth and therefore distorts reality. Decades earlier, Polsby (1973) also questions the traditional definition of the modern presidency even though for his study he ultimately identifies Franklin Roosevelt as the start of the modern presidency.

> 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 or 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. (7)

Even though he also identifies Franklin Roosevelt as the start of the modern presidency, McConnell (1976) acknowledges that "in actuality, however, Roosevelt did no more than follow the examples of his predecessors, and he did not resort to the extremes that Lincoln had reached" (15). In his discussion of the erratic nature of change, Shaw (1987) states that some traditional presidents had ideas more akin to modern presidents and that not all of the modern presidents have behaved in the same manner. And Genovese (2001) finds that:

> In some ways the presidency of today closely resembles the institution of 1789 or 1820. The Constitution remains largely unchanged, and very little is done today by presidents that wasn't done 200 or 150 or 100 years ago by one president or another. And presidents still face an array of constraints, the most important of which is the Congress. Thus, the office of today has clearly traceable roots to the office of Washington and Jefferson. (1)

Early presidential elections are routinely excluded from studies on the influence of the economy on presidential electoral outcomes. As demonstrated by the literature discussed above, this exclusion is often done without much justification or by leaning on the poorly defined concept of the modern presidency either explicitly or

implicitly by the sample used. This disregard for an entire set of presidential elections (or period of the presidency) and the potential ramifications of this choice calls for presidency scholars to be more mindful when selecting their sample of presidential elections. By habitually excluding nearly half (and often more) of the presidential elections in U.S. history, scholars are likely biasing the conclusions they draw about the influence of the economy. Therefore, this study calls for a broader examination of the role of the economy in presidential elections.

The Role of the Economy in Early Presidential Elections

As stated above, one of the primary points this work makes is that economics have always played a role in U.S. presidential elections. Despite a scholarly focus on more recent presidential elections, there is ample evidence that the economy was a central part of both the activities of early presidential administrations and of early presidential elections. Among scholarly analyses, Lynch (1999) finds support for an economic effect starting with presidential elections in the late 19th century. As mentioned above, Lynch's sample includes presidential elections starting with the election of 1872. In his quantitative analysis, he finds that the change in real gross national product per capita and the change in prices (inflation and deflation) significantly affect electoral outcomes. Thus, Lynch provides compelling and systematic evidence that the economy mattered in presidential elections starting at least as early as the late 19th century. Lynch says as much himself when he states that "economic issues were prominent in national campaigns at least since the end of the Civil War" (829). In a more recent study, Lynch (2002) focuses on the presidential

election of 1884 and through a qualitative analysis, using newspaper editorials, demonstrates that the economy was a key factor during this campaign and election.

More support for the idea that the economy significantly influenced presidential elections across time is in Anderson's (1989) essay on government and the economy. He states that

> Governments in the United States have always intervened in the economy and probably much more extensively in the eighteenth and nineteenth centuries than many people realize. Over time the economic role has greatly expanded, although the rate of expansion has varied from one historical period to another. (17)

In his work Wallis (2000) examines how, since its founding, the United States has had a continuous debate over the size of governments, the taxes that should be raised to support them, the services governments should provide, how much debt governments should issue, and which of the three levels of government, federal, state, or local, should do the taxing, spending, or borrowing. Using data on government revenues and debt, he is able to establish three different eras of government finance in the United States. Although his study does not focus on presidential elections, his work further demonstrates that economic issues have been important to the nation since its founding. Further support for an economic influence in early presidential elections comes from Gunderson (1956) who recounts a floor speech given in 1840 by a Whig member of Congress against President Van Buren who was running for reelection in 1840. Whigs successfully utilized the economy in their campaign against Democrat Martin Van Buren. Capitalizing on events during Van Buren's first term in office such as the Panic of 1837, the Whig party emphasized the country's economic failures. In his floor speech, referring to President Van Buren's expensive tastes,

member of Congress Charles Ogle (Whig-PA), 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" (446). His speech is but one example of the economy-focused campaign Whigs successfully ran against Democrats in the presidential election of 1840.

Smith (2005) provides even more evidence of the importance of economic issues during earlier presidencies. Through his examination of primary documents, Smith demonstrates the key role economic issues have played in the presidencies of Adams through Polk[5]. As stated in the previous chapter, he notes that certain issues have been faced by most presidents in U.S. history, one of which being the tariff. The tariff was a major economic issue for presidents particularly during the 19th century. Along with the tariff, another major economic issue for early presidents was the national bank. One of Andrew Jackson's major policy fights was to abolish the national bank. Jackson dubbed it "the monster bank" and stated to his Vice President, "The bank Mr. Van Buren is trying to kill me, but I will kill it!"[6] Jackson was successful in his fight against the bank. However, as the successor to Jackson, Van Buren was then forced to contend with the repercussions of Jackson's successful destruction of the Bank. The economic panic of 1837 was partially brought on by speculation surrounding Jackson's plan of destroying the Bank and reallocating

[5] Other volumes in the series cover other presidents.
[6] In "The Autobiography of Martin Van Buren." 1920. *Annual Report of the American Historical Association for the Year 1918*. Volume 2: 625.

government money to smaller, regional banks. The following president Tyler[7], a Whig, also had to deal with the issue of the Bank during his administration; an issue on which he clashed with his party and ultimately led to his party's expulsion of him as a member in retaliation for vetoing two bills to reestablish a national bank. While the central issues of the Polk administration were slavery and the westward expansion of the United States, he also had to contend with economic issues including the tariff and the Independent Treasury.

In addition to tariffs and the national bank, early presidents also handled concerns over government expenditures. As discussed above, during the 1840 election campaign, Van Buren's opponents sought to call attention to what they deemed extravagant expenditures by the White House. Tyler's administration also focused on expenditures by government. Tyler inherited a significant amount of debt from the previous administrations so he was forced to suspend payments to civil service workers and individuals in the military to help reduce government expenditures.

The work cited above strongly suggests a role for the economy in early presidential elections. However, the systematic evidence demonstrating a continuous relationship between the economy and the vote for president is lacking. Thus, rather than limiting the analysis to modern presidential elections, this chapter (and project, in general) incorporates early presidential elections. In doing so, it seeks to enhance our understanding of the role of the economy in presidential elections across time and

[7] Technically William Henry Harrison immediately followed Van Buren as president, but he is excluded because his tenure as president was so short due to his death a month after taking office.

establishes that the relationship between the two has been more continuous than what is typically portrayed.

Data[8]

As mentioned above, the quantitative analyses do not include every presidential election held in the United States. However, the selection of presidential elections included is purposeful. The elections examined quantitatively in this study are the presidential elections from 1828 to 2008. The year 1828 is used as the starting point because the elections prior to 1828 prove to be problematic to include in the quantitative analyses. Prior to 1828, many states did not use a popular vote to select their electors. These states typically had their electors chosen by the state legislature. Thus, we do not have an accurate figure of the popular vote for presidential elections prior to 1828. By 1828 only two states selected their electors through the legislature and thus the popular vote figures from 1828 to the present are reasonably accurate.

Furthermore, the elections prior to 1828 are distinct in other ways. In three elections the presidential candidate essentially ran unopposed (1789, 1792, and 1820); in two the outcome was decided by the House of Representatives (1800 and 1824); and four occurred prior to the adoption of the Twelfth Amendment, where it was possible that the president and vice-president elected were from different parties (1789, 1792, 1796 and 1800).

The dependent variable is the percentage of the two-party popular vote received by the candidate of the incumbent party. The candidate of the incumbent party is defined as the literal incumbent president if an incumbent is running in the

[8] Full descriptions of the variables, sources, and descriptive statistics are in the appendix.

election or the party of the incumbent president if no actual incumbent is running. Following Fair (1996),[9] two years are coded slightly different. In 1912, the votes for Taft and Theodore Roosevelt are combined. Fair does not explicitly state why, but it is reasonable to combine the votes for Taft and Theodore Roosevelt because even though Roosevelt was running as a third party candidate he had previously held office as a Republican so he likely siphoned Republican votes from Taft. In 1924, 23 percent of Robert La Follette's votes are allocated to Calvin Coolidge and the rest to John W. Davis, the Democratic nominee. According to Fair,

> The analysis in Burner (1971), p. 2488, suggests that LaFollette may have taken only about three-fourths of his votes from the Democrats. The Republicans got 58 percent of the House vote and the Democrats 42 percent. Coolidge got 54 percent of the votes for president, compared to 29 percent for Davis and 17 percent for LaFollette. If it is assumed that Coolidge would have gotten 58 percent if LaFollette had not run (the same percentage as the House vote), then LaFollette took 23.5 percent (407) from Coolidge and 76.5 percent (13/17) from Davis. (122)

It is important to note that in this study the dependent variable is not lagged. As Lynch (1999) states in a footnote, "there is lingering disagreement over how to model the lag of the impact of the economy on elections" (832). A lagged dependent variable is appropriate if there is any concern about the model being dynamic. In this analysis, a dynamic model would be one in which the effect of the economy can impact the vote at time *t*, but also future elections (at minimum, time $t + 1$). The two-party popular vote for the incumbent would be lagged if it is expected that the vote for president today is not only a function of the economy today, but also the past performance of the economy. This analysis does not use a lagged dependent variable because the relationship between the economy and the vote for president is not

[9] These recodes are also seen in earlier and later work by Fair.

theorized as one that is dynamic in this sense. In this time series, the data points are four years apart so it is unlikely that the performance of the economy at time *t* would be strong enough to significantly influence the vote for president four years in the future at time *t* + 1 or eight years in the future at time *t* + 2. In other words, this study assumes that a lot will happen in the intervening years between each election to render past economic performance insignificant in future elections. An argument can also be made that this is especially true when the earlier election is an open seat election and the subsequent election has an incumbent president running. In this situation it is even more likely that the candidate is affected by the performance of the economy after taking office rather than the condition of the economy when the candidate was first elected.

Further support for not lagging the dependent variable comes from Bartels (2008) who finds that "the assumption of a one-year lag in partisan policy effects is consistent with macroeconomic evidence regarding the timing of economic responses to monetary and fiscal policy changes; it also fits the observed data better than a zero-, two-, three-, four-, or five-year lag" (33).[10] In the literature on the economy and the vote for president, there is precedent for not lagging the dependent variable. Fair (1978) and Lynch (1999) are just two examples. Fair (1978) does not include a lag in his model of the vote for president. Lynch (1999) runs several models with lags and finds that "the lagged variables weren't statistically significant and added little to the predictive power of the model" (832).

[10] While the dependent variable is not lagged, the economic variables are measured from the year before the election to the year of the election as described below. Thus, in this sense there is a one year lag for the economic variables even though the dependent variable is not lagged.

To test the statistical appropriateness of excluding a lag, the Breusch-Godfrey test for serial correlation was run on the model. The null hypothesis is that there is no serial correlation. The test was run with one, two, three, and four lags. In all four instances, the results do not reach statistical significance. Consequently, we fail to reject the null hypothesis meaning that we find support that the model without the lags does not have serial correlation. The results of the Breusch-Godfrey test are in the appendix. Thus, theoretically and statistically there is justification for not lagging the dependent variable.

The analysis includes two main economic variables, real gross domestic product per capita (GDP) and price instability. These economic variables are used because "scholarly work on the effects of economic factors on election results focuses on macroeconomic performance, principally economic growth and inflation" (Cuzan and Bundrick 1996, 142). For example, from Table 2.1, the following studies include a measure of GDP (or GNP) and/or a measure of inflation in their models: Abramowitz (2008); Alesina and Rosenthal (1995); Campbell (2008); Cuzan and Bundrick (1996, 2008); Fair (1978); Lewis-Beck and Tien (2008); Lynch (1999); and Shapiro and Conforto (1980). Thus, testing GDP and price instability as the primary economic variables is consistent with the existing literature on the role of the economy in presidential elections.

In this study, real gross domestic product per capita 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 GDP per capita for the 1828 presidential election is -1.66 percent which means that from 1827 to 1828 real GDP per capita 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 quarterly data are not available for the earlier election years included in the study so annual GDP data are used.

One important issue to address with historical economic data is their reliability. As Lynch (1999) notes "there is one significant problem facing any researcher who attempts to study the impact of economic conditions on presidential elections in the 19th and early 20th century – the quality and availability of economic data prior to 1929" (829). The U.S. government did not begin collecting national income data until 1929 with its initial National Income and Products Account (NIPA) report, *National Income, 1929-1932*, presented to the Senate in 1934. Thus, economic data prior to 1929 were not systematically collected by government or any entity and thus are less reliable than the economic data that follow. Due to this lack of economic data for the 19th and early 20th centuries, scholars have had to estimate the economic data for this time period using a variety of sources. Over time improvements to these data have been made by economists, most notably Kuznets (who was the author of the initial NIPA report) and subsequently Gallman (1966) and Kendrick (1961). The economic data used in this study are rooted in the refinements made by Gallman and Kendrick.[11]

These refinements of historical economic data have not been without some criticism. Lynch (1999) discusses the issue:

[11] A detailed description of the calculation of the primary economic variables used in this study is available at measuringworth.com.

> Romer (1986) argues that the amount of economic stabilization in the U.S. economy since World War II has been overstated, and that the normally cited standard created by Kuznets (1961) exaggerates the size of the cyclical fluctuations in the U.S. economy prior to World War II (830).

However, work by Weir (1986) finds that estimates of GNP and unemployment before 1930 do not overstate cyclical fluctuations enough to give "a false impression of increasing economic stability over the twentieth century" (353). While improvements can always be made to historical economic data, based on Weir's work, it is highly unlikely that the estimation of these earlier economic data is driving the results of any analysis across time in which they are utilized.

The second economic variable included in the analysis is price instability. Price instability is a measure of inflation and deflation. The theory behind including both inflation and deflation is that voters prefer stability in prices so any fluctuations either upward or downward in prices are perceived negatively. The importance of price stability is seen in Dolan, Frendreis, and Tatalovich (2008) who discuss major goals of economic policy in the U.S. and identify stable prices as one of them. They state that "although in recent years the periods of inflation have far exceeded those of deflation, historically both of these patterns have been seen with regularity, and when severe, both are highly disruptive" (5). Quinn and Woolley (2001) provide support for this theory when they find that "higher economic volatility works to the detriment of incumbents" (639). Lynch (1999) also provides compelling evidence for a combined measure of inflation and deflation which he calls change in prices. In his analysis, Lynch finds that the change in prices variable is a more powerful predictor of the vote for president than just using inflation.

Price instability is calculated as the percent change in inflation from the year before the election to the year of the election. The measurement is then squared. Squaring the inflation rate serves two purposes. First, it takes into account both inflation and deflation. It allows the measure to read that any change in prices, whether positive or negative, affects the incumbent candidate similarly. Second, squaring the inflation rate increases the range for the price instability measure 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. Squaring the inflation rate allows the variable to better capture how the public experiences actual changes in prices. The assumption is that deviations from price stability—either due to inflation or deflation—are punished at ever increasing rates.

A common theory in the presidency literature is that incumbents are held accountable for the economy because government has significant control over the economy. Lynch (1999) discusses this idea in some detail. This theory of a relationship between the economy and presidential elections rooted in the federal government's control over the economy is somewhat at odds with the theory presented here of a continuous relationship between the two. Under the government control theory, the economy does not influence presidential elections until (or unless) the federal government is able to exert enough control over the economy. It suggests that a relationship between the economy and the vote for president did not commence until much later in U.S. history and consequently has not been constant. In contrast,

this study theorizes a continuous relationship between the economy and presidential elections. The idea that the relationship between the economy and the vote for president is continuous does not preclude a role for government control over the economy. However, unlike the government control theory, under the present theory, an economic influence on the vote for president is not necessarily dependent on federal government control over the economy.

Cuzan and Bundrick (1996) provide one example of a study that examines the government control theory. They focus on the influence of fiscal policy on the vote for president. They measure fiscal policy as the ratio of federal outlays to GDP. Their findings suggest that fiscal policy affects presidential electoral outcomes independent of the state of the economy. They find that, all else equal, fiscal expansion leads to electoral defeat and fiscal cut-back is rewarded by voters. To take into account this theory on the vote for president, a measure of federal expenditures (includes all federal expenditures) as a percentage of GDP the year of the presidential election is included.

Another potential economic issue that may influence presidential elections is unemployment. Much more so than GDP and even federal expenditures, unemployment should be felt on an individual level, particularly given the coverage of unemployment rates in the news media. However, this analysis does not include unemployment as a predictor because the data are not available for the entire 1828 – 2008 time period. Furthermore, the exclusion of unemployment is not for purely pragmatic reasons. There is a strong relationship between GDP and unemployment. Lynch (1999) describes this relationship when he states that "the 'responsibilities' of

the President after 1946 included things such as full employment and steady growth which are captured in the GNP variable" (836). To test the extent of the relationship between unemployment and GDP, the level of correlation between the two was calculated for the years 1961 to 2010. Unemployment was measured as the percent change in the annual, seasonally adjusted, civilian unemployment rate from the previous year. Gross domestic product was measured as the percent change in the annual, real GDP per capita from the previous year. The data includes every year from 1961 to 2010, not just election years. A simple correlation between the two economic indicators demonstrates that the two are highly correlated ($r = -0.88$) providing further justification for excluding unemployment from the models because they include 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. As Lynch (1999) states, "neither party really starts at zero in any presidential election, and there must be some consideration of past electoral performance" (832). In this analysis, party performance 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. The Senate is excluded from this measure because not all senators were popularly elected until the 17th Amendment which was ratified in 1913. Therefore, the composition of the Senate does not reflect the electoral performance of the president's party in midterm elections across the entire time series. This measure is used in Lynch's (2002b) study of midterm elections. Historically, unified government

at the time of a presidential election suggests better standing for the incumbent party. During administrations where the incumbent party faltered, they often lost the House majority in the preceding mid-term election. This measure, essentially, serves as a simple way to assess the standing of the incumbent party leading up to the election in question.

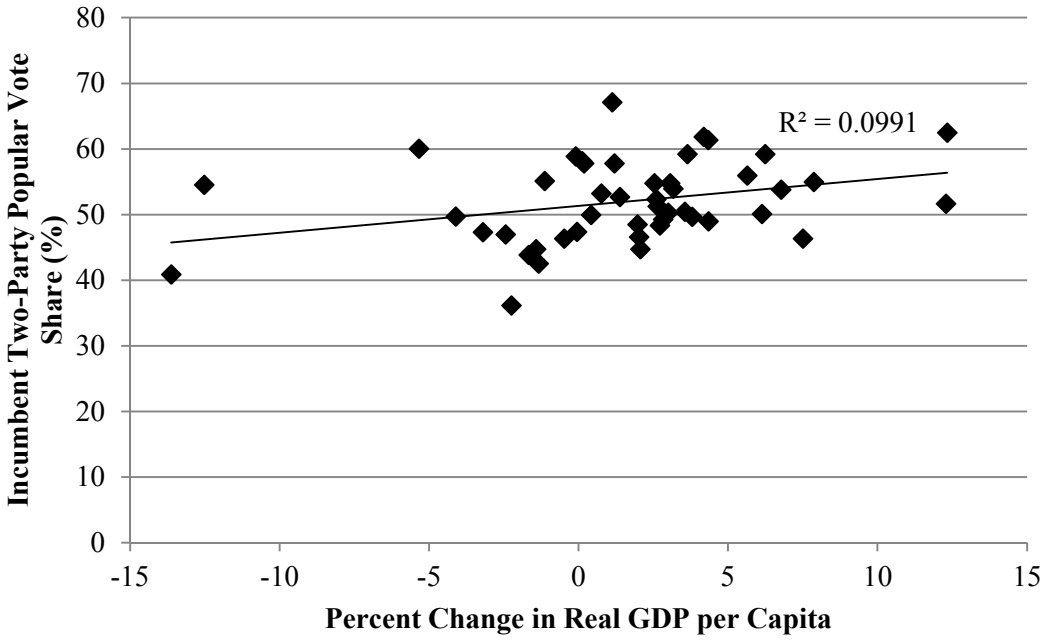
The second control variable is a measure of incumbency and whether the incumbent party has held the presidency for two or more terms. This variable is from Abramowitz's (2008) time-for-change forecasting model. It "is intended to capture the strength of time-for-change sentiment in the electorate" (693). The theory for the inclusion of this variable is that voters are more likely to vote for the opposing party when a party has held the White House for two or more terms. "It is based on the hypothesis that voters attach a positive value to periodic alternation in power by the two major parties" (693). Lastly, a control variable is included for the election of 1864 to account for the Civil War and the unique circumstances surrounding this election.

Hypotheses and Bivariate Analysis

As discussed above, the economic variables of primary interest are real GDP per capita and price instability. The analysis in this chapter tests the impact of these variables on presidential elections across time. The general hypothesis is that there is a continuous relationship between the economy and presidential elections from 1828 to 2008.

More specifically, in terms of GDP, it is expected that as the percent change in real gross domestic product per capita increases, the incumbent two-party vote share will also increase. This relationship is expected because, consistent with the existing literature, voters should reward the incumbent party for economic growth. As a preliminary examination of the relationship between GDP and the vote for president, a scatterplot of the two variables was created (see Figure 2.1).

Figure 2.1: Popular Vote Share by GDP, 1828-2008



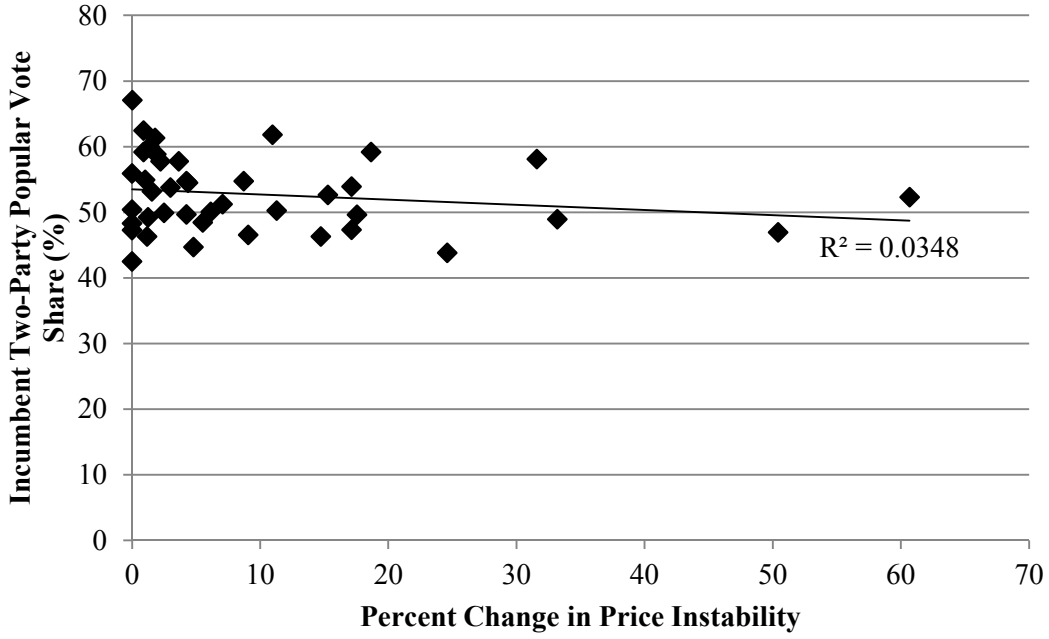
Sources: UCSB American Presidency Project and Measuringworth.com.

As expected, Figure 2.1 provides evidence of a positive relationship between GDP and incumbent vote share. In other words, as the percent change in GDP increases, the two-party popular vote share for the incumbent also increases. Thus, the bivariate analysis suggests that voters do reward economic growth.

The posited relationship between price instability and the vote for president is negative. It is expected that as price instability increases, the incumbent two-party

vote share will decrease. This relationship is expected because, as discussed above, voters should punish the incumbent party for unstable prices. A scatterplot of price instability and the vote for president was created as a preliminary examination of the relationship between the two (see Figure 2.2). To increase the readability of the figure, extreme outliers were excluded. The excluded presidential elections are 1864, 1916, 1920, 1932, and 1980. Each of these elections has a price instability measure greater than 80. The exclusion of these years does not skew the trend line; it merely makes the plot easier to read. A figure of price instability and the presidential vote that includes all of the presidential elections in the sample is in the appendix.

Figure 2.2: Popular Vote Share by Price Instability, 1828-2008



Sources: UCSB American Presidency Project and Measuringworth.com.

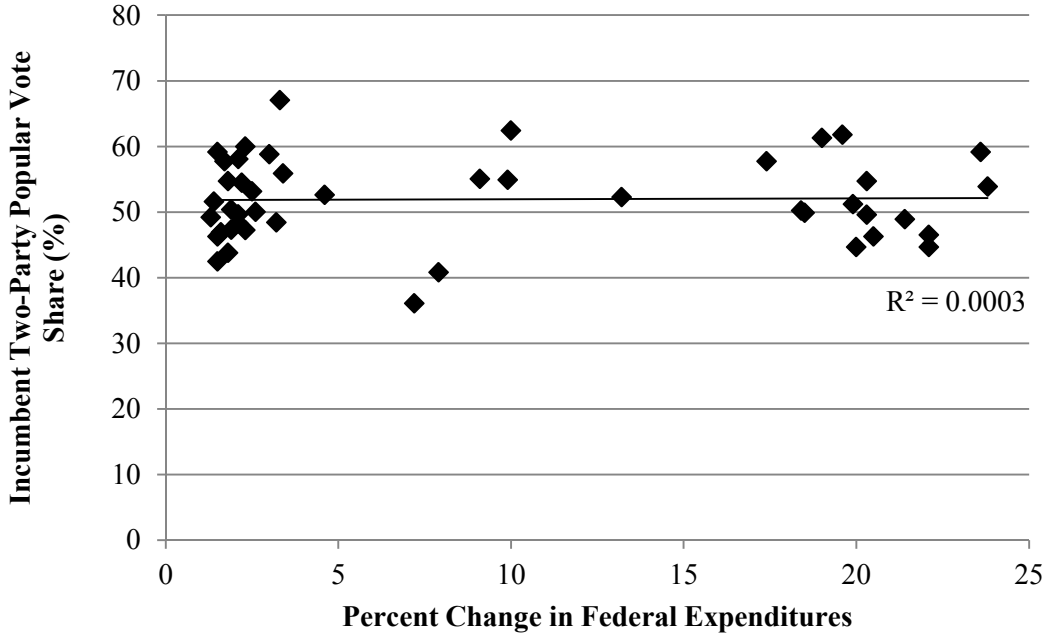
Larger values of the price instability measure indicate greater levels of inflation or deflation. In Figure 2.2, a slight negative trend is evident between the two variables. In other words, as price instability increases (i.e. inflation/deflation

increases), the two-party popular vote share for the incumbent decreases. Thus, as expected, the bivariate analysis suggests that voters punish instability in prices.

While not an economic variable of primary interest, the analysis also includes a measure of federal government expenditures to test a prominent rival hypothesis. As discussed above, one theory in the literature on the economy and presidential elections is that the economy significantly impacts the vote for president because of the amount of involvement government has in the U.S. economy. Under this theory, the economy has increased in importance in presidential elections over time as the federal government has become more involved in the economy. If this theory is accurate then we should find that as federal government expenditures increase, the incumbent two-party popular vote share will also increase. A scatterplot of these two variables is in Figure 2.3. The data for federal government expenditures contain one outlier which is 45.7 percent (presidential election year of 1944). As with the price instability figure, this outlier is excluded from Figure 2.3, however, a plot of federal expenditures for all of the presidential election years in the sample is included in the appendix.

The exclusion of the 1944 outlier does not change the trend line. In both figures, the line is extremely modest. The line does not indicate that there is much of a relationship between federal expenditures as a percentage of GDP and the incumbent candidate's share of the two-party vote for president. Thus, the bivariate analysis does not provide support for the idea that the economy increasingly matters in presidential elections as the federal government spends more as a proportion of the economy.

Figure 2.3: Popular Vote Share by Federal Expenditures, 1828-2008



Sources: UCSB American Presidency Project, John C. Wallis, and Measuringworth.com

Multivariate Analysis

The figures above suggest a relationship between the economy and the vote for president across time. They lend support to the idea that the relationship between the economy and presidential elections is continuous. Moving beyond the bivariate analysis, a multivariate analysis was conducted using ordinary least squares (OLS) regression. One major assumption of OLS regression with time series data is that the time series is stationary. Presently, the primary test of stationarity is a unit root test. The unit root test applied to this model was the augmented Dickey-Fuller test. The null hypothesis of this test is that the series has a unit root. The results of the augmented Dickey-Fuller test are statistically significant which leads us to reject the null hypothesis. Thus, the results support the idea that there is no unit root in this

model and consequently OLS is appropriate with the time series data used in this study. The specific result of this test is in the appendix.

The results of the regression are in Table 2.2. Again, unlike any existing study in the literature on the economy and presidential elections, this project extends the analysis back to the presidential election of 1828. The p-values for all of the independent variables except Civil War (and the constant) are one-tailed because the hypothesized relationships between all of the these variables and the vote for president are directional. In general, the regression provides support for the theory that the relationship between the economy and presidential elections is continuous. However, the performance of the specific economic measures varies.

Gross domestic product is one of the economic variables that does not perform as expected in the model. The percent change in real GDP per capita does not affect the two-party popular vote share received by the incumbent candidate at statistically significant levels. The coefficient takes on the expected sign, but does not produce significant results. For presidential elections from 1828 to 2008, we do not find support for the theory that voters reward the incumbent party for economic growth. Consequently, a continuous relationship is not observed between gross domestic product and the vote for president. In contrast, price instability affects the vote share received by incumbents at statistically significant levels. For every one percent change in price instability, the two-party popular vote share decreases by 0.06 percentage points for the incumbent, all else equal. This finding supports the theory that voters reward stability in prices. The findings for price instability provide support

for the theory of an enduring relationship between the economy and presidential elections.[12]

Federal government expenditures as a percentage of GDP fails to reach statistical significance in the multivariate model. Despite the common employment in

Table 2.2: Explaining Two-Party Popular Vote Share, 1828-2008

	Two-Party Popular Vote, 1828-2008		
	Coefficient	Standard Error	P-Value
Real GDP per capita (percent change)	0.088	0.210	0.34
Price Instability (percent change)	-0.056	0.020	0.005
Federal Government Expenditures	0.120	0.099	0.12
Party Performance (Unified Government)	5.944	1.909	0.002
Incumbency	-3.343	1.927	0.05
Civil War	33.267	13.823	0.021
Constant	50.224	1.813	0.000
Adjusted R^2	0.283		
N	46		

Notes: The coefficients presented above are OLS estimates. P-values are one-tailed for all of the independent variables except for Civil War and the constant.

the literature of the theory that government control over the economy drives an economic effect on the vote for president, the results for presidential elections from 1828 to 2008 do not provide support that federal government expenditures significantly affect the vote for president. This finding does not confirm nor refute that the relationship between the economy and the vote for president is continuous. However, it does affirm that the relationship between the economy and presidential elections is not solely driven by the level of control the federal government exerts

[12] The model was also run with price instability in its linear form. While the resulting coefficient failed to reach statistical significance it did come close at $p = 0.11$. However, theoretically there is good justification for squaring the variable so price instability is squared in the quantitative analyses in this study.

over the economy which leaves the door open for a theory of an enduring relationship between the economy and the vote for president that started very early in the nation.

In regard to the control variables, party performance significantly affects the vote share received by incumbent presidential candidates, as does incumbency. For incumbents of the same party as the House majority at the time of the election, the two-party popular vote share is 5.94 percentage points larger, all else equal. The expectation was that voters reward incumbents for their party's performance, crudely measured by unified control of the presidency and the House at the time of the election. Thus, the results provide support for this expectation that voters reward overall party performance. As expected for incumbency, for candidates whose parties have served two or more terms, their vote share decreases by 3.34 percentage points, all else equal. As stated by Abramowitz (2008), voters prefer periodic fluctuation in power between the two major parties. Thus, incumbents whose parties have controlled the presidency for two or more terms seem to be punished by voters. The Civil War control variable also reaches statistical significance. Lincoln running in 1864 received 33.27 percentage points more of the vote share compared to incumbents running in election years not 1864, all else equal. Given the limited participation of southern states in the election, this result is not surprising.

The model of presidential elections from 1828 to 2008 provides some support for the theory that the relationship between the economy and presidential elections is continuous. To start, the lack of a statistically significant effect for federal expenditures on the vote for president is strong evidence that the relationship between the economy and presidential elections is not entirely, if at all, driven by the federal

government's control over the economy. Most of the literature promoting this theory of government control does not directly test its claim that the federal government's control over the economy drives the relationship between the economy and the vote for president. Much of the time it is incorporated into the literature on presidential elections implicitly through the sample of elections selected for study.

A few studies do directly test this claim including Lynch (1999, 2000) and Cuzan and Bundrick (1996). In both of his studies, Lynch casts serious doubt that federal government involvement in the economy is the sole driver of the relationship between the economy and presidential elections. As discussed above, Cuzan and Bundrick also test this claim of government control over the economy, but they do find support. However, their study is different from most of the presidential election literature because the dependent variable they use is a dummy variable for the reelection or defeat of the incumbent rather than the two-party vote share for the incumbent candidate (or the candidate of one of the two major parties[13]). When they use the percentage of the incumbent vote as the dependent variable, they do not find a statistically significant effect for fiscal policy on the vote for president. In light of these results, it is not surprising that no effect was found in this analysis; further confirming that the effect of the economy in presidential elections is not entirely driven by government control over the economy.

In the multivariate model, the findings for price instability provide support for a continuous relationship between the economy and the vote for president. The effect of price instability on the vote for president appears to be small with a coefficient of

[13] Many studies of the economy and presidential elections use the two-party vote share received by candidates from one particular party as their dependent variable.

0.06. However, it is important to keep in mind that the average change in the price instability measure is 36 percent. With an average change in price instability, the percent of the two-party vote won by the incumbent decreases by 2.16 percentage points. While this change is not a very large change in vote share, it could have a substantive impact in close elections such as the elections of 1968, 1976, 2000, and 2004 in recent decades. Thus, while a one percent increase in price instability may not change the vote share by much, a larger increase in price instability, such as 36 percent, has the potential to change the vote share by much more and potentially alter the outcome of the election.

Unlike price instability, the findings for real GDP per capita do not provide support for a continuous relationship between the economy and presidential elections as was expected. It is unclear why the results for GDP are not statistically significant for presidential elections from 1828 to 2008. One potential reason for the lack of significant findings for GDP is that the data for GDP have errors. As discussed above, the measurement of GDP in early U.S. history is not without some debate. Out of necessity, early measures of GDP are not very sensitive because they are estimates. Furthermore, work in economics has found varying results depending on which measure of GDP is used. For example, Heckelman and Whaples (1996) find statistically significant results with Romer's measure of GDP, but not with Balke and Gordon's measure of GDP in their examination of business cycles before the Great

Depression. Thus, it is possible that the GDP measure used in this analysis has too many errors to produce significant results.[14]

It is also important to examine the multivariate findings in terms other than statistical significance. Unlike the rest of the literature on the economy and presidential elections, the set of presidential elections included in this study is almost the entire population of presidential elections; 46 of 56 U.S. presidential elections. More importantly, the set of presidential elections included is complete in the sense that, as discussed above, there are issues with most of the presidential elections prior to 1828 that set them apart from subsequent elections. That this study includes almost every presidential election and the elections included are distinct from the excluded presidential elections is important because it means that statistical significance is not necessarily of utmost importance to the present analysis. Statistical significance is a key component of statistical inference and the "process of generalizing from the sample value to the population value is the essence of statistical inference" (Gujarati 2006, 104). Because this analysis contains what can be considered a population of presidential elections, we are essentially measuring population parameters and not sample statistics so statistical significance is not paramount.

[14] Another potential issue is that the number of cases in this study is relatively small. While more inclusive than every other study of presidential elections and the economy, this study includes elections from 1828 to 2008 which is only a total number of 46 cases. Performing any type of analysis on a sample of 46 can be problematic. A small sample size makes it more difficult to attain statistical significance because statistical significance can be driven by the size of the sample used. Large sample sizes decrease the standard error of the estimated coefficients resulting in a larger t score and greater statistical significance. Thus, it could be the case that the small sample in this analysis is contributing to the lack of statistically significant results for GDP.

Thus, looking at Table 2.2 again, the coefficient for GDP is 0.09 meaning for every one percent increase in GDP, the two-party popular vote share increases by 0.09 percentage points for the incumbent, all else equal. However, unlike price instability which has a large average change, the average change for GDP is 1.6 percent. Thus, the effect of GDP on the incumbent vote share is not substantively significant either. It is still unclear why GDP does not perform well for presidential elections from 1828 to 2008. One possibility is that perhaps the relationship between GDP and the vote for president has changed over time and that this change is not captured in the multivariate analysis above which includes the entire range of presidential elections. This idea that the relationship between the economy and presidential elections has evolved over time is the basis for the analyses in chapters four and five.

Summary and Conclusions

While the results above are not as strong as was expected, they do find some support that there is a continuous relationship between the economy and presidential elections. In the literature on the effect of the economy on the vote for president, early elections are routinely excluded. The inclusion of only more recent presidential elections is often not explicitly discussed within studies and is frequently rooted in the concept of the modern presidency which the discussion above demonstrates may be convenient, but often is not theoretically based. There is evidence in the literature to suggest that there is an enduring relationship between the economy and presidential elections across time and the results from the analyses above find support.

The analysis thus far provides systematic evidence that the economy mattered in presidential elections across American history, even in very early elections. It also provides evidence that the economy played an important role in presidential elections even before the expansion of government control over the economy. However, for the reasons discussed above, only presidential elections from 1828 onward are included in the analysis. Despite the inability methodologically to include presidential elections prior to 1828, theoretically the economy should play a role in these elections as well. Thus, the next chapter examines the pre-1828 presidential elections to establish the effect of the economy on the vote for president during this time period.

Chapter 3: The Enduring Relationship between the Economy and Presidential Elections: Presidential Elections from 1789 – 1824

The previous chapter demonstrates quantitatively that the relationship between the economy and presidential elections is an enduring one. The relationship is continuous in that the economy has played a role in presidential elections across time; its influence has not been limited to just recent presidential elections. However, as discussed in chapter two, the quantitative analysis only includes presidential elections from 1828 through 2008 because until 1828 many electors were chosen by state legislatures and not through a popular vote. Thus, this chapter analyzes earlier presidential elections to assess whether the enduring relationship between the economy and presidential elections holds true for these elections as well.

In some respects the presidential elections from 1789 through 1824 are very different from the elections that followed. Three of the early presidential elections were uncontested including both of George Washington's elections (1789 and 1792) and James Monroe's bid for reelection (1820). This time period also includes two elections where the outcome was decided by the House of Representatives (1800 and 1824), an occurrence which has not happened since.[15] Lastly, four of the elections took place prior to the adoption of the Twelfth Amendment (1789, 1792, 1796 and 1800) meaning the possibility existed that the president and vice president could be

[15] It is important to mention the presidential election of 1876 here because, like 1800 and 1824, its resolution was atypical. In this election, the electoral votes in Louisiana, South Carolina, and Florida were contested. The election was close enough that these contested electoral votes determined the winner. In order to decide the winner, Congress established an electoral commission which then selected Republican Rutherford B. Hayes as the winner of the election.

from different parties or that individuals running as one ticket could tie sending the election to the House of Representatives to be decided. The elections of 1796 and 1800 illustrate these issues before the adoption of the Twelfth Amendment. In 1796, John Adams, a Federalist, was elected president and Thomas Jefferson, a Republican, was elected vice president. In 1800, the election was forced to the House of Representatives due to a tie in the Electoral College between Jefferson and Aaron Burr. This tie required numerous rounds of voting to determine the next president. This event led to the ratification of the Twelfth Amendment. Despite these distinctive characteristics of some of the earlier presidential elections, in many ways the elections of 1789 – 1824 are similar to the elections that followed. This chapter explores these similarities, particularly in regard to the effect of the economy in these early presidential elections.

From very early on in U.S. history, the economy played a role in politics and consequently elections. Economic issues were a principle concern when the U.S. was just a collection of colonies. The economy was a major concern under the Articles of Confederation. And the economy continued to be a concern under the new constitutional government of the fledgling nation. Because of the importance of economic issues to the founding and continued operation of the U.S., it is natural that these issues play a role in elections and have done so across time.

In order to try and gain political advantage, competitors for office utilize their opponents' stances (and actions) on important issues. Thus, for the economy to matter in an election, the race must be competitive. Without competition there is no opposing candidate to utilize economic issues against and no opportunity for

economic issues to really matter because in uncontested elections there is no choice in who obtains the seat. It is for this reason that we see the rise of the economy as an influence on the vote for president with the rise of political parties because political parties initiated competitive elections in the United States. However, although most of the elections discussed below that demonstrate an impact of the economy on the vote for president are contests among distinct political parties, political parties are not necessary in order for economic issues to impact voting. What matters is that the race is competitive. Political parties were the impetus for competitive presidential elections in the U.S., but ultimately what matters is that the race is competitive and not whether it is among vying political parties. This chapter analyzes these early presidential elections and demonstrates that even in this earlier era the economy played a role in presidential elections. Thus, the enduring relationship between the economy and the vote for president spans U.S. history.

The Elections of 1789 and 1792

The first two presidential elections under the U.S. Constitution, 1789 and 1792, were exceptional in that they were uncontested. At this point in time, there was no formal nomination process. However, there was no question among the framers of the Constitution and the public that Washington should be and would be president. This assumption was so strong that during the Constitutional Convention the executive branch was designed with Washington in mind. According to Cunliffe (1971), "both at Philadelphia and in the ensuing months, Americans of every viewpoint seem to have assumed that there was only one man who could and would

inaugurate the presidential office: General Washington" (8). Following the Constitutional Convention, the expectation that Washington would be the first president took hold in the press and subsequently in the public. A potential Washington presidency was celebrated by the public. For example, the following was a toast at a Fourth of July Celebration in 1788 in Wilmington, Delaware: "Farmer Washington – may he, like a second Cincinnatus, be called from the plow to rule a great people" (Richard 1994, 71). Thus, when the Electoral College convened in 1789 and 1792 all of the electors cast their vote for Washington making him the unanimous choice for president in both elections.

Because of the uncontested nature of the 1789 and 1792 elections and the unanimity with which Washington was elected, it is clear that the economy did not play a direct role in these presidential elections. In fact, no policy issues affected the vote for president because no one else, but Washington was even considered. Furthermore, a characteristic of early presidential elections in the U.S. was that presidential candidates did not actively campaign for office and these elections were no different. According to Howe (2007):

> In the nineteenth century it was not customary for presidential candidates to campaign overtly. Their supporters made speeches and wrote articles on their behalf; the candidates themselves directed matters by private correspondence but in public preserved the fiction that the presidential office sought the man, not the man the office. (207)

Cunliffe (1971) describes this dilemma for Washington who could neither state that he would serve as president lest he seem too ambitious or power hungry, but he also could not state that he would not serve as president lest he seem presumptuous that he saw himself as president. According to Cunliffe,

"Washington's situation was unique, and therefore – for him – uniquely painful. He was neither running for office nor able to run away from it" (10). The absence of campaigning, but more importantly the fact that these two elections were uncontested meant that the economy could not play a pivotal role in the vote for president in these elections.

Despite the lack of a direct effect of the economy in the first two elections, it is during this time that the role of the economy in U.S. presidential elections begins to take hold. The rise of the economy as an influence on the vote for president has its origins in the formation of political parties in the Unites States. Political parties began to take shape soon after the 1789 election and one of the primary dividing lines between parties was on economic policy (Beard 1915, Cunliffe 1971). The establishment of political parties tracks the rise of the economy as an important issue in presidential elections because political parties led to competitive elections.

During the First Congress, two crucial issues emerged. One issue was the location of the capital. In the first session of the House, the location of the capital accounted for over one-third of all roll call votes cast (Aldrich 1995, 68). The other major issue was Hamilton's fiscal plan, particularly his plan for the federal government to assume state debts. Congress had reached an impasse on both of these issues. In order to make some headway, Thomas Jefferson, then secretary of state, hosted a dinner with Alexander Hamilton and James Madison to try and broker a deal. Hamilton and Madison eventually were able to work out an agreement. The details of the dinner or the agreement are not important to this project. What is important is that this disagreement led to the establishment of political parties in the

U.S and one of the major divisions between the parties was on economic policy. As Cunliffe (1971) describes,

> Hamilton's financial measures – the funding and assumption of state and national debts, the establishment of a national bank under federal auspices, an excise tax – had generated fierce opposition, and indicated the persistence or the emergence of deep sectional and economic cleavages. (20)

Disagreement over economic policy was not new in American politics. Economic issues were one of the primary driving forces in the call to amend the Articles of Confederation. During the Constitutional Convention, one of the primary debates was over the ability of government to regulate the money supply and levy taxes; two problems the federal government faced under the Articles of Confederation. And even earlier, many of the American complaints against Great Britain centered around economic issues especially taxation. Despite the history of economic disagreement in the U.S., under the new constitutional government, these divisions on economic issues expanded and formed one of the bases from which political parties perpetually would be divided. Aldrich (1995) describes the process quite eloquently.

> Continuing disagreement took a turn that in time would culminate in the creation of a new form of organization that would forever alter democracy as these founders saw it. Instead of solving problems by vote trades among opposing leaders or by other forms of piecemeal, issue-by-issue compromise, these leaders – first Hamilton, then Jefferson and Madison – turned to organizing their supporters. In time these organizations would strengthen and would widen their scope with respect to both members and issues, to become the first political parties of modern democratic form in this or any nation. (69)

The parties though fledgling were deeply divided. The disagreement between Hamilton and Madison was not merely personal or partisan. Sheehan (2004) finds

that the division between the parties was principled. “It was a battle over the very character of republican government and the extent to which the people are capable of governing themselves” (422). This division only intensified over time and the economy was one of the major fault lines. Beard (1915) finds that

> One does not have to examine many newspapers and pamphlets of the period between the inauguration of Washington and the election of Jefferson to discover that contemporary writers entertained very decided notions as to the economic character of the issues which divided the country into two parties. (196)

Furthermore, he notes that partisans of the time “were unusually painstaking in their efforts to point out the economic lines along which the contest was waged” (196). This fundamental division between the parties over economic policy paved the way for the economy to become a key issue in presidential elections in the U.S.

Even though the rising importance of economic issues was not seen in the first two presidential elections, it was noticeable in other elections at the time. There is evidence of some partisan fighting over who would serve as Washington’s vice president for his second term. Individuals who supported the policies of Hamilton, Federalists, wanted John Adams to remain as Washington’s vice president while Republicans pushed for George Clinton to promote their agenda. Even beyond the election of the vice president, the two parties began vying with each other for seats in congress. Cunliffe (1971) states that “at the same time, of course, the Republicans were making a determined effort to run strong candidates in the forthcoming congressional elections” (24). Despite the uncontested nature of the presidential elections in 1789 and 1792, the nascent party structure sparked competition for the vice presidency, congress, and even state-level offices demonstrating the increasing

importance of the economy as a primary issue in elections. The role of the economy in elections, and presidential elections in particular, would only grow with time as elections became more competitive.

The Election of 1796

The election of 1796 is the first contested presidential election in U.S. history. In this race, John Adams, a Federalist and Washington's vice president, faced Republican Thomas Jefferson. Whereas during the first two presidential elections, the parties were just beginning to crystallize, by 1796 there was "bitter factionalism" (Smith 1971, 59). The economy was still a primary dividing line between the two parties. Supporters of Jefferson were concentrated in the South and Federalist support came mainly from New England. Smith states that

> behind the sectional differences lay opposing economic interests. The South, overwhelmingly agricultural, wished for free trade, low tariffs, and easy money. . . The wealth and influence of the North were largely in the hands of the commercial class, merchants and traders, with a small but growing class of industrial entrepreneurs. (60)

Smith states that this election was more about ideology rather than particular issues. However, it is clear that the election was contested between two strengthening parties with real differences on actual issues. In the election of 1796 one of the primary concerns was the Jay Treaty. The Jay Treaty was negotiated between the U.S. and Great Britain and, according to Skowronek (1997), it "formalized America's subordinate partnership in the British trading system, undercut America's growing interest in trade with the rest of the world, held the development of an American home market hostage to British manufacturing" (65). Smith describes it in a slightly

softer tone when she states that Jay "probably got about as good a treaty as could have been obtained under the circumstances" (62). The Jay Treaty was an international issue, but at its core it dealt with the economy of the United States. Debate over the Treaty in Congress enabled Republicans "to bring out, even more emphatically than ever, that antagonism between capitalism and agrarianism which had been the source of the troubles of the new federal government" (Beard 1915, 268). The focus of this election on the Jay Treaty and its underlying economic issues demonstrates the effect economic issues had on the vote for president in 1796. In addition, this election further solidified the economy as an important issue in presidential elections as the parties continued to strengthen their divide on the U.S. economy.

The Elections of 1800 and 1804

The election of 1800 was the first election to be decided by the House of Representatives. This election took place before the adoption of the Twelfth Amendment which meant that each elector cast two votes, but did not distinguish between their vote for president and vice president. Thus, in 1800, Republican electors cast their votes for Jefferson and Aaron Burr who each received 73 electoral votes. The Federalist ticket of Adams and Charles Pinckney received 65 and 64 electoral votes respectively. Republicans had clearly won the election. However, the tie between Jefferson and Burr meant that the election was left in the hands of the House of Representatives to decide who would be president. It took 36 rounds of ballots, but in the end Jefferson was declared the next president of the U.S.

The campaign for the 1800 presidential election can best be described as intensely partisan. According to Cunningham (1971), "more than any Presidential election that had preceded or would follow for at least a generation, it was a *party* contest for control of the national administration and for determining the direction and the management of national policy" (101). In particular, Republicans concentrated on attacking the Federalist Party and its economic policies rather than the individual Federalist candidates, Adams and Pinckney (Ferling 2004). The Federalist Party was painted as a party obsessed with financial gain. "The Federalists were portrayed as caring only for merchants and financiers" (Ferling 2004, 148). Republicans criticized Hamilton's policies as Treasury secretary. They also expressed to voters that it was time for a change. Cunningham (1971) recounts a Republican campaign leaflet describing the state of the economy under the Federalists.

> Our agriculture is oppressed by taxation. Our manufactures are superseded by British productions. Our commerce subjected to the spoliations of foreign crusaders…We are struggling under a direct tax, with heavy imposts; raising money on loan at *Eight* per cent. – And our expenditures are encreasing [sic] while our national debt is accumulating. (121)

In contrast, the Republican Party "favored a reduction of both taxes and the public debt" (Ferling 2004, 148). Thus, the election of 1800 further reinforced the differences between the parties, particularly regarding economic issues. The focus of the 1800 campaign on economic issues provides further support for an enduring relationship between the economy and presidential elections.

The presidential election of 1804 was a reflection of the success of the Republican Party's campaign efforts in this election and the previous one in 1800 as evidenced by the Republican Party's landslide victory. Jefferson won reelection with

162 electoral votes. The Federalist ticket of Pinckney and Rufus King received only 14 electoral votes. The 1804 election was the first to be held after the ratification of the Twelfth Amendment so now electors cast distinct votes for president and vice president. The 1804 presidential election was marked by a well run Republican campaign. In contrast, the Federalists were disorganized and in some states they did not run a campaign.

Much like in the previous elections, a substantial portion of the campaign was devoted to economic issues. With Jefferson's first term behind him, Republicans were able to focus on Republican achievements in office when campaigning. In particular, the Republican campaign highlighted Jefferson's achievements of the past four years. After Jefferson's election to the presidency in 1800, he focused on paying down the debt and repealing internal taxes. According to Skowronek (1997), "the cornerstone of Jefferson's reconstruction was a reversal of priorities in the nation's political economy" (77). In his third annual message to Congress in 1803, Jefferson himself expounded on these achievements:

> It is already ascertained that the amount paid into the Treasury for that year has been between $11M and $12M, and that the revenue accrued during the same term exceeds the sum counted on as sufficient for our current expenses and to extinguish the public debt within the period heretofore proposed.

Consequently, the Republican Party was able to capitalize on these successful policies in the campaign for president in 1804. As Dauer (1971) describes,

> the issues of the Republican campaign centered on the Administration record: simplicity and frugality in government and measures at the state and Federal Government level to assure opportunity to land, to education, and to political office. (165)

Thus, both the 1800 and 1804 presidential elections focused on economic issues. The campaigns waged in these elections further demonstrate that the economy played a fundamental role in the vote for president these two years.

The Election of 1808

In 1808 the presidential election was contested between Republican, James Madison and Federalist, Charles Pinckney. Madison won with 89 electoral votes and Pinckney finished with 33 votes. Much of the 1808 campaign centered on the embargo put in place by Jefferson. The start of the 19th century was marked by the Napoleonic Wars which included war between Great Britain and France. Both countries continually violated U.S. neutrality by seizing American merchants and cargo. As a result, "President Jefferson demanded reparations and, by proclamation, ordered all British ships of war to stay out of American seaports" (Brant 1971, 192). However, the behavior of Britain and France toward the U.S. escalated. As a result Jefferson called for an embargo against both countries. The purpose of the embargo was "to avoid war, save American ships from capture, and put pressure on England (correspondingly on France, in theory) to modify her restrictive policies in order to obtain much-needed American goods for the British Isles and West Indies" (Brant 1971, 192).

The embargo was not very popular among the U.S. public because it greatly impacted the U.S. economy by preventing Americans from selling their goods overseas. Skowronek (1997) states that "what makes the embargo stand out as an act of leadership scarcely thinkable for us today is that it launched a frontal assault on the

mainstays of the nation's economy" (82). The unpopularity of the embargo combined with its passage within a year of the 1808 election meant that the embargo was a central issue to the campaign that year for president. And despite its international nature, the heart of the embargo issue as far as the public was concerned was economic. During the campaign, Federalists attacked the actions of Jefferson. Brant describes the campaign:

> Denounced as an enemy of commerce, [Madison] actually stood for the country's permanent commercial interests, which Federalists were willing to sacrifice for immediate profit by reducing the United States to a wartime trade appendage of Great Britain. (221)

Despite Federalists' best efforts, Madison emerged victorious which Brant attributes to his continual fight for U.S. rights in the world, but also significantly to the popularity of Jefferson which carried over to Madison as Jefferson's Republican successor. Much like the election of 1804, at first glance it appears that the presidential election of 1808 was fought over an international relations issue. However, fundamental to the embargo issue was economics. The embargo had a severe impact on the U.S. economy preventing most Southern farmers from selling their goods overseas and preventing merchants from taking goods to be sold overseas. Few were not impacted by Jefferson's embargo. The importance of the embargo to the 1808 election provides yet another example of the affect of the economy in even early presidential elections.

The Election of 1812

The major issue of the 1812 presidential election was the War of 1812. The war was an important campaign issue, particularly because it commenced less than

six months before the election. The war was between the U.S. and Great Britain. During the campaign, President Madison was attacked not only for initiating the war, but also for his conduct during the war. One of the criticisms of the Federalist Party was that Madison's "policy of financing the war by floating loans rather than raising taxes was utterly irresponsible" (Risjord 1971, 257). Thus, much like Jefferson's embargo discussed above, even though war with Britain was an international relations issue, its impact on the 1812 election was very much concentrated on economic issues.

In September of 1812, Federalists held a meeting to try and nominate a candidate for the upcoming election or identify what could loosely be termed a party platform. They emerged from their meeting with a suggested campaign slogan of "Peace, Union and Commerce, and no Foreign Alliance" further highlighting the importance of economics in this election (Risjord 1971, 256). Madison ended up winning reelection albeit by a narrower margin than he received in 1808. In 1812 he received 128 electoral votes while his opponent, DeWitt Clinton, received 89 votes. The election of 1812 is marked by strong party competition. Risjord notes that "despite the fluidity of party names, partisan organizations in 1812 were better developed than at any earlier time" (250). In this partisan competition, the economy once again emerged as a major issue on which the parties were divided and the presidency was decided.

The Elections of 1816 and 1820

The election of 1816 is notable in that it is the last presidential election in which a Federalist candidate ran. Federalist Rufus King campaigned against Republican James Monroe, Madison's designated successor. Monroe won handily with 183 electoral votes to King's 34 votes. In Howe's (2007) description of the election, "a dull presidential campaign ensued, its outcome a foregone conclusion. Senator Rufus King of New York served as standard-bearer of the Federalists' forlorn hope" (89).

The Federalist Party as a whole was on the decline by 1816. Federalists faced an uphill battle because many of the views characteristic of their party had been co-opted by Republicans. In his seventh annual message to Congress, Madison stated "that the Republicans were now willing to exert the economic powers of the central government, in the words of a newspaper critic, "far beyond what was ever contemplated by the federal administration"" (Turner 1971, 301). Madison then detailed what this entailed including the reestablishment of the national bank and the implementation of protective tariffs both of which were previously Federalist stances.

Despite some discussion of economic issues, the 1816 presidential election was most influenced by the War of 1812. The U.S. public was pleased with the outcome of the war which boded well for the ruling Republican Party. After the war, "a wave of patriotic fervor and nationalism swept the land, drowning the particularists and separatists – in other words" (Turner 1971, 300). As Howe (2007) describes, "Monroe's easy victory reflected the spirit of national self-satisfaction and self-

congratulation following the War of 1812, from which the incumbent Republican Party benefited" (90).

As attachment to the Republican Party was soaring, the Federalist Party was on a steep decline. Turner (1971) finds that "in light of so overwhelming a Republican victory and so ignominious a Federalist defeat, it was generally recognized that the Federalists had played their last role on the national stage" (308). The decline of the Federalist Party was especially apparent in congress. Members of Congress increasingly voted with their constituents not regardless of party on economic issues. As a result, by 1816 party distinctions in Congress were almost gone. The effect of this change in the party system is that by the time Monroe takes office in 1817 he "assumed responsibility for a polity that was externally secure, internally confident, and politically correct" (Skowroney 1997, 86).

It is difficult to make the case that the economy played a primary role in the election of 1816. This electoral campaign was too preoccupied by the end of the War of 1812 and the unraveling of the Federalist Party for the economy to play a prominent role. However, the election of 1816 is the first election since Washington's reelection in 1792 where the economy did not significantly affect the vote for president.

The results of the 1816 presidential election lead directly to the outcome of the 1820 election. What is most notable about the 1820 presidential election is that it is the third and last time in U.S. history that a presidential candidate ran unopposed. Monroe was so successful during the campaign that he received every electoral vote, but one when the Electoral College convened. Just as with Washington's elections

above, the uncontested nature of this election means that it is impossible for the economy to have played a role in the vote for Monroe.

The lack of an economic effect in 1820 is even more incredible because the nation had just lived through the Panic of 1819 which is discussed in greater detail in chapter four. However, Howe (2007) notes that

> Probably because this was the first depression in national history, the citizenry did not assume the administration in Washington could have prevented it. The blame that attached to the Bank of the United States did not rub off on the Monroe Administration. In any case, no organized opposition stood ready to provide an alternative government. (146)

According to Turner (1971), **"**the collapse of local resistance and local organization left no basis on which a national campaign could be mounted and practically assured the reelection of James Monroe in 1820" (310). As discussed above, in order for the economy to influence presidential electoral outcomes, the presidential election has to be competitive. Thus, the election of 1820 is an exception where the economy did not play a key role in the vote for president.

The Election of 1824

The presidential election of 1824 was the last election in this set of early presidential elections. This election was the second time in U.S. history that an election had to be decided by the House of Representatives. One of the main reasons that it was difficult for the Electoral College to arrive at a winner is that so many individuals ran. The candidates included John Quincy Adams, Andrew Jackson, William H. Crawford, and Henry Clay. The election of 1824 is interesting because all

of the candidates self-identified as Republican. In Hopkins (1971), "all candidates in the campaign of 1824 were members of the same party" (360). Howe (2007) provides further support that "all the rival presidential candidates called themselves Republicans, and each claimed to be the logical successor to the Jeffersonian heritage" (203). The identification of all of the candidates as Republicans is a direct result of the decline of the Federalist Party as discussed above in the presidential elections of 1816 and 1820.

Despite the lack of party competition for the seat since all of the candidates claimed the Republican label, this election was still competitive. Rather than competing as distinct parties though, the candidates competed as factions within the same party. The factions from which they hailed were rooted in different parts of the country. John Quincy Adams, secretary of state, hailed from Massachusetts and General Andrew Jackson, senator, was from Tennessee. William H. Crawford, secretary of the treasury was from Georgia. Henry Clay, speaker of the House, was from Kentucky. However, as was discussed with the 1796 election, "behind the sectional differences lay opposing economic interests" (Smith 1971, 60). The election of 1824 was no different and these economic differences were especially apparent on tariff and banking policy.

The candidate with probably the most developed and comprehensive view of the U.S. economy was Clay. Clay promoted what he called the American System and one of its main features was protective tariffs. Baxter (2004) describes the system as follows: "The American System rested on the idea of harmonizing all segments of the economy for their mutual benefit and of doing so by active support from an

intervening national government" (27). The American System was rooted in the ideas of Hamilton. Clay made sure to let the public know how he compared on economic issues from his opponents. Baxter states, "Clay summoned up the electoral implications of the battle over the tariff when he wrote that though all candidates approved more protection, "the difference between them & me is, that I have ever been placed in situations in which I could not conceal my sentiments" (33).

The importance of economic issues in the election of 1824 is also apparent in the writings of an anonymous author, Wyoming, largely believed to be Jackson himself. In the Wyoming letters, Jackson is lauded and promoted as the best choice for president. Many of the letters focus on economic issues. In one letter on the campaign Wyoming notes that "economy was the test to be preached from. Money was a subject which all understood. . . " (77). Some of the letters specifically focus on Crawford because of his current position as secretary of the treasury. In one Wyoming states, "To banks, now broken and insolvent, he has extended favours, with money, not his own, but which belonged to the people; over which he was trusted to preside, and which he had no business to touch, or interfere with, except to take care of" (96). Like most of the elections that preceded it, the presidential election of 1824 largely centered on economic issues. Thus, this election demonstrates that even when a presidential election is not partisan, as long as it is competitive the economy can significantly impact the vote for president.

Chapter two establishes an enduring relationship between the economy and presidential elections. However, because of the exceptional nature of many early presidential elections, the quantitative analysis in that chapter is limited to elections

from 1828 to 2008. This chapter examines early presidential elections from 1789 to 1824. The resulting analysis demonstrates that even in these early presidential elections the economy played a role in the vote for president.

From nearly the start of presidential elections held under the new constitution, economic issues affected the vote for president. However, one of the necessary conditions for the economy to matter in presidential elections is that the election is competitive. Thus, in the presidential elections of 1789, 1792, and 1820 there is no apparent influence of the economy on the outcome because each of these elections was uncontested. The need for competitive elections is why we see the rise of the economy as an influence on the vote for president with the rise of political parties because political parties initiated competitive elections in the United States. The analysis above demonstrates that in all but one of the elections, the election of 1816, the economy played a substantial role on the vote for president. The election of 1816 centered on the War of 1812 and not economic issues.

Even though most of the elections where the economy affected the vote for president are contests among distinct political parties, political parties are not necessary in order for economic issues to impact voting. The election of 1824 illustrates this point. By 1824 the Federalist Party was near dissolution. Its decline led all of the candidates running for president to run as Republicans. Despite the fact that the race was not among candidates from different parties, it was still a competitive election concentrated on economic issues. Thus, the crucial factor for an economic influence on the vote for president is that the race is competitive. Political parties may have been the impetus for competitive presidential elections in the U.S., but

ultimately what matters is that the race is competitive and not whether it is among vying political parties.

Chapters two and three establish that the relationship between the economy and presidential elections is enduring. Even in early U.S. history, economic issues had a significant impact on the vote for president. However, the effect of the economy in presidential elections has not remained static. Thus, the next chapter analyzes the evolving nature of the relationship between the economy and presidential elections.

Chapter 4: The Evolving Relationship between the Economy and Presidential Elections: Determining the Change Point

The relationship between the economy and presidential elections is not only continuous, but also evolving over time. Chapters two and three provide support for the contention that the relationship between the economy and presidential elections is an enduring one. In chapter two, the quantitative analyses demonstrate that economic issues have played a role in presidential elections from 1828 to 2008. The qualitative analysis in the previous chapter establishes the role of the economy in presidential elections prior to 1828. However, the effect of the economy in presidential elections has not remained static. This chapter and the next test the claim that the role of the economy in U.S. presidential elections has changed over time.

This study posits that the relationship between the economy and presidential elections is evolving. The relationship between the two is dynamic in that the economic issues that influenced the vote for president in early U.S. history are different from the economic issues that have affected more recent presidential elections. This idea has been virtually unstudied in the literature on the economy and presidential elections. In this chapter, presidential elections from 1828 to 2008 are examined to determine which year or years serve as turning points in the dynamic relationship between the economy and the vote for president.

As discussed in chapter two, the two economic variables of primary interest are price instability, which is a measure of inflation and deflation, and real GDP per capita. These economic variables are used because "scholarly work on the effects of economic factors on election results focuses on macroeconomic performance,

principally economic growth and inflation" (Cuzan and Bundrick 1996, 142). Consequently, the dynamic relationship hypothesized is that the effect of the economy on presidential elections has evolved over time with price instability playing a more influential role compared to GDP in early presidential elections and GDP playing a more influential role compared to price instability in more recent presidential elections. Currently, there is very little research on the evolving relationship between the economy and presidential elections. Lynch (1999) is the exception. His findings illustrate the changing nature of the relationship between the economy and the vote for president. In his study, Lynch runs a series of F-tests on selected years that he posits may act as turning points in the relationship between the economy and presidential elections. He finds that 1946 is a statistically significant turning point (1896, 1913, and 1932 are not). His findings show that inflation/deflation is a more powerful explanatory variable for elections in the late 19^{th} and early 20^{th} centuries and GNP is a more powerful predictor in presidential elections after 1946. Lynch states that "voters appear to have responded to price and GNP changes throughout the sample, with GNP becoming more important after 1946" (838). However, Lynch's study is limited in that his examination of turning points is not comprehensive because he selects just four election years to test as potential turning points rather than examining the entire set of elections included in his study. The selection of a few particular years rather than examining the entire set of elections is problematic because the years selected may bias the results.

In their discussion of economic growth during periods of declining or rising prices, Friedman and Schwartz (1963) note that,

> the results of such a calculation are extraordinarily sensitive to the choice of dates: the use of 1880, 1896, and 1913 instead of 1879, 1897, and 1914, gives a rise in aggregate net national product of 2.6 per cent per year from 1880 to 1896 and of 4.4 per cent from 1896 to 1913. (93)

These statistics are in contrast to a rise in aggregate net national product of 3.7 per cent from 1879 to 1897 and 3.2 per cent from 1897 to 1914. This simple calculation illustrates how it can be problematic to select particular dates to analyze like Lynch does rather than examining the entire time series. Furthermore, as has already been noted in previous chapters, another issue with Lynch's study is that his time series begins in 1872 which excludes many of the early presidential elections that are included in these analyses.

Foundations of the Transformation

Despite its weaknesses, Lynch's study provides evidence of the dynamic relationship between the economy and presidential elections across time. Beyond Lynch's study, why does this project posit that price instability matters more in earlier presidential elections and real GDP per capita is more important in more recent presidential elections? The transformation of the role of the economy in presidential elections is rooted in two sources. The first source of change is the transformation of the U.S. economy over time. The U.S. economy in the early 19th century is much different from the U.S. economy today in the 21st century. It is expected that price instability matters more than economic growth in early presidential elections because in the early U.S. economy inflation and deflation played a much more central role. As

the U.S. economy changed so did the relationship between the economy and the vote for president.

The second source of change, which follows from the first, is that along with changes in the economy, the U.S. public (in particular, the voting public) has changed over time. Not only have the economic issues of concern to the public varied over time corresponding to changes in the economy, but the U.S. public's view of itself has changed over time, also contributing to a change in the relationship between the economy and presidential elections. Over time the impact of inflation and deflation on the U.S. economy decreased and economic growth became a more prominent focus and concern for voters. Also, over time U.S. citizens began to see themselves more as members of a nation rather than just as citizens of particular states or localities. This nationalization of identity also contributed to a change in the relationship between the economy and the vote for president as this newly nationalistic citizenry focused more on the national economy.

Fluctuation in Price Instability over Time

In the early U.S. economy, price instability was a central concern. Over time it became less of a concern as prices stabilized. The changes in inflation and deflation in the U.S. economy over time have been noted in many studies. In his work, Moore (1983) discusses the influence of business cycles on inflation. He cites work by Mitchell and Thorp in the 1920s that examines the hypothesis that long swings in the level of wholesale prices are correlated with the size of business cycle expansions and contractions. Specifically, they hypothesize that substantially longer expansions

generate more inflation than periods when expansions are relatively short. In their examination of the U.S. economy, they find "that between 1790 and 1920 there had been a regular alternation of such periods, each one lasting twenty or thirty years, corresponding with the upswings and downswings in the wholesale price index (WPI)" (237). Burns and Mitchell (1946) reexamine this hypothesis with more recent data to include the 1930s and find further support for their theory. Moore expands the analysis to include 1932 to 1981 and finds even more support for the theory. He finds that this period can be classified as an upswing because there are only a few years in which prices have been lower than the previous year. He states that "encompassing five decades, it is by far the longest period of rising prices in the entire record back to 1790" (238).

This study is not interested in the specifics of business cycles. However, the findings in the business cycle literature demonstrate that there are significant differences in the level and impact of inflation and deflation in early U.S. history compared to more recent decades. In early U.S. history, there was more variation or instability in the price level whereas more recently in the U.S., the rate of inflation has remained relatively stable from year to year albeit steadily increasing. Moore states, "what the results seem to mean is that the success the nation has had in moderating the business cycle since the 1930s–specifically, shortening recessions and lengthening expansions–has been achieved only at a price, namely an ever-rising price level" (238).

Moore is not the only scholar to find that the price level has become more stable in recent U.S. history. Hibbs (1987) also notes the increasing stability of prices

over time in the United States. He finds that during the 19th and early 20th centuries, periodic, prolonged contractions in the business cycle inhibited a continually rising price level. His theory is that the market forced firms to strictly regulate their prices because

> the typical nineteenth-century firm was smaller and more exposed to competitive pressures than are firms today, and prices therefore were reduced with a frequency and readiness ("cutthroat competition") that is difficult to imagine now. The costs of price inflexibility were high: forgone profits, reduced market shares, of [sic] bankruptcy. (21)

However, just like Moore, Hibbs finds that the behavior of inflation and deflation changed over time and by the 1950s, prices became more stable. Backus and Kehoe (1992) also note the increased stability in inflation across time. For most of the countries in their sample, they find "that since the Second World War inflation rates have become more persistent, and price fluctuations have changed from procyclical to countercyclical" (882).

Along with the establishment of more stable prices, the economy in recent U.S. history has been marked by very little deflation which is also a departure from the U.S. economy in the late 19th and early 20th centuries. As discussed above, in his examination of the U.S. economy from 1932 to 1981, Moore (1983) finds that there are only a few years where prices have been lower than the previous year. Lynch (1999) also notes the absence of deflation in recent U.S. history. He states that "deflation has been non-existent since the Great Depression [which] removes the impact of the price variable after 1946" (836). Hibbs (1987) also discusses the changes in deflation across time. He states that "until World War II, American capitalism was characterized by great deflations as well as by great inflations;

consequently, over the long run the price level tended to be flat. By contrast, since 1950 the general price level has risen almost continuously, though by varying rates" (14).

As demonstrated by the research discussed above, the activity of inflation and deflation in the U.S. economy has changed across time. The change has been so substantial that in terms of inflation and deflation there are two distinct eras in U.S. history. The 19th and early 20th centuries are marked by greater fluctuations in inflation and deflation. In contrast, the economy in more recent U.S. history is characterized by greater stability in inflation and very little deflation. These changes in the U.S. economy drive the expectation that price instability matters more to the vote for president in earlier presidential elections (compared to GDP) than in more recent presidential elections. While actual changes in the price level across time are evident on an aggregate level, these changes may have been somewhat esoteric to individuals living through them. It is likely that price instability was felt by individuals through other mechanisms such as major events or policies that impacted price changes. To better understand how fluctuations in prices were felt by individuals in early U.S. history, it is useful to examine financial crises and tariff policy. Both financial crises and tariff policy were prominent issues in the 19th and early 20th centuries and influenced price changes to varying degrees.

Financial Crises in U.S. History

Financial crises represent major contractions in the economy which, as discussed above, impacts the stability of prices. While financial crises of varying severity have occurred with regularity in U.S. history, the financial crises of the 19th

and early 20th centuries were arguably more severe than the financial crises of more recent times. To illustrate the impact of financial crises on price instability, the Panic of 1819 and the Panic of 1837 are examined.

The Panic of 1819

The Panic of 1819 is largely considered the first major American financial crisis. It followed the boom period after the War of 1812. During the war, there was a rapid expansion of the money supply which led to increases in the prices of domestic goods. Cotton, which was the leading export, doubled in price at this time (Rothbard 1962). The increased price of cotton, along with an expansion of the market in which to sell cotton with the reestablishment of trade with Europe after the war, led farmers to take out loans in order to increase their production to meet the new demand. However, "the rapidly expanding supply of raw cotton temporarily outran the ability of the new mills to absorb it, and its price in Liverpool began to drop in late 1818" (Howe 2007, 142). Cotton fell from 32.5 cents per pound at its peak (October 1818) to 24 cents per pound by the end of the year and finally 14 cents per pound at its nadir (Howe 2007, 142). "The distress of the farmers, occasioned by the fall in agricultural and real estate prices, was aggravated by the mass of private and bank debts that they had contracted during the boom period" (Rothbard 1962, 15). It is important to note that, according to Howe (2007), the Panic of 1819 "remains the only nationwide depression in American history when the voters did not turn against the administration in Washington" (147). Despite the apparent lack of political effect, this financial crisis still demonstrates the prominence of prices as an issue in early America.

The Panic of 1837

Another major financial crisis in early U.S. history occurred in 1837. This crisis followed a boom period during which there was a major expansion of paper currency. "With more money in circulation, domestic prices rose, including the price people paid the government for western land" (Howe 2007, 502). Around this time, England faced a poor harvest and was forced to import grain. As a result, by 1837 the Bank of England needed money so it began to cut back on credit given to British firms with large American investments. These firms "in turn pressed their transatlantic debtors. The American financial system could not take the pressure" (Howe 2007, 503). One consequence of these events was a severe drop in the price of cotton. Much like in 1818 and 1819, "by 1839, a cotton glut appeared in Liverpool, and the world prices began to drop. The fall continued until cotton sold for less than half its 1836 price. The trade by which the United States had paid its way in the world no longer did so" (Howe 2007, 504). The drop in cotton prices brought the sale of public land to a standstill and left land speculators with land worth only a tenth of what they had purchased it. This had repercussions throughout the rest of the economy as other industries contracted in response. Just like the Panic of 1819, the Panic of 1837 illustrates the prominent effect price instability had in early U.S. history.

Tariffs in Early U.S. History

Tariff policy may also provide a clue as to how prices were felt on an individual level during this time period. Tariffs have been important throughout U.S.

history, but particularly in the 19th and early 20th centuries. While tariffs are not really a cause of changes in prices, they do impact prices typically by attaching a fee to certain imported goods. The prominence and importance of tariffs in early U.S. history make it highly likely that tariff policy and any changes to it would be felt by the public, particularly the voting public. The importance of tariffs is illustrated by the fact that tariffs were a key source of revenue for the federal government in early U.S. history. Wallis (2000) states that "in practice, tariff revenues accounted for 80 to 90 percent of all national revenues in the 19th century, and, with the exception of wars, the national government was amply provided with revenues" (68). Lynch (1999) also notes the importance of tariffs during this time when he states that "tariff rates rose substantially during the Civil War to raise revenue to fight the war" (839).

Aside from being a major source of revenue for the federal government, tariffs also directly affected the price of certain goods by regulating them usually to protect certain domestic industries. James (1981) states "tariffs were the principal source of federal revenue in the nineteenth century and protection of domestic industries was a significant factor as well from the first tariff act of 1789 onward" (726). Because of the effect tariffs had on the prices of particular goods, differing stances on tariffs were taken by "important electoral constituencies, such as farmers and industrial workers" (Lynch 1999, 839). In general, high tariffs were supported by industrialists because tariffs served to protect their industries by making domestic manufactured goods competitive with imported goods. Tariffs, in general, were not supported by farmers because it meant they had to pay more for the goods they were unable to produce such as farm machinery. The aversion to tariffs by farmers was so strong at times that

they blamed tariffs for hard times even when tariffs might not have been at fault. For example, in 1825 there was a sudden drop in cotton prices from 32 cents a pound to 13 cents a pound. "Rather than blame overproduction on the rich soils of the Gulf states, Carolinians complained about the unfairness of the tariff (raised in 1824 against their wishes), which condemned cotton producers to buy in a protected market and sell in an unprotected one" (Howe 2007, 250). And, more often than not, tariffs did negatively affect farmers. Howe notes that "a modern economist has calculated that a 40 percent tariff cost antebellum planters 20 percent of their real income from cotton" (396). In his study of optimum tariff rates, James (1981) finds that "laborers and capitalists would have been the gainers of an optimum tariff policy in the antebellum United States, while landowners and slaveowners would have been injured" (732).

It is difficult to overstate the importance of tariffs in U.S. history. As recently as 1930, tariffs were the subject of major national debate with the passage of the Smoot-Hawley Tariff. As Skowronek (1997) describes, "a debacle that would haunt the administration to the end, the tariff became, in the short term, the central policy issue in the midterm rout of the Republican majorities in 1930" (274). Sundquist (1983) notes that "the central partisan issue of the pre-1896 period had been the tariff" (159). Even though tariffs have little impact on the change in prices, tariffs were important political issues; they affected the price of goods and consequently may illuminate the impact of prices in early U.S. history as felt by individuals at the time.

The discussion above demonstrates the clear importance of prices and the changes in inflation and deflation between the 19th and early 20th centuries and today. The influential role of price instability in the early U.S. economy is not to say that there was no concern over the economic growth of the nation at the time. However, economic growth did not become the primary concern until later in history as prices became more stable and the federal government became more involved in regulating the economy. The rise in the importance of the national economy over inflation and deflation is demonstrated by a change in the primary revenue source of the national government. As discussed above, tariffs were the primary source of federal government revenue in the 19th century. However, as the U.S. economy changed, the primary source of revenue for the federal government shifted to the income tax. Wallis (2000) states,

> One effect of the Depression was the adoption of new sales and income taxes between 1929 and 1933. National income tax collections actually fell between 1929 and 1933, and then rose through the rest of the 1930s. Income tax collections jumped during World War II when the income tax was dramatically expanded by the reduction in personal deductions, increases in marginal tax rates, and the beginning of withholding. (73)

Wallis further finds that between 1902 and 1992 the means by which government in the U.S. collected revenue was becoming more centralized as government revenues were increasingly generated from income and sales taxes collected by the national government as well as state governments. Changes in the U.S. economy were a primary cause of the change in the relationship between the economy and the vote for president. Increased involvement in economic issues by the federal government also contributed to the change. The research discussed above clearly demonstrates the shift

in importance in the U.S. economy away from inflation and deflation and toward national economic growth.

Change in the U.S. Public over Time

Along with changes in the U.S. economy itself, the U.S. public also changed. The main change has been the public's perception of what economic issues are important. As the U.S. economy saw greater stability in prices, the public shifted its perception of the importance of the change in prices. Dolan, Frendreis, and Tatalovich (2009) provide some evidence for this shift in the public's perception. Their study is concerned with the accuracy of individuals' perceptions of the economy compared to the actual state of the economy. They find that people are less adept at perceiving the impact of inflation across the time period they study, 1949-2008. Their theory is that "because inflation involves price changes over time, its ambiguity may hinder accurate cognition more than absolute changes in the unemployment rate" (692). They use a Spearmen Rank-Order Correlation Coefficient to compare how the public perceives unemployment, inflation, and the economy in general with the actual economic conditions of the time. They find that individuals are astute when it comes to unemployment and the economy overall, but, in terms of inflation, the coefficient is 0.39 and statistically insignificant indicating public perceptions of inflation are far from the actual inflation rate. Even though the time period covered is 1949 to 2008, this study provides indirect support that inflation is less important to the public in more recent history than it was in the past.

Not only has the public's perception of the economy changed over time, but the public's perception of itself has also changed, contributing to the shift in the role of the economy in presidential elections. It can be argued that at the founding of the nation many individuals viewed themselves more as citizens of their state rather than citizens of a nation. This view contributed to, and was manifested, by the primary importance of the economic issue of inflation. Price changes during this period, as discussed above, affected farmers and industrialists (or rural and urban Americans) differently and thus affected citizens differently based on their locality and/or occupation. But, over time, Americans' perceptions of themselves became more nationalized. Igo (2007) demonstrates that the rise of the modern survey played a critical role in transforming citizens' views of themselves as a collective: "Immersion in a mass-information economy necessarily conditioned citizens' thinking about their ties to other people and to the nation" (21). The rise of the modern survey altered the way individuals thought about themselves and their place in society; "in the statistics, surveys, and spectra now available to them, citizens could see themselves as part of a new collective, one constituted by and reflected in data compiled by anonymous others" (6). Whereas Americans may have previously seen themselves as members of smaller communities, at some point in U.S. history they began to see themselves as part of a larger, national community. This shift enabled a shift in the focus of the public from local and individualized economic issues, such as inflation, to collective economic measures such as GDP.

Potential Change Points

There is ample evidence to suggest that the relationship between the economy and presidential elections has changed over time. This idea is important because, aside from Lynch (1999), it has been unstudied in the literature. The dearth of research on the evolving relationship between the economy and presidential elections means that there is theoretical uncertainty about when in U.S. history this change occurred. Even looking at the research discussed above, there is disagreement on when prices in the U.S. began to stabilize. Moore (1983) identifies 1932, Hibbs (1987) indentifies the 1950s, and Backus and Kehoe (1992) also identify 1950 as the point at which prices began to stabilize in the United States. Because of this uncertainty, preliminary analysis is necessary first to determine the point at which the change occurred. This point can be called the change point or the turning point. The focus of the rest of this chapter is determining the change point. Many events occurred in U.S. history that may have been contributing factors in shifting the public focus away from issues of price changes and to the national economy. All of the years in the dataset will be tested, but there are several election years which are theoretically more likely than others to serve as the change point. These years are 1896, 1916, 1920, and 1946.

The presidential election of 1896 is a likely early candidate for the change point election. In 1896, the central debate of the election was whether U.S. currency should be backed by gold or by gold and silver. According to Lynch (1999), this election, "with the prominence of 'free silver' and its importance to the changing American party system, might have heightened voter sensitivity to economic

conditions during presidential elections" (834). Sundquist (1983) also notes the importance of the 1896 presidential election. He describes the difference between the election of 1896 and the previous presidential elections: "For twenty years, the contests between Democrats and Republicans had been little more than sham battles that decided no consequential issues (except the tariff) but ordained mainly who would gain and allocate the spoils of office" (154). It is clear that in many respects the presidential election of 1896 was a major break from previous elections and thus could be a potential turning point in the effect of the economy on presidential elections.

The next election that may serve as a turning point is 1916. The presidential election of 1916 is the first to take place after the passage of the Federal Reserve Act and after the ratification of the 16th Amendment, both occurring in 1913. The Federal Reserve Act established the Federal Reserve System. This system "is the central bank of the United States. It was founded by Congress in 1913 to provide the nation with a safer, more flexible, and more stable monetary and financial system" (Board of Governors 2005, 1). Alesina and Rosenthal (1995) acknowledge the significance of the establishment of the Federal Reserve when they use 1915 as the starting point in their study. They use this year because "1914 marks the beginning of a new financial and macroeconomic regime with the creation of the Federal Reserve System; Mankiw, Miron, and Weil (1990) provide convincing evidence that 1914 demarcates an important policy regime shift" (212). The year 1913 is also when the 16th Amendment was ratified. The 16th Amendment affected the collection of income tax by the federal government. As discussed above, the income tax rose to become the

major source of federal government revenue over the tariff. Both of these events could have focused the public on the national economy rather than issues of price instability and thus led 1916 to serve as the change point election.

The 1920 presidential election also may have been the turning point year. This election is the first presidential election after World War I. U.S. involvement in this global war may have focused Americans on the national interest rather than localized politics and policies. Furthermore, this election is the first after the ratification of the 19th Amendment which significantly expanded the electorate by granting women the right to vote. U.S. involvement in the War and the entry of half the population as potential new voters may have shifted the U.S. public's focus to the national economy over previous sectional concerns of price instability.

The next election that may be the change point election, 1946, is selected because it directly follows the presidency of Franklin Roosevelt. According to Lynch (1999), "the set of reforms and regulatory machinery created during the New Deal that began after FDR's election in 1932" may have led to the change in the relationship between the economy and presidential elections (834). Lynch finds that the presidential election of 1946 is the turning point at which economic growth is a more powerful predictor of the vote for president compared to the change in prices. He details why this election is the one in which the role of the economy in presidential elections is significantly different from the elections before it. First, Lynch points out that after the end of World War II, unemployment briefly escalated as servicemen returned home and looked for work and the economy had to shift back to a peacetime economy. According to Gallup polls taken at the time, unemployment

and fear that the depression would resume were major public concerns which suggests a shift to a public focused on the national health of the economy. Second, Lynch cites the passage of the Employment Act which demonstrated growing public sentiment that government should "play a role in guaranteeing employment for its citizens" (840). The passage of the Employment Act also suggests a shift to a public focus on the national economy. As discussed in chapter two, Dolan, Frendreis, and Tatalovich (2008) also note the importance of the passage of the Employment Act of 1946 to the involvement of the federal government in the economy. With the extensive changes in the economy throughout Franklin Roosevelt's term in office, it is possible that the election of 1946 may serve as the turning point.

Any of the events discussed above may have contributed to the shifting of the U.S. public's attention from economic factors experienced on a much more individual level like inflation to economic factors reflecting the national economy like GDP. Because of the theoretical possibility of any presidential election serving as a change point, it is necessary to analyze all of the election years included in this study. Thus, unlike Lynch (1999), this analysis takes a comprehensive approach to determining the change point.

Methods

In contrast to Lynch's use of F-tests, this study utilizes a more systematic method to determine the point at which the influence of the economy on presidential elections has changed. The method, which is described in Western and Kleykamp (2004), is inspired by a Bayesian model to estimate the change point. The Bayesian

model utilized by Western and Kleykamp combines the advantages of diagnostic and parametric approaches in identifying change points. Similar to diagnostic models, the Bayesian model regards the occurrence of change as uncertain and the actual location of the change point as a parameter to be estimated. "Like parametric models, the Bayesian model yields statistical inferences about regression coefficients. However, these inferences reflect prior uncertainty about the location of the change point that is unaccounted for in conventional models" (355). While the actual Bayesian change point model is estimated using the Gibbs sampler, this paper utilizes a much simpler technique that is based on standard regression output, but provides strikingly similar results to the more computationally-intensive Bayesian method.

To model the change in an explanatory variable over time, a model is run with a dummy variable that takes the value of zero up to the time point marking the end of the first time period and a value of one thereafter. Thus, the model used for price instability in this study is written:

$$V_t = \beta_0+\beta_1 GDP_t+\beta_2 Price_t+\beta_3 Expend_t+\beta_4 Unified_t+\beta_5 Inc_t+\beta_6 Year_t+\beta_7 Price_t Year_t+e_t$$

In this model, V_t equals the incumbent two-party popular vote share, GDP_t is the percent change in real GDP per capita, $Price_t$ represents percent change in price instability, $Expend_t$ is federal government expenditures as a percentage of GDP, $Unified_t$ is whether the House of Representatives and the presidency are controlled by the same party at the time of the election, and Inc_t is a dummy variable for whether the incumbent party has held the presidency for two or more terms. Lastly, $Year_t$ is a

dummy variable that equals zero for each year up to the selected year and one for years following the selected year and $Price_tYear_t$ is an interaction of the year dummy variable with the economic variable of interest, price instability, and e_t is an error term. The variables above are the same variables as those used in chapter two except the civil war variable is excluded from the change point models. A thorough discussion of the variables is in chapter two and full descriptions of the variables, sources, and descriptive statistics are in the appendix.

Because a specific change point is not identified *a priori*, $Year_t$ can be replaced with a variable, θ, whose value is not yet specified. The model can then estimate θ along with the regression coefficients. Theta is estimated by selecting a year to start with which in this study is 1832. Thus, in the first model $\beta_6 Year_t$ equals zero for presidential election years before 1832 and one for 1832 and the years after. A model is fit with this period effect and the adjusted R^2 statistic is recorded. The process is repeated for the next presidential election year with θ = 1836 and so on with the adjusted R^2 statistic calculated each time. In the end we are left with a series of adjusted R^2 statistics which are plotted. The adjusted R^2 statistic is used because it is a measure of goodness of fit. The model with the largest adjusted R^2 value is the model that explains the most variance i.e. the model with the best fit, and consequently suggests the election in which the influence of price instability on presidential elections changes. Another method for assessing the goodness of fit of a model is to calculate the Bayesian Information Criterion (BIC). As a point of comparison with the R^2 statistic, the BIC was calculated for each election year model. Like adjusted R^2, the BIC assesses goodness of fit, but, unlike adjusted R^2, it also

takes into account the parsimony of the model. The model with the lowest BIC value is the model that is the best fit and the most parsimonious. Unexplained variation in the dependent variable and an increase in the number of explanatory variables increase the value of BIC.

The process is repeated for the GDP measure. The model is the same as the model above except that in this model the GDP variable is interacted with θ. The model is written:

$$V_t = \beta_0+\beta_1 GDP_t+\beta_2 Price_t+\beta_3 Expend_t+\beta_4 Unified_t+\beta_5 Inc_t+\beta_6 Year_t+\beta_7 GDP_t Year_t+e_t$$

And the method utilized is the same as above with an adjusted R^2 statistic and Bayesian Information Criterion calculated for each value of θ estimated by the model.

Results

Utilizing the above method, 45 regressions were fit for each model using ordinary least squares (OLS) and change points from θ = 1832, …, 2008. A series of adjusted R^2 statistics were calculated and subsequently plotted in Figure 4.1. In this figure, the maximum adjusted R^2 in the price instability model is at θ = 1920. The Bayesian Information Criterion is calculated for each model and plotted in Figure 4.2. The BIC figure further supports 1920 as the identified change point presidential election year in the price instability model.

Figure 4.1: Price Instability Change Point across Presidential Elections

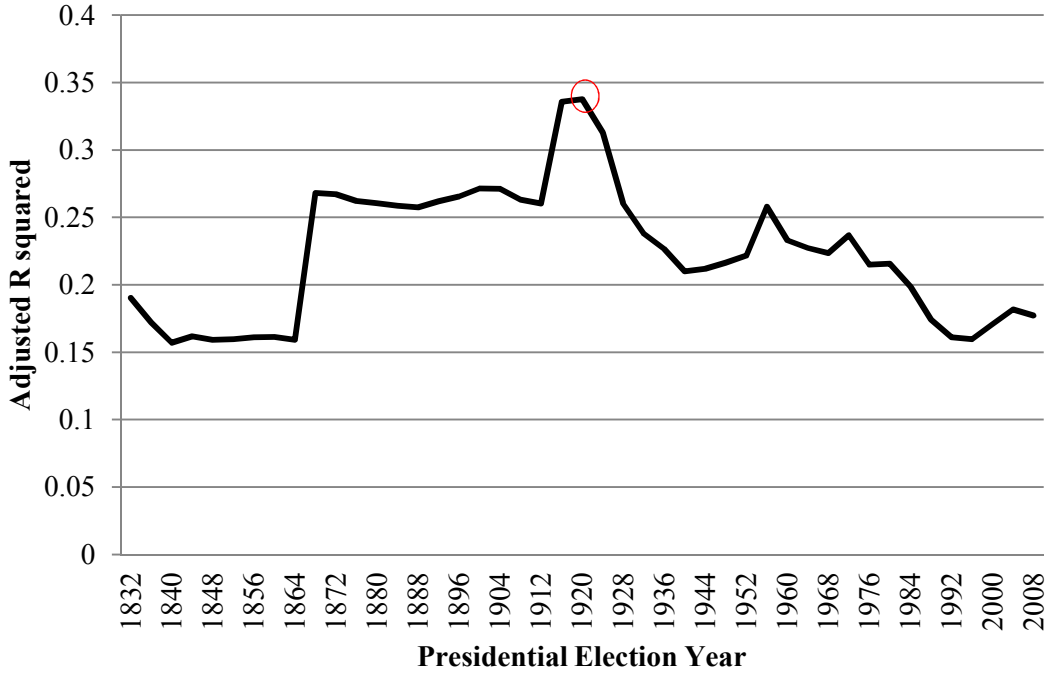
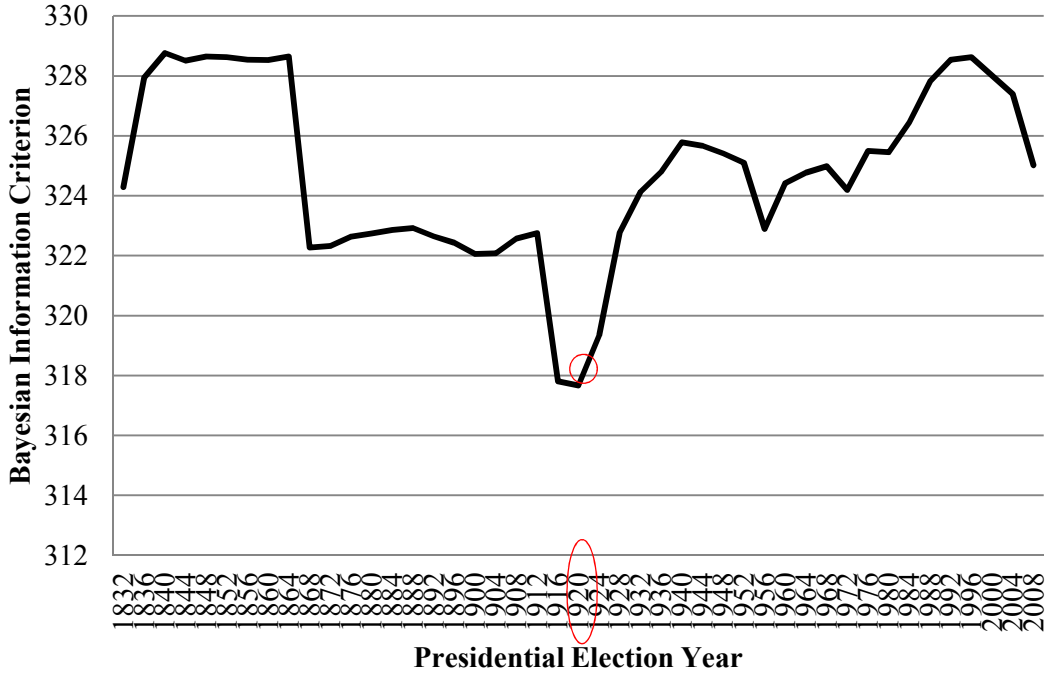
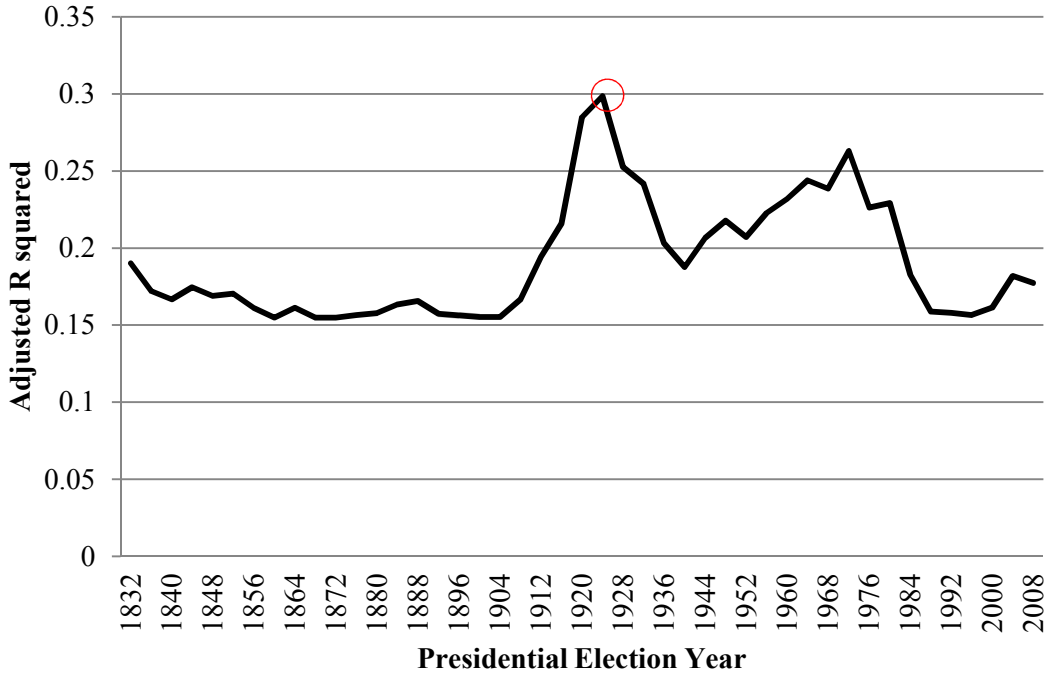


Figure 4.2: Bayesian Information Criterion for Price Instability



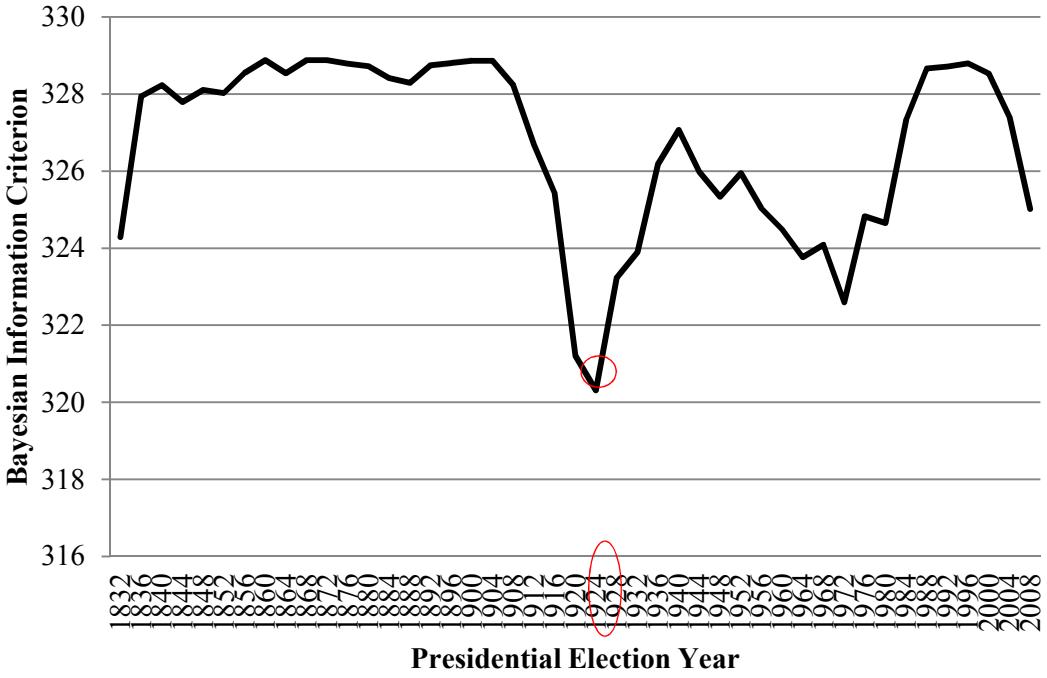
Using the same method as above, but with GDP, 45 regressions were fit for each model again using OLS and the same change points from $\theta = 1832, \ldots, 2008$. In the GDP change point model, the 45 regressions yield a series of adjusted R^2 statistics which are plotted in Figure 4.3. Similar to the price instability change point, the maximum adjusted R^2 is at $\theta = 1924$. Just as above, the BIC is calculated for each model and plotted in Figure 4.4. The BIC figure further supports 1924 as the identified presidential election year in the GDP change point model.

Figure 4.3: GDP Change Point for Presidential Election Years



These results demonstrate that the influence of the economy on presidential elections shifts in the early 1920s. During this time, the economic issue most influential in presidential elections shifted from price instability to economic growth which reflects the hypothesized change from more local or individualized perceptions of the economy to nationalized perceptions. The results more generally support the

Figure 4.4: Bayesian Information Criterion for Real Gross Domestic Product Per Capita



idea that the relationship between the economy and presidential elections has evolved over American history.

As an interesting point of comparison, the change point was tested using F-tests to mimic the procedure used by Lynch (1999). In contrast to Lynch's method, F-tests were run using the presidential election years from 1896 through 1956 to eliminate any issues of selecting only a handful of scattered years. The results of the F-tests are in Table 4.1. The F-tests indicate 1912 is the change point. This presidential election year is the only election year in the series to reach statistical significance. However, it is interesting to note that 1924 and 1952 almost reach statistical significance at $p = 0.07$.

So, is the change point the early 1920s as indicated by the adjusted R^2 statistics or 1912 as indicated by the F tests? It is important to recognize that the two

Table 4.1: F-tests of Presidential Election Year Dummy Variables

Year	F value	p value
1896	0.19	0.6679
1900	0.20	0.6548
1904	1.36	0.2510
1908	0.17	0.6846
1912	21.61	0.0000
1916	0.00	0.9714
1920	0.44	0.5117
1924	3.48	0.0697
1928	0.71	0.4033
1932	0.20	0.6559
1936	0.62	0.4350
1940	0.00	0.9633
1944	1.15	0.2906
1948	1.14	0.2917
1952	3.51	0.0689
1956	0.96	0.3331

methods are slightly different. The F-test for each election year dummy tells us whether the estimated partial regression coefficient for the election year is statistically significant, in other words, whether the year dummy variables are statistically significant. The adjusted R^2 statistic is an overall measure of goodness of fit of the estimated regression line. And Western and Kleykamp (2004) note that the

> ad hoc method of searching for the best-fitting change point has a good statistical justification. Assuming that the error term is normally distributed, the time series of R^2 statistics is proportional to the profile log likelihood for θ. The time point of maximum R^2 is the maximum likelihood estimate of θ. (356)

Furthermore, theoretically, it is difficult to justify a change point in 1912. With the exception of the election of 1896 and the issues surrounding it, the events discussed above that could have contributed to a turning point in the relationship between the economy and presidential elections occurred after 1912. Thus, explaining a change

point at the presidential election year of 1912 is substantively more difficult. Based on the historical evidence of changes in the economy after 1912 and based on the increased statistical justification for utilizing the adjusted R^2 statistics rather than F-tests, there is more support for a change point in the early 1920s rather than in 1912.

Summary and Conclusions

The analysis in this chapter demonstrates that the relationship between the economy and presidential elections has evolved over time. The relationship between the economy and the vote for president is dynamic in that the economic issues that influenced presidential elections in early U.S. history are different from the economic issues that have affected more recent presidential elections. The analysis provides initial support that price instability was more influential in earlier presidential elections compared to GDP and GDP was more influential in more recent presidential elections compared to price instability. Specifically, the results suggest that the early 1920s serve as the turning point over which this change took place. It is in the early 1920s in the United States that the relationship between the economy and presidential elections changed with a decreased role for inflation and deflation and a more prominent role for economic growth in the vote for president.

Overall, the analyses thus far demonstrate that the influence of economic issues in elections has not been limited to just recent presidential elections. The relationship between the economy and presidential elections has been continuous across U.S. history. Furthermore, the relationship between the economy and presidential elections is far from static. This chapter provides an initial test of the idea that the relationship between the economy and the vote for president has evolved over

time. The results demonstrate that the impact of the economy on the vote for president is dynamic across time. Furthermore, the analysis in this chapter suggests the early 1920s as the turning point during which the effect of price instability on the vote for president decreased and the role of economic growth on the vote for president increased. Now that the change point has been identified, the next step is to use this turning point to test the changing effect of the economy on presidential elections over time controlling for other factors. This task is the focus of the next chapter.

Chapter 5: The Evolving Relationship between the Economy and Presidential Elections: The Early 1920s Change Point

The role of the economy in U.S. presidential elections has changed over time. The relationship between the economy and the vote for president is dynamic in that the economic issues that influenced presidential elections in early U.S. history are different from the economic issues that have affected more recent presidential elections. As discussed in detail in chapter four, this study posits that the effect of the economy on presidential elections has evolved over time with price instability playing a more influential economic role in early presidential elections and economic growth playing the primary economic role in more recent presidential elections. This idea has been virtually unstudied and as a result there is little quantitative evidence about when this shift took place. In the previous chapter, using a method described in Western and Kleykamp (2004), the analyses identify the early 1920s as the point at which the relationship between the economy and presidential elections fundamentally changed. This chapter uses the identified change points to examine the dynamic role of the economy in presidential elections.

Specifically, this chapter explains why a shift in the relationship between the economy and presidential elections occurred in the early 1920s and provides empirical evidence that price instability was more influential (compared to GDP) in presidential elections prior to that time and GDP was more influential thereafter. This chapter argues that various internal and external forces resulted in a fundamental change in the U.S. economy, the federal government's role in it, and the public's perception of itself and consequently the economy. Together these factors culminated

in the early 1920s leading to a turning point in the relationship between the economy and presidential elections. The result is that Americans began to focus on national facets of the economy (such as GDP) when voting in presidential elections rather than localized economic factors (such as price stability). The empirical evidence below demonstrates just that; that prior to the early 1920s price instability was more influential on the presidential vote than GDP and after the early 1920s this relationship is reversed.

Establishment of the Federal Reserve System

By the early 1920s, the U.S. economy had undergone a transformation caused by both internal and external changes. The major internal change was the creation of the Federal Reserve System. As noted in the previous chapter, the Federal Reserve System was established by the Federal Reserve Act in 1913. The Federal Reserve System "is the central bank of the United States. It was founded by Congress in 1913 to provide the nation with a safer, more flexible, and more stable monetary and financial system" (Board of Governors 2005, 1). As Morris (2000) states, the most important duty of the Federal Reserve is its role regarding monetary policy and "this responsibility also provides the Fed with the power to influence the national and international economy" (1).

The adoption of the Federal Reserve System was prompted by the Panic of 1907. This financial crisis was one of the worst panics up to this point in the United States. Despite its intensity, it was relatively short-lived, but its effects were far-reaching. The panic resulted in "a transformation of the financial system, marked by

the formal establishment of a powerful central bank in the United States through the Federal Reserve System" (Bruner and Carr 2007, 4). This transformation significantly altered the financial system in the U.S. The significance of the establishment of the Federal Reserve System is noted in several studies that previously have been mentioned. Alesina and Rosenthal (1995) acknowledge the importance of the formation of the Federal Reserve when they use 1915 as the starting point in their study. They use 1915 because "1914 marks the beginning of a new financial and macroeconomic regime with the creation of the Federal Reserve System; Mankiw, Miron, and Weil (1990) provide convincing evidence that 1914 demarcates an important *policy regime shift*" (212, emphasis added). Friedman and Schwartz (1963) call 1914 "a *major watershed* in American monetary history" in part because of the establishment of the Federal Reserve System (9, emphasis added).

The Federal Reserve System began operating in 1914, which is why it is identified as a potential factor for a 1916 change point in chapter four. However, there is ample evidence to suggest that the establishment of the Federal Reserve did not lead to a change in the relationship between the economy and presidential elections until the early 1920s. Even though the Federal Reserve was created in 1913, because of the gold standard and U.S. participation in World War I, the Federal Reserve's first chance to affect monetary policy was not until 1919. Friedman and Schwartz (1963) state "the business cycle from 1919 to 1921 was the first real trial of the new system of monetary control introduced by the Federal Reserve Act" (239).

The Federal Reserve System and Price Instability

According to the Federal Reserve Act, the Federal Reserve System was established "to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes" (Board of Governors 2005, 2). Thus, it was established to alleviate two main problems under the banking system prior to 1914 which were "(1) recurrent interest rate spikes associated with liquidity crises and banking panics, and (2) interest rate seasonals exacerbated by reserve pyramiding" (Broaddus 1993, 5). In light of these issues, the Federal Reserve was given the authority to establish depositories around the country to hold reserves thereby eliminating reserve pyramiding and to create currency and reserves as long as a minimum gold reserve ratio was met. The ability to create currency and reserves enabled the Federal Reserve to alleviate seasonal fluctuations in interest rates and the recurrent interest rate spikes. The Federal Reserve was not established with a direct mandate to stabilize prices. The assumption was that, at least over the long term, prices would be stable under the gold standard (Broaddus 1993). However, the Federal Reserve's influence on prices began relatively quickly once it began operation.

From the start, the Federal Reserve demonstrated its ability to affect price stability. In one of its first actions, in 1920, the Federal Reserve tried to halt monetary expansion by raising discount rates. Friedman and Schwartz (1963) contend that the Federal Reserve did not act quickly enough and when it did act the actions were too aggressive which exacerbated the financial crisis at the time. They describe it as "the

first major deliberate and independent act of monetary policy taken by the System and one for which it was severely criticized" (10). As a result of its actions, prices collapsed leading to a severe economic contraction that lasted into 1921.

Following the contraction of 1920-1921, the U.S. economy entered a period of economic growth. In terms of the Federal Reserve, what makes this period important is that it was marked by more purposeful involvement of the Federal Reserve in price stability. Friedman and Schwartz (1963) state that "one result was a conscious attempt, for perhaps the first time in monetary history, to use central-bank powers to promote internal economic stability…" (240). Thus, even though the Federal Reserve was not established to regulate the stability of prices, by the early 1920s it had adopted this task. Today, the role of the Federal Reserve in regulating prices is so accepted that according to the current Federal Reserve's *Purposes & Functions*, "if the economy is showing signs of overheating and inflation pressures are building, the Federal Reserve will be inclined to counter these pressures by tightening monetary policy" (Board of Governors 2005, 19).

Independence of the Federal Reserve System

Despite these early actions taken by the Federal Reserve, many scholars note that it did not enjoy its current level of policymaking independence until the Accord with the Treasury Department in 1951 (see Morris 2000 and Woolley 1984). Prior to the Accord, the Federal Reserve helped to keep interest rates low in order to support government bond prices as was desired by the Treasury Department. However, after World War II, inflation began to increase and the Federal Reserve's purchase of

Treasury issues to maintain government bond prices led to more inflation. The Accord allowed for an immediate, but slight increase in interest rates and initiated independence for the Federal Reserve in monetary policymaking. In other words, the operation of the Federal Reserve was no longer fully tied with the goals of the Treasury. Despite the Federal Reserve not achieving greater independence until the 1950s, the turning point did not occur at this time. As demonstrated by the discussion above, the important change was not the achievement of greater independence for the Federal Reserve, but rather its establishment and the initial actions it took both of which contributed to an evolution in the relationship between the economy and presidential elections in the early 1920s.

The Rise of a Global U.S. Economy

Along with the internal change of the adoption of the Federal Reserve System, the U.S. economy also was affected by changes occurring globally. The major external changes involve World War I and its aftermath. By the 1920s, the U.S. economy had risen to global prominence. The rise in the economic importance of the U.S. globally meant that the U.S. economy was less at the mercy of the world economic powers of the time. Friedman and Schwartz (1963) note that "the United States had by that time become a substantial factor in the world at large and could no longer be regarded as dancing to the tune of the rest of the world" (237). By the end of World War I, the U.S. was no longer a net debtor illustrating further its increasing independence. Prior to the war, the U.S. was a net debtor meaning that it received more foreign capital than what it invested abroad. Because of World War I, many

countries were forced to liquidate these investments in the U.S. After the war, the foreign investments returned to the U.S., but unlike before the war, the U.S. did not return to being a net debtor. According to Rockoff (2004), "by 1930 the level of foreign investment in the United States exceeded the level of 1914. But the United States did not return to its position as net debtor because Americans began investing large amounts abroad, especially in Latin America" (21). Further independence of the U.S. economy is noted in the movement of prices at the time. Unlike before the war, during and after it prices in the U.S. could move independently to some extent because of flexible exchange rates between the dollar and many other currencies.

Along with a decrease in the influence of external economies on the U.S. economy and its growing independence, by the early 1920s, the U.S. economy was exercising influence on other nations' economies. According to Friedman and Schwartz, there is evidence that movement in prices in the U.S. led to price changes in other countries. By the early 1920s, the U.S. economy had begun to emerge as a global player. The growth in the economic power of the United States was at least partially driven by World War I and also the relaxation of the gold standard during the war.

> Much of the time since [1914], many other countries have not been on the gold standard, or if nominally on it, on a standard that was less automatic and controlling than that of the pre-World War I period, and the relative economic importance of the U.S. had become so great by the end of World War I that it could no longer be regarded as an economically minor part of the gold-standard world. (Friedman and Schwartz 1963, 90)

Thus, by the early 1920s, the U.S. economy had gained independence, became liberated, to some extent, from the influence of other countries, and was able to affect

the economies of other nations. The U.S. economy after World War I had emerged as an active player in the world. Its transformation in the late 1910s and early 1920s played a key role in the evolution of the relationship between the economy and presidential elections. As demonstrated above, the U.S. economy after World War I was much different from the economy prior to the war. It was coming into its own and this period essentially marked the beginning of more purposeful government involvement in the economy. These changes in the economy correspond with changes in the U.S. public. The U.S. public increasingly viewed itself as a national entity and as a result was more focused on the national economy which was eclipsing price instability as a public concern.

Nationalization of Identity in the U.S. Public: Role of Conscription

World War I did not just bring about economic change. Its impact affected the public as well. Following World War I, U.S. citizens, more than ever, saw themselves as members of a nation rather than as citizens of a particular state or locality. One contributing factor to this nationalization of identity was the use of conscription for the war. Prior to World War I (and in U.S. history more generally), conscription was not how the U.S. government typically raised an army. During the Civil War, it is estimated that the Confederate Army drafted between 10 to 21 percent of its troops and the Union Army drafted about 8 percent of its force. In contrast, 72 percent of the army was drafted for World War I. Conscription contributed to this changing view by the public because by drafting the vast majority of troops for the war the U.S. government was somewhat unwittingly creating a relationship between itself and its

soldiers that extended well beyond the battlefield and wartime service. According to Keene (2003), "when the United States entered World War I in 1917, the federal government broke with tradition and conscripted the majority of the required wartime force. With this one decision, the meaning of U.S. military service changed significantly" (2).

Unlike in earlier wars, conscription for World War I was seen as an acceptable way to quickly raise a mass army. During the Civil War, "both sides turned to conscription in desperation and considered conscripts unpatriotic and untrustworthy on the battlefield" (Keene 2003, 2). In World War I, the public saw conscription as an effective and fair way to build an army. However, the use of conscription meant that the federal government determined who remained civilians and who labored as soldiers during the war. This power became an issue because, during and after the war, the experiences of soldiers and veterans differed dramatically from those of civilians and non-veterans.

During World War I, war profiteering was rampant. According to Keene (2003), "the federal government had bought the cooperation of industrialists by letting them keep their exorbitant wartime profits" (162). Furthermore, during the war, civilians earned the highest wages they ever had at that point in U.S. history. The discrepancy between civilian and soldier wages was large. According to the Bureau of Labor Statistics, from 1918 to 1919, average family income was $1,518 per year whereas "the basic pay of enlisted men during World War I averaged $417 per year" (Higgs 1987, 134). Thus, after the war, soldiers questioned the justice of requiring

soldiers to work and fight for miniscule wages while those at home profited handsomely either directly or indirectly from the war.

By conscripting soldiers for the war, in the eyes of those conscripted, the federal government had entered into a social contract with them. Consequently, soldiers felt that they should not be penalized for their compulsory service during the war. The federal government saw the issue very differently. When the war ended, demobilizing the troops and shifting to a peacetime economy proved to be a challenge. The attitude of the federal government was "to sever its relations with veterans immediately to dissuade them from thinking, as Union veterans had after the Civil War, that they deserved any further monetary or medical benefits" (Keene 2003, 162). Returning soldiers were met with little governmental support and no compensation for lost wages while at war. Furthermore, the country was entering into a severe recession following the war and veterans faced high rates of unemployment. In response, World War I veterans began a long political fight with the national government to establish compensation and services for war veterans. World War I veterans were not seeking to be rewarded for their service, but rather that "they should not be unfairly punished for having done their civic duty with diminished social and economic prospects upon their return" (Keene 2003, 163).

Higgs (1987) also notes the political efforts of veterans after the war; "after the armistice the more than four million men who had served in uniform became a political rather than a military force" (150). The movement was ultimately successfully and their efforts led to the adoption of the G.I. Bill which provides various benefits to U.S. veterans. The actions of veterans after World War I

demonstrates how differently these veterans viewed themselves and their country compared to the veterans before them. These were not soldiers fighting as part of a locally organized military or fighting as representatives of their state, but soldiers of a national army fighting in a global war who deserved to be compensated fairly for their service by the national government that had drafted them. Their political battle after the war changed the relationship between veterans and the federal government permanently. The experience and fight for compensation of World War I veterans not only illustrates their changed view of themselves as citizens of a nation, unlike U.S. veterans of earlier wars, but also likely contributed to the nationalization of identity among the general public as most citizens would have known at least one war veteran and/or observed the veterans political struggle with the federal government.

Nationalization of Identity in the U.S. Public: Legacy of World War I

Even beyond the experience of veterans, World War I had a broader impact on the American public. According to Higgs (1987), the war left an ideological legacy. World War I marked unprecedented involvement by the federal government in the economy. For example, under the authority of the Army Appropriations Act of 1916, the federal government took control of the railroads in 1917 which, at the time, were "the country's largest and most essential enterprise" and consequently, government takeover had "enormous economic scope" (Higgs 1987, 145). The federal government saw a takeover as necessary to aid in the war effort because nationwide labor strikes threatened the railroad industry. The nationalization of the railroad industry is just one example of federal government involvement in the economy

during World War I. Because of actions like this on the part of government, Higgs finds that "among the war's most significant legacies was a heightened politicization of the nation's economic life" (155). This unprecedented intervention by government in the economy acquainted the public with federal government involvement in the economy. According to Rockoff (2004),

> the perceived success of government intervention in the economy during the war, whether real, or simply the halo effect of victory around a brief and confused experiment, increased the confidence on the left that central planning was the best way to meet a national crisis, certainly in wartime, and possibly in peacetime as well. (22)

Even beyond the more abstract idea of government involvement in the economy, World War I left a more concrete legacy. Rockoff (2004) finds that many of the government programs of the 1930s are rooted in programs that were initiated during World War I. For example,

> the Reconstruction Finance Corporation (actually set up under Hoover although continued under Roosevelt) was a reincarnation of the War Finance Committee; the Security and Exchange Commission had much in common with the War Issues Committee; and the Civilian Conservation Corps attempted to create the benefits of military service in peacetime (23).

World War I affected the behavior of the federal government. It pushed the federal government to intervene more than ever before. This intervention consisted of federal involvement in the economy and it led to the establishment of numerous government programs that laid the foundation for later programs during the New Deal. Public acceptance of and, to some degree, push for these actions on the part of federal government demonstrate a shift in the identity of the U.S. public. For many individuals, U.S. involvement in World War I prompted a change in thinking about

themselves as citizens of a state or local community to seeing themselves as citizens of a nation.

World War I contributed to the coalescing of the U.S. public into a national body and the crystallization of the U.S. economy as a national economy. It marked a turning point where the public largely began to take on a national identity. It was the first time in history that soldiers had organized as a national movement and successfully petitioned government for compensation for service to their country. And the idea of federal government intervention in the economy began to take hold within the country. The U.S. economy was establishing itself as a national and global economy and consequently the federal government's involvement in it increased. All of these changes more generally contributed to the nationalization of identity within the U.S. public. The changes in the U.S. economy and the shift in the identification of the American public contributed to the evolution of the relationship between the economy and presidential elections. Both the change in the economy and the changes in the U.S. public enabled a shift in the focus of the public from local and individualized economic issues, such as inflation and deflation, to collective economic issues such as GDP. By the early 1920s, the U.S. public, more than ever, recognized the growing importance of the national economy and its influence on their lives and this impacted the vote for president.

The Change is Rooted in Industrialization

While World War I and the period following it mark the time when the U.S. economy gained more independence and influence in the world, thereby leading the

federal government to take on more responsibility for economic outcomes, Freidman and Schwartz are careful to note that this change was a change of degree. In other words, the economic changes taking place during and after World War I and, arguably, the changes in the public as well, were set in motion much earlier than the 1920s. These changes have their roots in industrialization which Howe (2007) notes started relatively early in the United States. Between 1820 and 1850, the number of people in the U.S. living in urban areas multiplied fivefold meaning that this era was "the period of the most rapid urbanization in American history" (Howe 2007, 526). Industrialization brought on many changes in the American political, economic, and social landscape. Most importantly, as Skowronek (1982) argues, industrialization and the American response to it led to an expansion of national administrative capacities and consequently the establishment of a new American state.

Prior to industrialization, America lacked a sense of state. According to Skowronek (1982), "the exceptional character of the early American state is neatly summarized in the paradox that it failed to evoke any sense of a state" (5). However, in Skowronek's narrative, industrialization spurred state building in the U.S. through a patchwork and reconstitution process taking place from 1877 to 1920. The patchwork process was where new institutions were created to meet an immediate need, but support for them was unsustainable. Reconstitution occurred next and was when an entirely new structure was developed and maintained. According to Skowronek, the reconstitution process occurred during the Progressive Era and was marked by a struggle between many actors and institutions.

The Progressive Era included a diverse group of actors sometimes forming political alliances to achieve similar goals for reform, but other times their goals were at odds with one another. Leonard (2009) notes this diversity stating that the active groups during the Progressive Era included "nativists, Social Gospelers, alcohol prohibitionists, suffragists, muckrakers, secret balloters, birth controllers, trust busters, eugenicists, social surveyors, charity reformers, settlement house workers, pacifists, city-beautiful advocates, factory inspectors, social purifiers, child-welfare advocates, and conservationists" (111). Despite this diversity, one of the broad themes of the progressive movement was economic reform. Leonard states that the overarching question of the day was "What should be the relationship of the state to the economy?" (113)

The importance of economic reform to the Progressive Era is evident in the presidential election of 1912. According to Link (1954), "the election of 1912 marked the culmination of more than twenty years of popular revolt against a state of affairs that seemed to guarantee perpetual political and economic control to the privileged few in city, state, and nation" (1). The campaign centered on reform with Theodore Roosevelt promoting his New Nationalism plan and Woodrow Wilson advocating his New Freedom platform.[16] Both plans largely concerned economic issues and put forth different ways in which government should be involved in economic reform. That two of the prominent candidates for president in 1912 both promoted plans for economic reform demonstrates just how important the push for change had become in the United States. The Progressive Era is defined by a call from the public for more

[16] William H. Taft ran as the Republican candidate, but promoted a conservative agenda in contrast to the campaigns of Wilson and Roosevelt.

government involvement in the economy. The struggles of the Progressive Era left a more well-developed and centralized national administration (Skowronek 1982).

Even though these changes were initiated by an industrialization process which may have started as early as the 1820s, the transformation of the U.S. as a nation was not solidified until the 1920s. Skowronek finds that "by 1920, American national government had broken from the grip of local politics and assumed a more independent role in American society" (211). Furthermore, "the organizational, procedural, and intellectual determinants of the new American state crystallized around 1920" (210).

The transformation of the U.S. economy and public was a complex and protracted process that reached a critical juncture in the early 1920s. One consequence of this transformation is that the effect of the economy on the vote for president also changed. Even though the early 1920s are rarely thought of as a turning point in the presidential election literature, the discussion above demonstrates that this time period as the change point is very theoretically compelling because it is a defining moment in U.S. history in terms of the economy and the public. The rest of this chapter quantitatively tests the theory that the early 1920s serve as the change point in the relationship between the economy and the vote for president. It examines whether price instability was more influential (compared to GDP) in presidential elections prior to the early 1920s and whether GDP was more influential after the early 1920s (compared to price instability). The set of elections examined is presidential elections from 1828 to 2008 which is the same as the analyses in the

previous chapter and chapter two. The data utilized are also the same as in these earlier chapters.

Methods

The analyses were conducted using OLS. To test the 1920s change points, two separate models were run; one model with 1920 as the change point and the second with 1924 as the change point based on the findings in chapter four. For the 1920 change point, a model was run with a dummy variable with a value of "0" prior to 1920 and a value of "1" for election years 1920 to 2008. The 1920 dummy variable is interacted with the economic variables, price instability and GDP, so in the model there are two interaction terms. The OLS model for the 1920 change point is in Table 5.1. The p-values for all of the independent variables except Civil War (and the constant) are one-tailed because the hypothesized relationships between all of the these variables and the vote for president are directional.

The second model tests 1924 as the change point. Like the 1920 model, this is also an OLS model and it includes a dummy variable for 1924 that takes on the value of "0" for presidential elections from 1828 to 1920 and "1" for elections from 1924 to 2008. The year dummy variable is also interacted with the two primary economic variables as it is in the model above and the p-values are calculated the same as in the 1920 change point model. The second model is in Table 5.2. Unlike the 1920 change point model, the 1924 change point model provides strong support for an evolving relationship between the economy and presidential elections with a 1924 change point.

Results

In general, the regression with the 1920 change point provides mixed support for 1920 as the turning point in the relationship between the economy and presidential elections. In this model, the most promising result is the finding for gross domestic product. The expectation is that change in real GDP per capita becomes more important to the vote for president after 1920 and the findings support this theory. In Table 5.1, the coefficient for the GDP measure is not statistically significant meaning that prior to 1920 the effect of GDP on the vote for president does not reach statistical significance. The other GDP measure in the model is the interaction between GDP and the 1920 dummy variable. The coefficient for this variable is statistically significant at $p = 0.07$ which means that for elections1920 and later the percent change in real GDP per capita affects the vote for president at statistically significant levels.

The coefficient for this variable is 0.66 so for every one percent change in real GDP per capita after 1920, the two-party popular vote share increases by 0.66 percentage points, all else equal. While 0.66 percentage points is not very large, it is important to consider the substantive impact of GDP on the popular vote share. The average change in real GDP per capita for elections 1920 and later is 2.3 percent. With an average change in GDP, the percent of the two-party vote won by the incumbent increases by 1.52 percentage points. Based on these findings, while a change of this magnitude may not impact every election, it is substantial enough to be felt in a close election. Thus, the findings for GDP are substantively significant and

Table 5.1: Explaining Two-Party Popular Vote Share, 1828-2008 with a 1920 Change Point

	Two-Party Popular Vote, 1828-2008		
	Coefficient	Standard Error	P-Value
Real GDP per capita (percent change)	-0.208	0.279	0.23
Price Instability (percent change)	-0.018	0.068	0.39
Federal Government Expenditures	-0.172	0.153	0.13
Party Performance (Unified Government)	5.044	1.916	0.01
Incumbency	-3.634	1.858	0.03
Civil War	12.902	42.745	0.77
1920 Dummy Variable	6.287	3.209	0.03
Price Instability*1920	-0.041	0.072	0.29
GDP*1920	0.661	0.435	0.07
Constant	50.084	1.840	0.00
Adjusted R^2	0.351		
N	46		

Notes: The coefficients presented above are OLS estimates. P-values are one-tailed for all of the independent variables except for Civil War and the constant.

overall support the theory that voters reward economic growth and did so more after 1920.

While GDP performs as was expected in the 1920 change point model, price instability does not. The expectation is that price instability is more influential on the vote for president prior to 1920 than in more recent presidential elections. However, neither of the price instability measures reaches statistical significance. Both of the coefficients are in the expected direction which is negative because we expect that increased price instability will lead to a decrease in the popular vote share for the incumbent candidate. However, neither of the coefficients is statistically significant.

Despite the lack of statistical significance it is still important to assess the substantive significance of the findings for price instability because of the small number of cases in this analysis. As noted in chapter two, while this study is more

inclusive than every other quantitative study of presidential elections and the economy, it includes elections from 1828 to 2008 which is only a total number of 46 cases. Performing any type of analysis on a sample of 46 can be problematic. A small sample size makes it more difficult to attain statistical significance because statistical significance can be driven by the size of the sample used. Large sample sizes decrease the standard error of the estimated coefficients resulting in a larger t score and greater statistical significance. Thus, it could be the case that the small sample in this analysis is contributing to the lack of statistically significant results for price instability in the 1920 change point model.

The coefficient for price instability on the vote for president prior to 1920 is -0.018. For the period before 1920, the average change in the price instability measure is 38.73 percent. With an average change in price instability, the percent of the two-party vote won by the incumbent decreases by 0.70 percentage points which is not very large in the context of a presidential election. Thus, price instability prior to 1920 does not seem to substantively affect the vote for president. The coefficient for price instability after 1920 is -0.041 and the average change in price instability during this same time period is 33.36 percent. In terms of substantive significance, an average change in price stability after 1920 leads to a decrease of 1.37 percentage points in the vote for the incumbent candidate. This finding is of at least some substantive significance because 1.37 percentage points is almost double the value for price instability prior to 1920 and would have impacted at least a few presidential electoral outcomes in U.S. history. However, theoretically it was expected that price instability was more important in earlier presidential elections compared to more

recent elections. Thus, even disregarding statistical significance, the findings for price instability do not provide strong support for a 1920 change point.

In regard to the control variables in this model, party performance significantly affects the vote share received by incumbent presidential candidates, as does incumbency. For incumbents of the same party as the House majority at the time of the election, the two-party popular vote share is 5.04 percentage points larger, all else equal. The expectation was that voters reward incumbents for their party's performance, crudely measured by unified control of the presidency and the House at the time of the election. Thus, the results provide support for this expectation that voters reward overall party performance. As expected for incumbency, for candidates whose parties have served two or more terms, their vote share decreases by 3.63 percentage points, all else equal. As stated by Abramowitz (2008), voters prefer periodic fluctuation in power between the two major parties. Thus, incumbents whose parties have controlled the presidency for two or more terms are seemingly punished by voters. The results for the control variables are very similar to those for the full model in chapter two.

Unlike the 1920 change point model, the findings for price instability and GDP in the 1924 model are as expected (see Table 5.2). In terms of price instability, its impact on the vote for president prior to 1924 is statistically significant at $p = 0.07$. The coefficient is -0.036 so it is in the hypothesized negative direction. Thus, for presidential elections prior to 1924, greater price instability leads to a decrease in the two-party popular vote share for incumbent presidents, all else equal.

Table 5.2: Explaining Two-Party Popular Vote Share, 1828-2008 with a 1924 Change Point

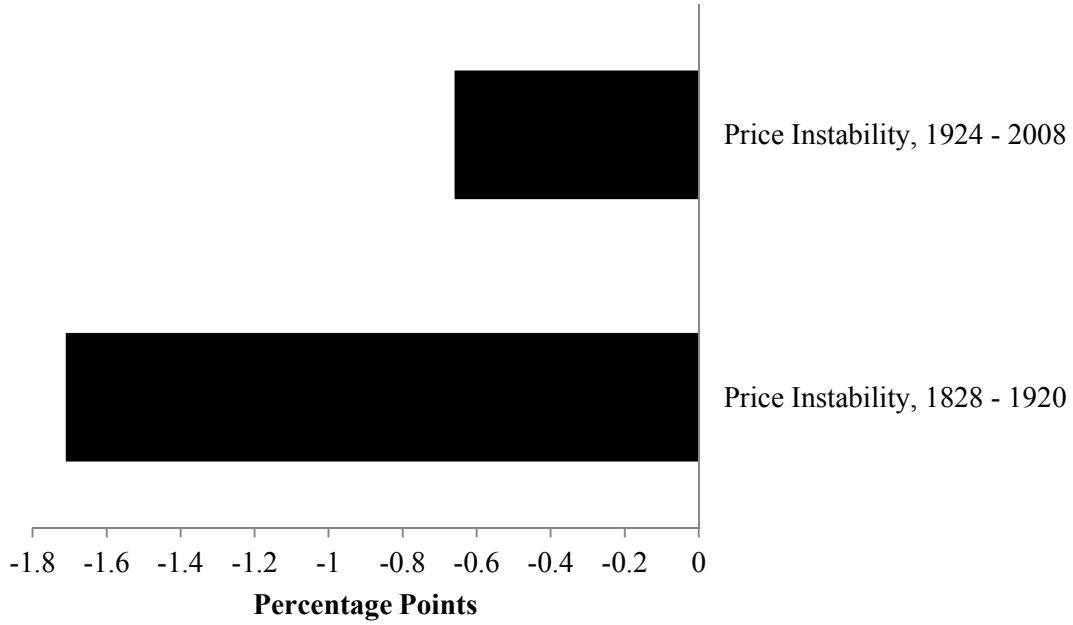
	Two-Party Popular Vote, 1828-2008		
	Coefficient	Standard Error	P-Value
Real GDP per capita (percent change)	-0.185	0.263	0.24
Price Instability (percent change)	-0.036	0.024	0.07
Federal Government Expenditures	-0.166	0.160	0.15
Party Performance (Unified Government)	5.254	1.870	0.004
Incumbency	-3.704	1.923	0.03
Civil War	23.698	16.113	0.15
1924 Dummy Variable	6.182	3.182	0.03
Price Instability*1924	-0.028	0.044	0.26
GDP*1924	0.611	0.437	0.09
Constant	50.165	1.816	0.00
Adjusted R^2	0.351		
N	46		

Notes: The coefficients presented above are OLS estimates. P-values are one-tailed for all of the independent variables except for Civil War and the constant.

While the coefficient seems small at -0.036, it is important to assess it substantively. For presidential elections prior to 1924, the average change in price instability is 47.57 percent. With an average change in price instability, the percent of the two-party vote won by the incumbent decreases by 1.71 percentage points. This value may seem too small to matter, but by itself it could have altered the outcome in close election where the popular vote margin was less than 1.71 such as 1844, 1888, 1960, 1968, and 2000 to name a few. The impact of price instability after 1924 is not statistically significant as demonstrated by the p value for the interaction term of price instability and the 1924 dummy variable.

To get a better sense of the substantive significance of price instability in the 1924 change point model, the change in the two-party vote share with an average change in price instability was graphed in Figure 5.1. As discussed above, for presidential elections from 1828 to 1920, with an average change in price instability,

Figure 5.1: Two-Party Vote Change with the Average Change in Price Instability



the percent of the two-party vote won by the incumbent decreases by 1.71 percentage points. Even though the 1924 to 2008 price instability measure is not statistically significant, it is still useful to graph it as a point of comparison to price instability from 1828 to 1920. In Figure 5.1, we can see that the two-party popular vote won by the incumbent decreases by 0.66 percentage points for elections from 1924 to 2008. Thus, even substantively, the 1924 change point model demonstrates that the impact of price instability was nearly triple what it was in the latter time period. Price instability fits the theory that in early presidential elections it significantly affected the vote for president and became less important over time. Therefore, in terms of price instability, we find support for a change point in 1924.

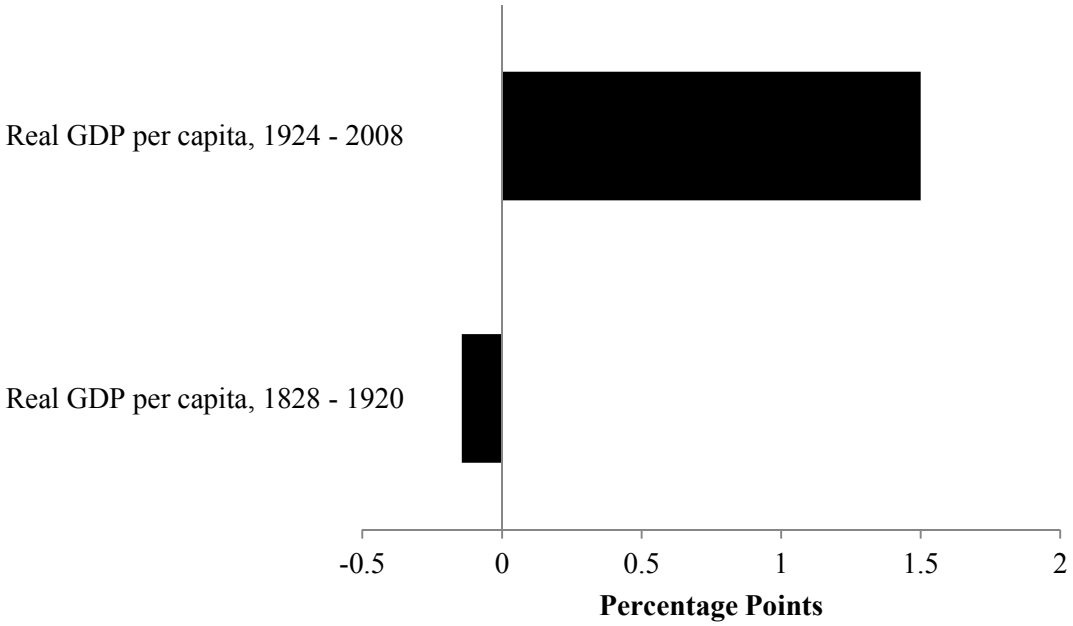
The findings for GDP are the opposite of price instability in that the coefficient for GDP prior to 1924 is not statistically significant because the p value is

0.24. However, for presidential elections from 1924 to the present, the impact of the percent change of real GDP per capita on the vote for president is statistically significant at $p = 0.09$, all else equal. This finding meets the expectation that GDP did not come to play an important role in presidential elections until more recently. The coefficient for GDP for the period from 1924 to 2008 is 0.611 meaning that a one percent increase in GDP leads to an increase of 0.611 percentage points of the two-party popular vote share. This result supports the theory that voters reward incumbents for economic growth.

In terms of substantive significance, the average change for real GDP per capita in the post 1924 period is 2.46 percent. With an average change in GDP, the percent of the two-party popular vote for the incumbent increases by 1.50 percentage points. Just as with price instability, this change caused by GDP may seem small, but it is large enough to impact close elections which have not been infrequent in American history. At least eight presidential elections in the U.S. have had a popular vote margin two percentage points or less between the Electoral College winner and runner-up.

In Figure 5.2, the substantive impact of GDP is graphed. Similar to the above figure, Figure 5.2 depicts the change in the two-party incumbent vote share for an average change in real GDP per capita. For presidential elections from 1924 to 2008, an average change in GDP, leads to an increase in the two-party popular vote for the incumbent by 1.50 percentage points. The value for presidential elections in the earlier time period is strikingly different. As noted above, the coefficient for real GDP per capita for presidential elections from 1828 to 1920 is not statistically significant.

Figure 5.2: Two-Party Vote Change with the Average Change in GDP



As evidenced by the figure above, GDP in the earlier era also lacks substantive significance. For presidential elections from 1828 to 1920, with an average change in GDP, the two-party popular vote won by the incumbent decreases by 0.14 percentage points. Therefore, not only is the GDP variable of less magnitude in the earlier time period, but it is not in the hypothesized direction so for presidential elections from 1828 to 1920, the 1924 change point model suggests that as GDP increases, the vote share for the incumbent candidate decreases, all else equal. Even substantively, this change point model demonstrates that GDP does not significantly impact the vote for president until later in U.S. history. Thus, the results for GDP provide further support for a 1924 change point because we find that GDP significantly impacts the vote for president after 1924, but not in presidential elections from 1828 to 1920.

In regard to the control variables in this model, party performance significantly affects the vote share received by incumbent presidential candidates, as does incumbency just as in the 1920 change point model. For incumbents of the same party as the House majority at the time of the election, the two-party popular vote share is 5.25 percentage points larger, all else equal. Thus, voters reward incumbents for their party's performance which, again, is crudely measured by unified control of the presidency and the House at the time of the election. In terms of party tenure, for candidates whose parties have served two or more terms, their vote share decreases by 3.70 percentage points, all else equal. The 1924 change point model provides further support to Abramowitz's theory that voters prefer periodic fluctuation in power between the two major parties. Incumbents whose parties have controlled the presidency for two or more terms are punished by voters which we find in the model.

Summary and Conclusions

The relationship between the economy and presidential elections has been marked by continuity, but also change. The analyses in chapter four point to a major change in the early 1920s; more specifically, they identify 1920 and 1924 as probable turning points. The models above test both years and provide clear support for a 1924 change point. In the 1924 model, we find that price instability significantly impacts the vote for president in elections prior to 1924 and GDP significantly affects the vote for president in elections 1924 and later. The results demonstrate a shift in the relationship between the economy and the vote for president. For earlier presidential elections, price instability plays a key role in the vote for president and for more

recent presidential elections the focus turns to changes in GDP. These results fit well with the theory of a change point in the effect of the economy on the vote for president in 1924.

While most studies of the economy and presidential elections focus on the changes that occurred in the aftermath of the Great Depression and Franklin Roosevelt's presidency, this analysis suggests that a key change in the effect of the economy in presidential elections occurred at least a decade earlier. Fundamental changes in the U.S. economy took place around World War I. Around this time, the biggest change in the economy domestically was the establishment of the Federal Reserve System in 1913. The Federal Reserve System provided the federal government with a means by which to influence monetary policy and in doing so the Federal Reserve quickly took on the task of trying to stabilize the economy when necessary. The Federal Reserve System came into its own in the 1920s and laid the foundation for the operation of the Federal Reserve as we know it today.

Aside from the establishment of the Federal Reserve System, other changes in the U.S. economy occurred around this time. By the 1920s, the U.S. economy had achieved a level of independence it had not yet reached in the world. Prior to this time, the United States was a net debtor meaning it received more capital from foreign countries than what it invested abroad. However, many countries had to liquidate their U.S. investments because of World War I. After the war, the foreign investments returned to the U.S., but unlike before the war, the U.S. did not return to being a net debtor because of increased investments by the U.S. in Latina America. By the end of World War I, the U.S. economy was also having more of an impact on

the economies of other countries. Just one example of this growing influence is that changes in prices in the U.S. affected price changes in other countries.

Along with these economic changes, there was also a change in the American public surrounding World War I. The most obvious change was in regard to soldiers who fought in the war. World War I marks the first time a national mass army was raised and it was done through conscription. Because of conscription, the federal government determined who remained civilians and who entered the military. During World War I, civilians earned uncharacteristically high wages compared to what they had made historically and soldiers labored for relatively paltry wages. Furthermore, after the war the U.S. entered into a recession and soldiers faced high levels of unemployment and little help from the government that had drafted them. These conditions spurred World War I veterans to organize and they began a long political fight with the national government to establish compensation for U.S. veterans.

World War I left an even broader legacy than just its impact on soldiers. The war introduced the public to federal government involvement in the economy. Furthermore, many of the programs started in response to World War I laid the foundation for future government programs such as many that were a part of the New Deal. This government involvement due to the war familiarized the public more generally with a federal government that was more involved in the economy. The experience of soldiers and citizens during World War I contributed to a shift in the public's focus to the national economy from more individualized economic matters such as inflation and deflation.

It is interesting that only the 1924 change point model performs as expected because the establishment of the Federal Reserve and World War I took place closer to 1920 rather than 1924. These results highlight that it is important to keep in mind two factors. The first is that it usually takes time for policies and events to have an impact. In other words, it is likely that the full impact of a policy or an event will not occur until at least several years after the program is adopted. The establishment of the Federal Reserve is a classic example of this idea. Although it was legislated in 1913, it did not even really begin to act until after World War I in 1919 and it did not really hit its stride until the 1920s which Freidman and Schwartz call its high tide period. The second point that has been discussed above is that out of necessity this study has a small number of cases with an N = 46. Because of the small number of cases, the analyses lack a certain level of precision which also might contribute to a change point in 1924 rather than 1920.

The specific role the economy has played in U.S. presidential elections has changed over time. This study posits that the relationship between the economy and presidential elections is evolving; changing as the political, economic, and social landscape of the U.S. has changed. To put it simply, the economic issues that influenced presidential elections in early U.S. history are different from the economic issues that have affected more recent presidential elections. This idea has been virtually unstudied in the literature on the economy and presidential elections. The analyses in this chapter provide clear evidence that the role of the economy has changed over time. Specifically, price instability played a more influential role in

earlier presidential elections, and economic growth gained more influence in more recent presidential elections.

The transformation of the role of the economy in presidential elections is rooted in two sources. The first source of change is the transformation of the U.S. economy over time. The U.S. economy in the early 19th century is much different from the U.S. economy today in the 21st century. As discussed thoroughly above, the U.S. economy underwent a fundamental change by the early 1920s. The second source of change, which derives from the first, is that the public has changed leading to a change in the primary economic issue of concern to the public. This change in the public occurred concomitantly with changes in the U.S. economy over time. In the early 20th century U.S., changes in the economy and World War I shifted the public to a more national identity. This nationalization of identity led the public to focus more on economic growth rather than the economic issues that had been important earlier including inflation and deflation.

These changes in the U.S. economy and the public led to the evolution in the relationship between the economy and the vote for president. Based on these findings, it is clear that future studies on the economy and the vote for president may benefit from taking a broader view of presidential elections rather than unnecessarily restricting the cases to only more recent elections. Taking into account early presidential elections only serves to enhance our understanding of the dynamic role the economy plays in presidential elections.

Chapter 6: Conclusions

Most studies in the presidential elections literature include only a narrow subset of more recent presidential elections. This exclusion is particularly evident in work examining the relationship between economic issues and the vote for president where early presidential elections are routinely excluded. This exclusion is often done without much justification or by leaning on the poorly defined concept of the modern presidency either explicitly or implicitly by the sample used. However, there is evidence to suggest that the influence of the economy on the vote for president occurred much earlier than well into the 20th century. One example is that much of the debate in the Constitutional Convention over what powers the new federal government should have dealt with economic issues such as the ability of the federal government to collect taxes. Beyond the Constitutional Convention, another economic issue that arose very early in the presidency was whether it was legitimate for the federal government to establish a national bank. Another economic issue of concern in the early presidency was the tariff. As mentioned in chapter one, Smith (2005) finds that this issue along with tax policy was a concern for almost every president from Washington to Clinton.

Diverging from most of the existing literature, this study examines the relationship between the economy and presidential elections from 1789 to 2008. No other study of the effect of the economy on the vote for president includes elections earlier than 1872. The tendency to focus on more recent presidential elections means that routinely over half of all presidential elections that have been held in the U.S. are

routinely excluded from studies. The findings of this analysis are two-fold. First, the relationship between the economy and presidential elections is an enduring one. The impact of the economy on the vote for president has been present in varying degrees for almost every presidential election held in the U.S. The role of economic issues in the vote for president is not limited to just more recent presidential elections. The second conclusion is that the relationship between the economy and presidential elections is changing over time. Even though economic issues have influenced presidential elections since the founding, the U.S. today is very different from the U.S.in the nineteenth and twentieth centuries. The political, economic, and social landscape of the United States has changed substantially over time. This work finds that the relationship between the economy and presidential elections is evolving in that the economic issues that influenced presidential elections in early U.S. history are different from the economic issues that have affected more recent presidential elections.

The Enduring Relationship between the Economy and Presidential Elections

Chapters two and three take up the research question of whether the relationship between the economy and presidential elections is a continuous one. Chapter two quantitatively analyzes this question for presidential elections from 1828 to 2008. Again, this analysis is notable because unlike any existing study in the literature on the economy and presidential elections, this project extends the analysis back to the presidential election of 1828. The main economic variables examined are real gross domestic product per capita (GDP) and price instability. These economic variables are used because in the literature on the effect of the economy in

presidential elections the focus is on economic growth and inflation. The hypothesis is that both price instability and GDP significantly influence the two-party vote share for the incumbent with increased price instability leading to a decrease in the vote share and increasing changes in GDP leading to an increase in the two-party vote share. Using OLS, the findings in this chapter are mixed. I find that, as expected, voters do punish incumbent candidates for unstable prices. However, I also find that there is not a significant relationship between GDP and the vote for president. Thus, there is no support for the expectation that voters reward the incumbent party for economic growth across the entire time period. Despite the findings for GDP, the chapter more generally demonstrates support for the idea that the relationship between the economy and presidential elections is an enduring one.

Chapter three also examines the research question of whether there is an enduring relationship between the economy and presidential elections. Unlike chapter two, this chapter focuses on the elections from 1789 to 1824. These elections are examined in their own chapter because their distinctiveness means they are not conducive to including in the quantitative analysis of the previous chapter. The unique characteristics of these presidential elections include elections that were uncontested (e.g. 1789), elections decide by the House of Representatives (e.g. 1824), and elections prior to the adoption of the Twelfth Amendment where electors did not distinguish between their vote for president and vote for vice president which could (and did) cause multiple problems in the electoral process (e.g. 1800). The historical analysis in this chapter demonstrates that even in these early presidential elections the economy played a role in the vote for president. From nearly the start of presidential

elections held under the new constitution, economic issues affected the vote for president.

The analysis finds that one of the necessary conditions for the economy to matter in presidential elections is that the election is competitive. The need for competitive elections is why we see the rise of the economy as an influence on the vote for president with the rise of political parties because political parties initiated competitive elections in the United States. However, even though most of the elections where the economy affected the vote for president are contests among distinct political parties, political parties are not necessary in order for economic issues to impact voting which is illustrated by the election of 1824. The crucial factor for an economic influence on the vote for president is that the race is competitive.

Chapters two and three establish that the relationship between the economy and presidential elections is enduring. Even in early U.S. history, economic issues have a significant impact on the vote for president. Despite the exclusion of these elections from the broader literature, the economy has had an enduring effect on the vote for president from the founding of the U.S. to today.

The Evolving Relationship between the Economy and Presidential Elections

Despite an enduring relationship between the economy and presidential elections, the effect of the economy in presidential elections has not remained static. Thus, chapters four and five analyze the evolving nature of the relationship between the economy and presidential elections.

The relationship between the economy and the vote for president is evolving in that the issues that influenced presidential elections in early U.S. history are different from the economic issues that have affected more recent presidential elections. Chapter four begins to test this hypothesis by using change point models. There is no clear identified turning point in the literature on the economy and presidential elections. In other words, the question is if the relationship between the economy and the vote for president has changed over time, when did this change take place? This chapter uses the same data as chapter two to determine when the evolution in the relationship between the economy and presidential elections occurred. The results point to the early 1920s as the turning point i.e. 1920 and 1924. Thus, according to the analysis, it is in the early 1920s in the United States that the relationship between the economy and presidential elections changed with a decreased role for inflation and deflation and a more prominent role for economic growth in the vote for president. This finding is in contrast to much of the literature which suggests that a turning point in the impact of economic issues on the vote for president took place in the 1930s or after the presidency of Franklin Roosevelt.

Chapter five also examines the evolving relationship between the economy and presidential elections. Because of the initial uncertainty about when the change point took place, this chapter first focuses on why a turning point in the early 1920s is likely theoretically. Immediately preceding the 1920s, a lot of change was occurring in the U.S. which led to the evolution in the effect of the economy on the vote for president. Various internal and external forces at the time changed the U.S. economy, the federal government's role in it, and the public's perception of itself and

consequently the economy. Two of these factors in particular that contributed to the change are the establishment of the Federal Reserve System and World War I. The Federal Reserve System marked involvement in the U.S. economy by the federal government which was quite exceptional compared to the government's role historically. The Federal Reserve promoted economic stability and one of the functions it took on was regulating prices. World War I also affected the economy in the U.S. The war is at least partially responsible for the U.S. economy gaining more independence and ultimately emerging as a global player.

Along with changes in the U.S. economy, World War I also influenced the role of the U.S. government and the identity of the U.S. public, both of which, again, contributed to the evolution in the relationship between the economy and presidential elections. World War I contributed to the coalescing of the U.S. public into a national body. It marked a turning point where the public largely began to take on a national identity. Conscription in World War I contributed to this nationalization of identity, but so did the ideological legacy of the war. Chapter five describes this legacy as the programs the federal government established that formed a blueprint for later programs established under the New Deal. It pushed the federal government to intervene more than ever before and the public supported this new found role for government.

Both the change in the economy and the changes in the U.S. public enabled a shift in the focus of the public from local and individualized economic issues, such as inflation and deflation, to collective economic issues such as GDP. By the early 1920s, the U.S. public, more than ever, recognized the growing importance of the

national economy and its influence on their lives and this impacted the vote for president. To test the identified change point, chapter five analyzes the 1920s change points using OLS and the same models as in chapter two. While the results for the 1920 change point are mixed, the findings for the 1924 turning point strongly support the idea that the relationship between the economy and presidential elections is evolving with a change occurring around the 1924 presidential election. The study demonstrates that the relationship between the economy and presidential elections is enduring, but also evolving.

Comprehensive Study of the Economy and Presidential Elections

Based on the findings, it is clear that future studies on the economy and the vote for president may benefit from taking a broader view of presidential elections rather than restricting the analyses to only more recent elections. Taking into account early presidential elections only serves to enhance our understanding of the dynamic role the economy plays in presidential elections. By routinely excluding nearly half (and often more) of the presidential elections in U.S. history, scholars are missing a prime opportunity to gain a better understanding of the role the economy plays in presidential elections.

Skowronek's (1997) work on presidential leadership is instructive to this point. Skowronek states that,

> Perhaps this is where conclusions drawn from an analysis of intercurrent patterns in presidential history differ most starkly from conclusions drawn from the "modern presidency" thesis as it is found in the standard literature. I am as willing as anyone to recognize the political significance of the new institutional forms associated with "the modern presidency," but my approach to their development made

> me wary of the claim that they altered the politics of leadership categorically, and it led me to challenge the assumption that the institutional changes of the last fifty years are uniquely determinative of presidential politics in contemporary America. (xiii)

Much like Skowronek, this work also contends that while more recent presidential elections are different in many ways from early presidential elections, they are not alone in being affected by the economy. Economic issues have always mattered in the U.S. and it is unlikely that they will cease being important in the future. Thus, it is useful to examine how economic issues have influenced past elections to potentially gain new insights into future presidential elections.

Despite the decades-long tradition of economic forecasting and economic voting models, there is room for refinements and improvements. The 2012 election symposium in *PS: Political Science & Politics* is a good example. In the 2012 presidential election, President Obama won reelection with 50.6 percent of the two-party popular vote. In the 2012 election symposium, out of 10 national forecast models of the vote, almost half projected a win for Mitt Romney. Furthermore, election forecasting scholars are constantly tweaking their models. The constant tweaking further demonstrates that even for the most recent presidential elections the impact of economic issues on the vote for president is changing. Exploring the continuous, yet evolving relationship between the economy and presidential elections ultimately provides us with a more comprehensive understanding of the relationship between the two which may potentially lead to new insights on the role of the economy in future presidential elections.

Appendices

Appendix A – Data

Table A.1: Values and Descriptive Data for All Variables

Election	Popular Vote	Real GDP	Price Instability	Fed. Govnt Expend.	Party Performance	Incumbency	Civil War
1828	43.81	-1.66	24.60	1.8	0	0	0
1832	59.17	3.64	0.90	1.5	1	0	0
1836	58.11	0.12	31.58	2.1	1	1	0
1840	46.95	-2.44	50.41	1.6	1	1	0
1844	49.25	2.83	1.25	1.3	0	0	0
1848	47.33	-0.05	17.14	1.9	0	0	0
1852	46.32	7.51	1.17	1.5	0	0	0
1856	57.77	1.2	3.65	1.7	0	0	0
1860	42.52	-1.33	0.00	1.5	0	0	0
1864	55.10	-1.13	632.02	9.1	1	0	1
1868	52.66	1.39	15.29	4.6	1	1	0
1872	55.93	5.65	0.00	3.4	1	1	0
1876	48.47	1.97	5.52	3.2	0	1	0
1880	50.05	6.14	6.15	2.6	0	1	0
1884	49.68	-4.1	4.24	2.1	0	1	0
1888	50.41	3.56	0.00	1.9	1	0	0
1892	48.29	2.72	0.00	2.1	0	0	0
1896	47.28	-3.19	0.00	2.3	0	0	0
1900	53.17	0.76	1.54	2.5	1	0	0
1904	60.00	-5.34	1.37	2.3	1	1	0
1908	54.51	-12.52	4.37	2.2	1	1	0
1912	54.72	3.07	4.24	1.8	0	1	0
1916	51.64	12.29	85.38	1.4	1	0	0
1920	36.12	-2.24	250.91	7.2	0	1	0
1924	67.10	1.13	0.03	3.3	1	0	0
1928	58.82	-0.09	1.90	3.0	1	1	0
1932	40.85	-13.62	106.30	7.9	0	0	0
1936	62.46	12.33	0.90	10.0	1	0	0
1940	54.95	7.87	1.02	9.9	1	1	0
1944	53.78	6.78	2.99	45.7	1	1	0
1948	52.32	2.61	60.68	13.2	0	1	0
1952	44.71	2.07	4.80	20.0	1	1	0
1956	57.76	0.19	2.22	17.4	0	0	0

Table A.1: Continued

1960	49.91	0.42	2.50	18.5	0	1	0
1964	61.34	4.34	1.80	19.0	1	0	0
1968	49.60	3.8	17.56	20.3	1	1	0
1972	61.79	4.19	10.96	19.6	0	0	0
1976	48.95	4.35	33.18	21.4	0	1	0
1980	44.70	-1.42	182.79	22.1	1	0	0
1984	59.17	6.25	18.66	23.6	0	0	0
1988	53.90	3.17	17.14	23.8	0	1	0
1992	46.54	2.03	9.06	22.1	0	1	0
1996	54.74	2.54	8.70	20.3	0	0	0
2000	50.26	3	11.29	18.4	0	1	0
2004	51.24	2.65	7.08	19.9	1	0	0
2008	46.32	-0.48	14.75	20.5	0	1	0
Mean	51.32	1.59	36.04	10.08	0.46	0.50	0.02
Std. Dev.	7.4	4.84	101.75	9.94	0.50	0.50	0.15

Table A.2: Variable Information

Variable	Description	Source
Two-Party Popular Vote	Two-party popular vote share for the incumbent candidate (or candidate from incumbent party)	UCSB American Presidency Project
Real GDP per capita (percent change)	The percent change in real GDP per capita from the year before the election to the election year	Measuring Worth
Price Instability (percent change)	The rate of inflation or deflation 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 (Unified Government)	Whether the president and the House of Representatives are controlled by the same party at the time of the election	Lynch 2002b
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

Appendix B – Breusch-Godfrey Diagnostic Test

One important issue to consider when using OLS regression with time series data is autocorrelation or serial correlation. In a time series context, autocorrelation is correlation between members of observations ordered in time. In this study, autocorrelation would be present if the influence of the economy on the vote for president at one election affected the vote for president in the following election as well. If autocorrelation is present then the error terms are correlated which violates an assumption of ordinary least squares. A model with no autocorrelation "means that the disturbance term relating to any observation is not related to or influenced by the disturbance term relating to any other observation" (Gujarati 2006, 428). To test for serial correlation, the Breusch-Godfrey test was used. The results of the test for four lags are below. The null hypothesis is that there is no serial correlation. The results for all of the lags are not statistically significant so we fail to reject the null hypothesis. In other words, the results provide support that there is no serial correlation in the model.

Table B.1: Breusch-Godfrey LM Test for Autocorrelation

lags (p)	χ^2	Degrees of Freedom	P-value
1	2.367	1	0.1240
2	4.414	2	0.1100
3	4.851	3	0.1831
4	5.946	4	0.2032

Appendix C – Dickey-Fuller Diagnostic Test

Another important issue when using OLS regression with time series data is the stationarity of the time series. If the time series is found to be nonstationary, simple OLS regression is not the most appropriate model to use. As Kennedy (2008) states, "running regressions with such data could produce spurious results (i.e. results that erroneously indicate [through misleading values of R^2, DW, and *t* statistics] that a meaningful relationship among the regression variables exists)" (301). At present the most common method to test for stationarity is to use a unit root test. The unit root test used here is the augmented Dickey-Fuller (DF) test. The null hypothesis is that the series has a unit root. The results of the DF test are below. The test statistic is significant so we can reject the null hypothesis. Thus, the results of the Dickey-Fuller test do not provide support that the model has a unit root.

Table C.1: Augmented Dickey-Fuller Test

Z (t)	P-value
-8.509	0.0000

Appendix D – Bivariate Plots with All Cases

Figure D.1: Popular Vote Share by Price Instability, 1828-2008

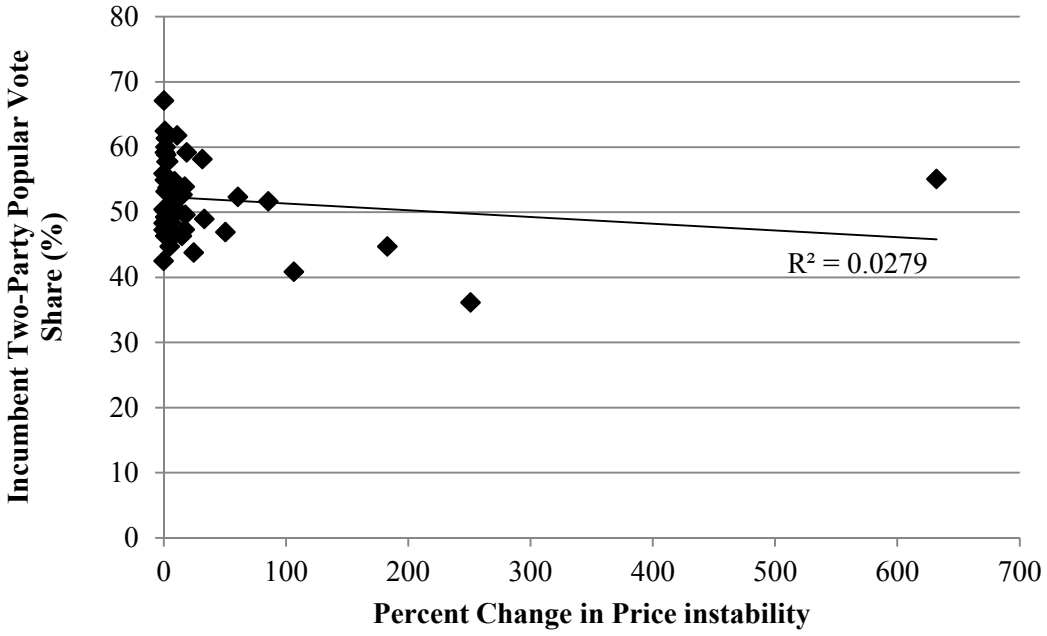
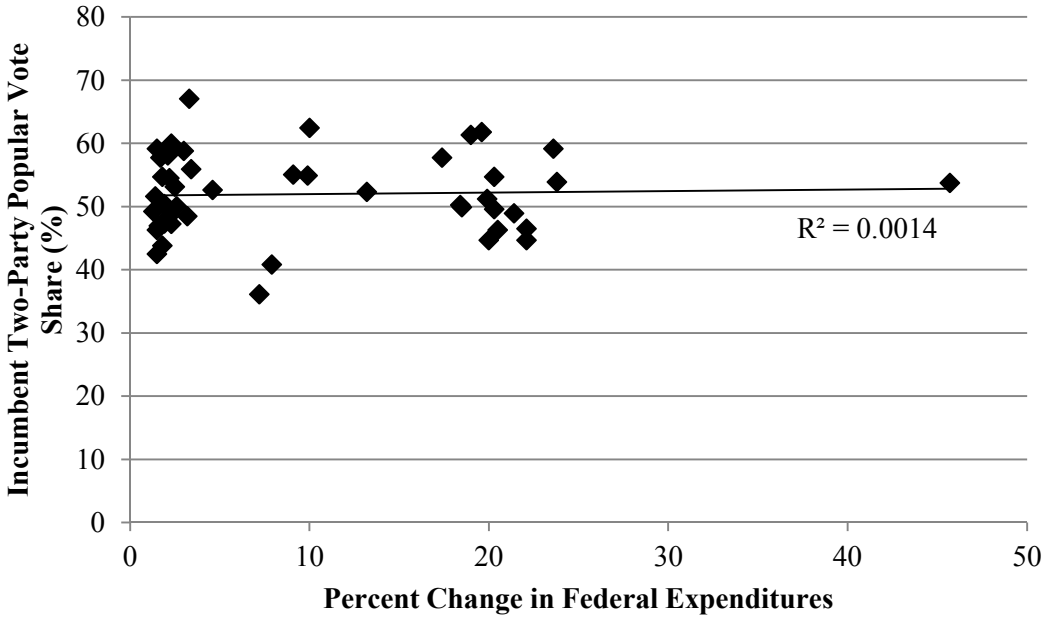


Figure D.2: Popular Vote Share by Federal Expenditures, 1828-2008



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