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Presidential Approval Determinants

by

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Abstract.

This empirical study seeks to identify key determinants of the Presidential approval rating. Instrumental variables estimation reveals that, over the 1960-1997 study period, the Presidential approval rating was positively affected by the 1991 Gulf War (a “popular” war), a perceived genuine effort to reform the Internal Revenue Code (reflected by passage of the Tax Reform Act of 1986), increases in the real (constant dollar) federal personal income tax exemption, and reductions in the average effective federal personal income tax rate. In addition, the Presidential approval rating was negatively impacted by the Vietnam War (an “unpopular”/controversial war), Presidential impeachment proceedings, and large federal budget deficits (relative to the size of the economy).

Introduction

In addition to receiving extensive attention in the various news media, the topic of Presidential approval ratings has received considerable attention in the scholarly literature as well [e.g., Mueller (1973), Monroe (1984), Brody (1991), Edwards (1991; 1998), Clarke and Stewart (1994), Campbell and Mann (1996), King (1999), Erikson, MacKuen, and Stimson (2000), Jones (2001), Cohen (2003), Abramowitz (2004), Canes-Wrone (2004), and Yaffee (2004)]. Various of these studies have expressly endeavored to link Presidential approval ratings to Presidential re-election prospects [e.g., Campbell and Mann (1996), Jones (2001), and Abramowitz (2004)]. This link between Presidential approval and election may well be highly significant; however, one must be cautious not to overestimate the capacity of the approval rating to dependably and consistently predict Presidential election outcomes. This is because the complexity of voting and the myriad ways in which the public expresses its views regarding candidates for public office, public officials, and public policies is really quite remarkable and diverse [e.g., Buchanan and Tullock (1962), Tiebout (1956), Tullock (1967; 1971), and Copeland and Laband (2002)].

The present study seeks to identify key determinants of the Presidential approval rating. If in fact Presidential approval ratings do significantly influence incumbent President/Administration re-election prospects, then a knowledge of which factors or types of factors systematically influence the Presidential approval rating could be invaluable to the formulation of political and economic policy across much of the political spectrum and to national political party platform formulation during Presidential election years. The explanatory variables in this analysis include both variables that are fundamentally economic in nature and variables that are fundamentally non-economic in

nature. Hopefully, insights gained from this analysis will help to improve understanding of (a) the process by which the U.S. populace forms assessments of the President's job performance and, albeit merely only indirectly, (b) prospects of re-election or the failure to be re-elected by an incumbent President/Administration.

The Model

The public's approval rating of the President (APP) is hypothesized to be an increasing function of the public's *positive perceptions* (POSPERC) of the President/Administration and a decreasing function of the public's *negative perceptions* (NEGPERC) of the President/Administration:

$$APP = f(\text{POSPERC}, \text{NEGPERC}), f_{\text{POSPERC}} > 0, f_{\text{NEGPERC}} < 0 \quad (1)$$

In general terms, *positive* public perceptions of the President are hypothesized to be an increasing function of the President's (or Administration's) perceived *successes* while in office, as well as the President's (or Administration's) perceived *positive character traits* while in office. Conversely, *negative* public perceptions of the President are hypothesized to be an increasing function of the President's (or Administration's) perceived *failures* while on office, as well as the President's (or Administration's) perceived *negative character traits* while in office. The public's assessments falling within these two broad categories of perceptions can be further defined so as to provide *measurable* variables that can be investigated for their influence over the Presidential approval rating.

To begin the analysis, this study follows Mueller's (1973) and Schlesinger's (2004) implicit lead by considering the potential influence of war on Presidential approval ratings. A President embarking on or conducting a "popular" war can be expected to experience higher approval ratings, *ceteris paribus*. Conversely, a President embarking on or conducting an unpopular or highly controversial war may very well expect to experience lower approval ratings, *ceteris paribus* [King (1999), Putnam (2000), Yaffee (2004)]. In this context, it is hypothesized in this study that the 1991 Persian Gulf War (GULF), given its popularity among the U.S. public as an international joint effort (coalition) to free Kuwait of an invading military force from Iraq and given the implications of a successfully conducted military campaign for protecting crude oil availability and crude oil prices on the one hand and for stabilizing the Middle East politically and militarily on the other hand, provided the President a boost in his approval ratings. The 1991 Gulf War may have all the more boosted the President's approval ratings because of how "easy" the victory was perceived to be; in point of fact, the 1991 Persian Gulf War had been portrayed by the news media as potentially a militarily challenging endeavor, making the ease of victory that was actually experienced all the more impressive. By contrast, the Vietnam War (VIETNAM) was arguably the most unpopular war of the second half of the (if not the entire) twentieth century for the U.S. Indeed, Putnam (2000, pp. 257, 146, 152) speaks of "...the trauma of Vietnam..." the experiences of riots, widespread demonstrations, "...the clamor for Vietnam draft deferments..." disruptions of national political nominating conventions, and the

seemingly unending media coverage of the “carnage” that came to define and symbolize this war. Such experiences would seem to imply strongly that the Vietnam War was a highly controversial and generally unpopular war [King (1999), Putnam (2000)]. Consequently, Presidents embarking on and/or perceived as perpetuating this war would be expected to experience a diminished public approval rating.

The President is viewed as the principal leader of the U.S. government. Accordingly, it follows that to the extent that the populace is satisfied or pleased with the perceived overall operation/performance of its government and the perceived overall conduct of government officials, the President *may* be a benefactor in terms of his approval rating, i.e., a positive externality may be experienced. On the other hand, the more dissatisfied or displeased the populace is with the perceived overall operation/performance of its government and the perceived overall conduct of government officials, the more the President *might* experience a decline in his approval rating, i.e., a negative externality may be experienced. Thus, it is hypothesized in this study that the Presidential approval rating is a decreasing function of the public’s general *disapproval* (DIS) of government and the conduct of government officials, *ceteris paribus*.

Alternatively, given that the President is perceived as the principal leader of the U.S. government, a course of action or behavior that embodies or projects either significant strength or weakness of character would likely influence the image of the President and hence the Presidential approval rating, *ceteris paribus*. One clear example of such an experience would be that of formal impeachment proceedings against the President (IMPEACH). Two sitting Presidents over the study period have in fact been impeached by the U.S. House of Representatives: Richard M. Nixon, for his involvement in the Watergate scandal, which Putnam (2000, p. 187) associates with an increased “...disillusionment with public life...” and a societal “...slump in civil engagement...;” and Bill Clinton, for his alleged/apparent perjury involving a civil suit and for his sexual misconduct in the White House while in office (and, *de facto*, his public dishonesty regarding same). Regarding the IMPEACH variable, Yaffee (2004, p. 1) observes that “The Watergate scandal is one of the greatest political scandals in American political history.” Indeed, Putnam (2000, p. 257) speaks of how Watergate became associated with a “...distrusting of institutions...” and a public sense of alienation from politics. In any case, it is hypothesized in this study that the public’s approval rating of a President diminishes if he is in fact formally impeached [Putnam (2000), Yaffee (2004)], *ceteris paribus*.

Historically, economic issues have been subjects of debate both prior to and during Presidential primaries and during Presidential election campaigns. Arguably, economic factors that could plausibly play a role in the Presidential approval rating might include: (1) reduced average effective federal personal income tax rates *per se*; (2) increased real (constant dollar) personal federal income tax exemptions; (3) reduced income tax rate *progressivity*; (4) perceived genuine efforts to reform the Internal Revenue Code; (5) unemployment rates; (6) employment growth; (7) real wage rate growth ; (8) inflation rates; and (9) large federal budget deficits. Indeed, most if not all of these specific factors have often been made key issues in actual Presidential campaigns.

Reducing the average effective federal personal income tax rate (AVETAX), reduces the average household's federal personal income tax burden. Since the latter increases the personal disposable income for many segments of the taxpaying population (especially the "middle class"), it is expected that these taxpayers would tend to respond to this policy by raising *their* Presidential approval rating, *ceteris paribus*. Naturally, as a practical matter, for actual or would-be taxpayers with relatively very modest (or low) incomes, cutting the average effective federal personal income tax rate may yield only limited perceived direct benefits. On the other hand, households with very modest incomes are likely to perceive clear and direct tax benefits when the real (constant dollar) federal personal income tax exemption (EXEMPTION) is increased, especially since they on the average have more exemptions per household unit than higher income households. Indeed, for those households with the lowest income levels, increased real personal exemptions in many cases may even remove them from federal personal income taxation altogether (although they may still face Medicare and social security tax liabilities, depending upon circumstances). Hence, increased real federal personal income tax exemptions yield benefits to lower (and, although to a lesser degree, middle) income households, who in turn would likely express their "appreciation" with a higher Presidential approval rating, *ceteris paribus*. From yet another perspective, whenever the President and Congress act to cut the maximum marginal federal personal income tax rate (MAXTAX), it generally is the case that (1) the overall progressivity of the federal personal income tax rate structure is reduced, which in turn reduces disincentives to work, and (2) the disposable income of households across various income tax brackets is increased. Thus, when the maximum marginal federal personal income tax rate is reduced, it is hypothesized that the Presidential approval rating will increase, *ceteris paribus*.

Next, the Tax Reform Act of 1986 (TRA) was portrayed by the media and by leading politicians alike as a *genuine* effort to reform the Internal Revenue Code. As documented in Ott and Vegari (2003, p. 275), among other things, the TRA reduced the number of tax brackets from 14 to three, increased the tax base by limiting tax deductions, reduced the marginal tax rates, and endeavored to "...improve fairness and efficiency..." in the Internal Revenue Code. The TRA also sharply reduced the tax benefits of limited partnerships, which was an effort to make the Internal Revenue Code more equitable as well, although it ultimately caused problems for the real estate industry [Sanger, Sirmans, and Turnbull (1990)] and the savings and loan industry [Barth (1991)]. To the extent that the public regarded the TRA as a genuine and effective initial effort at meaningfully reforming the Internal Revenue Code, it is hypothesized that the Presidential approval rating would be enhanced, *ceteris paribus*.

Aside from tax-related issues, there may be other economic matters that influence the public's approval rating of the President. Indeed, issues such as a high unemployment rate (UN) and a high inflation rate (P) are each likely, *ceteris paribus*, to reduce the public's approval of the President because each of these experiences tends to reduce the public's overall economic well-being and/or financial security. On the other hand, the greater the growth rate of real hourly wages (WAGEGR) and the greater the growth rate

of aggregate employment (EMPLGR), the greater the public's overall economic well-being. Therefore, *ceteris paribus*, as the value of each one of these factors increases, so too should the Presidential approval rating. And then there is the case of the federal budget deficit (DEF). Arguably, the greater the budget deficit, the greater the degree to which the federal budget may be viewed as (a) being managed in a fiscally irresponsible fashion and/or (b) posing potential long term economic problems [Krueger (2003)], including higher long term interest rates, reduced investment, and slower economic growth (as well perhaps as a reduced capacity to compete in international markets, which might lead to "outsourcing"). Accordingly, it is hypothesized that the higher the federal budget deficit *per se*, the lower may be the President's approval rating, *ceteris paribus*. In the present analysis, the variables APP and DEF are specified as contemporaneous. The purpose of this temporal specification is to allow for the possibility that there may be somewhat of a contemporaneous link between these two variables because the President/Administration, in endeavoring to promote either a more rapidly expanding economy or to sustain growth in the economy, may often follow (overtly and/or covertly) a more or less on-going posture of supporting deficit-creating policies.

Based upon the framework developed above, the model of the Presidential approval rating is hypothesized to take the following form:

$$\begin{aligned}
 &APP = f(\text{GULF, VIETNAM, DIS, IMPEACH, AVETAX, EXEMPTION, MAXTAX,} \\
 &\text{TRA, UN, P, WAGEGR, EMPLGR, DEF, }), \\
 &f_{\text{GULF}} > 0, f_{\text{VIETNAM}} < 0, f_{\text{DIS}} < 0, f_{\text{IMPEACH}} < 0, f_{\text{AVETAX}} < 0, f_{\text{EXEMPTION}} > 0, f_{\text{MAXTAX}} < 0, \\
 &f_{\text{TRA}} > 0, f_{\text{UN}} < 0, f_{\text{P}} < 0, f_{\text{WAGEGR}} > 0, f_{\text{EMPLGR}} > 0, f_{\text{DEF}} < 0
 \end{aligned} \tag{2}$$

Empirical Analysis

Based on the framework provided in equation (2), the following model is to be estimated:

$$\begin{aligned}
 APP_t = &a_0 + a_1 \text{GULF}_t + a_2 \text{VIETNAM}_t + a_3 \text{DIS}_{t-1} + a_4 \text{IMPEACH}_t + a_5 \text{AVETAX}_{t-1} \\
 &+ a_6 \text{EXEMPTION}_{t-1} + a_7 \text{TRA}_t + a_8 \text{MAXTAX}_t + a_9 \text{UN}_{t-1} + a_{10} \text{P}_{t-1} + a_{11} \text{DEF}_t \\
 &+ a_{12} \text{WAGEGR}_{t-1} + a_{13} \text{EMPLGR}_{t-1} + u
 \end{aligned} \tag{3}$$

where:

APP_t = the average Presidential approval rating in year t;

a₀ = constant;

GULF_t = a binary (dummy) variable to indicate the year during which the 1991 Gulf War was materially conducted: GULF_t=1 for 1991 and GULF_t=0 otherwise;

VIETNAM_t = a binary variable to indicate the principal years during which the U.S. was significantly militarily involved in the Vietnam War: VIETNAM_t = 1 for those years (1965-1973) and VIETNAM_t = 0 otherwise;

DIS_{t-1} = a measure of the public's dissatisfaction with government in year t-1;

IMPEACH_t = a binary variable to indicate the years during which a sitting President was impeached by the U.S. House of Representatives: IMPEACH_t = 1 for 1974 and 1997 and IMPEACH_t = 0 otherwise;

$AVETAX_{t-1}$ = the average effective federal personal income tax rate in year t-1, as a percentage;
 $EXEMPTION_{t-1}$ = the value of the federal personal income tax exemption in year t-1, expressed in 1996 dollars;
 TRA_t = a binary variable to reflect the year in which the Tax Reform Act of 1986 was enacted;
 $MAXTAX_t$ = a binary variable indicating those years during which there was a reduction in the maximum marginal federal personal income tax rate;
 UN_{t-1} = the average percentage unemployment rate of the civilian labor force in year t-1;
 P_{t-1} = the percentage inflation rate of the overall year-to-year consumer price index (CPI) over year t-1;
 DEF_t = the ratio of the nominal total federal budget deficit in year t to the nominal GDP in year t, expressed as a percentage;
 $WAGEGR_{t-1}$ = the average percentage growth rate of real wages in production over year t-1;
 $EMPLGR_{t-1}$ = the percentage growth in aggregate employment over year t-1;
 u = stochastic error term.

Presidential approval ratings have been systematically gathered for several decades. The numerical range for the approval rating lies between 0.00 and 100.00. Over the 37 year study period, the average Presidential approval rating was 53.33, with a standard deviation of 10.62. The variable DIS_{t-1} is constructed as an equally weighted average of three normalized indices reflecting answers to the University of Michigan's Institute for Social Research (ISR) surveys. These three indices address whether government officials can be trusted to honor their obligations to the public, whether government officials are honest, and whether government officials waste tax dollars. Never included in the surveys were any questions regarding tax rates *per se*. Rather, the survey questions have tended to address whether tax revenues that had already been collected were in some sense perceived as being spent "wastefully," inefficiently, or "improperly." Values for the DIS_{t-1} variable lie between -1.5, which corresponds to least dissatisfied, to +1.5, which corresponds to most dissatisfied. Thus, the greater the algebraic value of the index, the greater the public's dissatisfaction with government. This series is available from 1960 through 1997. Therefore, the study covers the period 1960-1997. The variable $AVETAX_{t-1}$ is the average effective federal personal income tax rate, which Feige (1994) argues is the tax rate that best represents the burden of the federal personal income tax system for the average U.S. household. The federal budget deficit (DEF) is expressed as a percent of GDP because the deficit should be evaluated relative to the size of the economy [Hoelscher (1986), Holloway (1986), Ostrosky (1990)

Since the variables APP_t and DEF_t are contemporaneous, the possibility of simultaneity bias arises. Accordingly, the estimation adopts an IV (Instrumental Variables) approach, with the instrument being the two-year lag of the percentage annual growth rate of real GDP (Y_{t-2}). The choice of instrument was based on the finding that DEF_t and Y_{t-2} were found to be highly correlated, whereas Y_{t-2} is uncorrelated with the error terms in the system. According to both the ADF (augmented Dickey-Fuller) and P-P (Phillips-Peron) unit root tests, over the 1960-1997 period, the variables APP,

WAGEGR, and EXEMPTION are stationary in levels, but the variables DIS, AVETAX, UN, P, EMPLGR, and DEF are stationary only in first differences. Accordingly, the latter six variables are expressed in first differences form in the estimation.

Adopting the White (1980) correction, the IV estimate of equation (3) is given by the following:

$$\begin{aligned}
 APP_t = & 43.6 + 13.5 GULF_t - 11.55 VIETNAM_t + 4.24 qDIS_{t-1} - 29.3 IMPEACH_t \\
 & \quad (+3.86) \quad \quad \quad (-3.26) \quad \quad \quad (+0.43) \quad \quad \quad (-2.95) \\
 & - 8.15 qAVETAX_{t-1} + 0.15 EXEMPTION_{t-1} + 5.03 MAXTAX_{t-1} + 16.3 TRA_t \\
 & \quad (-3.47) \quad \quad \quad (+2.67) \quad \quad \quad (+1.52) \quad \quad \quad (+3.26) \\
 & + 36.9 qUN_{t-1} + 11.9 qP_{t-1} - 9.74 qDEF_t + 0.48 WAGEGR_{t-1} - 7.42 qEMPLGR_{t-1} \\
 & \quad (+1.58) \quad \quad (+1.83) \quad \quad (-2.12) \quad \quad (+0.30) \quad \quad \quad (-0.03) \\
 F = & 2.33, DW = 2.12, Rho = -0.06 \quad \quad \quad (4)
 \end{aligned}$$

where terms in parentheses are t-values and q is the first-differences operator.

In estimate (4), nine of the 13 explanatory variables exhibit the expected signs, with seven of these being statistically significant at the five percent level or beyond. The estimated coefficients on the inflation, unemployment rate, wage growth, employment growth, dissatisfaction index, and maximum marginal federal personal income tax rate reduction variables all fail to be statistically significant at the five percent level. The DW and Rho statistics indicate the absence of serial correlation problems. Finally, the F-ratio, which is statistically significant at beyond the five percent level, attests to the overall strength of the model.

The estimated coefficient on the GULF variable is positive and statistically significant at the one percent level, implying that a war that is “popular,” i.e., strongly supported overall by the American populace, increases the Presidential approval rating. By contrast, the Vietnam War variable, VIETNAM, exhibits a negative coefficient that is statistically significant at the one percent level; thus, there is strong empirical evidence that a highly unpopular and controversial war acts to lower the Presidential approval rating. The estimated coefficient on the dissatisfaction index (DIS) is not statistically significant at even the ten percent level, implying that the public’s *general dissatisfaction* with the perceived overall performance of government and the perceived overall conduct of government officials does *not* significantly affect (yield negative net externalities on) the President’s approval rating. Not surprisingly, the coefficient on the IMPEACH variable is negative and significant at the one percent level, implying that the public’s regard for/approval of the President deteriorates when his behaviors have been so extreme or unacceptable as to result in a formal Congressional impeachment. The tax rate variable AVETAX is negative and statistically significant at beyond the one percent level, implying strongly that when Congress and the President jointly act to reduce the average effective federal personal income tax rate, which action reduces the average

household's income tax burden and thereby increases disposable income for much of the taxpaying public, the public's approval rating of the President increases. The estimated coefficient on the EXEMPTION variable is also positive and significant at the one percent level, implying strongly that increasing the *real* federal personal income tax exemption increases the public's approval rating of the President, presumably at least in part because—especially at the lower end of the income spectrum—such a policy reduces federal income tax burdens. The coefficient on the TRA variable is positive and significant at the one percent level. Thus, it appears that the enactment of the Tax Reform Act of 1986 may have been perceived favorably by the general public as a genuine and effective effort at reforming the Internal Revenue Code. In point of fact, this statute *did* make a number of substantive changes in the Code [Ott and Vegari (2003), Sanger, Sirmans, and Turnbull (1990)]. The coefficients on the unemployment rate, employment growth, real wage growth, and inflation rate variables all fail to be statistically significant at the five percent level, implying that none *systematically and consistently* explains the Presidential approval rating. These four results seemingly raise the question: “Can the Presidential *approval rating* dependably predict the Presidential *election* outcome, given that inflation, employment (job) growth, real wage growth, and unemployment rates are issues generally thought to significantly influence Presidential *election outcomes per se*?” This is of course a question beyond the scope of the present study. Finally, the estimated coefficient on the deficit variable (DEF) is negative and statistically significant at beyond the five percent level. Thus, it appears that the larger the federal budget deficit (relative to the size of the economy), the lower the public's approval rating of the President. Apparently, the American public experiences a degree of concern regarding larger federal budget deficits, arguably because of its perceived potential adverse effects on the economy over time and/or a perceived fiscal irresponsibility that larger budget deficits may imply.

Conclusion

Based on the IV estimation in this study, it appears that over the 1960-1997 study period, the Presidential approval rating was positively and significantly impacted by the 1991 Gulf War (arguably, a surrogate for a “popular” war), increases in the real federal personal income tax exemption, reductions in average effective federal personal income tax rates, and the Tax Reform Act of 1986 (arguably, a surrogate for an effort to enact *genuine* tax reform). In addition, the Presidential approval rating was negatively and significantly impacted by the Vietnam War (arguably, a surrogate for an unpopular/controversial war), Presidential impeachment proceedings, and larger federal budget deficits (relative to the size of the economy). These findings should prove relevant information for those interested in public perceptions of Presidential job performance and Presidential election forecasting.

Data Appendix/Sources

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