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Constituents' economic interests and senator support for spending limitations

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A B S T R A C T

Peltzman [Peltzman, S., 1984. Constituent interest and congressional voting. Journal of Law and Economics 27, 181–210] argues that if constituents' economic interests have well-defined "winners and losers" and are appropriately measured, then constituents' economic interests, and not legislator ideology, are the most important determinates of legislator voting. We test Peltzman's theory by examining senatorial voting on three mandated spending limitation bills. We find, consistent with Peltzman's theory, that the ratio of federal spending in a senator's state to federal taxes paid by that state, and not a senator's personal ideology, matters on legislation where there are well-defined economic "winners and losers." This is particularly important because unlike other constituents' economic interest measures that only impact a fraction of the constituency, the ratio of federal spending to federal taxes in a state represents the economic interests of all the constituents in a state.

1. Introduction

During the past 25 years the determinants of political decision-making by elected representatives has been the subject of considerable attention in the public choice literature. The question of principal interest to social scientists is: Whether, and to what extent, do elected representatives cast votes on issues on the basis of their own ideological preferences or in accordance with their constituents' economic interests? The empirical evidence on this question is contradictory. Some researchers find that elected representatives' personal ideology dominates their constituents' economic interests in determining their voting behavior (e.g., Bernstein, 1989). Other authors provide evidence that representatives faithfully represent the economic interests of their constituents (e.g., Uslaner, 1999).

This paper presents a methodology and empirical results that shed further light on the constituent economic interests—legislator personal ideology debate by examining a salient and well-defined policy issue that affects the economic interests of all an elected representative's constituents. Specifically, this study analyzes the U.S. Senate votes on three bills explicitly designed to reduce federal government spending and eliminate the federal budget deficit. The Senate votes on these three deficit reduction bills provides a unique opportunity to directly address an important public policy question: do elected representatives act against their own electoral self-interest by voting on the basis of their own personal ideological preferences for (against) legislation which would unequivocally harm (benefit) the direct economic interests of all of their constituents?

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2. Overview of deficit reduction bills

On 12 December 1985, the President signed the Gramm–Rudman–Hollings bill (hereafter GRH85) which was a deficit reduction bill designed to remedy a major policy problem—the continuing and ever increasing federal budget deficits which were widely believed to cause slower economic growth, higher interest rates, and elevated rates of inflation. GRH85, which was first proposed and passed by a vote of 63-33 in the Senate and later approved by the House, was to take effect in fiscal 1988. GRH85 would cut the federal deficit by automatically triggering across-the-board reductions, by a uniform percentage, in all government programs if the Congress and the President failed to reach specific deficit targets and timetables for these targets. Half the spending cuts were required to come from the defense budget and the other half from non-defense programs (Social Security and interest on the national debt were exempt from the cuts). Two other significant changes were (1) to increase the vote margin necessary to waive the automatic GRH85 budget cuts from a simple majority to a three-fifths margin and (2) require that any budget amendment must be revenue neutral (i.e., pay for itself).

In early 1987, the U.S. Supreme Court ruled that GRH85 was unconstitutional because it vested the power for implementing the budget cuts in the General Accounting Office, a congressional entity, and thus violated the separation of powers doctrine. As a result, a few months later the U.S. Senate passed by a vote of 64-34 and sent to the House which also approved, a second Gramm–Rudman–Hollings bill (hereafter GRH87). This second bill corrected the automatic spending reduction procedure in GRH85 by assigning the implementation of the budget cuts to the executive branch's Office of Management and Budget. Although the automatic spending reduction procedure had changed, GRH87's budget cut provisions were identical to those in GRH85.

The third deficit reduction bill we examine is the 1995 Senate vote on the proposed Balanced Budget Amendment (hereafter BBA) to the U.S. Constitution. The U.S. Senate failed, by one vote (66-34), to pass the BBA. The BBA, if approved, would have required a supermajority vote of 60% in each chamber of Congress to approve deficit spending or issue new debt in any given year. What made the BBA self-enforcing was the requirement that new debt could only be issued by a supermajority vote. This ensured that legislators could not finance deficit spending by issuing more debt and would be forced to reduce government spending programs. However, unlike GRH85 and GRH87, Social Security was not exempt from budget cuts and the amendment did not mandate equal spending reductions between defense and non-defense programs. More importantly, the BBA did not specify how much defense and non-defense programs would be reduced.

3. Methodological considerations

This paper complements and extends the extant literature on whether elected representatives vote their own ideological preferences at the expense of the direct economic interests of all the constituents in their state in a number of methodologically important ways. Many of the studies on the role of the personal ideology of elected representatives failed to take into account a number of significant conditions that must be present in order to undertake a properly controlled statistical analysis of a legislator's vote on an issue. First, the issue must be one in which a legislator has the expectation that there are adverse reelection consequences (i.e., loss of votes) that would result from the vote on the issue. Arnold (1990) argues that a legislator's personal ideology is less likely to affect their vote on an issue where concerns about adverse reelection consequences are present. Second, in order for there to be adverse reelection consequences on a vote, the issue must have clear and well-defined economic consequences to a legislator's constituents. The constituent economic gainers and constituent economic losers as a consequence of the legislator's vote on the issue must be readily identifiable and measurable. Third, the issue must be easy for voters to understand, salient to voters, and relatively easy for voters to monitor a legislator's vote. Fourth, the legislator's vote on the issue must be one where logrolling (vote trading) is unlikely to be present.

The Senate votes on GRH85, GRH87 and the BBA satisfy all the aforementioned conditions needed for a controlled statistical analysis. These votes represent issues where constituents' economic interests should trump legislators' personal ideology. Each spending limitation bill would have a large economic impact on all of a state's constituents. A vote-maximizing senator interested in being reelected should be more likely to vote in accordance with their constituents' economic interests, rather than their personal ideology, because of the salience of the issue to their constituents. A senator's vote against their constituents' economic interests on such salient and important votes should have a negative impact on their reelection probability. Logrolling is unlikely to be present on these votes. It is difficult to imagine what issue a senator would trade for all their constituents' economic interests. The vote by senators on GRH85, GRH87 and the BBA presents an unambiguous opportunity to test the hypothesis that a senator's personal ideology matters in explaining congressional voting behavior on a clear and well-defined economic issue that affects all the senator's constituents.

4. Previous research

A lively debate in the literature has ensued about the extent to which personal ideology and constituent's economic interests influence an elected representative's voting behavior. Early research based on the work of Downs (1957) maintained that legislators' votes could be explained by a median voter model. The median voter model argues that, if voter preferences are unimodal and can be arrayed along a single dimension, then a legislator primarily interested in being reelected or advancing within the political hierarchy will mirror the position or preference of the median voter. In the median voter model legislators' ideological voting is perfectly aligned with their constituents' economic interests.

Stigler (1971) presented an alternative view that argued that a legislator's voting behavior on economic issues could be entirely explained by the demand of various constituent interest groups for votes on legislation that enhanced their income or wealth. Constituent economic interest voting occurs when a legislator's personal preference is for policy "A", their constituents' favor policy "B" and the legislator votes for "B". Ideological voting by the legislator occurs if the legislator votes for "A". Stigler's economic theory of legislator voting maintains that a legislator's personal ideology (i.e., the promotion of altruistic or public interest goals) is irrelevant. The only relevant factors in explaining a legislator's votes are the material wealth gains that accrue to well-defined economic interest groups from the passage of the legislation.

A seminal paper by Kau and Rubin (1979) found that, even after controlling for constituent economic interests, a legislator's personal ideology is significant in explaining congressional voting on legislation that is primarily economic. Kalt and Zupan (1984), using a similar methodological technique as Kau and Rubin, also found that after controlling for constituent economic interests and constituent ideology an individual legislator's ideology still matters. Kalt and Zupan assert that this finding means that legislators are not faithfully representing the economic interests of their constituents. When legislators deviate from the economic interests and the ideology of their constituents and vote according to their own personal ideology, Kalt and Zupan refer to this phenomenon as "legislator-specific ideological shirking."

Legislators are able to vote their own personal policy preferences over their constituents' economic interests because the extent of electoral control over legislators by voters is weak and monitoring by voters is costly. The cost to an individual voter of monitoring a legislator's voting performance far exceeds the highly diffused benefits given the infinitesimal probability that an individual voter can determine the outcome of an election. Kalt and Zupan argue that their results suggest legislators' personal ideology dominates their constituents' economic interests in determining their voting behavior.

Legislators who vote on legislation in accordance with their own ideological preferences instead of their constituents' economic interests are engaging in a consumption activity that provides legislators with utility (satisfaction), but does not benefit their constituents. Rather than directly addressing the question of whether legislators' personal ideology influences their voting record, much of the literature has examined this question indirectly.

If legislator ideological shirking is a consumption good then it should be subject to the fundamental law of demand: the higher the political cost of shirking (probability of not being reelected) the smaller the expected degree of legislator shirking. This suggests that, if legislator ideology is an explanatory factor in legislative voting behavior, as the political cost of shirking falls one would expect to find legislators engaging in more personal ideological consumption.

Nelson and Silberberg (1987) were among the first to test this proposition. They found that legislators shirk less on specific spending bills (where constituent benefits are well-defined) than on general expenditure bills (where the distribution of constituent benefits are unknown at the time of the vote). Other evidence consistent with legislator ideology as a consumption good is that legislators who are retiring (no longer face reelection) and no longer have to worry about voters monitoring their legislative record engage in relatively more ideological shirking (Kalt and Zupan, 1990; Van Beek, 1991; McArthur and Marks, 1988).

Rothenberg and Sanders (2000) present evidence that in more recent Congresses (1991–1996) House members are more likely to change their voting behavior and have higher absentee rates during the last 6 months before they retire. Additionally, Canes-Wrone et al. (2002) report that the probability of legislators' reelection decreases whenever they deviate from their constituents' economic interests and vote with the ideological extreme of their party. Moreover, Coates and Munger (1995) find that legislators shirk less in close reelection contests than in those races which are relatively uncontested.

On the other side of this debate are those who argue that legislator ideology does not matter in explaining legislator voting behavior. Peltzman (1984) was the first to argue many of the indices used to measure legislator ideology simply represent omitted constituent economic interests. While a legislator's ideology may have some influence, its impact is numerically small once more appropriate controls for constituent economic characteristics are taken into account.

Others have argued that there is no empirical support for the contention that legislator ideology is a consumption good. Goff and Grier (1993) find that there is no statistically significant relationship between the degree of legislator ideological shirking and the percent of the vote received by the incumbent. Lott (1987) found that there was no statistically significant evidence that legislators change their voting behavior the term they retire. Recently, it has been argued that the finding by Rothenberg and Sanders (2000) that retiring members of Congress alter their voting behavior and engage in ideological shirking is due to their failure to control for Congress—specific fixed effects (Carson et al., 2004) and measurement error in constructing a legislator's ideological preferences (Herron, 2004).

Dougan and Munger (1989) argue that legislators' voting on the basis of their personal ideology is not shirking, but is entirely consistent with their constituents' economic interests. Voters may be selecting a legislator to represent their economic interests on the basis of the legislator's personal ideology in order to reduce legislator shirking. The more ideological the legislator the less likely the legislator will vote against the economic interests of their constituents.

Clearly the empirical evidence of whether legislators' ideology is a dominant factor in explaining congressional voting behavior is inconsistent. One possible reason for the inconsistent empirical results is because researchers who find support for legislator ideological shirking studied votes on specific legislation (e.g., minimum wage, strip mining, environmental restrictions, defense weapons systems) where there are clear economic consequences from the proposed legislation. Those finding no empirical evidence of legislator ideological shirking tended to study legislators' broader voting records as measured by ideological interest group ratings (e.g., Americans for Democratic Action, League of Conservation Voters, American Conservative Union) or votes on moral or quasi-moral legislation (e.g., death penalty, abortion, child pornography, prayer in school). Another problem with many of the aforementioned studies is that they failed to clearly identify and control for many specific constituent economic interests—the gainers and losers from the proposed legislation. Part of the problem is that many of the key constituency variables are unobservable or poorly measured, potentially resulting in omitted variable bias.

In addition, the controversy in the literature about the role of legislators' personal ideology in voting is crucially dependent upon legislators' expectation of electoral harm. Wright (1993) found that legislators who deviate from the desires of their constituents face an average reduction of five percent in political support. Lott and Davis (1992) found that the probability of reelection decreases for senators who deviate from the interests of their constituents by as little as 1.27% points. Kau and Rubin (1993) found that the electoral margin of incumbent legislators decreases the more they deviate from the interests of the average type of voter in their district. Arnold (1990) emphasizes that the expectations of electoral harm need not actually be real, but can be perceived. He argues legislators will vote in a manner consistent with their constituents' preferences if they fear their vote will induce electoral audits of their past deviant votes by electoral challengers. Arnold argues that certain issues are conducive to electoral audits by potential challengers. These include issues that are simple and easy for voters to understand and for which there is a seemingly uncomplicated public policy solution. A deficit reduction bill is one such example where legislators' personal ideology should be trumped by constituents' economic interests.

5. Theoretical considerations

Residents in all states pay taxes to the federal government and in return their states receive federal dollars for various programs. All 50 states cannot be net beneficiaries of federal spending. Some states receive more in federal spending than they pay in federal taxes and are net receivers (entitlement states). Other states pay more in taxes to the federal government than they receive back in federal spending. These states (contributor states) subsidize federal spending in entitlement states.

Table 1 lists the federal spending to tax ratio—the amount of federal spending for each dollar paid in federal taxes for each state for the years of the Senate votes on the three deficit reduction bills we examine: 1985, 1987 and 1995. A number greater than 1 means that a state is an *entitlement state*—a state's constituents receive more back in federal spending than they sent in taxes to the federal government. Correspondingly, a number less than 1 indicates a state is a *contributor state*—a state's constituents send more in taxes to the federal government than they receive back in federal spending.

The three deficit reduction bills would reduce federal spending in all states. GRH85 and GRH87 require that defense spending and non-defense spending (other than Social Security) be equally reduced by the same percentage. However, the reductions in federal spending would not affect all states equally. As noted by Leonard (1999), entitlement states receive more federal spending per dollar of taxes because they tend to have relatively more elderly on Social Security, military bases, defense and aerospace firms, federal government facilities, and high poverty rates. The consequence of GRH85 and GRH87 is that entitlement states would tend to lose relatively more in federal funds than contributor states. In other words, the relatively greater preponderance of federal spending programs in entitlement states means that automatic spending cuts in GRH85 and GRH87 would fall disproportionately on entitlement states.

These spending limitation bills would alter the federal balance of payments between entitlement states and contributor states. The return on federal tax dollars in contributor states would increase relative to the return on federal tax dollars in entitlement states. For example, if two states paid the same amount in federal taxes but state "A" received one-third more money from the federal government than state "B," a 10% across-the-board reduction in federal spending would reduce state "A's" federal money 33% more than state "B's" federal money. A self-interested vote-maximizing senator from an entitlement state, who faithfully represents the economic interests of their constituents, should be opposed to the spending limitation bills since the constituents of their state are net beneficiaries of federal spending. Conversely, a self-interested vote-maximizing senator from a contributor state, who faithfully represents the economic interests of their constituents, should be more likely to support the spending limitation bills since the constituents of their state are net contributors to the federal government.

While the constituents of a state may not know the exact ratio of federal spending per dollar of federal taxes in their state, the results of that federal spending (e.g., highway, bridges, military bases, federal buildings, Social Security, Medicare, defense firms) are readily apparent. Even though individual senators, from an entitlement or contributor state, may be personally ideologically opposed to or in favor of government spending, they should be less likely to ideologically shirk and vote against their constituents' economic interests on legislation that clearly will affect the distribution of federal spending to all the constituents within states that are net beneficiaries or net contributors of federal funds.

In addition, because GRH87 was identical to GRH85 (except for the triggering procedure) this means that Senate passage of GRH87 was a foregone conclusion. Since the passage of GRH87 was known in advance to every senator, the Senate's vote on GRH87 provides a novel methodology to test the extent to which elected legislators cast a vote on the basis of their constituents' economic interests or their personal ideology. If constituents' economic interests dominate, then one would expect to find that vote-maximizing senators should vote only on the basis of how GRH87 affects the economic interests of their constituents and not their personal ideology. Thus, if senators' personal ideology matters then one would expect to find senators' personal ideology is a significant factor that dominates over their constituents' economic interests in their vote on GRH87.

However, underlying the empirical analysis in this paper is the implicit assumption of a link between economic interests and political behavior (i.e., the rational choice model of voter behavior). The rational choice model argues that voters are solely motivated by a benefit–cost calculation by which they vote for the candidate associated with the outcome they expect

Table 1
Ratio of federal spending in a state to federal taxes paid by that state, 1985, 1987, and 1995

State	1985	1987	1995
Alabama	1.28	1.36	1.31
Alaska	0.97	1.24	1.21
Arizona	1.13	1.25	1.13
Arkansas	1.35	1.37	1.22
California	1.03	0.94	0.94
Colorado	0.91	1.15	0.95
Connecticut	0.92	0.81	0.68
Delaware	0.77	0.76	0.84
Florida	1.07	1.03	1.07
Georgia	1.28	1.36	1.31
Hawaii	1.45	1.31	1.26
Idaho	1.27	1.36	1.14
Illinois	0.69	0.73	0.74
Indiana	0.92	0.91	0.84
Iowa	1.04	1.14	1.06
Kansas	1.16	1.14	1.05
Kentucky	1.11	1.14	1.28
Louisiana	1.03	1.13	1.35
Maine	1.38	1.21	1.31
Maryland	1.25	1.25	1.27
Massachusetts	1.04	1.01	0.92
Michigan	0.71	0.74	0.77
Minnesota	0.90	0.93	0.78
Mississippi	1.54	1.67	1.54
Missouri	1.55	1.35	1.29
Montana	1.43	1.49	1.46
Nebraska	1.12	1.19	1.01
Nevada	0.88	0.88	0.73
New Hampshire	0.85	0.70	0.75
New Jersey	0.64	0.62	0.68
New Mexico	1.90	2.05	1.86
New York	0.87	0.83	0.87
North Carolina	0.88	0.90	0.95
North Dakota	1.57	1.74	1.47
Ohio	0.89	0.93	0.96
Oklahoma	0.99	1.21	1.29
Oregon	1.00	0.97	0.95
Pennsylvania	0.96	0.97	1.05
Rhode Island	1.01	0.98	1.15
South Carolina	1.25	1.20	1.20
South Dakota	1.53	1.59	1.30
Tennessee	1.09	1.12	1.07
Texas	0.79	0.93	0.95
Utah	1.32	1.46	1.08
Vermont	1.00	0.88	1.03
Virginia	1.45	1.48	1.51
Washington	1.18	1.11	0.98
West Virginia	1.17	1.25	1.59
Wisconsin	0.83	0.83	0.81
Wyoming	0.94	1.06	1.08

to leave them economically better off. An alternative view of voter behavior, first proposed by Brennan and Buchanan (1984) and further developed by Brennan and Lomansky (1993), is the expressive model of voter behavior.

The expressive model of voting argues that the probability of an individual voter determining an electoral outcome is so miniscule that the expected benefit from voting is negligible. Individuals vote not because they expect to influence an election. Rather, individuals vote as an act of expressive behavior—to show a preference for or opposition to a candidate. That is, expressing a preference for or opposition to a candidate has symbolic value to a voter.

Previous empirical studies testing for the presence of expressive voting have generally provided support for the expressive voting model. Carter and Guerette (1992) and Fischer (1996), using individual responses from experimental trials, find that individuals are more likely to vote for funds for charity (expressive voting) rather than for themselves (rational choice voting) as the probability of influencing the outcome declines. Gerber and Morton (1998) present empirical evidence showing that closed election primaries result in more extremist candidate choices (expressive voting by party activists) than in open election primaries which include independent voters. Kan and Yang (2001), using data from the 1988 American National Election Study, find that measures of whether a candidate makes a citizen hopeful, angry, fearful or proud have significant effects on both voter turnout and voter choice. Copeland and Laband (2002), using data from 1986 to 1996 National Election Surveys, find a strong positive relationship between political expressiveness (i.e., contributing to political campaigns, wearing campaign buttons, posting political stickers and/or signs) and voter turnout. Ashworth et al. (2006), using data from Belgium municipal elections, find a non-monotonic relationship between voter turnout and the winner's expected plurality. Sobel and Wagner (2004), using U.S. state level data from 1972 to 1996, find that the probability of casting the decisive vote in a given state is inversely related to the size of a state's welfare expenditures. The larger the number of voters the less costly it is for an individual voter to act charitably (i.e., vote expressively).

The basic thesis of the expressive theory of voter behavior is that individuals vote not because they can affect the outcome of an election, but for expressive reasons. The empirical problem with the theory of expressive voting is that it is not obvious or easy to measure what feelings a voter wishes to express or how one would go about testing for expressive voting. More importantly, the expressive theory of voter behavior makes no predictions about how individuals vote.

In contrast, the rational choice model of voter behavior predicts how individuals vote if they vote. As a voluminous literature in both political science and economics attests economic outcomes influence elections (see the review in Hibbs, 2006). For example, changes in real disposable income is related to each of the following: the share of the vote going to the president's party in presidential elections (Hibbs, 2000), House elections (Jacobson, 2009) and the quality of the challenger House incumbents face (Jacobson, 2009). Given these findings, it seems reasonable for economic considerations to influence the voting behavior of senators on salient votes with widely known economic outcomes that impact both important organized groups of voters (e.g., senior citizens) and broad diffuse groups of voters (e.g., taxpayers). Nonetheless, it is important for the reader to keep this caveat in mind.

6. Model

In order to isolate the impact of senator ideology and constituents' economic interests on senatorial voting requires controlling for other factors that affect a senator's voting behavior. The model used to analyze a senator's vote on each of the three spending limitation bills is: $P_i = f$(constituents' economic interests$_i$, constituents' ideology$_i$, senator ideology$_i$, political institutional factors$_i$), where P_i is the probability that a senator from state i votes yes (=1) on a spending limitation bill.

6.1. Constituents' economic interests

Whether and how legislators might respond to constituent economic interests has been an important topic in the public choice literature. While every person in a state is potentially affected by a senator's vote on a federal spending limitation bill, certain constituencies would disproportionately lose from passage of a bill that automatically reduces federal spending.

Senior citizens represent a large voting bloc that has an enormous financial stake in their senators' vote on the spending limitation bills. Social Security is a government program that uses payroll taxes to fund retirement benefits for seniors. A federal spending limitation bill might force senators to reduce Social Security benefits or reduce cost of living increases in Social Security benefits. Since senior citizens have a shorter life expectancy relative to other age groups in the population, deficit spending by the federal government allows seniors to shift part of their debt burden to younger workers. Thus, seniors have a financial incentive to monitor the vote of their senators and withhold electoral support from senators.

However, Barro (1974) has shown that if there is intergenerational altruism – each parent generation plans to leave a positive bequest to their children – then any redistributional change in Social Security benefits can be offset by changes in the gross bequests by parents to their heirs. If intergenerational altruism is present, this suggests that elderly constituents will not necessarily support (oppose) increases (decreases) in Social Security benefits. Consequently if intergenerational altruism is present, then one would expect to find, as Lipford and Dougan (1995) and Richarson and Munger (1990) did, that a legislator's vote on changes in Social Security benefits is not influenced by the share of senior citizens in the legislator's district.

Nevertheless, seniors may still have a financial incentive to monitor the vote of their senators and withhold electoral support from senators who vote in favor of legislation potentially reducing their Social Security benefits for four reasons: (1) seniors may not have heirs; (2) seniors may not have a positive bequest to give to their heirs; (3) seniors may value current consumption more highly than potential future consumption (i.e., a higher rate of time preference); (4) seniors may be financially worse off than their heirs and less able to afford a reduction in their Social Security benefits. Additionally, the American Association of Retired Persons, with over 35 million members (i.e., potential voters) asked their members to contact their senators to urge them to vote against the spending limitation bills because they feared the bills would result in cutbacks in Social Security and Medicare benefits. Thus the relationship between the percentage of state i's population who are 65 or older in the year the vote was taken (SENIORS) and a senator's vote on a deficit reduction bill is ultimately an empirical question.

Another economic constituency is upper income households. Upper income households receive favorable tax breaks and subsidies (e.g., capital gains treatment for investment income, no limit on deductions for mortgage interest, state property tax, state income tax, and tax-exempt state and municipal bonds). Since a mandated deficit reduction could trigger tax increases that could reduce or eliminate many of these legal tax breaks for upper income groups, we could plausibly hypothesize that the higher the median household income in a senator's state, the less likely a senator would vote in favor of mandated deficit reduction. The variable INCOME is state median household income in thousands of dollars in the year the vote was taken.

Additionally, another constituency predicted to suffer significant economic hardship as a result of the budget limitation bills are employees at defense firms and military bases, defense contractors, and those businesses/employees who provide services to them. A legislative mandated reduction in government spending would disproportionately affect the defense budget. In GRH85 and GRH87, half of all mandated spending cuts were required to come from the defense budget. The variable DEFENSE is the amount of defense spending per capita in state *i* and is expected to have a negative impact on the probability of a senator's support for spending limitations.

A further constituent economic factor that could influence senators' votes on spending limitations is the racial composition of the electorate. Mandated deficit reductions would disproportionately affect minorities who are relatively more likely to receive financial assistance from federal safety net programs (e.g., subsidized housing, food stamps, free school lunch programs, Medicaid, Aid to Families with Dependent Children). Therefore, the greater the percentage of a state's population who are nonWhite, the less likely a senator will be to vote in favor of mandated spending limitations. The variable NONWHITE is the percentage of a state's population that is nonWhite.

The variable of particular interest in this study is the ratio of federal spending in each state to the federal taxes paid by each state (TSRATIO). The ratio represents the amount of federal spending for each dollar paid by state *i* in taxes (i.e., the return on taxes paid to the federal government). If senators represent an entitlement state (TSRATIO >1.0) one would expect it would be in their electoral self-interest and the economic interests of their constituents to vote against a spending limitation bill that would have the effect of reducing, or eliminating, the subsidy received by their constituents from other states. Conversely, vote-maximizing senators from a contributor state (TSRATIO < 1.0) representing the economic interests of their constituents should be more likely to vote in favor of a spending limitation bill that would reduce, or eliminate, the subsidy paid by their constituents to other states.

6.2. Constituents' ideology

Since voters can vote their representatives out of office, legislators are very concerned about the political opinions of their constituents (Mayhew, 1974; Uslaner, 1999). Following Erikson et al. (1993) we measure constituents' ideology (STATEIDEOLOGY) as the percentage of a state's population who self-identify themselves as liberals minus the percentage who self-identify themselves as conservatives in the CBS/New York Times Polls. For GRH85 and GRH87, we use the average state score over the 1980–1989 time period and for the BBA we use the average state score over the 1990–1999 time period. The correlation between the state ideology scores over the two time periods is 0.86 which indicates a high degree of stability (Erikson et al., 2006). A positive state ideology number indicates a state whose populace tends to be ideologically liberal, while a negative state ideology number indicates a state whose populace tends be ideologically conservative.

6.3. Senator ideology

Much congressional research indicates that a senator's ideology is an important predictor of their votes in the U.S. Senate (e.g., Poole and Rosenthal, 1997). To measure a senator's ideology (SENIDEOLOGY), we emulate much of the literature by using Poole and Rosenthal's first-dimension DW-NOMINATE scores. The Poole and Rosenthal DW-NOMINATE score is a number that places each senator along liberal-conservative unbounded ideological continuum. A positive number indicates a senator whose personal ideology is conservative, while a negative number indicates a senator whose personal ideology is liberal. Deficit reduction, accomplished through spending cuts would reduce the size and influence of the federal government. Since liberals tend to believe in a larger, more activist federal government than conservatives, we expect that the more liberal senators' personal ideology, the less likely they are to support the deficit reductions bills we examine.

Some researchers include a senator's political party affiliation as, in part, a measure of a senator's political ideology. We omit political party affiliation as an independent variable for two reasons. First, vote-based group ratings of senators, such as the DW-NOMINATE, likely incorporate the impact of party affiliation (McCarty et al., 2001; Cox and Poole, 2002). Secondly, Herron (2001) finds that models containing both a party dummy variable and a vote-based ideological measure yield inconsistent regression estimates because of measurement errors and, as such, he recommends dropping the party dummy variable from the estimation.

6.4. Political institutional factors

Securing federal funds is a politically expedient method used by legislators to provide tangible benefits to their constituents (Mayhew, 1974). One means by which a senator is able to deliver federal funds to their constituents comes from the committees they serve on (Fenno, 1966, 1973). Senators can use their positions on the Senate Appropriations and Budget committees to provide federal funds that directly benefit their constituents. Members of the Senate Finance committee can change the federal tax code to the benefit of their particular state. Thus, all three of these committees deal with economic issues that can potentially change the level of federal spending and/or taxes (i.e., the federal spending/taxing ratio for each state).

If GRH85, GRH87 or the BBA were adopted, it would reduce the power of Senate committees by replacing committee budgetary recommendations with outcomes from a non-discretionary formula. A non-discretionary formula reduces the ability of senators who are members of the Appropriations, Budget, and Finance committees to provide tangible benefits to their constituents (i.e., pork). Therefore, all other factors being equal, senators who serve on the Appropriations (APPROP = 1

Table 2
Probit results from senatorial voting on Gramm–Rudman–Hollings 1985, Gramm–Rudman–Hollings 1987, and the balanced budget amendment (yes = 1)

Independent variables	GRH 1985		GRH 1987		BBA	
	B	S.E.	B	S.E.	B	S.E.
SENIORS	−0.224**	0.104	−0.008	0.096	−0.006	0.162
INCOME	−0.197**	0.078	−0.183***	0.069	0.124	0.098
DEFENSE	9E−07*	6E−07	1E−06*	5E−07	1E−07	9E−07
NONWHITE	−0.007	0.020	−0.005	0.018	−0.006	0.034
TSRATIO	−1.379*	0.776	−1.691**	0.793	−0.336	1.544
STATEIDEOLOGY	0.034	0.034	−0.003	0.029	−0.044	0.038
SENIDEOLOGY	1.848***	0.643	0.640	0.473	5.813***	1.384
APPROP	0.326	0.360	−0.230	0.336	−0.545	0.560
BUDGET	−0.320	0.373	−0.038	0.340	−0.153	0.539
FINANCE	0.333	0.612	0.756*	0.442	0.472	0.649
MARGIN	−0.012	0.009	−0.009	0.008	0.006	0.012
CONSTANT	9.664***	3.209	6.710**	3.002	−2.690	5.655
Log likelihood	−43.82		−50.99		−22.93	
χ^2	29.93***		20.12**		75.52***	
Pseudo R^2	0.25		0.16		0.62	

* Significant <0.10.
** Significant <0.05.
*** Significant <0.01.

if senator i serves on the Appropriations Committee), Budget (BUDGET = 1 if senator i serves on the Budget Committee) or Finance (FINANCE = 1 if senator i serves on the Finance Committee) committees are expected to be less supportive of spending limitation bills than other senators.

An additional political institutional factor that could influence senators' votes on a spending limitation bill is their margin of victory in their last election (MARGIN). A senator's previous margin of victory, operating through two different channels, may have an influence on a senator's spending limitation vote. The previous electoral margin of victory measures the political strength of the incumbent senator. The larger a senator's previous electoral margin of victory, the lower the likely quality of their next opponent and the higher the probability the senator will win their next election. The larger the previous electoral margin of victory, the less the electoral pressure on a senator to vote in favor of a spending limitation bill which weakens a senator's ability to provide tangible benefits to her/his constituents. However, Dougan and Munger (1989) argue that legislators have an incentive to establish political brand name capital by maintaining a consistent voting record. Political brand name capital can provide incumbents with cost advantages that allows them to enjoy greater support (i.e., financial, party and political) than lesser-known challengers. Lott (1987) and Van Beek (1991) find that a legislator's voting behavior remains unaltered even when the threat of reelection is removed. If this is true, then a senator's previous margin of victory will have no significant impact on a senator's support for mandated spending limits. Therefore, the effect of a senator's previous margin of victory is ambiguous.

7. Data sources

The Senate votes on GRH85, GRH87 and the BBA and the party affiliation of senators were taken from various issues of CQWR (in press). Poole and Rosenthal's DW-NOMINATE scores were taken from http://voteview.com/dwnl.htm. Data on state liberalism was supplied by Gerald C. Wright. The ratio of federal spending to taxes in a state was supplied by the Tax Foundation at http://www.taxfoundation.org/. The percent of a state's population who are nonWhite and the percent 65 and older were taken from various editions of the Statistical Abstract of the United States. Median household income was taken from the U.S. Census Department's website. Defense spending on prime contracts by state is taken from the Department of Defense website: http://web1.whs.osd.mil/peidhome/geostats/geostat.htm.

8. Findings

The senatorial voting behavior model was estimated using probit analysis. Table 2 shows the probit results for GRH85, GRH87 and the BBA, respectively. As with any econometric analysis one needs to be concerned with the presence of multicollinearity between the explanatory variables. To test for multicollinearity, a variance inflation factor (VIF) analysis was run. These factors measure the inflation in the variances of the parameter estimates due to correlation between the regressors. None of the variance inflation factors was greater than 4.6, which is considerably lower than the guideline of 10.0 for a severe multicollinearity problem (Gujarati, 1995: 339). In addition, constituents' economic interests explain less than 29% of a state's constituent ideology. Since the empirical results for GRH85, GRH87 and the BBA are different, we discuss each deficit reduction bill separately.

8.1. Gramm–Rudman–Hollings 1985 (GRH85)

The probit results in Table 2 show that on the Senate vote on the 1985 Gramm–Rudman–Hollings bill all the political institutional variables, a state's constituents' ideology, a senator's prior margin of victory, and percent nonWhite are all statistically insignificant, while defense spending is statistically significant, but numerically insignificant. As hypothesized, only a senator's constituent economic interests and personal ideology matter on the vote on GRH85. A senator's personal ideology is significantly positive at the 0.01 level of significance. The more conservative a senator's personal ideology, the more likely a senator is to vote in favor of spending limitations. The constituent economic variables: the percent elderly and median household income, are both significantly negative predictors of a senator's support for spending limitations.

The variable of principal interest in this study, the ratio of federal spending in a state to the federal taxes paid by that state (TSRATIO), is significantly negative. As hypothesized, the higher the ratio of federal spending to taxing in a senator's state, the less likely they will support spending limitation bill GRH85. Senators from entitlement states (TSRATIO >1.0) are more likely to vote against a spending limitation bill that would reduce the subsidy received by their constituents. Senators from contributor states (TSRATIO < 1.0) are more likely to vote in favor of a spending limitation bill that reduces the subsidy paid by their constituents. This is particularly important because unlike other constituents' economic interest measures that only impact a fraction of the constituency, the ratio of federal spending to federal taxes in a state represents the economic interests of all the constituents in a state.

8.2. Gramm–Rudman–Hollings 1987 (GRH87)

The empirical results in Table 2 shows that on the vote on GRH87 a senator's personal ideology is now statistically insignificant, while the federal spending to tax ratio and median household income are still significantly negative. Because GRH87 was essentially the same as GRH85, the passage of GRH87 was known with certainty. A vote-maximizing senator from an entitlement state (TSRATIO >1), regardless of the senator's personal ideology, is more likely to vote against a spending limitation bill that would negatively impact the economic interests of all the senator's constituents. Conversely, a vote-maximizing senator from a contributor state (TSRATIO < 1), regardless of the senator's personal ideology, is more likely to vote in favor of a spending limitation bill that would reduce the subsidy paid by the senator's constituents. As hypothesized on the vote on GRH87, a vote-maximizing senator interested in being reelected voted solely on the basis of how GRH87 would impact the economic interests of all the senator's constituents rather than the senator's personal ideology because of the salience of the issue to all the senator's constituents.

8.3. Balanced budget amendment (BBA)

Table 2 also contains the probit results for the Senate vote on the 1995 proposed balanced budget amendment. All the constituents' economic interest variables, political institutional variables, and a state's constituents' ideology are statistically insignificant. The only explanatory variable that is statistically significant on the vote on the BBA is a senator's personal ideology. The more conservative a senator's personal ideology the more likely the senator is to vote in favor of the balanced budget amendment.

The finding that senators voted on the BBA solely on the basis of their personal ideology rather than their constituents' economic interests may seem surprising, but it is entirely consistent with Nelson and Silberberg (1987) argument that electorally it is relatively less costly for a legislator to shirk on a general bill like the BBA which has ill-defined and unknown constituent economic gains or losses than GRH85 and GRH87 which have more well-defined constituent economic winners or losers. The BBA, unlike GRH85 and GRH87, did not explicitly specify how much defense and non-defense programs were to be cut. Additionally, it did not exempt Social Security from being cut. It made it difficult to increase tax rates, but it did not prevent discontinuing popular middle-class tax deductions.

While opinion polls consistently show that Americans, in general, support the concept of a balanced budget amendment, support drops dramatically when respondents are told that passage may entail reductions in Social Security, Medicare, education or possible increases in income taxes due to the loss of popular deductions such as mortgage interest or state income taxes. In the 1995 Senate debate, before the vote on the proposed BBA, opponents offered numerous substitute amendments that would have exempted Social Security, exempted capital expenditures, suspend the amendment because of economic recessions or military actions, and exempted certain special tax exemptions, deductions, and credits from being changed because of the BBA. Opponents of the BBA also argued that passage would necessitate cuts in federal grants to states, county, and local governments and smaller federal contributions to shared programs (e.g., Medicaid, Head Start, AFDC).

Proponents of the BBA maintained that passage of the amendment was important for the economic health of the country, the financial security of future generations, and to promote fiscal responsibility. Senators could vote on the proposed balanced budget amendment on the basis of their personal ideology because a senator could legitimately argue to voters, especially to their core voter base, that their vote on the amendment either championed the idea of deficit reduction or protected vital social programs. As aptly noted by one of the proponents of a balanced budget amendment, Daniel J. Mitchell of the conservative Heritage Foundation (1997: 3) after the Senate vote, "Presenting a phony alternative allows these members to vote against a legitimate version of the amendment and, at the same time, tell their constituents that they voted for a balanced budget amendment."

8.4. Robustness of the empirical results

The robustness of the empirical results in Table 2 can be tested using a number of alternative specifications. Senators of the majority party may feel that voters will hold them accountable for legislation passed, or not passed, by the Senate. Therefore, senators of the majority party may be more willing to restrain their personal spending prerogatives to the greater goal of limiting federal spending than will members of the minority party (Smith and Gamm, 2001; Aldrich and Rhode, 2001). Since the impact of committee membership may vary by party, we also estimated interactive models which contain multiplicative terms between senator committee membership and political party affiliation (1 = Democrat; 0 = Republican). The interactive results further substantiate the results in Table 2.

Since electoral security might also be thought of in terms of closeness to the next election, we also estimated equations containing an additive term for whether or not the senator was up for reelection at the next election and an interaction term between electoral status and electoral margin. The empirical results (which are available upon request) found that, either additively or interactively, electoral status was statistically insignificant and the estimated coefficients of the other variables in the model were virtually identical to those reported in Table 2.

The presidential vote is frequently used as a measure of constituency ideology (e.g., Canes-Wrone et al., 2002). Since the 1988 presidential election did not have either an incumbent candidate or a third party and occurs in the time period of GRH85 and GRH87, it is an alternative measure of the ideology of a state's voters. Substituting the presidential vote for Bush in 1988 for the Erikson et al. (1993) measure of the ideology of a state's voters has little impact on the empirical results reported in Table 2.

9. Discussion

This paper provided a test of the relative importance of pocketbook economic interests of constituents and the ideological views of their senators. Our empirical results are consistent with Downs (1960) theoretical work and Peltzman (1984) empirical work that measures of a legislator's personal ideology tend to play a more important role when examining how legislator's vote on social issues (e.g., abortion, school prayer) or foreign policy issues (e.g., foreign aid, human rights), while legislators are more sensitive to constituents' economic interests on domestic policy, budgeting, and tax issues. Unlike much of the congressional voting literature, we find that when highly salient legislation contains well-defined economic winners and losers, legislators will vote in a manner consistent with the economic interests of their constituents. The three spending limitation votes we examined involve two issues of critical importance. The first issue is the degree to which the legislation produces clear, and known, economic "winners and losers". On this issue, both GRH85 and GRH87 had identical, and much clearer, economic winners and losers than the BBA. The second issue is the likelihood that, if enacted, the proposed outcomes of the law would be realized (i.e., that the winners and losers would actually reap their rewards or punishments). Since the constitutionality of GRH87 was not in doubt and the provisions of the law produced certain, and known, winners and losers, pocketbook economic voting should be most prevalent on GRH87. Since as noted by Richard Kogan (personal communication), a former staff member of the Budget Committee of the House of Representatives, that unlike the vote on GRH85, senators knew that they would be subject to the budgetary restrictions in GRH87. Not surprisingly, for GRH87 the combined sum of the absolute value of the standardized coefficients for the ratio of federal spending to federal taxes paid by a state, the percent of a state's population who are 65 and older and median household income was 7.6 times greater than for senator ideology. The corresponding figures for GRH85 and the BBA were 2.4 and .3. Our empirical results are consistent with Peltzman (1984) argument that if constituents' economic interests have well-defined "winners and losers" and are appropriately measured, then constituents' economic interests are the most important determinant of legislative voting.

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