Conflict of interest and congressional voting: A note

HENRY W. CHAPPELL, Jr.*

University of South Carolina

1. Introduction

In recent years economists and political scientists have shown renewed interest in the statistical analysis of congressional voting. Durden and Silberman (1976), Abrams (1977), Danielson and Rubin (1977), Kau and Rubin (1979), Kau, Keenan and Rubin (1979), Welch (1980), and Chappell (1980, 1981) have all estimated econometric models to explain voting on various issues. Not surprisingly, these researchers have generally found that a congressman's voting decisions are influenced by party affiliation, ideological perspective, and the economic interests of constituents.[1] Although economists are inclined to suspect motives of self-interest behind most behavior, previous research has ignored the possible connections between a congressman's voting and his personal financial holdings. Common Cause (1979) has reported a number of instances where a potential conflict of interest might influence voting,[2] but the evidence provided is anecdotal, not the result of a systemmatic empirical investigation. In this study, I incorporate data on congressmen's financial holdings into a multivariate econometric model explaining voting behavior. This permits a statistical test of the hypothesis that congressmen's private financial interests actually do affect their policy decisions.

2. Data

I examine voting on three issues which came from the U.S. House of Representatives between 1975 and 1977. Those issues include mortage disclosure requirements for lenders, air pollution control requirements, and tax rebates for oil companies. Table 1 describes the legislative content of the issues more completely, and lists associated industries in which some congressmen had financial interests.

In analysis of the first two issues, a dummy variable is used to indicate whether or not a congressman held a financial interest in the industry affected

Table 1. Issues selected for study

Issue	Effect of proposal	Concerned industry	Industry position
1. Redlining disclosure amendment	Would ease proposed requirements for detailed reporting of the geographic distribution of mortgage loans.	Financial institutions	Favored amendment
2. Clean Air Act amendment	Would delete provisions of original bill requiring protection of 'pristine' air.	Power and light companies	Favored amendment
3. Crude oil tax rebate House vote 474, 1977	Would return part of the revenues from the proposed crude oil equalization tax to producers who made additional investments in oil exploration.	Oil and gas companies	Favored amendment

by the legislation. Use of a dummy is necessary, since data on the dollar value of asset holdings is not available for 1975 or 1976. In the 1977 financial disclosure reports, congressmen's individual assets are listed and categorized according to value. Upper and lower bounds on the value of each reported asset are provided, so I have constructed an approximate valuation of each congressman's aggregate oil and gas holdings for use in the analysis of the third issue. Other independent variables used in the analysis include the party affiliation of each congressman, his ideological rating (as measured by the Americans for Constitutional Action, a conservative group), and variables indicating economic and demographic characteristics of his constituents.[3]

3. The empirical analysis

I analyze each of the three issues separately, using all voting congressmen as the sample in each case. The dependent variable in each equation is dichotomous: if the congressman voted 'yes' on a proposal (i.e., in favor of the industry position), the dependent variable has a value of 1; if he voted 'no' it has a value of 0. Since ordinary least squares is inappropriate when the dependent variable is dichotomous, logit analysis is used.[4]

Table 2 provides maximum-likelihood estimates of logit equations to explain voting on the three selected issues. For the redlining disclosure amendment, note that the variable BANKD is a dummy which takes a value of 1 for congressmen holding interests in financial institutions. The coefficient of BANKD is insignificant, and has an unexpected negative sign. Coefficients of the variables indicating ideological preference and urban population percentage were significant, however. For the Clean Air Act amendment, POWERD is a dummy indicating congressmen with financial interests in power and light companies (stationary sources of pollution). Again an insignificant negative coefficient results. For this issue, the coefficients for party affiliation, median income, and ideological rating were all significant. We have noted that for the crude oil tax rebate issue, 1977 data permitted the construction of a cardinal measure of a congressman's financial stake in oil and gas companies. This variable, PDOLR, was included as an explanatory variable in the voting equation. The results are similar to those for the previous issues, however. Financial interests have no significant impact on voting; instead party, ideology and per capita oil production have greater impact.

4. Conclusions

Results of this study are consistent with those of previous voting studies which have shown that party, ideology, and constituency characteristics are often significant explanatory variables in equations to explain voting. No evidence was found to support the hypothesis that congressmen's voting decisions depend upon their private financial interests. This suggests the conclusion that much of the concern about apparent conflicts of interest is unfounded, but it must be recognized that this study has examined voting on just a few issues and has used data on financial holdings which were

Table 2. Logit equations to explain voting on selected issues

		1. Redlining disclosure amendment dependent variable: REDV		2. Clean Air Act amendment dependent variable: POWERV		3. Crude oil tax rebate dependent variable: OILV	
		Coefficient	Asymptotic t	Coefficient	Asymptotic t	Coefficient	Asymptotic t
C	Constant	-.5068		-1.2655	.	-.1556	
BANKD	1=Holds interest in financial institutions	-.1767	(-.4073)				
POWERD	1=Holds interest in power and light companies			-.4270	(-.5084)		
PDOLR	Approximate value of oil and gas holdings					-.0003	(-.7640)
ACA	Conservative rating	7.0420	(7.5127)[a]	7.7801	(8.4129)[a]	3.0354	(6.6890)[a]
PARTY	1=Democrat	-.1992	(-.3801)	1.3838	(2.6250)[a]	-1.1229	(-4.1116)[a]
INCOME	Median income	-.7955	(-.7955)	-3.0365	(-2.6440)[a]	-.6151	(-.3348)
POPURB	Urban population	-1.1143	(-2.2697)[b]	-.9520	(-1.0000)	-.6214	(-1.8529)
OILCAP	Per capita oil production			14.8217	(4.3541)[a]	5.2877	(4.4672)[a]
Log-likelihood function		105.23		113.48		117.97	
No. of observations		330		348		395	

[a] significant at .01 level.
[b] significant at .05 level.

lacking in precision. As more data becomes available in the next several years, we should be able to resolve this question with greater confidence.

NOTES

1. Several of the studies mentioned have analyzed the relationship between congressional voting and campaign contributions from concerned interest groups. When proper statistical methods are employed, it appears that the impact of contributions on voting is weak (see Chappell, 1980, 1981). I therefore do not include campaign contributions as a determinant of voting in this study.
2. For example 20% of all representatives filing reports held interests in oil, gas, and electric and light companies in 1978, a year in which crucial energy legislation was considered.
3. A detailed discussion of the procedure for approximating the value of asset holdings and lists of data sources and variable definitions are available from the author upon request.
4. See Nerlove and Press (1973) for a discussion of the limitations of ordinary least squares and a discussion of the logit model.

REFERENCES

Abrams, B.A. (1977). Legislative profits and the economic theory of representative voting: An empirical investigation. *Public Choice* 31 (Fall): 111-128.
Chappell, H.W. (1980). Campaign contributions and congressional voting: A simultaneous probit-Tobit model. University of Alabama. Mimeo.
Chappell, H.W. (1981). Campaign contributions and voting on the cargo preference bill: A comparison of simultaneous models. *Public Choice* 36(2): 00-00.
Common Cause (1979). *How money talks in Congress.* Washington, D.C.: Common Cause.
Danielson, A.L.. and Rubin, P.H. (1977). An empirical investigation of voting on energy issues. *Public Choice* 31 (Fall): 121-128.
Durden, G.C.. and Silberman J.J. (1976). Determining legislative preferences for the minimum wage: An economic approach. *Journal of Political Economy* 84 (April): 317-329.
Kau, J.B.. and Rubin, P.H. (1979). Self-interest. ideology, and logrolling in congressional voting. *Journal of Law and Economics* 22 (October): 365-384.
Kau, J.. Keenan, D.; and Rubin, P.H. (1979). A general equilibrium model of congressional voting. University of Georgia. Mimeo.
Nerlove M. and Press, J.L. (1973). *Univariate and multivariate log-linear and logistic models.* Santa Monica: The Rand Corporation.
Welch, W.P. (1980). Do campaign contributions affect legislative voting?: The case of the milk lobby. Mimeographed paper presented at the Public Choice Society Meetings, San Francisco, March 16, 1980.