Tax and Spending Limits

Continuation of principal-agent problem in government
Previously looked at voter information and participation (government efficiency depends on voters being aware of and punishing inefficiency)
Now look at examples where voters think they can't control government so they need to enact restrictions on government


**Contribution** - alternative explanation for tax limitations (which shouldn't occur under the median voter model because "rational voters would never choose to adopt a binding limit on their ability to raise revenue locally" (454))

"This paper is a very murky paper"... talking about other people (outside of a jurisdiction) having a say about taxes within a jurisdiction, but the measures don't really capture this

**Background** -

**Binding Property Tax Limitation** - prevents some jurisdictions from offering residents their most preferred combination of taxes and services

**Modified Tiebout Model** - permit voters to have preferences regarding taxes and spending in jurisdictions where they don't live

**Alternative Theories** - these are for tax limits, but neither talks about preferences of voters in surrounding areas

**Leviathan Theory** - tax limitations allow voters to rein in local governments that disobey voter preferences by either overproducing or producing inefficiently

**State Regime Shift** - collection of models that imply that voters use tax limitations to force state governments to accept more responsibility for collecting revenue or providing local public goods

**Massachusetts Proposition 2\(^{1/2}\)** - passed on 4 Nov 1980; required all local jurisdictions to levy property taxes at effective rates no greater than 2.5%; dollar amount of tax revenue collected also constrained to grow no faster than 2.5% per year

**Anecdotal Evidence** - Vigdor claims evidence for nonresident hypothesis because...

- Barbara Anderson, head of Citizens for Limited Taxation spearheaded drive to enact Prop 2\(^{1/2}\); she lives in Marblehead with effective property tax of 2.3% (not binding)
- Financing for Prop 2\(^{1/2}\) came from Massachusetts High Technology Council, business consortium rather than organization of residential taxpayers

**Model** -

**Nonresident Hypothesis** - "Statewide limitations effectively extend the voting franchise to individuals who have no standing in local elections"; reasons:

**Spillovers** - benefit spillovers... should lead nonresidents to want higher taxes

**Absentee Landowners** - includes renter-occupied housing and nonresidential land and structures; want lower taxes (don't live in jurisdiction to benefit from government services)

**Nonresident Employees** - expect higher wages if there are lower taxes

**Marginal Residents** - individuals indifferent between living in their jurisdiction and the jurisdiction in question; if taxes go down, they will want to move and their utility will increase

**Fixed Effects** - by county to capture regional variations; "counties themselves have virtually no governmental function in Massachusetts" (465)
Measures of Tax Rate Changes - define $\tau = \min\{\ln 0.25 - \ln \tau_{1980}, 0\}$ ... the more negative the number, the more the city has to cut it's taxes; if 0, the tax limit is not binding to the city

Difference in Rate - difference between 2.5% and current rate ($\tau$ as defined above)

Average Mandated Rate - average of same measure for cities within 20 miles

Data - 351 cities; # votes for and against Prop 2 1/2 from the Boston Globe; half of the cities would be forced to cut taxes

Result -

Dependent Variable - logit transformation of share of voters who favored proposition

Claims data support nonresident theory

More Results - looked at household resorting and property values after the proposition took effect

Problems -

Focus - if you want to key on people's interest in lowering taxes in other communities (i.e., those above 2.5%), should only look at cities below 2.5% tax (or even smaller percentage)

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Limited Cities - is city at tax limit there because government is spending too much or because the median voter wants more public goods?

Employee-Population Ratio - "That's just stupid"; ignores compensating wage differentials

Renters - "Prisoners' dilemma story I found very confusing"; landlords have to live somewhere... author assumes landlord always lives outside the jurisdiction

Housing Markets - doesn't account for different housing markets

Overall - great idea, but poorly executed


Contribution - Look at all state over an extended period of time to explain why state impose tax limits; it's "useful to examine TEL passage using data based on the actual conditions (rather than on individual attitudes toward government) in all states (rather than in a single state) over an extended period of time (rather than at a single point in time)." (483)

Background -

TEL - tax and expenditure limitation... always more credible when you invent TLAs (three letter acronyms)

History - 1978 to 1990, 58 TEL measures were voted on in statewide elections in the US; over 40% of them passed

Problems with Median Voter - "Because the median voter's most preferred outcome has already been selected, it follows that this voter should oppose any changes in the existing levels of taxes and expenditures. Importantly, the voter should also oppose any attempt to impose some limitation on government ax and expenditure decisions" (485)

Denzau & Mackay (1979); Romer & Rosenthal (1979) - bureaucratic suppliers may have some monopoly power in selecting the agenda on which a community votes
Brennan & Buchanan (1980) - view of government as Leviathan. TELs "emerge here as an attempt to create political competition by reducing the ability of the monopoly government to control the agenda"

Bell & Fisher (1978) - logrolling
Plott (1967 - cycling
Becker (1983) - interest groups like public sector unions unduly influence outcome

Model -

Supply & Demand - "Voting on TELs should reflect the interaction of demand-side considerations of the median voter and supply-side considerations of the political process" (486)

Net Fiscal Residual - "difference between the expected benefits from public output and the expected cost of taxes"; median voter's position is determined by the difference between his NFR under the TEL and without it

Demand - considerations that reflect the preferences of the median voter

- Demographics
- Income - "higher-income individuals tend to receive less from government than they pay in taxes" (487). Kenny's explanation: income elasticity of public goods is < 1 so as income↑, people want lower tax rates
- Tax Price - measures of tax burden; voter's desire to alter the structure (if not level) of taxation; measure with federal transfers and deductibility (of state taxes from federal income tax)... both effectively lower tax price

Problem - "taxes and expenditures are necessarily linked, and high and increasing taxes may instead reflect an expressed desire for high and increasing public services" (487) vs. increased tax price; this basic problem is never resolved in the paper

Supply -

- Growth - of public sector... gets into the problem of whether taxes are up because voters demand more goods or not
- Leadership - Republican vs. Democrat; uncertain sign (e.g., Republicans favor lower taxes, but if government is controlled by Republicans there may be less need for a TEL)
- Structure of TEL - specifics of the limitation (e.g., limit rate, limit revenue, voter override)

Three Different Procedures:

Probit - simple model to predict passage; "will generate inconsistent estimates" (491)

Probit - 2 sequential conditions: (i) measure must be placed on ballot ("Ballot"); (ii) measure must receive support of a majority of voters ("Passage"); second probit uses "the inverse Mill's ratio generated from the Ballot equation included as an additional explanatory variable. As discussed in Maddala (1983), this approach yields consistent but inefficient estimates" (496)

Simultaneous Equations - solved by maximum likelihood estimation (MLE)

Data - 1978-1990 data from The State Tax Review (Commerce Clearing House, Chicago) and State Government News (Council of State Governments, Lexington, Kentucky); 390 data points (30 states x 13 years)

- 58 TELs in 25 states; 25 passed
- Also include 5 other states that don't have initiative or referendum process but have had TEL legislation requiring voter approval during the period of analysis: Alabama, Hawaii, Louisiana, Texas, & West Virginia; Alaska excluded

Result -
"Changes in income and various measures of the tax price of state and local public services are especially important determinants of TEL passage over time... increases in both property taxation and local revenues relative to state revenues increase the probability of TEL passage.

Table 4 - (p.502-503)

**Ballot Equation** - only significant variables are "TEL Already Imposed" and "Welfare Expenditures" (% growth in welfare so negative coefficient is not expected, "Not the most intuitive result I've ever seen")

**Problem** - need to account for nature of voter initiative programs; states require different percentage of signatures (Wyoming requires 15% so they've never had an initiative make it to the ballot)

**Passage Equation** - couple of significant variables (aside from "TEL Already Imposed")

**Income** - + & significant; agrees with income elasticity argument (higher income voters want lower tax rates); assumes elected officials won't cut spending in response to voter desires (i.e., representation system not working)

**Federal Transfers** - -- & significant; more transfers effectively lower the tax price so people get more for the taxes they pay (less likely to pass TEL)

**Deductibility** - -- & significant (sometimes); same argument: lowers tax price

**Total Tax Revenues** - actually measuring the growth rate in tax expenditures; -- & significant which is odd so authors argue "total tax revenues may well capture an increase in the demand for total government spending" (504)

**Problem** - "Not every story is a good one"... multicolinearity problem between tax revenue and income

**Problem** - cross equation correlation (RHO) is not significant

**Honesty Award** - "We do not claim that the empirical specifications here are able to capture all factors relevant to these decisions


**Contribution** - look at local governments gaming the system under tax limits with potential of voter override by looking at how they choose to cut services

"Some cities subject to a statewide tax limit manipulate their mix of productive and administrative services in an attempt to get voters to override the statewide limit" (233)

**Background** -

**Cutting Service** - "one manipulative response is to cut ‘service’ inputs (for example, teachers or uniformed police officers) by a relatively large amount, while cutting administrative inputs by a relatively small amount" (233)

**Literature** -

Downes & Figlio (1999) - tax limits increased student-teacher ratios, decreased teacher salaries, did not affect administrative spending, & reduced test scores

Figlio & Rueben (2001) - tax limits are associated with reduced teacher quality

Doyle (1994) - tax limits reduced quality of municipal fire service

Downes, Dye & McGuire (1998) - tax limits in Chicago decreased math scores by small amount, but didn't affect reading scores

**Summary** - "we use balance-sheet data from 5,150 U.S. cities. We measure the service ratio as the ratio of spending on police and fire protection to spending on general administration. In the years following the adoption of a statewide tax limit, the service ratio decreases by a relatively large amount in cities that have a local-override option. Among cities with override options, the largest reductions in the service ratio occur in cities whose citizens have the least interjurisdictional mobility and in cities run by city managers." (234)
Model - p.235-240... very thorough; basically, a manipulative government will lower the service ratio in order to make the line connecting all tangencies between the median voter's indifference curves and the city budget lines be steeper

Fixed Effects - city-specific and region-specific

Fixes - "we correct our standard errors for heteroskedasticity and within-city error correlation using the correction suggested by Brent Moulton (1999)" (242)

Data - Annual Survey of Governments; unbalanced panel for fiscal years 1975-1986

Filters - pick cities based on

- Contiguous US, excluding DC
- Data in at least 7 of 12 years
- At least 2000 residents

Result - 5,147 cities... 50,702 data points (cover 17 states; a quarter of them have voter overrides)

Basic Service - spending on police and fire protection

Administrative Overhead - spending on general government, excluding financial administration and general public buildings (although get same results if these are included)

Result -

Override vs. No Override - "We observe that there is no significant difference between override and no-override states in the prelimit measures of our three dependent variables from the preceding analysis"; "There is no evidence that override limits are more severe than no-override limits" (243)

"Override limit states reduce their relative police and fire spending by 0.26 more than no-override limit states, a difference significant at any conventional level" (245)... p-value listed is 0.000

Mayor vs. Manager - more electoral responsibility with mayor (no difference in service ratio) vs. city manager ("a large and statistically significant gape between override and no-override" 249)

Migration Potential - "model predicts that the difference between override and no-override cities' responses to tax limitation measure should decline with the migration potential" (251); use Herfindahl index of local government population share in the county... get more gaming in large districts (less competition among governments)

Good Times - "evidence suggests that cities facing good economic times are more likely to act in a manner consistent with seeking an override when presented with the opportunity to do so" (252)

Payoff - "We have no hard evidence that the communities that were most manipulative ended up with the highest revenues (or lowest revenue cuts) following tax limits, all of the suggestive evidence is uniform in supporting this notion." (254)

New York City Example - when faced with budget cuts, the parks and recreation department shut off the lights at the Statue of Liberty

Gainesville Elections - (aside) city council election in March; it's the only thing on the ballot in an election designed for a small turnout, possibly to keep students and faculty from voting; last year the election was during Spring Break, which explains why this year UF has spring break in February