

# It's All Very Taxing

## Interstate Tax Competition and the Balanced Budget

Ian Peters

Eastern Connecticut State University

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# Background

- To recover from the Great Recession, states have been doing whatever they can to create jobs
- Connecticut, 2014: Governor Dannel Malloy offers \$400 million to UTC
- Nevada, 2014: State offers \$1 billion to Tesla Motors
- Massachusetts, 2015: State Senator Eric Lesser offers up to \$100,000 to businesses investing in “Gateway Cities”

- Large Scale

- Chirinko and Wilson (2011) - Tax competition is like “riding on a seesaw” in the United States
- States tend to reduce their taxes when their neighbor raises them
- “Wisconsin is open for business. In these challenging economic times while Illinois is raising taxes, we are lowering them.”  
-Governor Scott Walker (2011)

- Small Scale

- Cassell and Turner (2010) found “race to the bottom” tax competition in Ohio
- Enterprise zone program encouraged municipalities to reduce tax rates to attract business
- Similar effects have been found in Switzerland by Rossi and Dafflon (2004) and Feld et al. (2010)

# The Problem with Tax Competition

- When tax competition is ineffective, state governments lose out on revenue from businesses that have remained in their state
- Genschel (2002) argues that corporate taxes make up only a small part of tax revenue, so competition shouldn't be an issue
- Roe (2009) points out that in Delaware, a state with more corporations than people, 17% of the state budget comes from incorporation fees

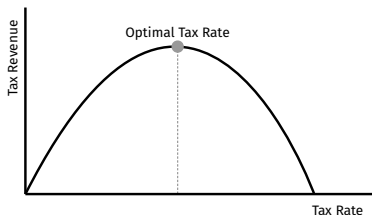
# The Role of this Project

*Given that state governments are not supposed to accumulate deficits and are required to balance their budget every year; this paper will focus on how these governments attempt to create that balance in the age of tax competition.*

- Do states raise taxes on consumers or businesses?
- Do states cut spending on government programs?
- Differences in competitive behavior between small and large states

# Methods and Theory

- The Laffer curve, which measures the relationship between tax rates and tax revenues
- Quadratic relationship, there is a certain point where government revenues are maximized
- If the government goes above this level, then it starts losing revenues

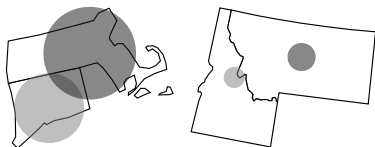


# Methods and Theory

- Keynesian economic theory assumes that governments should spend more during recessions, to help boost the economy, even if it means taking a deficit
- This proves to be a problem for state governments, because they cannot incur deficits (however, they can issue bonds)
- The Ricardian equivalence expects governments to spend more than they take in during recessions, and vice-versa during expansions
- Based on the Ricardian equivalence, this project will assume, in the long run, that state governments spend as much as they take in

# Methods and Theory

- Location theory, used in this project, will be new to tax competition literature, particularly in the United States
- Does tax competition affect small and large states differently?
- Is tax competition more effective in small states, as compared to large states?





- Three econometric models will be created to estimate the effects of tax competition on state budget balances
  - Change in state government revenue sources
    - Corporate tax revenue per capita
    - Income tax revenue as percentage of total revenue
  - Change in state government expenditures per capita
- Data will be collected from various government sources, from 1976 to 2013
- Modeling will be performed using statistical software, Stata

$$\begin{aligned} \text{CORPREV} = & \alpha + \beta_1 \text{CORPTAX} + \beta_2 \text{CORPTAX}^2 + \beta_3 \text{INCTAX} \\ & + \beta_4 \text{EMP} + \beta_5 \text{GSP} + \beta_6 \text{EDU} \\ & + \beta_7 \text{ENTRY}(\text{CORPTAX}, \text{INF}, \text{EDU}) + \epsilon \end{aligned} \quad (1)$$

$$\begin{aligned} \text{GOVEXP} = & \alpha + \beta_1 \text{CORPTAX} + \beta_2 \text{CORPTAX}^2 + \beta_3 \text{INCTAX} \\ & + \beta_4 \text{INCTAX}^2 + \beta_5 \text{EMP} + \beta_6 \text{GSP} + \beta_7 \text{FEDSUB} \\ & + \beta_8 \text{INT} + \beta_9 \text{ENTRY}(\text{CORPTAX}, \text{INF}, \text{EDU}) + \epsilon \end{aligned} \quad (2)$$

$$\begin{aligned} \text{INCREV} = & \alpha + \beta_1 \text{CORPTAX} + \beta_2 \text{CORPTAX}^2 + \beta_3 \text{INCTAX} \\ & + \beta_4 \text{INCTAX}^2 + \beta_5 \text{EMP} + \beta_6 \text{GSP} + \beta_7 \text{EDU} \\ & + \beta_8 \text{ENTRY}(\text{CORPTAX}, \text{INF}, \text{EDU}) + \epsilon \end{aligned} \quad (3)$$

# Expected Results

- The choice of whether to raise taxes or cut spending is bound to be politically unpopular
- Cuts in spending can be made in the name of efficiency, and therefore are likely to be less unpopular
- If tax competition is a byproduct of economic downturns, how are the effects of the downturns mitigated?

# Questions?