


Comments on:  
The Effects of Fiscal Decentralization on  
Publicly Provided Services and Labor Markets  
by  
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# Overview

- This paper was a lot of fun to review.
- It starts out as an evaluation of a new local property tax implemented in Italy in 1993,
- and then expands to consider the impact of this tax on local revenue, local spending patterns, and local labor markets.
- Moreover, as you have heard, the paper develops a very unusual identification strategy based on the property damage from allied bombing campaigns in WWII.
  - So if you read this paper you even get a history lesson!

# My strategy

- As some of you know, my approach to local public finance is to use some simple algebra to determine the incentives facing local governments.
- This approach leads to some insights about the property tax reforms considered in this paper.
- I should make it clear, however: all I know about local public finance in Italy comes from this paper.

# My strategy, 2

- Of course, I cannot follow this strategy without some notation.
- What follows, therefore, is some simple notation and its application to budget constraints and demand functions.
- Given my expertise, I am going to focus on the public finance part of this paper, not the material on labor markets.

# Notation

- $Y$  = household income (facing tax rate  $y$ )
- $Z$  = household spending other than housing
- $V$  = house value;  $r$  = discount rate;  $t$  = property tax rate
- $E$  = local public spending;  $S$  = quality of local public services
- $A$  = intergovernmental aid
- $C$  = cadastral value of property
- A hat (e.g.,  $\hat{Y}$ ) indicates a median
- A bar (e.g.,  $\bar{Y}$ ) indicates a mean

# Budget constraints w/ a standard property tax

- Median voter's budget constraint

$$\hat{Y}(1 - y) = \hat{Z} + \hat{V}(r + t)$$

- City's budget constraint

$$\bar{E} = \bar{A} + t\bar{V}$$

Bradford/Oates  
Correction



- Combined budget constraint

$$\hat{Y}(1 - y) + \left( \frac{\hat{V}}{\bar{V}} \right) \bar{A} = \hat{Z} + \left( \frac{\hat{V}}{\bar{V}} \right) \bar{E}$$

# Median Voter's Demand Components

- Augmented Income term (= left side of combined budget constraint)

$$\text{Augmented Income} = \hat{Y} = \hat{Y}(1 - y) + \left( \frac{\hat{V}}{\bar{V}} \right) \bar{A}$$

- Tax price (= derivative of right side with respect to S)

$$\text{Tax Price} = \hat{P} = \left( \frac{\partial E}{\partial S} \right) \left( \frac{\hat{V}}{\bar{V}} \right) = MC \left( \frac{\hat{V}}{\bar{V}} \right) = MC \times (\text{Tax Share})$$

# Median Voter's Demand Function

- A typical local public finance demand function expresses spending or service quality as a function of augmented income, tax price, and various other demand variables.
- In the US context income and tax price term have significant impacts (both statistically and economically) on local spending and service quality.



# What is different about the new Italian local property tax (LPT) in 1993?

- 1. Cadastral values replace property values in property tax calculations.
- 2. The property tax rate must fall between 0.4% and 0.7%.
- 3. The aid term shrinks by the amount of the property tax.

$$\bar{A} = (\bar{A}_0 - t\bar{C})$$

- 4. Municipal spending is fixed

$$\bar{E} = \bar{A} + t\bar{C} = (\bar{A}_0 - t\bar{C}) + t\bar{C} = \bar{A}_0$$

# What is the tax price with this system?

- Let  $\alpha$  indicate the aid offset to property tax revenues (=1, 1993-1995)
- Then the tax price with the new property tax is:

$$\hat{P} = MC \left( \frac{\hat{C}}{(1-\alpha)\bar{C}} \right) = \infty$$

- With such a high tax price, municipalities are likely to set their tax rate at the minimum allowed level, namely, 0.4%.
- Aid offsets may also dampen demand for local services even if the offset is less than 100%.

# What determines property tax rate choices

- This leads to a key question for this paper: **With such a high tax price, why is the average  $t$  equal to 0.57%, not the required minimum, 0.4%?**
- The paper argues that cities with low cadastral values set higher  $t$  so they will have as much property tax revenue (per household) as their competitors.
  - I find this implausible.
  - The best way to compete is to have a lower property tax rate (holding revenue constant through the aid offset) than competitors.

# Changes in the aid offset

- A more plausible explanation is that the average tax rates in Table 1 cover many years after 1993 and therefore include many years in which the offset is less than complete and, as a result, the tax price is less than infinity.
- Under these circumstances, some municipalities might select property tax rates above 0.4%
- This explanation could be tested with more data, which may not be available.

# Changes in the tax base

- In 2007, the system was changed again to remove owner-occupied housing from the tax base
- And to cover the lost revenue through an increase in aid.
- Now insert a parameter,  $\beta = 0$ , in front of the property tax term in the household budget constraint, which leads to another tax price:

$$\hat{P} = MC\left(\frac{\beta\hat{C}}{\bar{C}}\right) = 0$$

- This is a strong incentive to spend!
- Note that an aid increase offsets the tax loss from the city's point of view, but it does not lead to a positive tax price for the median voter.

# Specific comments on paper, 1

- Italy has many local governments, but they seem to be much less autonomous than local governments in the US.
- The local taxation and aid system in Italy seems to change every few years!
- The paper would be more accessible to scholars like me who are not familiar with the Italian system if it provided some more information on this system and on the changes that took place in and after 1993.
  - What is the variation in aid offsets?
  - What is the role of other local taxes?

# Specific comments on paper, 2

- The main empirical approach in the paper is to compare some result, such as local spending, before and after the reform in bombing-adjacent and bombing-distant cities.
- This is a clever approach given the data limitations they face—such as no cadastral values before 2013.
- Moreover, they provide a dizzying array of robustness checks.
- However, their specification does not build on the huge literature on the demand for local public services—and on the associated analysis of incentives facing voters and/or public officials.

# Specific comments on paper, 2 continued

- Voters and public officials in Italy undoubtedly respond to some degree to changes in spending incentives created by the introduction of a property tax or by changes in the property tax parameters.
- The main empirical work in this paper (e.g. Figure A7) tests whether local revenue goes up in each year after the LPT is introduced.
- These tests are not definitive, however, because, due to data limitations, they focus on all local revenue, not just property tax revenue, and they do not specify the local tax regime.



# Specific comments on paper, 3

- An alternative estimation strategy would be to identify sets of years with the same local public finance system, that is, the same property tax, local income tax, and aid offsets.
  - It appears, for example, that the tax price was infinite in 1993-1995, and essentially zero in 2007 and following years.
- So the “year” indicators in equation (2) and Figure A7 could be replaced with “tax regime” indicators.
- The coefficients of these indicators would test the impacts of a particular regime, and results from one regime could be compared to results for another.

# Specific comments on paper, 4

- A related point is that the paper does not use concepts, such as tax price, that are widely used in the local public finance literature.
- The total (or per household) cadastral value is the denominator of tax price. **A higher cadastral value affects spending decisions because it lowers the share of any property tax increase that is born by the median voter.**
- Recognizing the link between cadastral values and tax price would give a more solid conceptual foundation to the regressions in the paper and aid in interpretation of the results.

# Specific comments on paper, 5

- The paper also uses city and year fixed effects to account for other components of city demand for public services.
- Moreover, it interacts year fixed effects with several other indicator variables, such as whether the city is in a rural area.
- There is nothing wrong with this approach, but it would be more compelling if it were connected to an underlying demand model.
  - For example, rural areas may have lower public service costs, so these interactions may pick up one cost component of tax price.
- A demand interpretation also might lead to other interactions, such as one for poverty, which is associated with high costs.

# Concluding thought

- This paper is based on a fascinating natural experiment in Italy, namely, the introduction of a local property tax.
- Evaluation of this experiment is made difficult by both severe data limitations and by the fact that Italian politicians like to alter the local public finance system every year or two.
- The authors of this paper provide a thoughtful methodology to address these constraints.
- Further attention to the existing literature on the demand for local public services could strengthen the conceptual foundations of the paper and help to strengthen the empirical work.