Elasticity of the Lexington-Fayette Urban County Government Tax Structure

University of Kentucky
Martin School of Public Policy and Administration
Spring 2006 Capstone

Brad Settle
Overview

- Research Issue
- Methodology
- Results
- Recommendations
Research Issue

- The motive for study is a general interest in LFUCG tax structure performance
  - How does revenue growth match up with other city-county governments?
- Elasticity is a proxy measure of adequacy
  - Adequacy refers to whether revenues meet expenditures or not
  - Elasticity is how well revenues grow with the economy
Methodology

- Regional city-county governments are used for comparison
  - Indianapolis and Nashville are comparison cities
  - Eliminates interference of multiple governments in one area
- 2001 through 2003 chosen as years of study
  - Short-term elasticity is measured in this time frame
Methodology

The standard tax elasticity formula used to calculate elasticities

- Percent change in revenue divided by percent change in personal income
  - Percent change is found by Year X subtracted from Year Y, then dividing that result by Year X
- Elasticity is measured with 1.00 being perfectly elastic
  - Lower than 1 is inelastic, or stable
  - Greater than one is elastic, or volatile
Methodology

- Property taxes, sales taxes, and other revenues were separated and elasticities for each were calculated
  - This breakdown of tax structure showed most elastic revenues and which were most relied on
- There were a few caveats
  - Lexington and Indianapolis 2001 CAFRs were unavailable
    - Lexington’s 2002 CAFR had language that allowed estimation of revenues
    - Indianapolis 2003 budget executive summary supplied revenues for 2001
Results

- Lexington rated below other two cities in short-term elasticity
  - Lexington’s numbers were more constant
    - Lexington’s change was 0.75
    - Indianapolis’ change was 1.61
    - Nashville’s change was 4.5

- Lexington’s revenue growth rate experienced less of a drop than the other two cities
  - Lexington’s revenue growth dropped by 0.34%
  - Indianapolis’ revenue growth dropped by 3.38%
  - Nashville’s revenue growth dropped by 19.09%
Results

- Lexington relies more heavily on other revenues than property tax
  - In 2003, Lexington, Indianapolis, and Nashville relied on property taxes for 18%, 46% and 52%, respectively, for their revenues
- Lexington’s other revenues elasticity was 1.06
  - Lexington’s property tax elasticity was 2.21
    - Lexington can take advantage of personal income growth more with property taxes than with other revenues
Recommendations

.expand property tax revenues to take advantage of higher elasticity
  - Lure major property tax payers
    • Large businesses would pay more property taxes, as well as provide employment

.improve progressivity of property tax
  - Progressive taxes will bring in more property taxes
    • New property is excluded from the 4% rule established by HB 44 in 1979
Recommendations

Stay away from a sales tax
- There is uncertainty in establishing a sales tax
  - Implementation hurdles such as legislation
  - Business cycle affects the tax, causing changes frequently
    - It is a relatively inelastic revenue source
- It would cause burden to many payers
Recommendations

★ Limitations

- Tax elasticities are never permanent
  - Recent history is not a good predictor of the future
  - Personal income is affected by outside sources
  - Gyrations of the business cycle affect elasticities because of natural ups and downs of economy

- Short time frame of study
  - Short-term elasticity was studied, which may not be an indicator of long-term elasticity
Summary

❖ Research Issue
  – Analyzing the LFUCG tax elasticity performance
❖ Methodology
  – Assessment of the tax elasticity performance through comparison with two area city-county governments
❖ Results
  – The LFUCG tax structure measured lower in elasticity, but more constant
❖ Recommendations
  – The LFUCG is not taking advantage of elastic property taxes
  – Sales taxes are not as elastic, and would be hard to implement