State-Specific Economic Indicators
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PRESENTATION TO THE REVENUE ESTIMATING CONFERENCE OF FTA

Road Map

- Report on KY Leading Index changes
- The importance of state-specific economic indicators
- Determination of reference series
- Cross-walking between real and fiscal economies
- Indicator selection process
- Non-ergodic turning points
KY Leading Index

- Original Components
  - KY Labor intensity index
  - KY index of US leading indicators
  - Kentucky index of UI claims
  - Louisville help-wanted index
  - US manufacturing orders

- Revised as of April, 2006
  - U.S. Leading index was revised by the conference board, and no longer predicted KY turning points
  - Added an index of US manufacturing orders
  - Added US retail sales
Why do we need State Indicators?

- Third party external macro-economic forecasts are notoriously reluctant to pinpoint turning points
- State turning points do not match national turning points
- Policy makers need timely information on pending turning points ("Agents of Impatience" may make different decisions if they feel confident a turning point is pending.)
Determination of Reference Series

- Reference series or preponderance of data method?
- Leading indicators of economy, revenue, or both?
  - As revenue estimators, we ultimately care the most about fiscal economy
  - How closely do revenues mirror the economy?

The cross-walk

- KY has a blended reference series
- Revenues don’t always behave predictably vis-à-vis the economy
- More research is needed on diffusion indices
  - During times between turning points, indicator advice is limited without diffusion analysis
  - Beyond turning points, a diffusion index predicts magnitude as well as direction
Indicator Selection

• Cautionary Advice
  – Don’t be a homer (copper prices)
  – Sunk costs are sunk (F.W. Dodge)
  – Best data series require leg work
    • Need more creative state-specific data
    • Sharing of information among states
  – A leading index of component indicators
    • Combining related variables
    • Decreases volatility

Indicator Trials

• If I had a graduate student …
  – Rail capacity
  – Commercial and Industrial electricity consumption
  – Truck miles on state highways
  – Delinquencies (state specific)
  – State specific fixed payments as a percentage of disposable income
Problems with New Data

• The problem with new variables:
  – Need a lot of history to match up to historical peaks and troughs
  – False peaks and troughs
  – Discontinuous data availability
  – New data releases must be regular and prompt

Non-ergodic Turning Points

• Not all recessions are created equal
• KY leading index in-sample performance
  – Clear turning points for the twin recession in early 1980’s
  – Predicted short-lived recession of 1990
  – Predicted 2000 recession, but murky on the recovery
• Has the relationship between the economy and revenues changed over time?
Parting Shots

- Do not compromise on testing criteria
- Roll up our sleeves and develop new data series
- Advocate leading indicators for individual revenue items rather than the economy
- Create a diffusion index
- Despite their limitations, leading indicators fill a much needed role of predicting turning points that States will not get from external macroeconomic models

Taxation of Cigarettes in KY: Post-Hoc Analysis

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