



## State-Specific Economic Indicators

Greg Harkenrider

Governor's Office for Policy Research

September 19, 2006

# 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

# KY Leading Index



## KY Diffusion Index



## 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

Greg Harkenrider

Governor's Office for Policy Research

September 19, 2006

**PRESENTATION TO THE REVENUE  
ESTIMATING CONFERENCE OF FTA**