Discussion of ByungWoo Kim's New econometric insights on US airlines post-deregulation

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Context and summary

- Cites vast literature
- Applies advanced econometric methods to airline behavior 1970-1984
- My comments are not expert

- US airline rates-of-return and entry into new routes were regulated up to 1978
- 1978 reform: Airline Deregulation Act
  - After that, airlines could start up and start any route
  - Passenger traffic continued to rise, more quickly
  - Airlines adopted hub-and-spoke systems; capacity utilization rose
  - Findings of raised production efficiency and lower fares generally
  - Many startup airlines appear, and existing airlines merge
  - Criticisms of service quality increase then

Data comments

- This data set appears to be a classic – right?
  - Variables almost the same as in Baltagi et al 1995
  - 256 observations on 25 airlines from 1970 to 1986
  - Apparently based on standard reports to US Dept of Transportation
  - Includes all or almost all elements of airline cost, and capital stock index
  - Data may end too early to answer the research question
  - But can evaluate new econometric methods against previous answers

- Classic question p 6; did dereg raise productivity by increasing scale?
  - Mergers could have achieved this

- Comparison to Korean 2008 deregulation could help (Sun, 2015) but the legal change is quite different

Use of semiparametric/nonparameteric methods

- Semi-parametric methods avoid assuming a specific distribution of errors around cost function estimates
- Q: What distribution of errors around cost estimates are observed here?

Technical change

Firm MFP (TFP) residuals are lower in 1978-86 than previously

- These can be very much affected by economies of scale, by shocks, and by turbulent transitions between ways of doing business; it's not mainly a technological statement
- Baltagi, Griffin, and Rich (1995) find load factor, hub structure, temporary effects of merger are notably associated with airline TFP
- What does the long term look like? Actual technologies of aircraft and computers have been improving. Other literature should show a long pattern

Returns to scale

- Hub-and-spoke systems need scope/scale
- Previous research cited finds roughly constant returns to scale (CRS)
- Table 9 suggests something more complex; some firms didn't reach efficient scale
- Output doubles between 1970 and 1984