Comments on “Service Sector Productivity and Economic Growth in Asia” by Lee and McKibbin

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What This Paper Does

- Document sectoral productivity growth for Asian countries.
- Use G-Cubed model of the world to predict the effect of service-sector productivity growth.
- Thus contributes to the recent growing literature on economic development based on multi-sector growth models.
- Fits the theme of the Conference very nicely.
My Comments, Overall

- Services are non-tradable. Relative price of services can differ across countries. Not clear how it is incorporated.

- You know how the world works. Could have done something I think is more interesting.
A Refresher: Convergence

- Aggregate production function for the country in question:

\[ Q_t = A_t \times F(K_t, L_t). \]

If \( F(K, L) \) is CRS (constant returns to scale),

\[ \frac{Q_t}{L_t} = A_t \times f(k_t), \quad k_t \equiv \frac{K_t}{L_t}. \]

- At least in the long run, the MPK \( A_t f'(k_t) \) equals the world real interest rate, and so \( k_t \) is the same across countries.

- (International comparison) Suppose TFP level \( A_t \) is the same across countries for any given \( t \). Then labor productivity should converge.
Should Sectoral Labor Productivity Converge?

- Two sectors, $A_{1t}f_1(k_{1t})$, $A_{2t}f_2(k_{2t})$. Sector 1 is tradable, sector 2 (services) is not.

- (Sectoral comparison) Equality of MPK across sectors within the country in question

\[
A_{1t}f_1'(k_{1t}) = A_{2t}f_2'(k_{2t}) \times q_t.
\]

But that doesn’t mean equality of labor productivity, which is

\[
A_{1t}f_1(k_{1t}) = A_{2t}f_2(k_{2t}) \times q_t.
\]

- (International comparison) Sector 2 labor productivity may not converge.
About G-Cubed Model

- The dataset used in the paper.
  - In the first half (Sections II-VI), GGDC (Groningen Growth Developing Centre). Sectoral value added and labor, but not capital. (So you can’t calculate TFP.)
  - In Section V, the G-Cubed database. Has everything.

- Questions:
  - Why not use G-Cubed database in the first half?
  - Are services nontradable in the model?
  - Labor and capital allocated efficiently between sectors?
  - PPP adjustment? Geary-Khamis?
About the Model Simulations

- Why a shock to labor productivity of 1% point?
  - You mean a shock to TFP growth that raises labor productivity by 1% point given the initial capital/labor ratio?
  - More transparent to work with TFP growth shocks than labor productivity growth shocks.

- I want to look at the baseline, rather than deviations. In the baseline scenario,
  - What is the GDP and employment share of services in the long run?
  - How big will China be relative to US in 2020? 2050?
Misallocation and Productivity

- Recent multi-sector analyses of economic development emphasize sectoral misallocation.
  
  - See, e.g., special issue of *Review of Economic Dynamics* (January 2013) on misallocation and productivity. Has papers on China and India.