Comments on: *Services Development and Comparative Advantage in Manufacturing* by Liu, Matoo, Wang and Wei

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Contributions

- Important linkages between services and manufacturing!
- Literature: services offshoring/reforms tend to increase productivity of manufacturing
- This paper:
  - Role of domestic services (finance and business) development in determining specialization in manufacturing sectors that use services intensively
  - Role of imported services inputs

Empirical specification… Hypothesis 1

Empirical specification à la Romalis:

$RCA_{ist}=\beta_0+\beta_3 \mathbf{z}_{st} * Z_{it} + \gamma X + \alpha_i + \alpha_s + \alpha_t + e_{ist}$

- The interaction terms allow testing whether certain factors determine countries' specialization in industries that intensively use these factors.

- Z=country development in services sector
- **z**=US domestic services input/VA

$Hp1=\beta_3>0$

Results for Hp 1 are robust
Suggestions to strengthen the paper

- Give a sense of the magnitude of the effects:
  - How much exports share of leather, say, increase with a standard deviation improvement in business (financial) services

Suggestions to strengthen the paper

Add some more controls

- Romalis' specification is typically used to assess the role of capital, skills and institutions to determine export …

… Add traditional interaction variables *k*K, h*H, i*I* to the endowment controls already included

- … control for the possibility that a country's development level drives specialization in business intensive and service intensive sector eg. by adding the interaction "α_s**GDPpc*"

Hypothesis 2: import of foreign inputs replace low development of the services sector

Empirical specification à la Romalis:

$RCA_{ist}=\beta_0+\beta_3 \mathbf{z}_{st}*\mathbf{Z}_{ist}*Z_{it}+\gamma X+\alpha_i+\alpha_s+\alpha_t+e_{ist}$

The interaction terms allow testing whether certain factors determine countries' specialization in industries that intensively use these factors.

Z=country development in services sector

z= dummy built on US domestic services input/VA and used to split the sample in More or LESS service intensive sectors

- $\mathbf{Z}_{ist}$ =foreign services/(domestic+foreign services)

Paper Claim:

Hp2=$\beta_3<0$ “in services intensive sectors (**z**=1) domestic services development (Z) is less important the higher a country’s openness to foreign services inputs (**Z**)”

Comments on Hypothesis 2 estimation strategy

- estimation of a triple interaction may be easier to interpret than the current sample split

- results seem to indicate that the relevant endowment is “domestic development + access to foreign inputs” … it may be good to have both factors separately in the regression