Discussion of "A Global Database of Foreign Affiliate Activity," by Tani Fukui and Csilla Lakatos

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A Global Database of Foreign Affiliate Activity

- Construct new database on foreign affiliate sales (FAS)

- Estimate FAS determinants over 2003-2007
  - Eurostat panel data for 117 sectors, 41 source and 22 host countries.
  - The European hosts report the data.

- Missing observations for country-pairs/sectors/years (48%)
  - To restore the data set, the paper extrapolates the results to other sectors, source and host countries.
  - Fukui and Lakatos database complementary to the BEA database on US multinational companies, but with a boarder span of source countries!
  - This is an ambitious, very useful exercise!

- Examine the cost structure of foreign affiliates: estimate the labor and capital shares of VA

Main Comments (1): Estimation

- Augments Bergstrand and Egger (JIE 2007) model to explain FAS (rather than FDI) at sector-level (rather than country-level):
  - gravity variables: GDP source, GDP host, GDP ROW, distance, language, trade and investment openness.
  - Add sector-level variables for host economy: output, FDI restrictiveness.
- Separate the baseline vs. alternative results more clearly:
  - Use GDP for host, GDP/capita for source & host from the outset (Table 8), since this is used for extrapolation.
  - Trade-investment substitution result consistent with horizontal FDI story (market access is the driver); as expected, since hosts are developed countries.
  - In Table 8, FDI restrictiveness is not significant – concern for extrapolation.
- FAS is correlated with FDI; what do we learn?
- Can you separate FAS into local sales vs. exports?
  - Study the determinants of horizontal vs. vertical FDI.
  - Use different explanatory variables for each (e.g. wage differences for VFDI).

Main Comments (2): The zero observations

- Include more info on models taking care of the zeros:
  - PPML (Poisson Pseudo Maximum Likelihood)
  - ZIP (zero inflated Poisson)
  - ZINB (zero inflated negative binomial)

- ZIP and ZINB combine logit with linear estimation:
  - Binary “go/no go” decision depends on FDI restrictiveness (sector-specific), common language and border (country-specific).

- ZIP and ZINB dropped, PPML results used for extrapolation:
  - ZIP and ZINB do not produce enough go/no go variation across countries.
  - Could you include more country-specific variables in the logit as predictors for the binary FDI decision?

- Do you need OLS?

Main Comments (3): Extrapolation

- Extrapolation from 21 sectors to 117 sectors/sub-sectors:
  - FAS data concentrated in manufacturing and trade (80% of FAS value)
- After extrapolation, services are 45% of FAS
  - Building from two non-manufacturing sectors.
  - With two sector-specific variables: production and FDI restrictiveness, the latter not statistically significant.
- More sector-specific independent variables?
  - Yeaple (2003): transport costs, scale economies, unit costs.
- Measures of tradability? Tradability should affect the vertical vs. horizontal FDI decision across sectors:
  - More tradable sectors receiving more VFDI.
  - Less tradable sectors receiving more HFDI.
  - See Ottaviano, Peri, Wright (2010).

Main Comments (3): Extrapolation

- Extrapolation to 110 countries, developed and developing:
  - Estimation covers 41 source countries (developed & developing) and 17 host countries (developed only).
  - Estimation FAS data concentrated in a few developed countries (the top three sources and hosts cover about 2/3 of FAS).

- What happens when results are extrapolated from developed to developing country hosts?
  - Horizontal FDI may be a developed-developed story, supported by sample;
  - But the developed-developing VFDI story is probably missing, since there are no developing country hosts.

Other Comments

- The source-host labor skill difference:
  - The coefficient is positive.
  - But why would a larger amount of unskilled labor in the host country enhance FDI and FAS?
  - Since developing country sources have a more negative skill difference relative to advanced country hosts, and have less FDI/FAS in developing countries, could this bias the coefficient up?

Conclusion

- Innovative extension of FDI gravity to explain sector-level FAS.
- Restores the Eurostat database on MNC behavior for a variety of source and host countries.
  - Fukui and Lakatos database complementary to the BEA database on US multinational companies, but with a boarder span of source countries!
  - What other measures of MNC activity can be included (e.g. local sales vs. exports)?
- A very interesting paper, very interesting database!