IPR, Imitation, and Foreign Direct Investment: Theory and Evidence by Branstetter, Fisman, Foley, and Saggi

> Discussion Bronwyn H. Hall

## Important questions

- What is the best way to encourage technological development and catchup?
- Does one-size-fits-all IP protection enchance welfare?
  - Many critics of the approach codified in the TRIPS agreement

## This paper - theory

- Strengthening IPR in South
  - Increases the rate of innovation
  - Increases FDI in the South
  - Decreases the rate of imitation
  - Increases share of production in the South
  - May increase prices of some goods
- What's missing?
  - Welfare calculation (difficult)
  - Effects of learning and cumulative advantage

#### **Empirical tests**

- 1. Do MN firms shift production relatively more to affiliates in countries with IP reforms than in countries without IP reforms?
- 2. Do industries impacted by IP reforms grow more in countries after the reforms than in other countries?
- 3. Do countries initiate more exports of new commodities to the US after IP reforms?

All tests include complete sets of year, country industry effects where needed.

1. Do MN firms shift production relatively more to affiliates in countries with IP reforms than in countries without IP reforms?

- Yes, especially for high technology affiliates (measured relative to parent)
- Results are similar for assets, PPE, and employee compensation
- Intrafirm royalties more sensitive to tech level and tax regimes
- R&D intensity of affiliates weak relationship (fixed effects)

2. Do industries impacted by IP reforms grow more in countries after the reforms than in other countries?

- Yes, if they are technology intensive (elec mach, ind chem, other chem, sci equip, trans eq)
- Within country/industry, host country capital controls increase industry VA?

## 3. Do countries initiate more exports of new commodities to the US after IP reforms?

- Yes, for all goods and for tech goods
- For tech goods, positive changes in inward FDI restrictions increase number of new goods what does this mean?
- Positive changes in capital controls reduce number of new goods (in contrast to industry VA result)

Conclusion: reasonably persuasive evidence that IP reforms attract FDI and encourage industry production in high tech sectors (multinationals who lobbied for stronger IP are acting in their interests)

# But is this enough to guarantee long run development?

- Most success stories (Taiwan, Korea, 19C US) have weak IP for non-nationals in the early stages
- Imitation means learning and may lead to innovation – so a reduction in this activity may be costly for the South
- E.g., some evidence from Chile and Costa Rica -FDI and licensed-in technology did not have much impact on domestic firm innovation
- Lall: Korea, Taiwan, and Singapore insisted on tech transfer to domestic firms as an entry condition for FDI

Conclusion: one-size-fits-all question remains open