Discussion of:

Misallocation and Capital Market Integration: Evidence from India

by Bau and Matray

Brent Neiman
University of Chicago

International Finance and Macroeconomics Program Meeting
NBER Summer Institute, 2021
A very nice paper! But also, a very short discussion, so:

1. Does TFPR dispersion = misallocation?

2. What causes misallocation?

3. What exactly does foreign investment do?

4. How general can one be with these answers?
Static Misallocation (Quick Refresher)

\[ y_i = z_i \left( \frac{k_i}{\alpha_i} \right)^{\alpha_i} \left( \frac{l_i}{1 - \alpha_i} \right)^{1-\alpha_i} \]

\[ p_i = \mu_i m c_i = \mu_i \frac{1}{z_i} R_i^{\alpha_i} w_i^{1-\alpha_i} \]

\[ TFPR_i = p_i z_i = \mu_i R_i^{\alpha_i} w_i^{1-\alpha_i} \]
\[
= \underbrace{(\mu_i \left(1 + \tau_i^k\right) R)^{\alpha_i}}_{MRPK_i} \times \underbrace{(\mu_i \left(1 + \tau_i^l\right) W)^{1-\alpha_i}}_{MRPL_i}
\]

\[ (\tau_i^k = \tau^k) + (\mu_i = \mu) \implies MRPK_i = MRPK \]

\[ CD + (\alpha_i = \alpha) \implies MRPK_i \propto \frac{\text{Revenues}_i}{k_i} \]
Does TFPR Dispersion $=$ Misallocation?


- For example, what about permanent misstatement of $p_i y_i$ or lumpy adjustment or uneven utilization of $k_i$?

- Key contribution: Rule out Threat 1 by looking at differential response to (highly relevant) shock. A big deal, convincing.
Does TFPR Dispersion = Misallocation?

• **Threat 2: Different within-industry elasticities or markups**

  For example, what if high MRPK firms simply reflect lower $\alpha_i$? What if Cobb-Douglas assumption is bad approximation?

• Limited analysis. Opportunity: Data rich enough to do more!
  
  • Stability of $\frac{w_i l_i}{p_i M_i}$?
  
  • Is response of $\frac{Revenue_i}{k_i}$ generally consistent with assumed $\alpha$?
  
  • Use price data to analyze stability of $\mu_i$?
What Causes Misallocation?

• Perhaps biggest question in literature! Variation with local banking is fascinating, but can do more to answer.

• Which firms are the high or low MRPK firms? Big or small?

• Which treated firms contribute most to results? Give names!

• For public companies, can we learn from narratives in their filings? Complementary evidence from debt issuance?

• Only 10 percent of manufacturing firms are treated ... do more to show which firms are driving things.
What Exactly Does Foreign Investment Do?

- Inflows are likely hugely concentrated?

- From MNS (JPE 2019) data for 2006, large equity positions by US funds in Indian companies account for huge share:
  - Oil & Natural Gas Corp
  - ICICI Bank
  - Reliance Industries
  - Infosys Technologies
  - Bharti Airtel

- Might size x age bins, 4-digit industries, soak up key variation? Characterize distribution beyond just the median?

- Headline: treated high MRPK firms got more capital.
  Buried: TFPQ does not significantly change ... no evidence of tech transfer, knowledge spillovers, etc. This is equity FDI!
How General Are these Conclusions?

- Comparison with Gopinath et al. (QJE 2017) admittedly difficult, but still unsatisfying.

- Equity vs. Debt? For public firms, explore changes in composition?

- Rich vs. Poor? How about cross-state variation?

- Little discussion of sequencing of liberalization, which industries chosen, etc. (See Chari and Gupta, JFE 2008)
Conclusion

• Careful work, clear writing, great paper.

• Is it ready to read? Yes. Should be on syllabi for courses covering misallocation.

• Did this help unpack the black box of TFPR dispersion and how liberalization might reduce it? A very good start, and some opportunities to go even further.