Differential institutions, differential flows: Do PTAs always lead to increased FDI?

Anne Spencer Jamison & Jon C.W. Pevehouse

November 2, 2018
Motivation

- There is much work on PTAs and FDI (Milner & Büthe 2008, 2014, Blonigen and Piger 2011, Kenyon and Margalit 2013, among others)...
- ... and on FDI and institutions (Li and Resnick 2003, Jensen 2003, Daude and Stein 2007, Dreher and Voigt 2011, among others).
- Several studies have considered the heterogeneity of PTAs, particularly with regard to labor and investment provisions
- But the literature does not differentiate between different types of FDI
Theory

- Existing work suggests that PTAs lure investment (Milner & Büthe)
- We hypothesize that PTAs should be more relevant for FDI that is *tradable*
- Mechanism: The core function of PTAs (market liberalization) is most helpful to firms interested in *export-oriented* investment
- We thus expect strongest effects of PTA on FDI in tradable sectors/industries
  - Yes, PTAs have non-trade liberalization provisions, but we’ll get to that...
What about PTA heterogeneity?

- Labor protection
  - If the firms care about PTAs for export/supply chain, they may be hesitant to invest where developing country PTAs have strong labor rights provisions...

- Investment protection
  - Existing arguments focus on investment protection claims/creditable commitment logic. I.e., PTAs as a guard against expropriation.
  - But expropriation fear is likely higher in service/nontradables.
Data

- Sample: all developing countries from 2003–2016
- Dependent variables: Tradable and non-tradable FDI
  - Novel sector and sub-sector level data from FDImarkets (capital expenditure)
  - We divided 1,118 subsectors into tradable and non-tradable FDI (intercoder reliability = 97%)
  - For example, insurance, investment management and legal services were considered non-tradable, whereas automobiles, footwear and electrical equipment were considered tradable
  - We considered 692 sub-sectors to be tradable and 426 to be non-tradable
  - We treat the tradability of a sub-sector as time and country invariant
 Tradable vs. Nontradable FDI: 2003-2018
Empirical Model

- **Independent variables**
  - PTAs (cumulative)
  - PTA labor provisions
  - PTA investment provisions

- **Possible confounds**
  - Other institutions: BITs, WTO*
  - Regime characteristics: polity, regime durability, regime constraints*
  - Economic factors: GDP per capita, capital openness, lagged endogenous variable (tradable/non-tradable FDI), year FE(s)

- **Estimation**
  - Fixed-effects regression
  - PCSE [with panel-specific AR(1)]
Baseline results
Relaxing PTA homogeneity assumption: Labor

![Estimates of PTAs & Labor Provisions]

- **L.Total PTAs**
- **L.Labor Provisions**

Legend:
- Institutions Only
- With All Controls
- Nontradables (with controls)
Relaxing PTA homogeneity assumption: Investment
Main findings

● Overall, PTAs only have a significant impact on FDI when the FDI is tradable.
● These results hold with institutional, regime type and economic controls.
● PTAs with stringent labor provisions (i.e. that are most protective of workers) deter FDI.
● Investment provisions have a positive and significant effect on non-tradable FDI but no effect on tradable FDI.
Robustness Checks

- Blackwell/Glynn Sequential-G estimation
- Arellano (1987) fixed-effects regression
- Endogenous institutions: do low values of FDI drive onset of institutions?
- Alternative codings of what is “tradable”
- Domestic constraints (veto players)
- Dispute settlement mechanisms (DSM)
Conclusion & avenues for future research

- Existing explanations of the effect of PTAs on FDI are incomplete
- In addition to accounting for the heterogeneity of PTAs, we must also account for the heterogeneity of FDI
- Future research should address this topic using dyadic data
- This work also calls into question the effect of investment provisions on FDI
Alternative Coding on “Tradable”

![Graph showing estimates of PTA signing with alternative coding.](image)

- **Institutions Only**
- **With Regime + Economic Controls**
- **Nontradables (with controls)**
- **With Regime Controls**
- **Cumulative PTA Measure**
- **PCSE Estimates**
Examples of sub-sectors

<table>
<thead>
<tr>
<th>Tradable</th>
<th>Non-tradable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobiles</td>
<td>Truck transportation</td>
</tr>
<tr>
<td>Coffee &amp; tea</td>
<td>Warehousing and storage</td>
</tr>
<tr>
<td>Electric lighting equipment</td>
<td>Courier services</td>
</tr>
<tr>
<td>Plastic bottles</td>
<td>Postal service</td>
</tr>
<tr>
<td>Ships and boats</td>
<td>Specialty hospitals</td>
</tr>
<tr>
<td>Soft drinks</td>
<td>Retail banking</td>
</tr>
<tr>
<td>Wood products</td>
<td>Scenic and sightseeing transport</td>
</tr>
<tr>
<td>Video games</td>
<td>Solar electric power</td>
</tr>
</tbody>
</table>
Full model estimates, pt. 1

Determinants of FDI

- L.Tradable FDI
- L.Total BITs
- L.PTA
- L.Regime Type
- L.Regime Duration
- L.GDP per capita
- L.Labor Force (ln)
- L.Chinn-Ito index

Legend:
- Institutions Only
- With Regime Controls
- With Regime + Economic Controls
Full Model Estimates, pt. 2

Determinants of FDI, alt models

- L.Tradable FDI
- L.Total BITS
- L.Total PTAs
- L.Regime Type
- L.Regime Duration
- L.GDP per capita
- L.Labor Force (ln)
- L.Chinn-Ito index
- L.Nontradable FDI
- L.PTA

- Cumulative PTA Measure
- Nontradables (with controls)
- PCSE Estimates
Relaxing PTA homogeneity assumption: Services