Discussion of Setzler, Tintelnot:
“The Effects of Foreign Multinationals on Workers and Firms in the United States”

Emanuele Colonnelli (Chicago Booth)

July 2019
NAICS 3361 Motor Vehicle Manufacturing: Toyota vs General Motors

First part:
• Emma (high quality) and Nick (low quality) move from GM to Toyota, same year same CZ
• Emma's wage goes from 100 at GM to 107 at Toyota, Nick gets the same 50

Second part:
• Toyota's local operations grow in size relative to GM
  → Large domestic firms benefit, and all Emmas earn more
NB: Toyota and GM are different
• Toyota is foreign, GM is not
• Toyota more productive than GM
• Toyota: 8 Emma / 2 Nick; GM: 6 Emma / 4 Nick
First part [foreign firm premium]:

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Foreign Firms Have Higher TFP and Better Employees

- they pay more
- they generate positive local spillovers
Should We Care?

• Yes

• Huge debate (economic and political) on how to approach FDI, all even more relevant in current polarized world, trade wars, etc.

• Left Hand Size also very topical: jobs, earnings inequality, ...

Toyota’s own estimates of the job multiplier are different:
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Toyota’s own estimates of the job multiplier are different:

- **Total:** 470,100
  - Direct: 135,900
  - Includes Direct, Intermediate and Spinoff

- **Capital:** $7.1 BILLION since 1996
- **Philanthropic:** $700 MILLION since 1996, $69 MILLION in 2015

- **Payroll:** $32.3 BILLION in 2015

For every 1 manufacturing-related Toyota job, another 6.1 are supported.
Main Comments

1. Empirics and Contribution
2. Foreign Wage Premium: Mechanisms
3. Foreign Spillovers: Mechanisms
1. Empirics and Contribution

Where contribution stands: [Best paper using micro-data to establish policy-relevant facts on foreign firms in US]

Foreign Wage Premium:
- Lots of evidence from many countries, not controversial (Cameroon 20%, Denmark 75%, Finland 3%, France 13%, Germany 3%, Ghana 40-60%, Indonesia 20-60%, Kenya 24%, Malaysia 10%, Mexico 32%, Portugal -3-4%, Sweden, -2-6%, Uk 3-15%, USA 29%, Venezuela 31%, Zambia 37%, Zimbabwe 30%)

Contribution is data: foreign ownership + matched employer-employee data

To keep an eye on:
- Assumption is job moves are exogenous (show more dynamics and trends around moves)
- Can only observe parent-subsidiary linkages as snapshot in 2016 (measurement error may not be classical, show robustness to acquisitions)

Foreign Spillovers:
- Top firms generate positive spillovers also not controversial (e.g. Greenstone, Hornbeck, Moretti 2010), especially in developed countries

Contribution is use of shit-share design in new setting

To keep an eye on:
- Bartik-style assumptions, tests, inference (e.g., Goldsmith-Pinkham et al 2019, Adao et al 2019, Borusyak et al 2018)
- Compositional changes?

Where I hope extra contributions can be made:
[Open black box of “foreign-ness”]
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Larger Effects if MNEs of Developed Countries?
Replicating Findings in Brazil 1/4

USA

(a) Total Wage Difference
(b) Firm Premium Difference
(c) Worker Quality Difference
(d) Wage Difference Explained

Brazil

(a) Total Wage Difference
(b) Firm Premium Difference
(c) Worker Quality Difference
(d) Wage Difference Explained

5x

4x
### USA

<table>
<thead>
<tr>
<th>Outcome:</th>
<th>Shorter-term Wage Growth $\log(w_t) - \log(w_{t-1})$</th>
<th>Longer-term Wage Growth $\log(w_{t+1}) - \log(w_{t-2})$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic to Foreign Moves:</td>
<td>0.045*** $(0.002)$</td>
<td>0.073*** $(0.003)$</td>
</tr>
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<td>-0.042*** $(0.002)$</td>
<td>-0.035*** $(0.002)$</td>
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<td>0.012*** $(0.001)$</td>
</tr>
<tr>
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<td>0.014*** $(0.004)$</td>
<td>0.031*** $(0.003)$</td>
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<td>Stayers at Foreign Firms:</td>
<td>-0.001 $(0.001)$</td>
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<td>Foreign to Domestic Moves:</td>
<td>$\checkmark$ -0.173*** $(0.003)$</td>
<td>-0.118*** $(0.004)$</td>
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<td>$\times$ -0.033*** $(0.001)$</td>
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Replicating Findings in Brazil 3/4
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<tr>
<td></td>
<td>Size 1-9</td>
<td>Size 10-99</td>
</tr>
<tr>
<td><strong>2SLS Indirect Effect</strong></td>
<td>0.45***</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>(0.12)</td>
<td>(0.06)</td>
</tr>
<tr>
<td><strong>First Stage Coefficient</strong></td>
<td>0.60***</td>
<td>0.63***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td><strong>First Stage F-statistic</strong></td>
<td>297</td>
<td>434</td>
</tr>
<tr>
<td><strong>Firm Observations (Millions)</strong></td>
<td>45.9</td>
<td>38.3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>2SLS Spillover Estimate</strong></td>
<td>1.235*</td>
<td>0.518*</td>
</tr>
<tr>
<td></td>
<td>(0.733)</td>
<td>(0.268)</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>34,978,038</td>
<td>25,583,059</td>
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<td><strong>Panel B.</strong>&lt;br&gt;<strong>Outcome: growth in Log Total Wage</strong></td>
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<tr>
<td><strong>2SLS Spillover Estimate</strong></td>
<td>0.554</td>
<td>-0.342</td>
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<tr>
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<td>(0.768)</td>
<td>(0.399)</td>
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<td>34,973,668</td>
<td>25,578,791</td>
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### USA-VX-Brazil
2. Foreign Wage Premium: Mechanisms

- Selection
- Rent sharing by more productive firms
- Job risk
- Compensating differentials (extra hours and amenities)
- Efficiency wages due to monitoring and communication problems
- Job-specific skills
- Protecting foreign-specific firm assets
- Aversion to foreign firms and co-workers
- Cultural differences by country of ownership

Cannot disentangle everything, but maybe:
- Heterogeneity across sectors and firm types
- Rule out unlikely channels
- Make estimate as tight as possible (e.g., within 6-digit NAICS * zipcode * year)
- Residual is "foreign-ness" (economic, cultural, behavioral, ...?)
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3. Foreign Spillovers: Mechanisms

- Technology and knowledge spillovers
- Local demand
- Input-Output linkages
- Competitive pressure
- Management practices

Here I think you can do a lot more:

- Heterogeneity across sectors can go a long way [customer-suppliers networks, product market competition, labor market networks, knowledge/innovation complementarities, ...]
- Do effects vary by geographic distance?
- Extensive vs intensive margin
- Employees' movements across foreign and domestic firms
- Change in firm’s input and output (investment mix, innovation type)?
- Lots of other interesting outcomes!
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My Takeaways

- Fantastic paper, huge policy implications
- Just some extra empirical checks
- More on mechanisms and “foreign-ness”
- Many many followups
Thank you