Climbing the Rungs of the Quality Ladder: FDI and Domestic Exporters in Romania

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Upgrading of export quality and sophistication

- correlated with economic growth (Schott, 2004; Hausmann et al., 2007; Hidalgo and Hausmann, 2009)
- precondition for successful exporting and participation in GVCs (Brooks, 2006; Hallak and Sivadasan, 2013; Sutton, 2012; Iacovone and Javorcik, 2012)
- objective of industrial policies
  - “Given the competitiveness squeeze that South African industry finds itself in, industrial upgrading is a logical progression in order to avoid cut-throat price competition as certain parts of manufacturing becoming increasingly commoditised, particularly due to a combination of global trade liberalisation and pressure from Chinese and Indian firms in particular.” South African National Industrial Policy Framework
Motivation

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- How can countries promote export upgrading?
What drives export upgrading?

- trade liberalisation (Amiti and Khandelwal, 2013)
- exchange rate devaluation (Verhoogen, 2008)
- management practices (Atkin et al., 2017)
What drives export upgrading?

- trade liberalisation (Amiti and Khandelwal, 2013)
- exchange rate devaluation (Verhoogen, 2008)
- management practices (Atkin et al., 2017)
- presence of multinational enterprises (MNEs)?
MNEs are special

- MNEs are active in R&D and skilled labor intensive sectors (Markusen 1995)
- MNEs are more productive than other firms (Helpman, Melitz and Yeaple 2004)
- MNEs have outsize role in global R&D performance
  - Foreign affiliates account for >50% of business R&D in Belgium and Czech Republic (OECD, 2017)
Motivation

Research questions

- Do exporters in an emerging economy improve...
  - within-product quality of their exports
  - sophistication or diversification of product and destination mix
- ...as a result of MNE presence in...
  - downstream sectors?
  - upstream sectors?
  - the same sector?
How can MNE presence affect the quality of exports?

**Downstream FDI**
- Incentive to upgrade or develop new products to become a supplier
- Help from MNEs to suppliers
- Reputation facilitating access to new markets

**Upstream FDI**
- Higher quality inputs lead to higher quality output (Kugler and Verhoogen, 2012)
- If there is fixed cost of importing, smaller firms may be unable to access imported inputs

**Own-sector FDI**
- Demonstration effects
- Worker flows (Poole, 2012)
Motivation

Improvements undertaken by Czech firms in order to supply MNEs

Source: Javorcik (2008).

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Motivation

Assistance received by Czech firms from MNEs

Source: Javorcik (2008).

Percent of suppliers reporting a particular type of assistance

- Any type of assistance: 40%
- Personnel training: 20%
- Advance payment: 15%
- Leasing of machinery: 10%
- Provision of inputs: 10%
- Help with organizing production lines: 10%
- Help with quality assurance: 10%
- Assistance with technology: 8%
- Help with finding export opportunities: 5%
- Provision of patented technologies: 5%
- Equipment repairs: 2%
How can FDI affect the quality of exports?

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Results consistent with...

- Romanian exporters upgrading the within-product quality of export products thanks to
  - supplying downstream MNEs
  - access to inputs from upstream MNEs
Results consistent with...

- Romanian exporters upgrading the within-product quality of export products thanks to
  - supplying downstream MNEs
  - access to inputs from upstream MNEs

- no positive effect of MNE presence on sophistication of product or destination mix
Literature

- **Export upgrading** — Imbs and Wacziarg (2003), Schott (2004), Hausmann et al. (2007), Hidalgo and Hausmann (2009), Mattoo and Subramanian (2009), Goldberg et al. (2010)
- **Exporting and FDI** — Aitken et al. (1997), Greenaway et al. (2004), Kneller and Pisu (2007)
- **Export upgrading and FDI** — Chen and Swenson (2007), Swenson (2008), Harding and Javorcik (2012), Javorcik et al. (2016)
Talk outline

1. Motivation
2. Data and context
3. Methodology
4. Results: Within-product quality
5. Results: Product and destination portfolio sophistication
6. Conclusion
Romanian data

**Firm panel**, 2005-2010

- All firms with $>20$ employees, sample of smaller firms
- 15,000 domestic and 5,000 foreign manufacturing firms
Romanian data

**Firm panel, 2005-2010**
- All firms with >20 employees, sample of smaller firms
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**Customs data, 2006-2011**
- Exports by firm, year, 8-digit CN product and destination
Romanian data

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**Estimation sample**

- 4500 domestically-owned manufacturing exporters
- 150,000 firm-product-destination-year observations
Romanian data

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- 4500 domestically-owned manufacturing exporters
- 150,000 firm-product-destination-year observations

**Input-output table**
- 58 manufacturing industries
Examples of CN 8-digit products

- **0401 10 10** Milk and cream, not concentrated nor containing added sugar or other sweetening matter; of a fat content, by weight, not exceeding 1%; In immediate packings of a net content not exceeding two litres

- **0401 20 91** Milk and cream, not concentrated nor containing added sugar or other sweetening matter; of a fat content, by weight, exceeding 1% but not exceeding 3%; in immediate packings of a net content not exceeding two litres
Romania (2005-2010)

- Manufacturing — 30% of value added
- GDP p.c. PPP — 36% of EU average
- FDI inflows — 5.5% of GDP
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- GDP p.c. PPP — 36% of EU average
- FDI inflows — 5.5% of GDP
- Foreign share of output in average manufacturing industry
  - 2005 — 55%
  - 2010 — 62%
Romania (2005-2010)

- Manufacturing — 30% of value added
- GDP p.c. PPP — 36% of EU average
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- Foreign share of output in average manufacturing industry
  - 2005 — 55%
  - 2010 — 62%
- Median unit values of domestic exporters relative to EU15 (%)
  - 2006 — 74%
  - 2011 — 87%
Industries with largest changes in foreign presence (2005-2010)

Data and context

Change in share of output due to foreign-owned firms (2005-2010; p.p.)

- Stone processing
- Trains
- Ships
- Textiles
- Metal struct. & prod.
- Building materials
- Dyes & vanishes
- Airplanes
- Med. & opt. instr.
- Electric machinery
- Leather
- Ceramics
- Glass
- Rubber
- Machine tools
- Basic chemicals
- Foundry
- Agric. machinery
- Other chemicals
- Computers
Industries with largest changes in unit values relative to EU15 (2005-2010)
“Biggest challenge in this sector is quality and skills to enable Romanian companies to join supply networks.”
“In order to be accredited as official suppliers, firms need to satisfy quality requirements for all the firms plants throughout Europe.”

“Renault has ‘local integration’ targets — 80% of inputs to be purchased from local country or region.”
Romania - consultants’ reports

“New technology and modern machinery available only from Western Europe or Japan.”
Methodology

Motivation

Data and context

Methodology

Results: Within-product quality

Results: Product and destination portfolio sophistication

Conclusion
Methodology

Specification

\[ \Delta Y_{i(p)(c)t} = \delta_1 \Delta OwnFDI_{s,t-1} + \delta_2 \Delta UpstreamFDI_{s,t-1} + \delta_3 \Delta DownstreamFDI_{s,t-1} + \pi rt + \pi sr + \eta ipt \]

- Depending on outcome variable, observations defined by
  - firm-year-product-destination
  - firm-year-destination
  - firm-year-product

- Domestic manufacturing exporters

- Clustering by industry-year
Outcome variables

Within product quality

- **Log(unit values of exports)** - Schott (2004); Hummels and Klenow (2005); Hallak (2006, 2010)

- **Log(export quality)** - Khandelwal (2010); Amiti and Khandelwal (2013); Khandelwal et al. (2013)

- **Log(unit values of imports)** - Kugler and Verhoogen (2012); Manova and Zhang (2012)
**Outcome variables**

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**Product portfolio sophistication**

- Product skill, R&D and advertising intensity (Ma et al., 2014)

- # of products
Outcome variables

**Within product quality**

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**Product portfolio sophistication**

- Product skill, R&D and advertising intensity (Ma et al., 2014)
- # of products

**Destination portfolio sophistication**

- Mean log destination GDP p.c.
- Share of exports to rich destinations
- # of destinations
Estimating quality - Khandelwal et al. (2013)

- quality = ability to sell at high quantity for a given price
- estimated as residual (as in TFP estimation)

\[
\log q_{ipct} + \sigma_s \log p_{ipct} = \alpha_p + \alpha_{ct} + \sigma_s \alpha_{ct} + e_{ipct}
\]

- 2-digit-sector-specific \( \sigma_s \) from Broda and Weinstein (2006)
- Fan et al. (2015) find assumed and estimated \( \sigma \) lead to similar results
Measuring FDI presence

**Own-industry foreign share**

\[ FDI_{st}^{own} = \frac{\sum_{j \in s} f_{jt} Y_{jt}}{\sum_{j \in s} Y_{jt}} \]

- \( FDI_{st}^{own} \) = share of sectoral output due to foreign-owned firms
Measuring FDI presence

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**Downstream-industry foreign share**

- \( FDI_{st}^{down} = \sum_{d} \alpha_{sd} FDI_{dt}^{own} \)
- \( \alpha_{sd} \) = share of intermediate inputs sales by sector \( s \) sold to sector \( d \)
Measuring FDI presence

Own-industry foreign share

- $F_{st}^{own} = \frac{\sum_{j \in s} f_{jt}Y_{jt}}{\sum_{j \in s} Y_{jt}}$

- $F_{st}^{own} = \text{share of sectoral output due to foreign-owned firms}$

Downstream-industry foreign share

- $F_{st}^{down} = \sum_{d} \alpha_{sd} F_{dt}^{own}$

- $\alpha_{sd} = \text{share of intermediate inputs sales by sector } s \text{ sold to sector } d$

Upstream-industry foreign share

- $F_{st}^{up} = \sum_{u} \alpha_{us} F_{ut}^{own}$

- $\alpha_{us} = \text{share of intermediate inputs sector } s \text{ buys from sector } u$
Motivation

Data and context

Methodology

Results: Within-product quality

Results: Product and destination portfolio sophistication

Conclusion
### Presence of MNEs and export unit values/quality

<table>
<thead>
<tr>
<th></th>
<th>(1) Levels</th>
<th>(2) First diff.</th>
<th>(3) Second diff.</th>
<th>(4) Third diff.</th>
<th>(5) Fourth diff.</th>
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<tbody>
<tr>
<td>A. Unit values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Δ) Downstream FDI (s,t-1)</td>
<td>0.637***</td>
<td>0.797***</td>
<td>1.061***</td>
<td>0.856*</td>
<td>2.276***</td>
</tr>
<tr>
<td></td>
<td>(0.196)</td>
<td>(0.269)</td>
<td>(0.331)</td>
<td>(0.435)</td>
<td>(0.396)</td>
</tr>
<tr>
<td>(Δ) Upstream FDI (s,t-1)</td>
<td>0.332***</td>
<td>0.272**</td>
<td>0.245</td>
<td>0.689***</td>
<td>0.283</td>
</tr>
<tr>
<td></td>
<td>(0.092)</td>
<td>(0.123)</td>
<td>(0.167)</td>
<td>(0.234)</td>
<td>(0.187)</td>
</tr>
<tr>
<td>(Δ) Own FDI (s,t-1)</td>
<td>-0.243***</td>
<td>-0.178</td>
<td>-0.409***</td>
<td>-0.051</td>
<td>-0.364*</td>
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<td>(0.093)</td>
<td>(0.114)</td>
<td>(0.151)</td>
<td>(0.288)</td>
<td>(0.200)</td>
</tr>
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<td>R-squared</td>
<td>0.059</td>
<td>0.010</td>
<td>0.011</td>
<td>0.007</td>
<td>0.007</td>
</tr>
<tr>
<td>B. Quality</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(Δ) Downstream FDI (s,t-1)</td>
<td>0.630**</td>
<td>0.704**</td>
<td>1.387***</td>
<td>1.100*</td>
<td>2.057***</td>
</tr>
<tr>
<td></td>
<td>(0.256)</td>
<td>(0.346)</td>
<td>(0.483)</td>
<td>(0.626)</td>
<td>(0.622)</td>
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<tr>
<td>(Δ) Upstream FDI (s,t-1)</td>
<td>0.338***</td>
<td>0.511***</td>
<td>0.425**</td>
<td>0.605**</td>
<td>0.657***</td>
</tr>
<tr>
<td></td>
<td>(0.119)</td>
<td>(0.144)</td>
<td>(0.192)</td>
<td>(0.282)</td>
<td>(0.239)</td>
</tr>
<tr>
<td>(Δ) Own FDI (s,t-1)</td>
<td>-0.215*</td>
<td>-0.229</td>
<td>-0.280</td>
<td>-0.083</td>
<td>-0.533*</td>
</tr>
<tr>
<td></td>
<td>(0.129)</td>
<td>(0.175)</td>
<td>(0.280)</td>
<td>(0.505)</td>
<td>(0.272)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.008</td>
<td>0.003</td>
<td>0.005</td>
<td>0.004</td>
<td>0.002</td>
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<tr>
<td>N</td>
<td>146760</td>
<td>49598</td>
<td>28558</td>
<td>16766</td>
<td>9281</td>
</tr>
</tbody>
</table>

*** 99%, ** 95%, * 90%.
Magnitudes

- The average increase in $FDI_{down}$ in 2005-2010 of 6.2 percentage points implies a 4-13% increase in quality.
- The average increase in $FDI_{up}$ in 2005-2010 of 6.5 percentage points implies a 2-4% increase in quality.
**Strict exogeneity test**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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<tbody>
<tr>
<td></td>
<td>Unit values</td>
<td>Quality</td>
</tr>
<tr>
<td>∆ Downstream FDI (s,t-1)</td>
<td>0.369 (0.377)</td>
<td>0.596 (0.407)</td>
</tr>
<tr>
<td>∆ Downstream FDI (s,t)</td>
<td>0.577 (0.489)</td>
<td>1.186** (0.552)</td>
</tr>
<tr>
<td>∆ Downstream FDI (s,t+1)</td>
<td>-0.241 (0.322)</td>
<td>0.001 (0.369)</td>
</tr>
<tr>
<td>∆ Upstream FDI (s,t-1)</td>
<td>0.281** (0.118)</td>
<td>0.594*** (0.139)</td>
</tr>
<tr>
<td>∆ Upstream FDI (s,t)</td>
<td>-0.310* (0.166)</td>
<td>-0.064 (0.181)</td>
</tr>
<tr>
<td>∆ Upstream FDI (s,t+1)</td>
<td>0.014 (0.197)</td>
<td>-0.202 (0.219)</td>
</tr>
<tr>
<td>∆ Own FDI (s,t-1)</td>
<td>-0.217 (0.179)</td>
<td>-0.546** (0.222)</td>
</tr>
<tr>
<td>∆ Own FDI (s,t)</td>
<td>-0.278 (0.225)</td>
<td>-0.485* (0.261)</td>
</tr>
<tr>
<td>∆ Own FDI (s,t+1)</td>
<td>0.087 (0.190)</td>
<td>-0.018 (0.226)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.013</td>
<td>0.002</td>
</tr>
<tr>
<td>N</td>
<td>31108</td>
<td>29551</td>
</tr>
</tbody>
</table>

*** 99%, ** 95%, * 90%. Strict exogeneity test described by Wooldridge, 2010.
## Alternative explanations

<table>
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<tbody>
<tr>
<td><strong>A. Unit values</strong></td>
<td>Price control</td>
<td>Demand control</td>
<td>Import control</td>
<td>Cont. firms</td>
</tr>
<tr>
<td>∆ Downstream FDI (s,t-1)</td>
<td>0.800***</td>
<td>0.865***</td>
<td>0.859***</td>
<td>1.006***</td>
</tr>
<tr>
<td></td>
<td>(0.268)</td>
<td>(0.229)</td>
<td>(0.281)</td>
<td>(0.224)</td>
</tr>
<tr>
<td>∆ Upstream FDI (s,t-1)</td>
<td>0.272**</td>
<td>0.192*</td>
<td>0.186</td>
<td>0.286**</td>
</tr>
<tr>
<td></td>
<td>(0.123)</td>
<td>(0.112)</td>
<td>(0.124)</td>
<td>(0.125)</td>
</tr>
<tr>
<td>∆ Own FDI (s,t-1)</td>
<td>-0.179</td>
<td>-0.162</td>
<td>-0.177</td>
<td>-0.351***</td>
</tr>
<tr>
<td></td>
<td>(0.115)</td>
<td>(0.104)</td>
<td>(0.118)</td>
<td>(0.115)</td>
</tr>
<tr>
<td>∆ Log UV of EU exports (p,t)</td>
<td>-0.001</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>R-squared</td>
<td>0.010</td>
<td>0.010</td>
<td>0.010</td>
<td>0.010</td>
</tr>
</tbody>
</table>

| **B. Quality**         |                          |                          |                          |                          |
| ∆ Downstream FDI (s,t-1) | 0.713**                 | 0.771**                 | 0.737**                 | 0.761**                 |
|                        | (0.346)                  | (0.320)                  | (0.352)                  | (0.299)                  |
| ∆ Upstream FDI (s,t-1)  | 0.510***                 | 0.444***                 | 0.461***                 | 0.590***                 |
|                        | (0.143)                  | (0.141)                  | (0.155)                  | (0.154)                  |
| ∆ Own FDI (s,t-1)      | -0.232                   | -0.218                   | -0.228                   | -0.419**                 |
|                        | (0.176)                  | (0.166)                  | (0.180)                  | (0.190)                  |
| ∆ Log UV of EU exports (p,t) | -0.002               |                          |                          |                          |
|                        |                          |                          |                          |                          |
|                        |                          |                          |                          |                          |
| R-squared              | 0.003                    | 0.003                    | 0.003                    | 0.003                    |

N 49597 49598 49598 34780

*** 99%, ** 95%, * 90%.
By stage of production

- MNE presence in sectors supplying inputs $\Rightarrow$ impact on the quality of intermediate and final goods
- MNE presence in sectors buying inputs $\Rightarrow$ impact on the quality of intermediates
By stage of production

- MNE presence in sectors supplying inputs $\Rightarrow$ impact on the quality of intermediate and final goods
- MNE presence in sectors buying inputs $\Rightarrow$ impact on the quality of intermediates

<table>
<thead>
<tr>
<th></th>
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<th>Quality</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>Non-final</td>
<td>Final</td>
</tr>
<tr>
<td>$\Delta$ Downstream FDI (s,t-1)</td>
<td>1.452***</td>
<td>-0.148</td>
</tr>
<tr>
<td></td>
<td>(0.359)</td>
<td>(0.241)</td>
</tr>
<tr>
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<td>0.463**</td>
<td>0.197</td>
</tr>
<tr>
<td></td>
<td>(0.222)</td>
<td>(0.121)</td>
</tr>
<tr>
<td>$\Delta$ Own FDI (s,t-1)</td>
<td>-0.694***</td>
<td>0.293**</td>
</tr>
<tr>
<td></td>
<td>(0.243)</td>
<td>(0.126)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.009</td>
<td>0.016</td>
</tr>
<tr>
<td>N</td>
<td>20830</td>
<td>29381</td>
</tr>
</tbody>
</table>

*** 99%, ** 95%, * 90%.
Results: Within-product quality

Presence of MNEs and import unit values

- Higher-quality output requires higher-quality inputs
- Complementarity between domestic and imported inputs
- Competitive pressure leads to importing cheaper inputs
Presence of MNEs and import unit values

- Higher-quality output requires higher-quality inputs
- Complementarity between domestic and imported inputs
- Competitive pressure leads to importing cheaper inputs

<table>
<thead>
<tr>
<th></th>
<th>(1) Exporters</th>
<th>(2) All firms</th>
<th>(3) Imports &amp; exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>∆ Downstream FDI (s,t-1)</td>
<td>0.354*</td>
<td>0.313*</td>
<td>0.294*</td>
</tr>
<tr>
<td></td>
<td>(0.189)</td>
<td>(0.171)</td>
<td>(0.172)</td>
</tr>
<tr>
<td>∆ Upstream FDI (s,t-1)</td>
<td>0.317***</td>
<td>0.323***</td>
<td>0.256***</td>
</tr>
<tr>
<td></td>
<td>(0.083)</td>
<td>(0.076)</td>
<td>(0.092)</td>
</tr>
<tr>
<td>∆ Own FDI (s,t-1)</td>
<td>-0.253**</td>
<td>-0.236**</td>
<td>-0.174*</td>
</tr>
<tr>
<td></td>
<td>(0.122)</td>
<td>(0.111)</td>
<td>(0.091)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.004</td>
<td>0.004</td>
<td>0.002</td>
</tr>
<tr>
<td>N</td>
<td>125444</td>
<td>139565</td>
<td>5045</td>
</tr>
</tbody>
</table>

*** 99%, ** 95%, * 90%.
Motivation

Data and context

Methodology

Results: Within-product quality

Results: Product and destination portfolio sophistication

Conclusion
Changes in product portfolio (firm-destination-year level, 1st diff.)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skill</td>
<td>R&amp;D</td>
<td>Advertising</td>
<td># products</td>
</tr>
<tr>
<td>Δ Downstream manuf. FDI (s,t-1)</td>
<td>-0.088***</td>
<td>0.000</td>
<td>-0.001</td>
<td>-0.014</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
<td>(0.002)</td>
<td>(0.001)</td>
<td>(0.195)</td>
</tr>
<tr>
<td>Δ Upstream manuf. FDI (s,t-1)</td>
<td>-0.014</td>
<td>0.000</td>
<td>0.001</td>
<td>0.249</td>
</tr>
<tr>
<td></td>
<td>(0.018)</td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.180)</td>
</tr>
<tr>
<td>Δ Own FDI (s,t-1)</td>
<td>0.017</td>
<td>-0.003***</td>
<td>0.000</td>
<td>-0.194</td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.141)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.002</td>
<td>0.000</td>
<td>0.001</td>
<td>0.010</td>
</tr>
<tr>
<td>N</td>
<td>22791</td>
<td>22791</td>
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<td>22791</td>
</tr>
</tbody>
</table>

*** 99%, ** 95%, * 90%.
## Changes in destination portfolio (firm-product-year level, 1st diff.)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean log GDP p.c.</td>
<td>Share of rich</td>
<td># destinations</td>
</tr>
<tr>
<td><strong>Δ Downstream manuf. FDI (s,t-1)</strong></td>
<td>-0.171 (0.266)</td>
<td>-0.087 (0.121)</td>
<td>-0.123 (0.156)</td>
</tr>
<tr>
<td><strong>Δ Upstream manuf. FDI (s,t-1)</strong></td>
<td>0.007 (0.157)</td>
<td>-0.010 (0.068)</td>
<td>0.062 (0.107)</td>
</tr>
<tr>
<td><strong>Δ Own FDI (s,t-1)</strong></td>
<td>0.181 (0.153)</td>
<td>0.024 (0.059)</td>
<td>0.058 (0.105)</td>
</tr>
<tr>
<td><strong>R-squared</strong></td>
<td>0.003</td>
<td>0.002</td>
<td>0.004</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>32035</td>
<td>32783</td>
<td>32783</td>
</tr>
</tbody>
</table>

*** 99%, ** 95%, * 90%.
Conclusion

- Results consistent with exporters upgrading the quality of export products thanks to
  - supplying downstream MNEs
  - access to inputs from upstream MNEs
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- No evidence of positive effect of MNE presence on sophistication of product and destination portfolio
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- Presence of MNEs does not affect *what* local firms do but *how*.
  - MNEs strength in standards and procedures
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- New policies for quality upgrading?
  - FDI promotion
  - facilitation of supplier-buyer relationship with MNEs


