Trade and Productivity

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Explanations of Trade

• Differences in technology
• Differences in factor endowments
• Added in the 1980s: economies of scale and monopolistic competition
• Added in the 2000s: within industry heterogeneity, organizational choices, and institutions (contracting, financial, labor market)
Explanations of FDI

- Horizontal FDI: Proximity-concentration tradeoff
- Vertical FDI: endowment (cost) differences
- Added in the 2000s: within industry heterogeneity, organizational choices, complex integration strategies (horizontal vs vertical FDI is a less helpful distinction)
### Table 1—Productivity Advantage of Multinationals and Exporters

<table>
<thead>
<tr>
<th>Category</th>
<th>Coefficient</th>
<th>T-statistic</th>
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<tbody>
<tr>
<td>Multinational</td>
<td>0.537</td>
<td>14.432</td>
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<tr>
<td>Nonmultinational exporter</td>
<td>0.388</td>
<td>9.535</td>
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<tr>
<td>Coefficient difference</td>
<td>0.150</td>
<td>3.694</td>
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<tr>
<td>Number of firms</td>
<td>3,202</td>
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*Notes*: T-statistics are in parentheses (calculated on the basis of White standard errors). Coefficients for capital intensity controls and industry effects are suppressed.

Source: Helpman, Melitz and Yeaple, 2004
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Export Decision

Exit | No exports | Exports

Productivity
Implications

- Exporters vs Nonexporters (Melitz 2003)
- Trade liberalization: entry, exit, reallocation (e.g., free trade agreements, Trefler 2004)
- Factor proportions (Bernard, Redding and Schott 2005)
- Financial liberalization (Manova 2006)
- Technology upgrading (Bustos 2005)
Export Vs FDI
Implications

• Explains productivity differences across exporters and MNCs
• Export/Subsidiary Sales varies across sectors, depending on productivity dispersion (Helpman, Melitz, Yeaple 2004)
• Complex integration (Grossman, Helpman and Szeidl 2006)
Organizational Forms with Contracting Frictions

Exit |
Outsourcing in N |
Outsourcing in S |

Low Headquarter Intensity Sector

Exit |
Outsourcing in N |
Integration in N |
Outsourcing in S (FDI) |
Integration in S |

High Headquarter Intensity Sector

Productivity
Implications (Antràs and Helpman 2004)

1. Offshoring declines with headquarter intensity

2. More productivity dispersion leads to more offshoring

3. More productivity dispersion leads to more integration and less outsourcing (empirical support in Yeaple 2006)
Comparative Advantage

• Comparative advantage can arise as a result of institutional variation across countries in:

  - financial institutions (Manova 2005)
  - labor market institutions (Cunat and Melitz 2006)

  All three have distinct effects (Chor 2006, Manova 2006)
Rule of Law Encourages Export of Goods Intensive in Relationship-Specific Investment

Source: Nunn, 2005: Trefler, 2005