Competition at the EU-15 Market: CESEE, China and Russia

Complementary Trade Developments or Crowding Out?

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## Strong Gains in EU-15 Import Market Shares

<table>
<thead>
<tr>
<th>EU-15</th>
<th>CESEE-10</th>
<th>China</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>7.0</td>
<td>7.3</td>
<td>3.6</td>
</tr>
<tr>
<td>2005</td>
<td>5.1</td>
<td>5.0</td>
<td>2.9</td>
</tr>
<tr>
<td>2000</td>
<td>3.9</td>
<td>2.8</td>
<td>1.8</td>
</tr>
<tr>
<td>1995</td>
<td>3.0</td>
<td>1.8</td>
<td>1.4</td>
</tr>
</tbody>
</table>

*Source: COMEXT.*

*Note: EU-15 imports include intra-EU-15 imports. The CESEE-10 countries comprise the ten CESEE EU Member States.*
Research Issues

How did exports from CESEE, China and Russia perform in the EU-15 market?

Were these exports complementary or crowding each other out?
Competitiveness Analysis

1 Export market shares

2 Export growth
   2a New trade relationships vs. deepening of existing trade links
   2b Demand-side vs. exporter-specific effects

3 Crowding-out at the product level
Multidimensional Data Set

Exporting regions:
- CESEE-10
- China
- Russia

Export market: EU-15

Time period: 1995-2010

Products: 6-digit HS level

Data source: COMEXT database

Sectoral & regional composition
- of exports
- of the three competitors for more than

5,300 different products
1 Export Market Shares

Are CESEE, China and Russia gaining market shares in similar product categories?

Yes, to some extent ...
Similar Export Patterns of CESEE and China

Share of product category in total exports to the EU-15

Source: COMEXT.
What determines the growth of exports from CESEE, China and Russia to the EU-15?

Mainly the intensification of existing trade relationships...
Decomposition of Export Growth

**Intensive margin:** change of the trade volume in existing trade relationships

**Extensive margin:** value of new trade relationships minus lost trade

- New trade relationship = new product and/or new export destination
- Both margins are calculated as a share of total export growth.
- Results strongly depend on margin definition.

*(see Besedeš and Prusa 2011, Amiti and Freund 2008, Imbs and Warziarg 2003)*
Export Growth Mainly Due to Deepening of Existing Trade

Contribution of the extensive margin to total export growth

- Contribution of new trade links was small, also for China
- EU entry greatly encouraged CESEE firms to engage in new trade relationships
- Not many trade relationships were lost during the 2009 crisis (exception: SEE)

Source: COMEXT, authors' calculations.
Is the intensification of existing trade relationships driven by exporters’ competitiveness or by demand-related factors?

Overall, the competitiveness of CESEE and China outweighs demand-related effects...
Econometric Decomposition of Intensive Margin

Growth in existing trade relationships is decomposed into:

- average EU-15 import growth ($d \ln X$)
- geographical effect ($GEO$)
- sectoral effect ($SEC$)
- exporter’s competitiveness ($COMP$)

\[ \ln \ln = d \ln X + GEO_i + SEC_i + COMP_i + \varepsilon_i \]

Model at the aggregate level:

...based on a weighted regression of year-on-year export growth at the bilateral product level on exporter- / importer- / product-fixed effects.

(see Cheptea, Fontagné and Zignago, 2010)
### Decomposition of intensive margin, in %, averages 1996 - 2010

<table>
<thead>
<tr>
<th>Region</th>
<th>Intensive margin</th>
<th>Average EU-15 import growth</th>
<th>Geographical effect</th>
<th>Sectoral effect</th>
<th>Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESEE-10</td>
<td>11.6</td>
<td>5.6</td>
<td>-0.1</td>
<td>-1.0</td>
<td>7.2</td>
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<tr>
<td>China</td>
<td>15.3</td>
<td>5.6</td>
<td>0.0</td>
<td>-1.5</td>
<td>11.5</td>
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<tr>
<td>Russia</td>
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<td>5.6</td>
<td>0.0</td>
<td>4.2</td>
<td>2.0</td>
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<tr>
<td>EU15-INTRA</td>
<td>4.4</td>
<td>5.6</td>
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<td>-1.2</td>
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<tr>
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<td>5.2</td>
<td>5.6</td>
<td>0.0</td>
<td>0.6</td>
<td>-0.9</td>
</tr>
</tbody>
</table>

Source: COMEXT, authors' calculations.
## Decomposition of intensive margin, in %, averages 1996 - 2010

<table>
<thead>
<tr>
<th>Intensive margin</th>
<th>Machinery and vehicles</th>
<th>Electrical machinery and precision instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average EU-15 import growth</td>
<td>Geographical effect</td>
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<tr>
<td>CESEE-10</td>
<td>15.9</td>
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<tr>
<td>China</td>
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<td>4.4</td>
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<tr>
<td>China</td>
<td>17.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Russia</td>
<td>6.1</td>
<td>5.6</td>
</tr>
</tbody>
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Source: COMEXT, authors’ calculations.
Is there evidence that CESEE exports have been crowded out by Chinese exports in the EU-15 market?

Not yet, but CESEE and China have been increasingly fishing in the same pool...
Analysis of Joint Trade Links

- For each exporter we know which product is exported to which destination.

- **4 types** of trade links: new, lost, existing, non-existing

- Combination of individual trade links for **pairs of exporters** at the product level:
  - CESEE vs. China
  - CESEE vs. Russia

- 2 exporters and 4 types of trade links: $4^2=16$ possible combinations
Increasing Competition of CESEE and China at the Product Level

CESEE's and China's EU-15 trade

% of all existing trade links


Source: Authors’ calculations.

Source: Authors’ calculations.
Conclusions

• Export growth is mainly caused by the deepening of existing trade links.

• The strong export performance of CESEE and China is mainly driven by their competitiveness.

• CESEE shows a weaker competitiveness effect than China in one of its main export categories (transport equipment).

• CESEE and China are increasingly competing for product categories in the EU-15 market (machinery and transport equipment).

• The situation for Russia is different:
  – considerably lower degree of diversification
  – export growth highly volatile
Prospects for CESEE

- Competition (especially from China) is intensifying.
- So far, China has not been a cut-throat competitor for CESEE in the EU-15 market.
- Export-led growth strategy has proved successful for CESEE and China in a growing market, but competitiveness becomes increasingly crucial in a slow-growth environment.

- How sustainable is CESEE’s competitive position?
  - Not many trade links were lost during the 2009 crisis.
  - Specialization on transport equipment will have to be reconsidered.
Thank you for your attention!
Impressive Export Growth in Other Manufacturing, Textiles Dominated by China

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Source: COMEXT, Authors’ calculations.
CESEE and Russia: Persistent Diversification

CESEE's and Russia's EU-15 trade

% of all existing trade links

Source: Authors' calculations.
Share of Total Exports in GDP

Source: IMF, OECD.
Geographical Reorientation of Chinese and Russian Exports Toward the EU-15 Market and the ROW

Regional composition of exports

Source: UN Comtrade, authors’ calculations.
www.oenb.at
End-Use Categories: Similar Export Patterns of CESEE and China

Market share of country in total extra-EU-15 imports by end-use category, in %

Source: COMEXT.
Note: Total exports to the EU-15 include intra EU-15 trade.
Revealed Symmetric Comparative Advantage in Selected BEC Categories

Source: COMEXT, Authors' calculations.