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# 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

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### Share in total EU-15 imports in %

		CESEE-10	China	Russia
EU-15	2010	7.0	7.3	3.6
	2005	5.1	5.0	2.9
	2000	3.9	2.8	1.8
	1995	3.0	1.8	1.4

Source: COMEXT.

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

## Research Issues

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**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

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## 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

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### 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

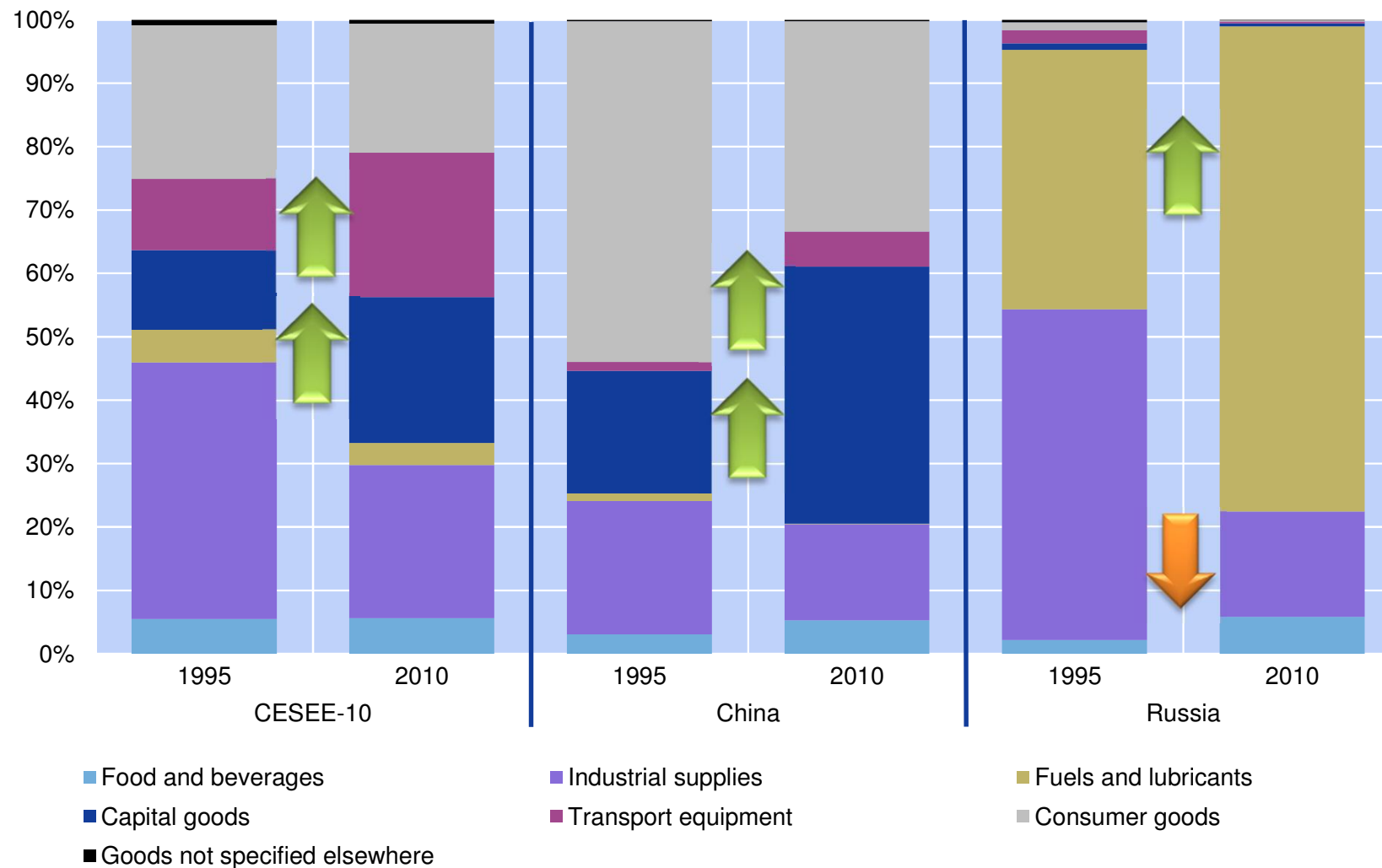
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**Are CESEE, China and Russia gaining market shares in similar product categories?**

**Yes, to some extent ...**

# Similar Export Patterns of CESEE and China

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



Source: COMEXT.

## 2a Export Growth: New Trade Relationships vs. Deepening of Existing Trade Links

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**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

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

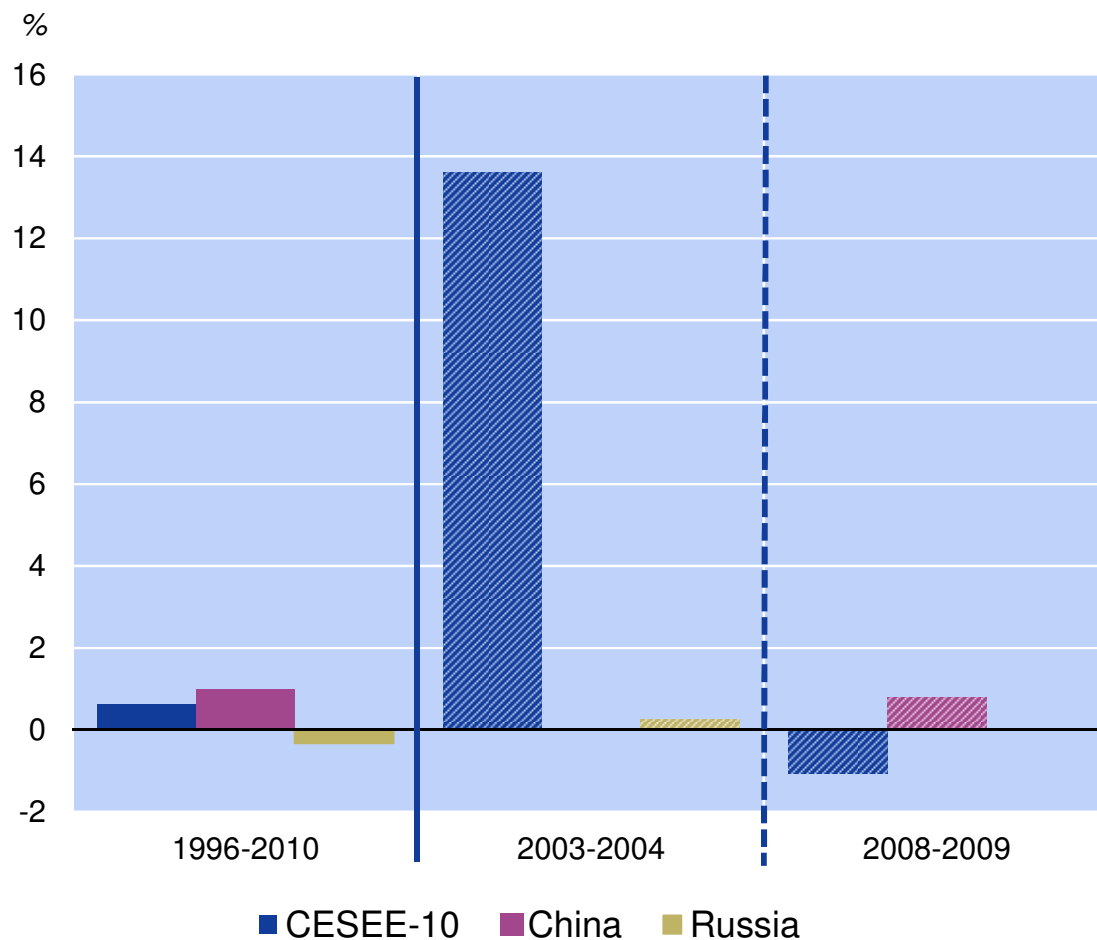
**Extensive margin:** value of new trade relationships minus lost trade

- 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.

## **2b Export Growth: Demand-Side vs. Exporter-Specific Effects**

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**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

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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** ( $COMP$ )
- } **Demand-driven**  
} **Exporter-driven**

### Model at the aggregate level:

$$d \ln X_i = d \ln X + GEO_i + SEC_i + COMP_i + \varepsilon_i$$

...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)

## Strong Competitiveness of China and CESEE

### Decomposition of intensive margin, in %, averages 1996 - 2010

	<b>Intensive margin</b>	Average EU-15 import growth	Geographical effect	Sectoral effect	Competitiveness
CESEE-10	<b>11.6</b>	5.6	-0.1	-1.0	7.2
China	<b>15.3</b>	5.6	0.0	-1.5	11.5
Russia	<b>11.9</b>	5.6	0.0	4.2	2.0
EU15-INTRA	<b>4.4</b>	5.6	0.0	-0.2	-1.2
ROW	<b>5.2</b>	5.6	0.0	0.6	-0.9

Source: COMEXT, authors' calculations.

## China Outperforms CESEE in Machinery and Vehicles

### Decomposition of intensive margin, in %, averages 1996 - 2010

	<b>Intensive margin</b>	Average EU-15 import growth	Geographical effect	Sectoral effect	Competitiveness
<b>Machinery and vehicles</b>					
CESEE-10	<b>15.9</b>	4.4	0.6	-5.9	16.8
China	<b>22.1</b>	4.4	0.5	-5.9	24.7
Russia	<b>-0.5</b>	4.4	0.1	-5.4	0.9
<b>Electrical machinery and precision instruments</b>					
CESEE-10	<b>16.3</b>	5.6	0.7	4.8	15.7
China	<b>17.4</b>	5.6	0.9	4.7	16.0
Russia	<b>6.1</b>	5.6	0.6	4.9	8.7

Source: COMEXT, authors' calculations.

### 3 Possible Crowding-Out at the Product Level

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**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

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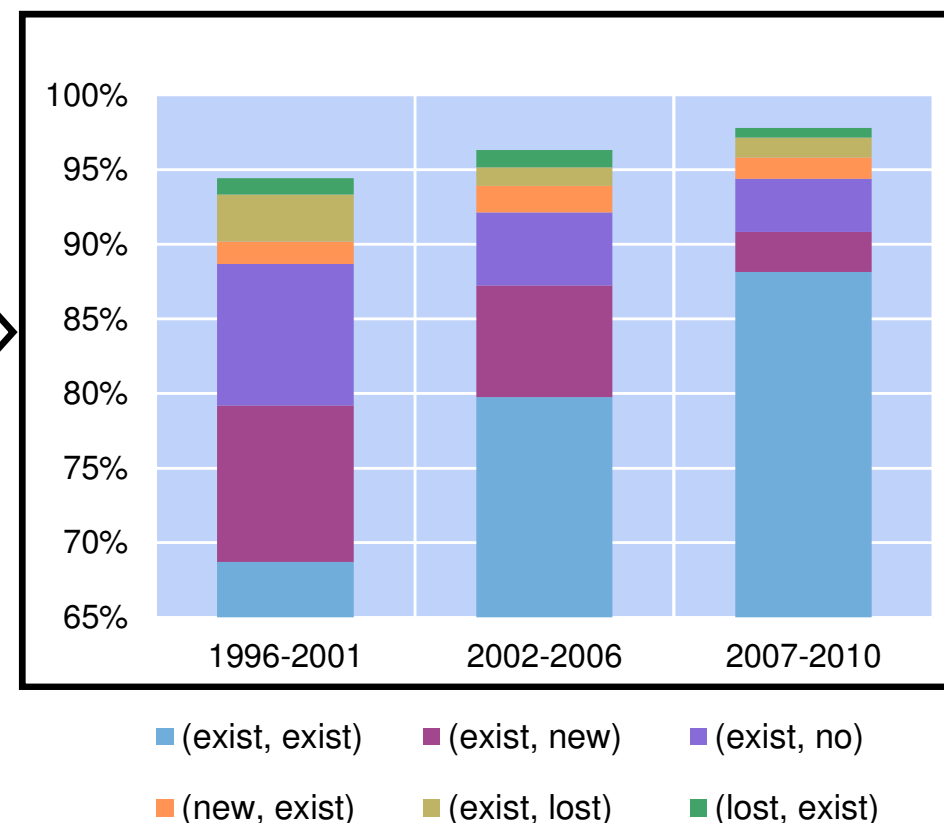
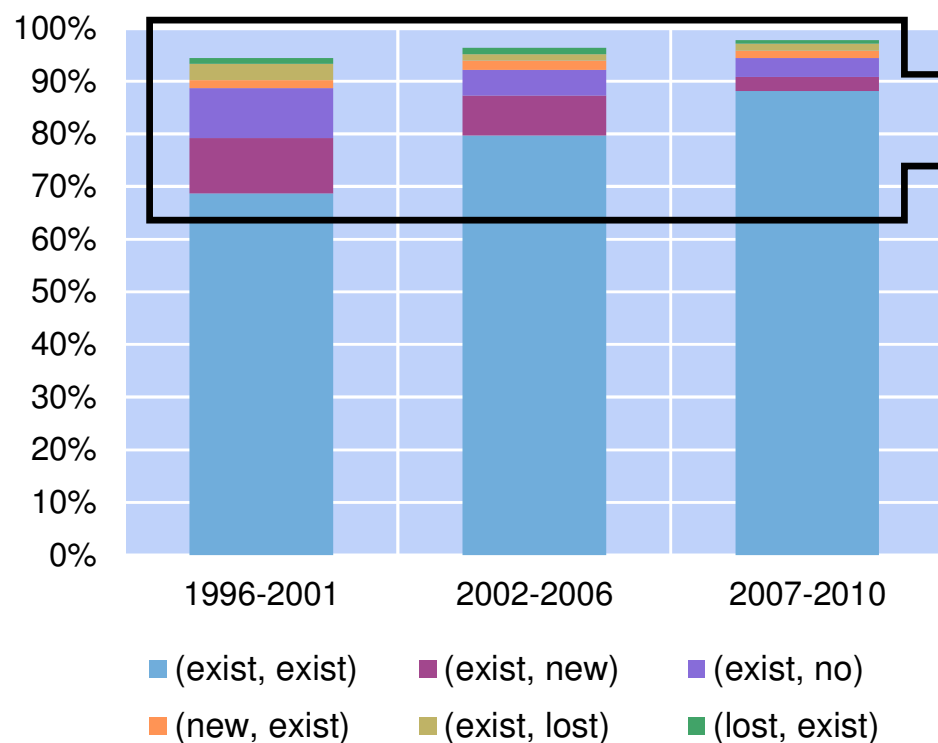
- For each exporter we know which product is exported to which destination.
- **4 types** of trade links: new, lost, existing, non-existing
- Combination of individual trade links for **pairs of exporters** at the product level:
  - CESEE vs. China
  - CESEE vs. Russia
- 2 exporters and 4 types of trade 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

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- 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

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- 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.



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**Thank you for your attention!**

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# Impressive Export Growth in Other Manufacturing, Textiles Dominated by China

## Decomposition of intensive margin, in %, averages 1996 - 2010

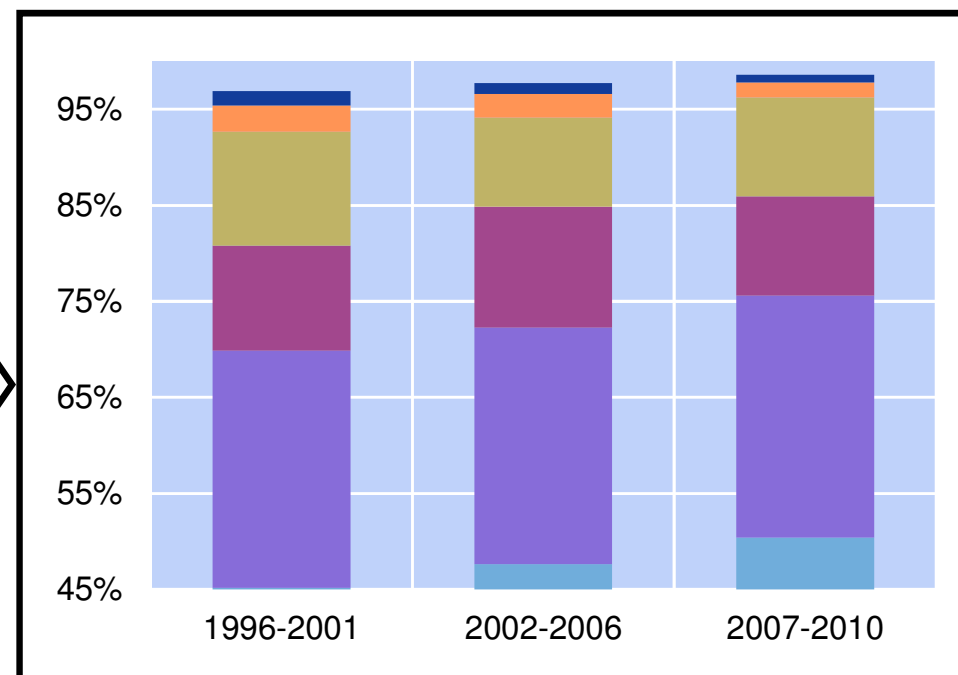
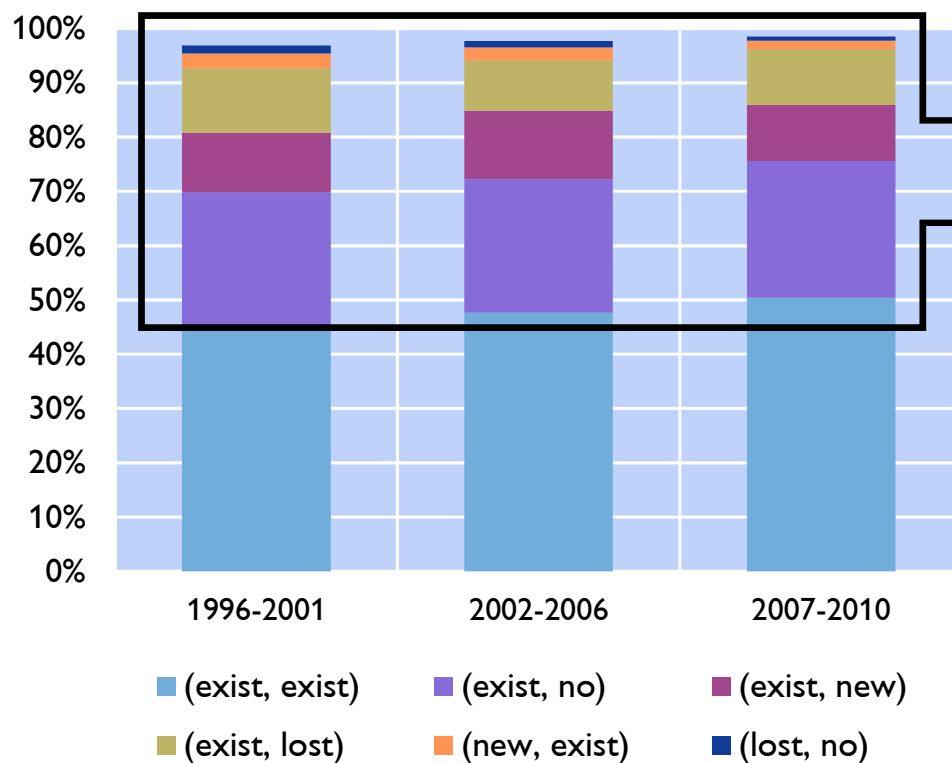
	<b>Intensive margin</b>	Average EU-15 import growth	Geographical effect	Sectoral effect	Competitiveness
<b>Textiles</b>					
CESEE-10	<b>2.9</b>	3.1	-0.7	4.9	-4.3
China	<b>12.4</b>	3.1	-0.5	5.0	5.0
Russia	<b>-11.5</b>	3.1	-0.5	2.4	-17.7
<b>Other manufacturing</b>					
CESEE-10	<b>9.1</b>	2.6	-4.9	4.1	7.3
China	<b>13.1</b>	2.6	-2.9	3.8	9.8
Russia	<b>5.9</b>	2.6	-3.7	0.1	10.7

Source: COMEXT, Authors' calculations.

# CESEE and Russia: Persistent Diversification

## CESEE's and Russia's EU-15 trade

% of all existing trade links

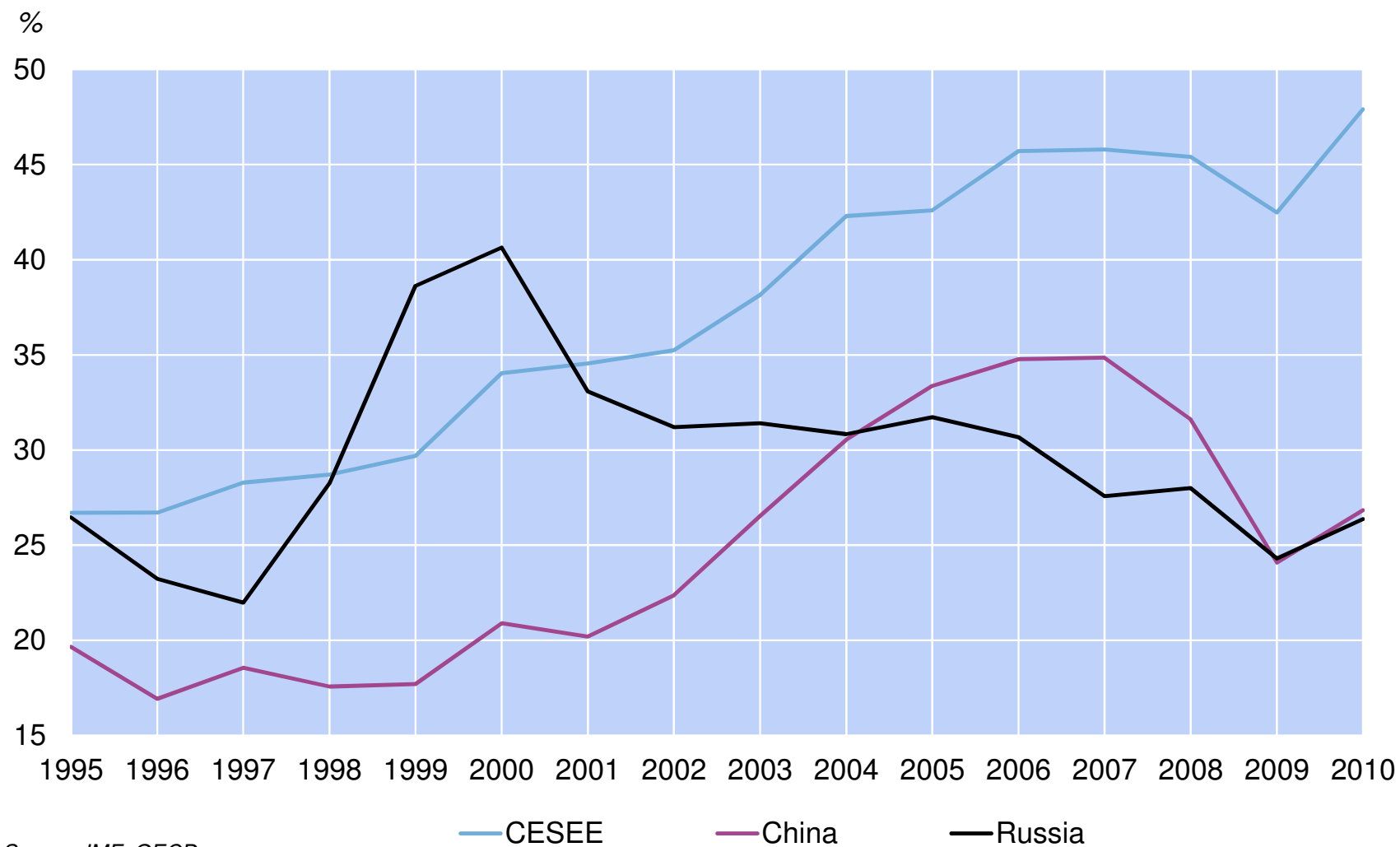


■ (exist, exist)    ■ (exist, no)    ■ (exist, new)  
■ (exist, lost)    ■ (new, exist)    ■ (lost, no)

Source: Authors' calculations.

Source: Authors' calculations.

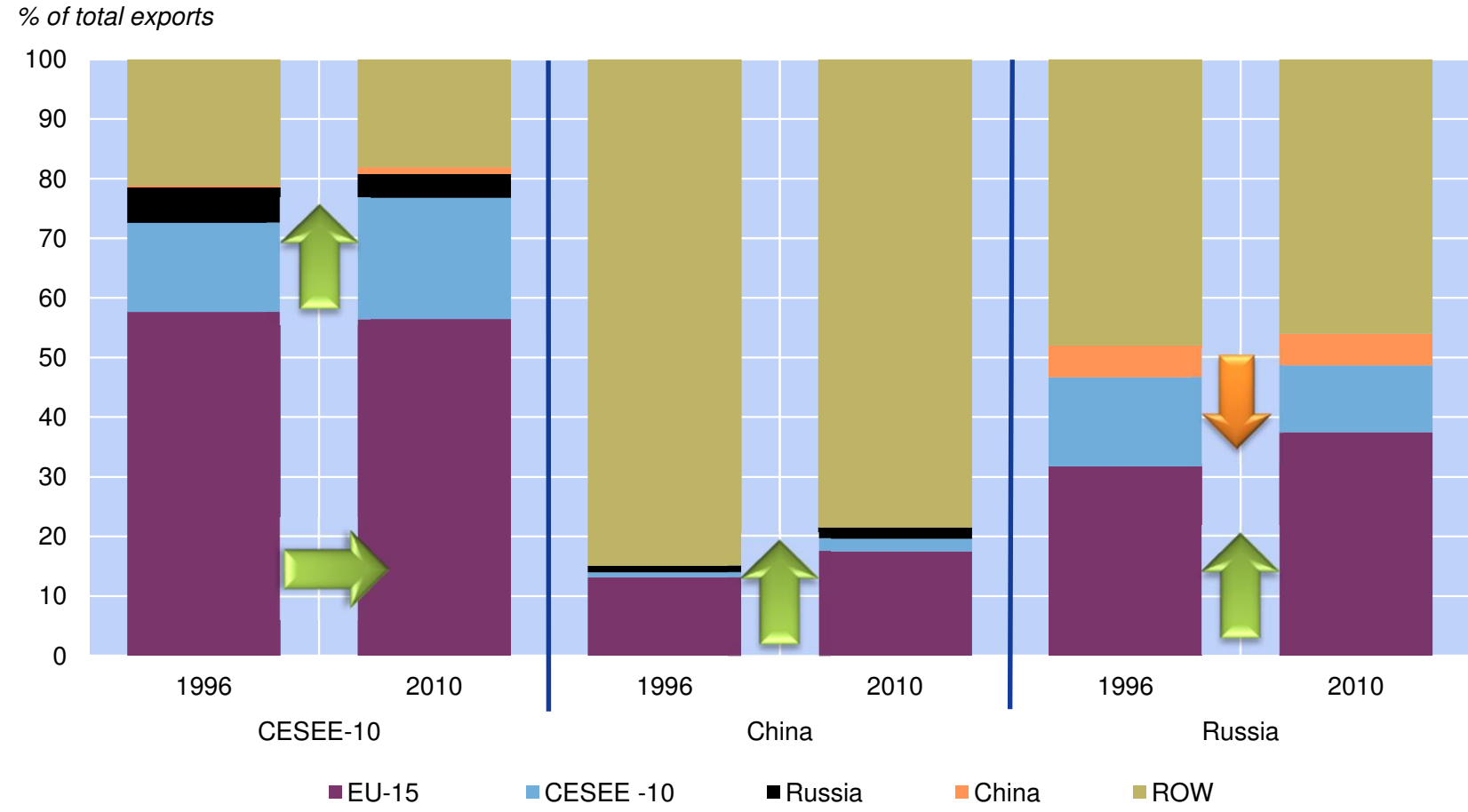
### Share of Total Exports in GDP



Source: IMF, OECD.

# Geographical Reorientation of Chinese and Russian Exports Toward the EU-15 Market and the ROW

## Regional composition of exports

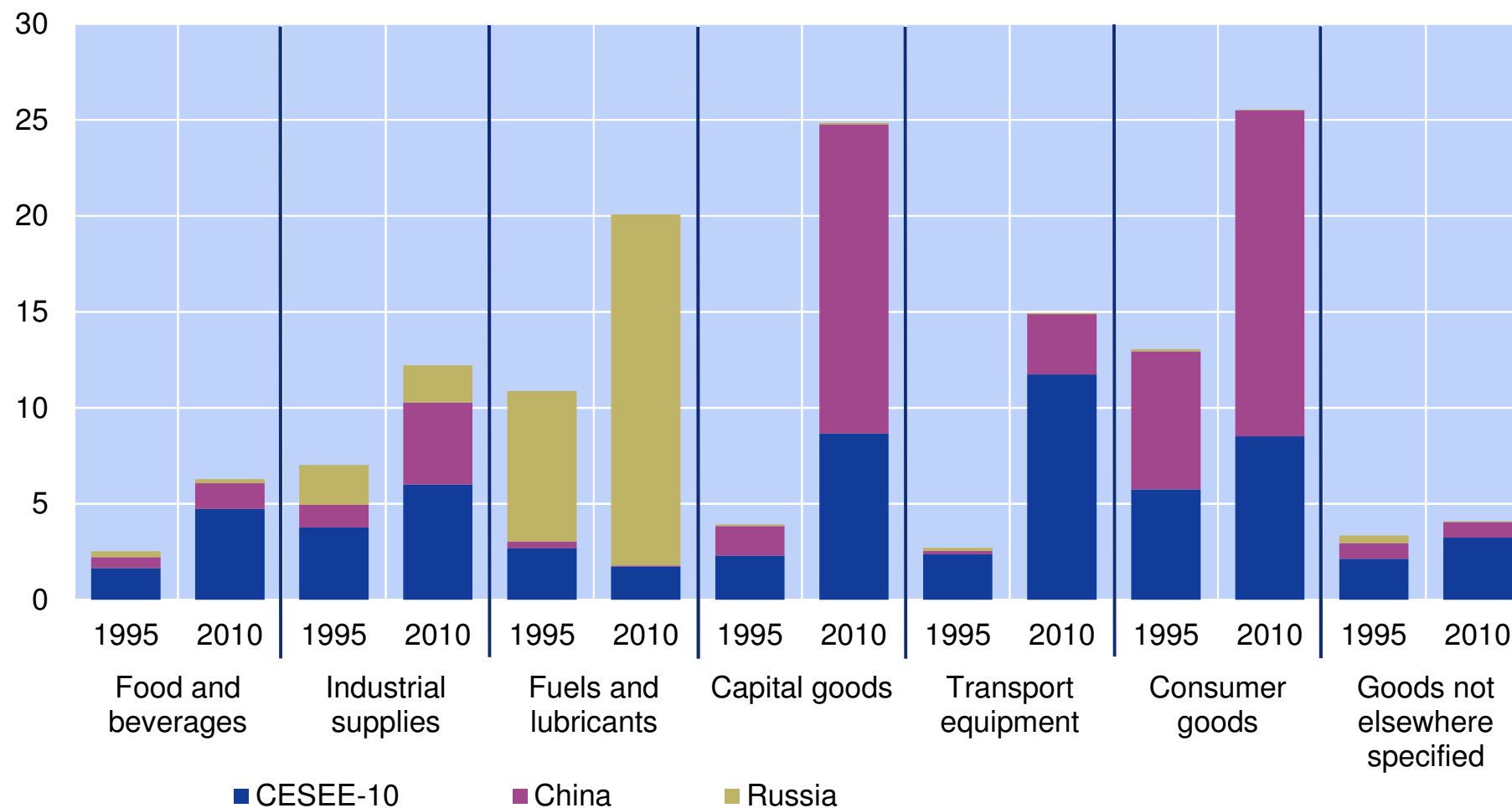


Source: UN Comtrade, authors' calculations.



## End-Use Categories: Similar Export Patterns of CESEE and China

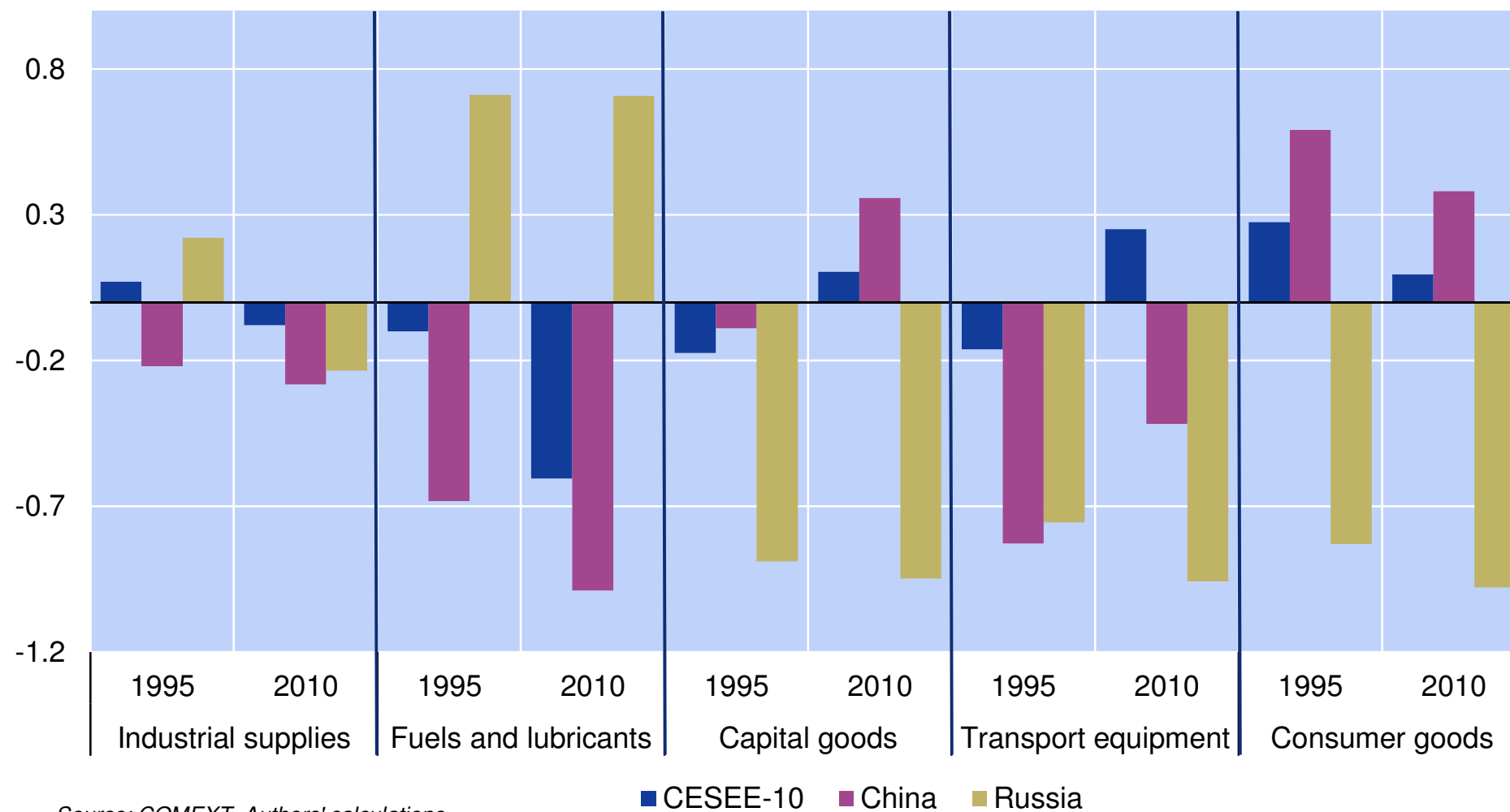
Market share of country in total extra-EU-15 imports by end-use category, in %



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.