Trade Winds and Doldrums: Navigating the Great Recession and its Impact on Trade

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Outline of the presentation

Retrospect

- Drop in world trade and recent developments
- Openness and crisis vulnerability
- Trade related transmission channels

– Global value-chains

– Structural differences

– Trade financing

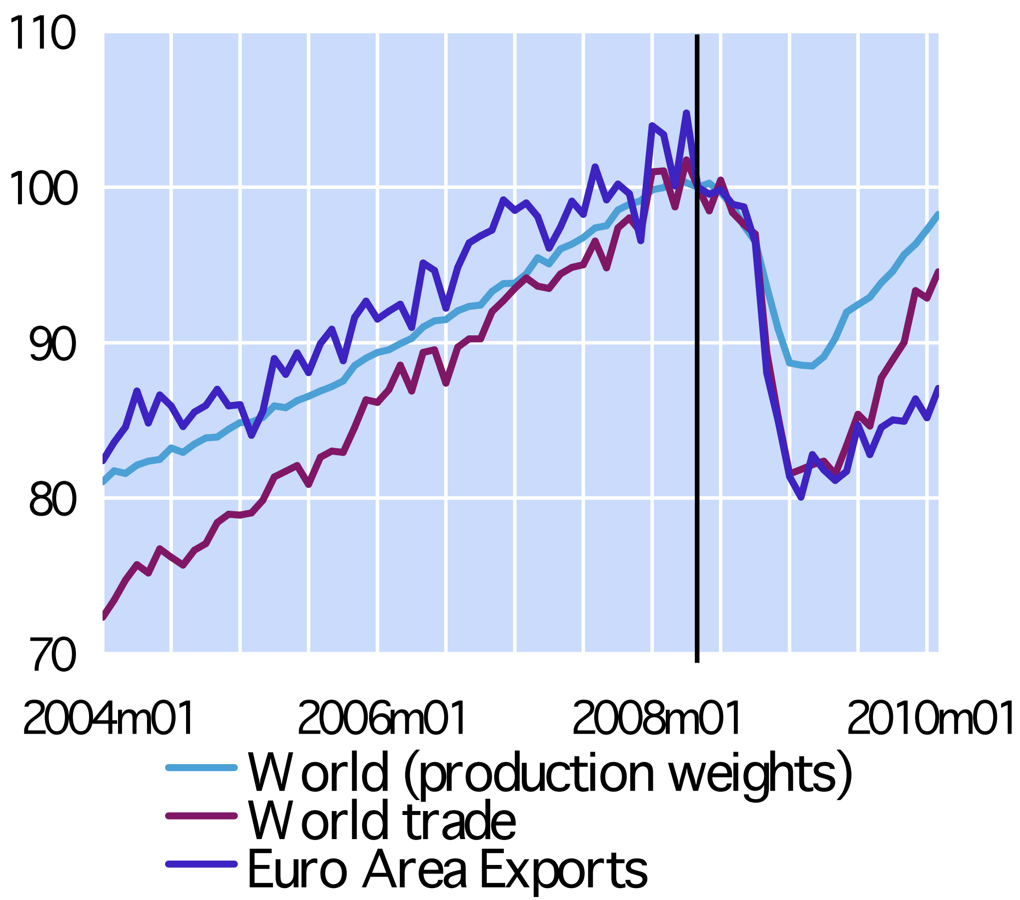
Prospect

4. Regional Growth Clubs

5. Outlook and conclusions

Retrospect: 2008/09 collapse of world trade

Volume index; May 2008 = 100



Source: CPB Trademonitor Feb. 2010.

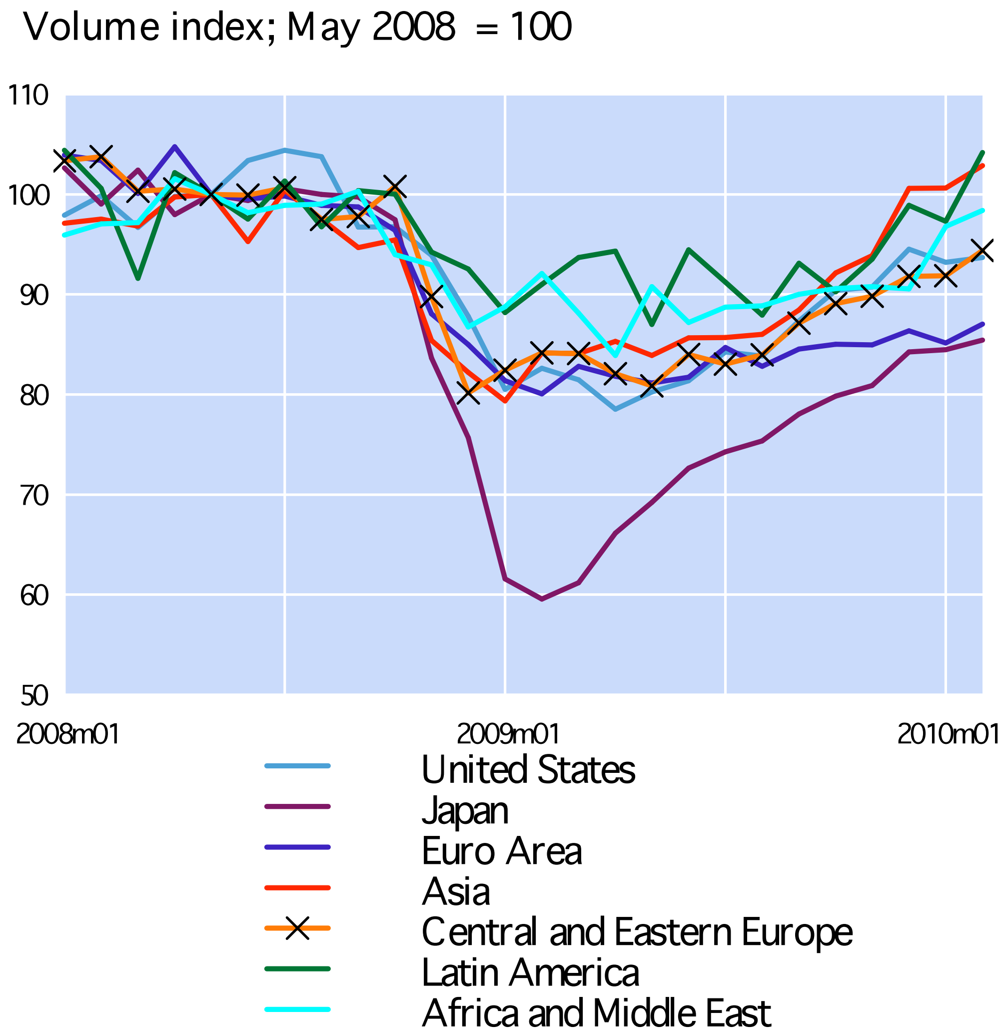
Up to 2008: Strong increase of world trade (reflecting increasing integration of emerging economies and changes in production processes)

2008/09: marked decline in global trade volumes

Trade collapse in 2009 was sharp, rapid and significantly larger than the fall in GDP

Strong rebound since (but not in Euro Area)

Regional and sectoral patterns of the trade collapse



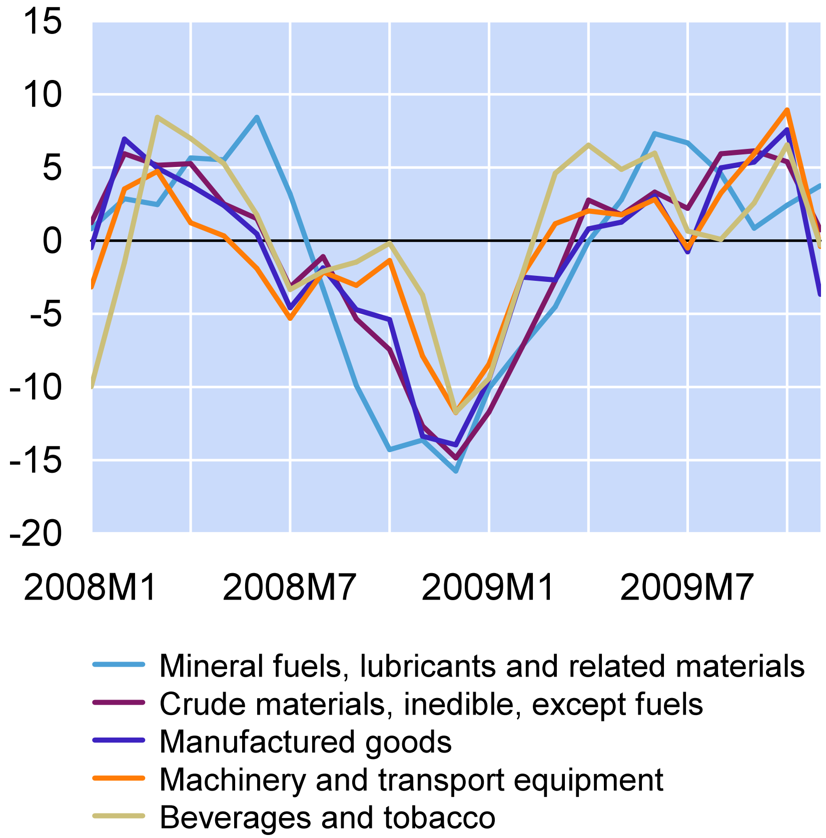
Quelle: CPB Trademonitor, Feb'10.

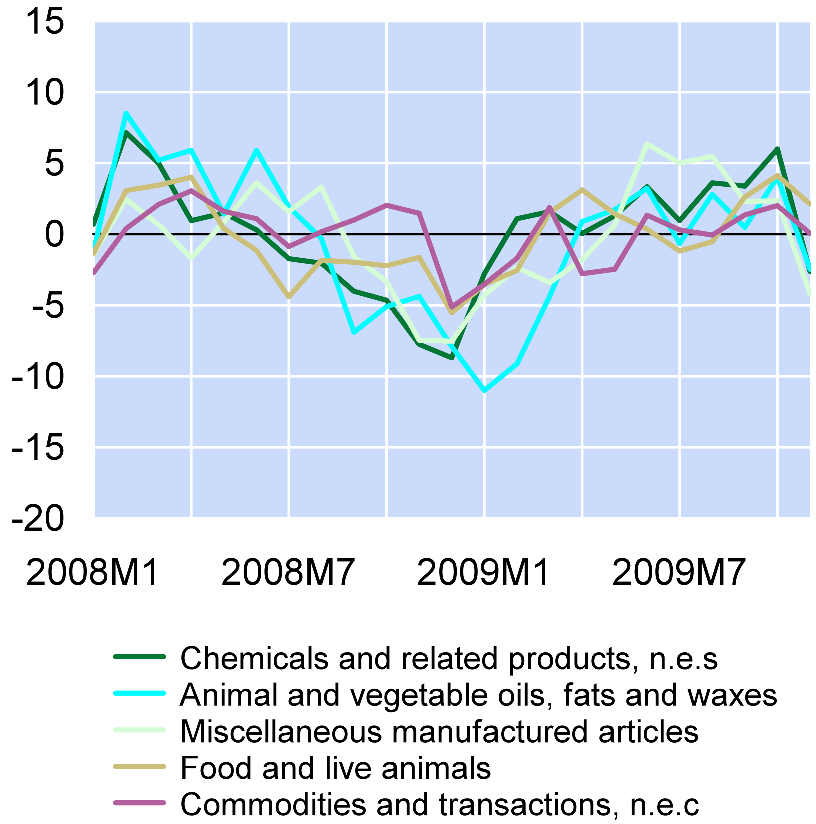
- Drop and rebound in trade fairly synchronized on a global level
- Japan, Euro Area and Central and Eastern Europe severely hit
- Rebound stronger in emerging than in industrialized markets
- East Asia shows strongest rebound
- Durable and investment goods suffered the strongest declines

Manufactures, industrial supplies and materials most strongly affected

OECD Import-growth, based on 3 month moving averages

m-o-m growth in %





Source: OECD.

Openness and crisis transmission

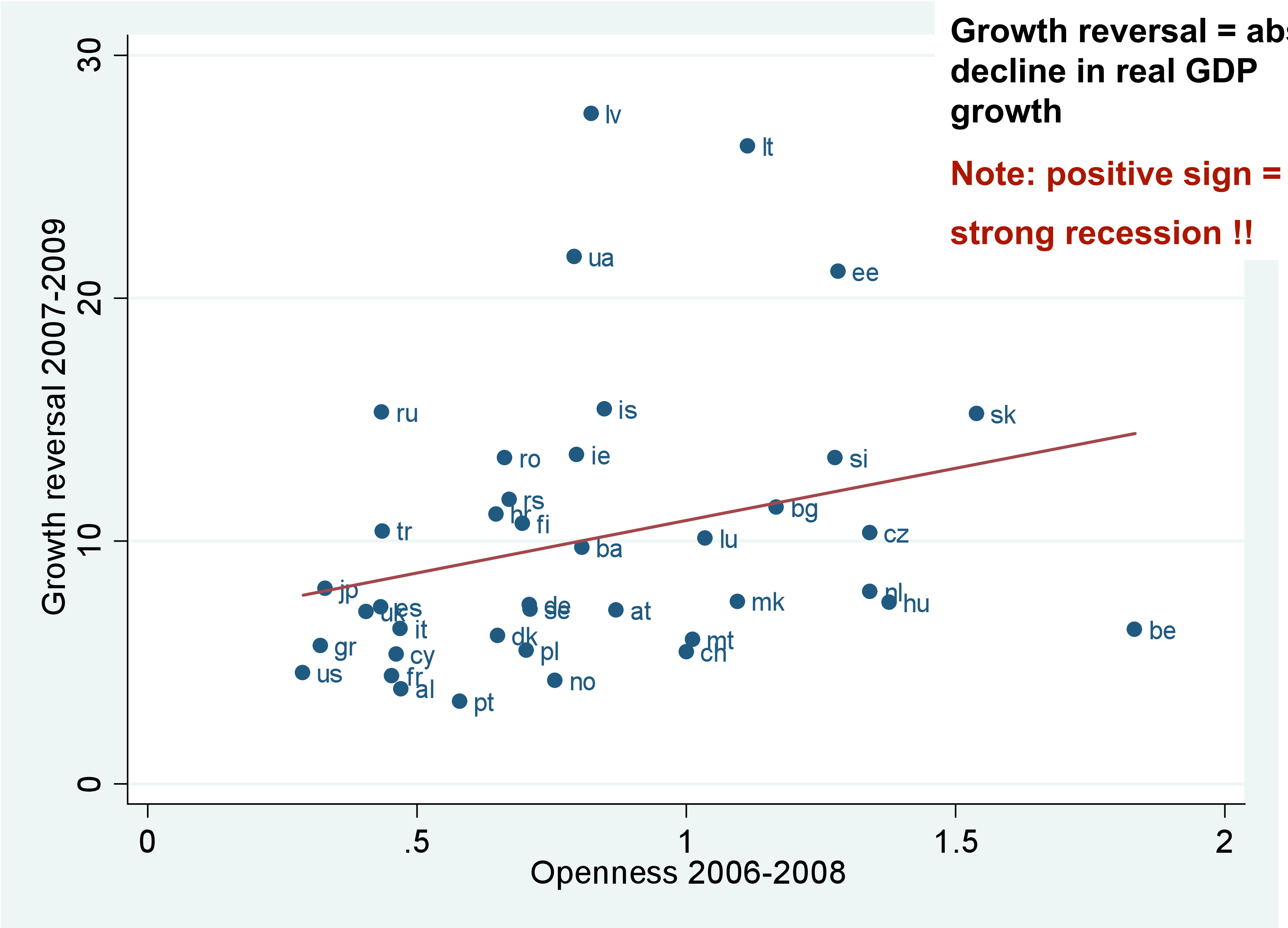
Source of crisis — domestic origin / external origin / global $\Longleftrightarrow$ Role of trade openness as a vulnerability factor

Discussion in the literature on openness and vulnerability to crises has delivered 2 broad views:

1. Trade propagates shocks and leads to greater synchronization of shocks (e.g. Fidrmuc and Korhoonen, 2009)

2. Trade integration reduces vulnerability to domestic crises (e.g. Frankel and Cavallo, 2008)

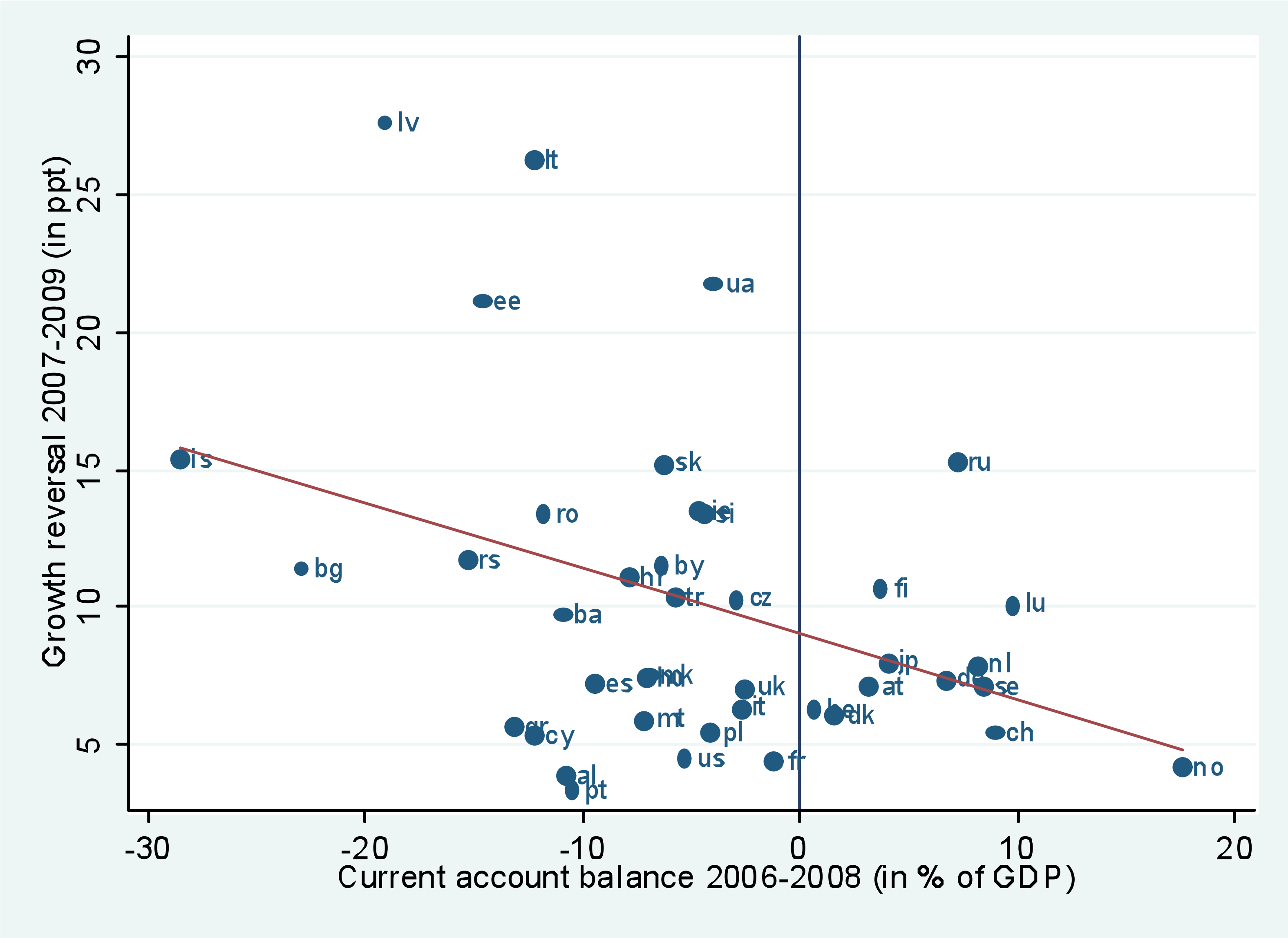
Crisis response and trade openness



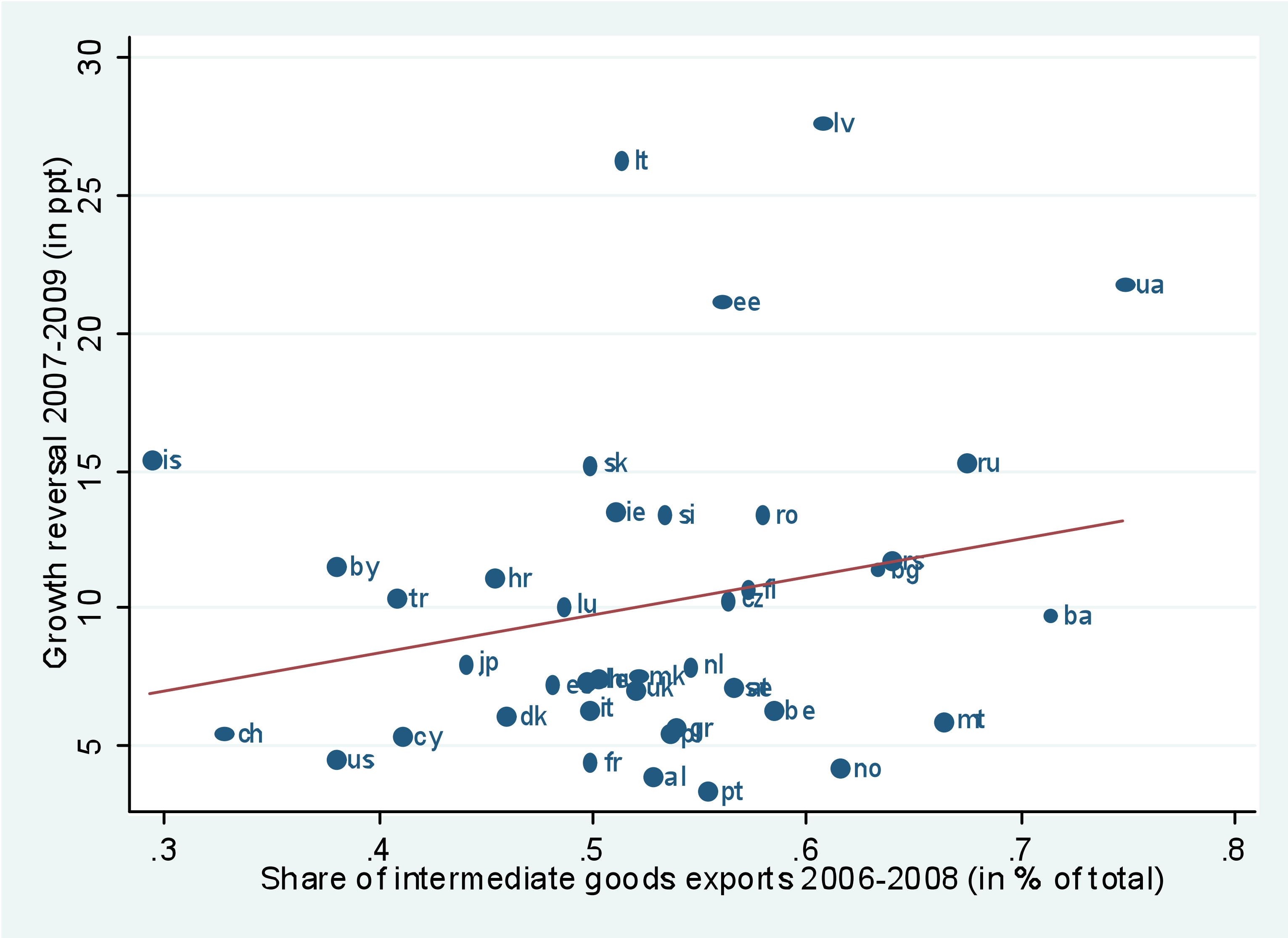
Growth reversal = absolute decline in real GDP growth

Note: positive sign = strong recession !!

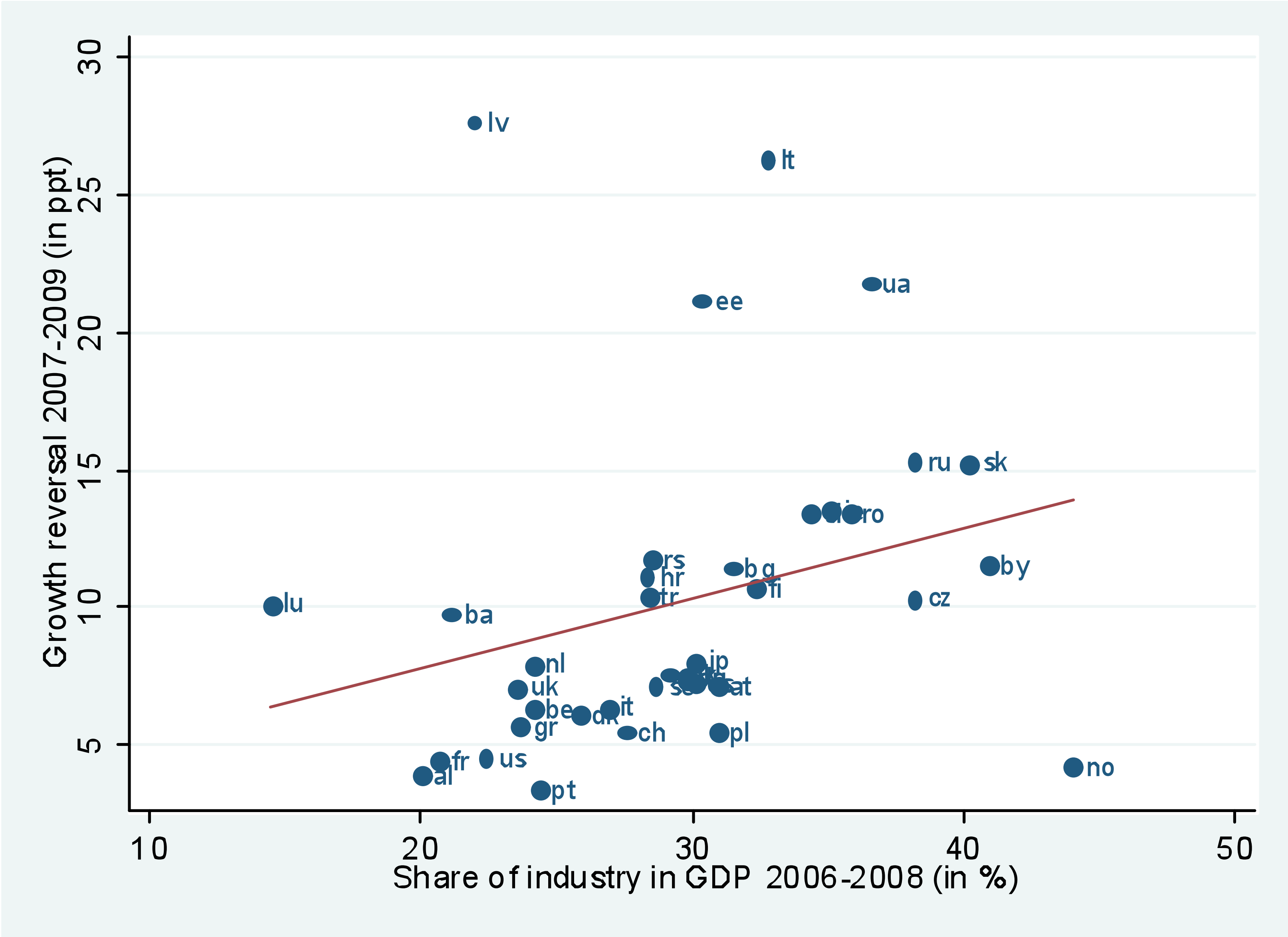
Crisis response and current account balance



Crisis response and intermediate goods exports



Crisis response and share of industry in GDP



Quantifying the impact of the trade channel

- **The basic model (Keppel and Wörz 2010):**

$$y_i = \alpha + \beta_1 xratio_i + \beta_2 vad\_ind_i + \beta_3 er_i + \beta_4 avgrowth_i + \beta_5 debt_i + \varepsilon$$

y_i ...Growth reversal 2007 to 2009f

$xratio_i$ ...Export ratio (% of GDP)

$debt_i$...External debt (% of GDP)

vad_ind_i ...Value added/ industry production (% of GDP)

er_i ...Nominal exchange rate vis-a-vis the euro

$avgrowth_i$ ...Average real GDP growth 2006-2008

- **Estimation with iteratively re-weighted least squares**
  (Use of Maximum-Likelihood estimator. In a preliminary step, possible influential outliers are assessed based on Cook's (1977) distance statistic. Two types of iterations are performed subsequently and observations are weighted such that influential outliers obtain lower weights).

Results: Determinants of the growth downturn in 2009

Dependent Variable: Absolute difference in real GDP growth 2007 to real GDP growth forecasts 2009	(1)	(2)	(3)
xratio	-0.003	**0.216**	**0.218**
vad_ind	**0.427**	**0.705**	**0.727**
er	0.074	0.107	0.099
avgrowth	**0.511**	**0.652**	**0.744**
debt	**0.002**	**0.002**	**0.006**
xratio*vad_ind		**-0.009**	**-0.009**
xratio*er		**-0.004**	**-0.005**
BAL			**14.441**
constant	**-5.721**	**-13.000**	**-14.000**
N	38	38	37
R^2	0.69	0.71	0.90

- No evidence for effect of increased export orientation at first sight, but strong evidence for structural-difference hypothesis, and for overheating-hypothesis

- Controlling for interactions:
  - ➢ Significant positive effect (on growth reversal) of higher export ratio and higher weight of industry in GDP
  - ➢ Ameliorating effect of the two factors jointly

- Regional specificities: the Baltics

Summary of regression results

- Impact of global recession strongly determined by domestic output structure: high dependence on industry → larger growth downturn
- Export orientation only “harmful” when we control for interactions with share of industry in domestic output structure
- 1% greater share of industry in GDP → 0.4 -0.7 pps higher growth downturn, i.e. structural differences explain 6.5 pps of the 8 pps differential in growth downturn between SK (-15 pps) and UK (-7pps)
- Some support for overheating hypothesis: previous high growth rates are linked to a stronger growth downturn (even after controlling for Baltic states)
- Negative influence from high debt ratios
- Results are robust to alternative timing of growth downturn (2007-2010 and 2008-2009)

Will trade openess foster recovery?

- Trade cannot be seen as the cause of the global spread of the crisis; direct impact of trade openness on crisis impact is limited.
- Strong influence of domestic output structures raises important policy questions:
  - Will the industries which suffered most in the crisis recover to their pre-crisis levels?
  - Has the crisis revealed fundamental structural change which should be addressed by policy?
  - Will external demand / trade be able to pull the global economy out of the recession?

Potential explanation for the fast propagation of the currrent crisis

- **Source of the crisis: risk re-assessment coupled with major demand shock**

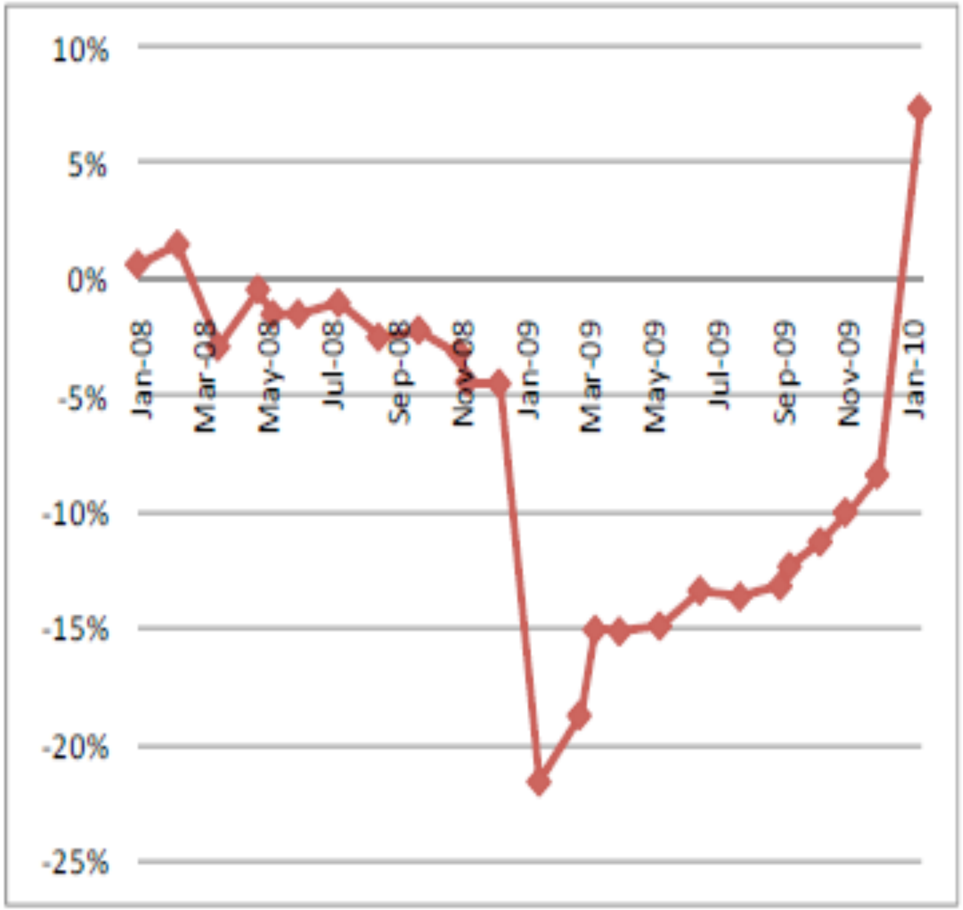
- **Extent of crisis transmission through trade channel ?**

- **Three trade-related channels to explain the fast propagation of the crisis across the globe:**

1. **Problems in trade financing (supply shock)**
2. **Rising importance of global value-chains (demand shock)**
3. **Structural features of the domestic and external sector (demand shock)**

Trade financing (1)

Figure 8: SWIFT year-on-year growth in trade finance messages



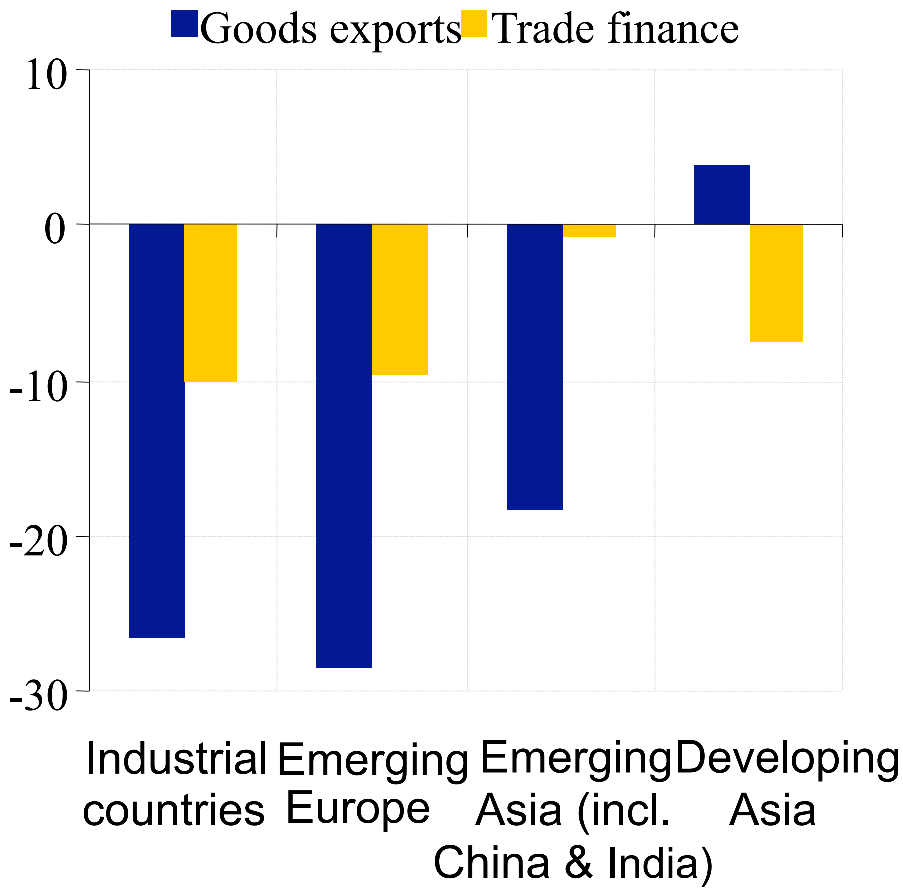
Source: www.swift.com

- **Different financing needs across sectors (Iacovona and Zavacka, 2009)**
- **Credit for trade: Reassessment of risk and scarce liquidity (Auboin, 2009)**
- **Strong decline of trade finance (Chauffour and Farole, 2009)**
- **Trade is financed via short-term credit lines (Alun, 2009)**
- **Trade finance activity is still below pre-crisis levels (ICC 2010)**

Financing (2)

Goods exports and trade finance

(% change 2009Q2 vs. 2007Q4)

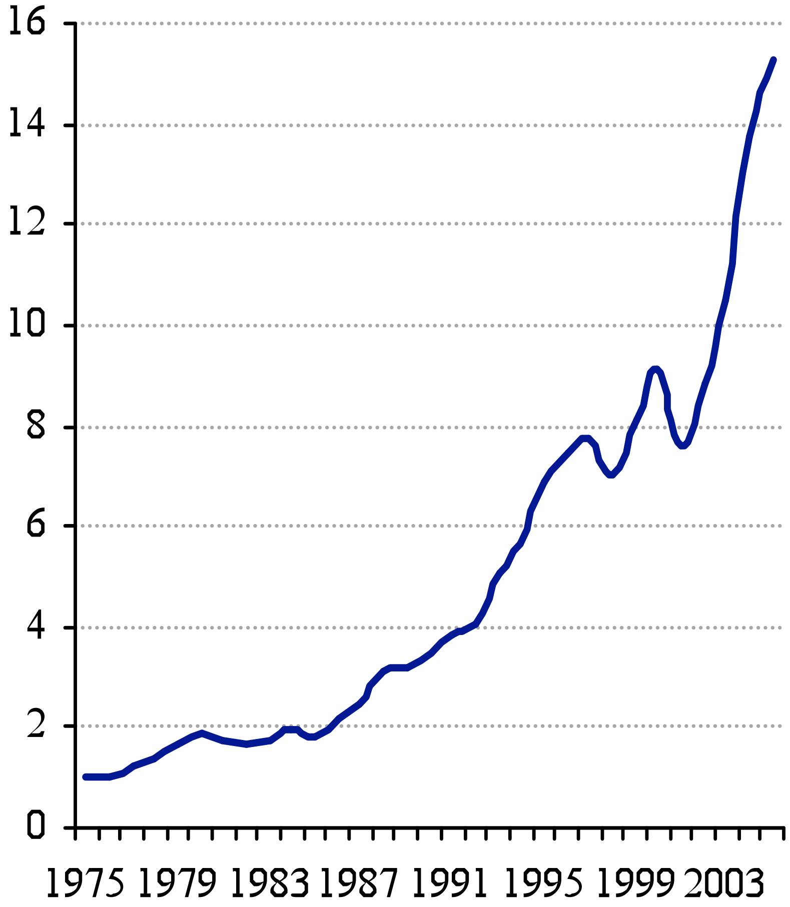


- **Falling exports associated with declines in trade finance**
- **Differences across regions**
- **WB estimates: Drying-up of trade finance may have contributed 10% to 15% of the decline in world trade since the second half of 2008.**
- **Difficult to separate shortage of *supply* of trade credit and lack of *demand* for trade credit**
- **Recovery of trade finance still uncertain**

Sources: IMF-BAFT, ECB staff estimates

Global value chains (1)

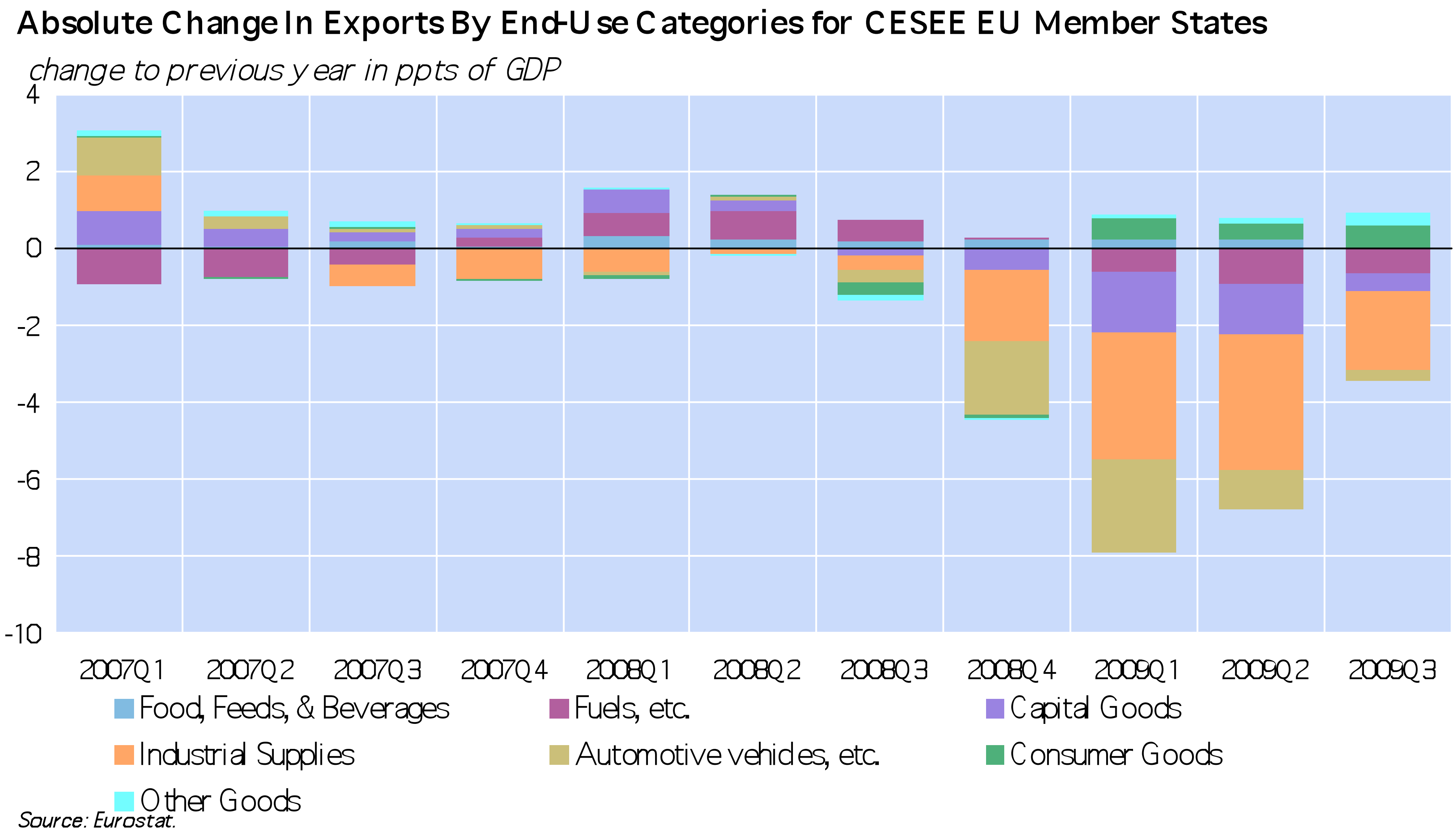
Index of global vertical supply integration



Source: Amador and Cabral (2009), ECB (2010)

- Increase in vertical supply integration (reduction in trade barriers, transportation costs)
- Greater fragmentation of production ⇨ Increase in the elasticity of trade to income
- Recent estimates of the elasticity of trade to income around 3.5 (e.g. Freund, 2009)
- Global supply chains: drop in final demand and the drying up of credit markets ⇨ aggravation of the initial effect in each link in the chain (Escaith, 2009)

Global value chains (2)

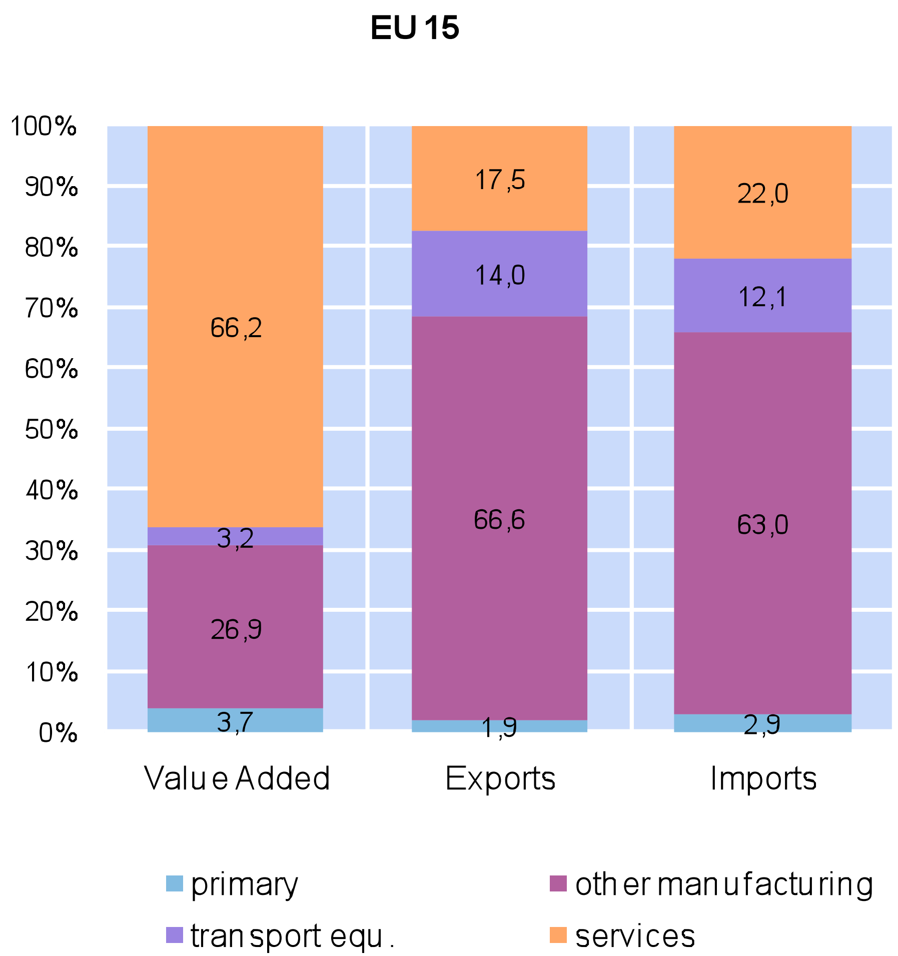


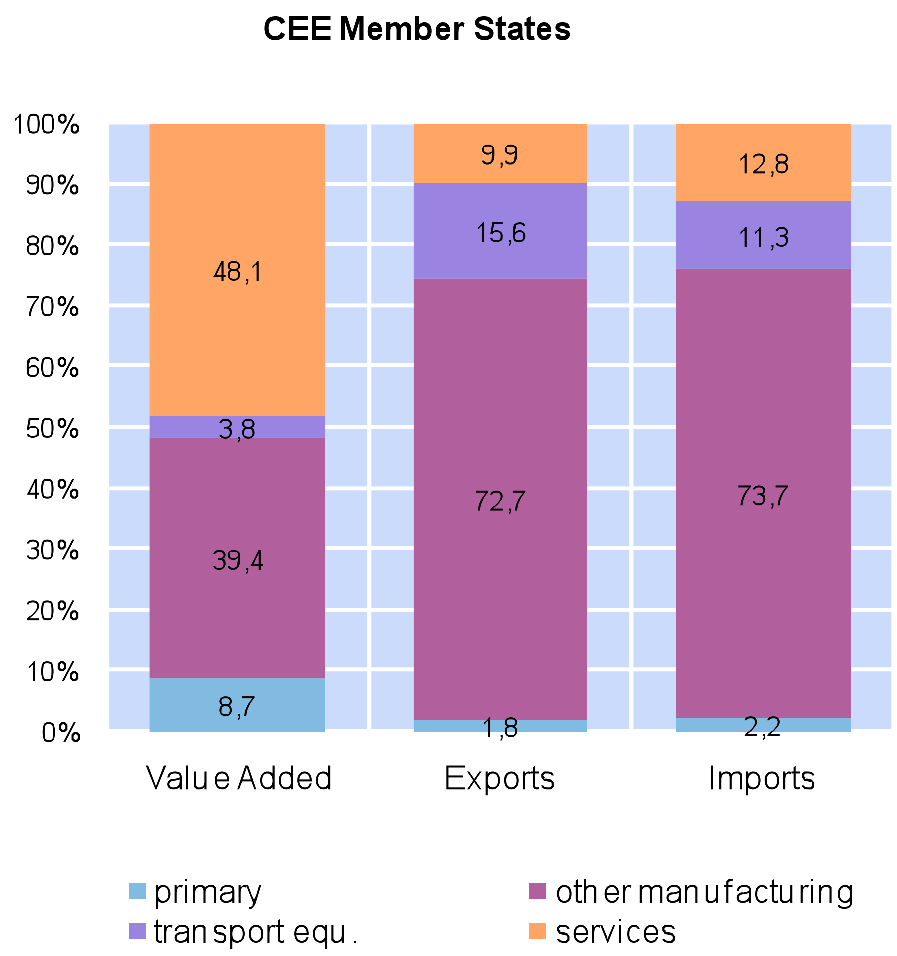
Source: Eurostat.

Structural (1)

Figure 4

Structure of GDP and Trade in 2005





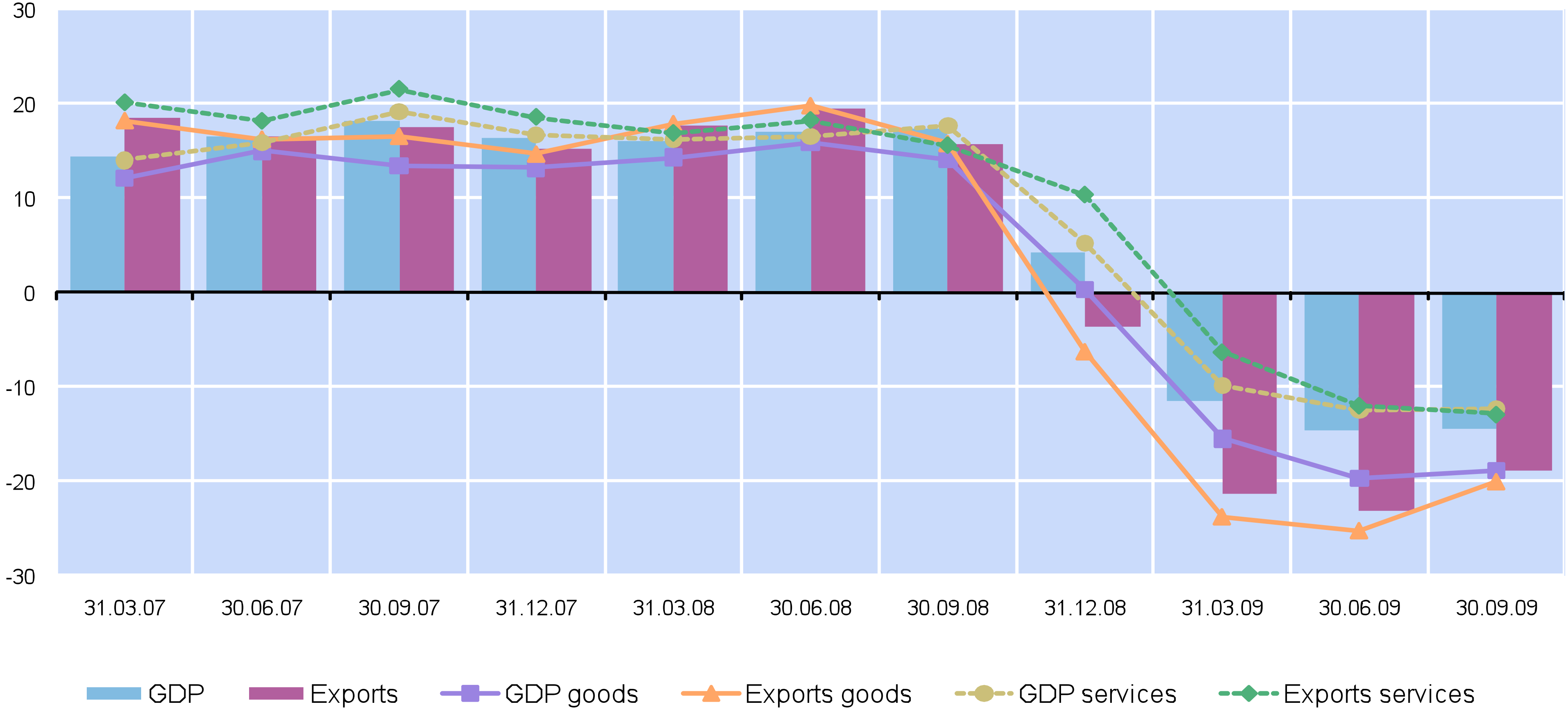
Source: EUKLEMS database (Timmer et al. 2007).

Structural (2)

Figure 2

CESEE EU Member States GDP and Exports

Annual Change in %, current prices



Source: Eurostat.

Prospects: Growth after the Crisis

Recent IMF Working Paper (Kalra 2010) confirms marked shift of ASEAN external demand exposure from mature markets (US, JP) to China and ROW

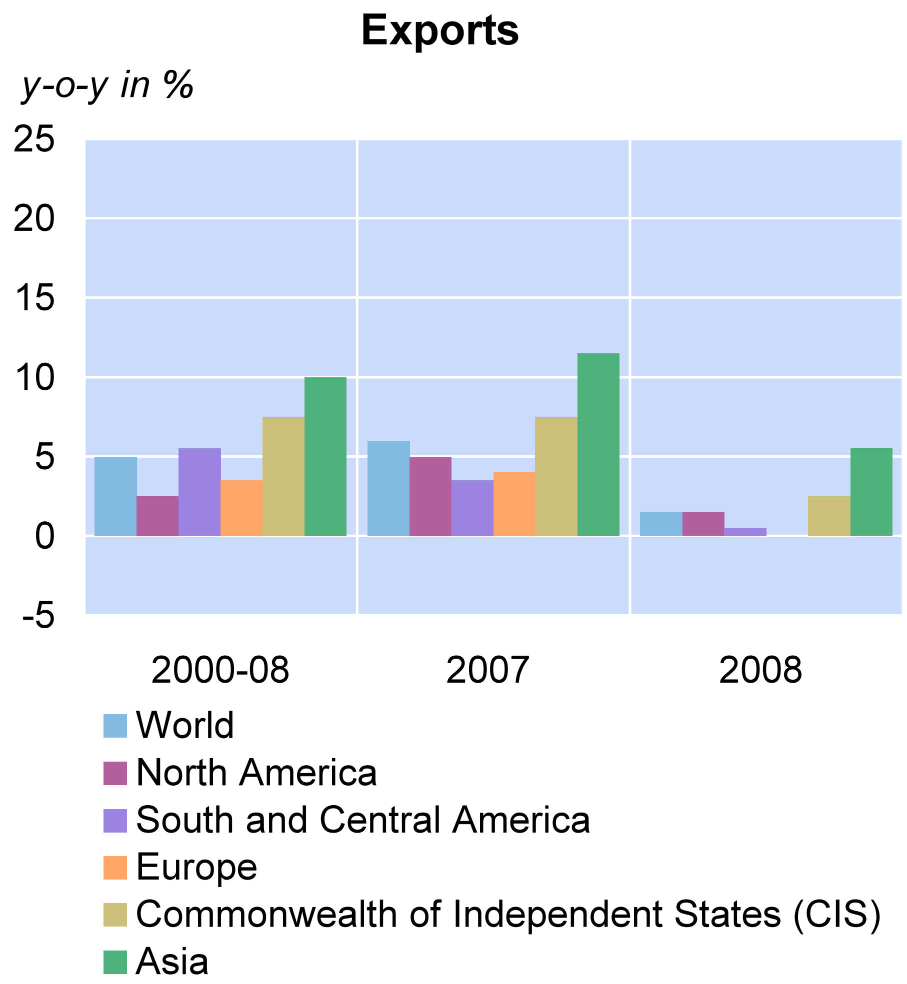
Diversification of ASEAN external exposure implies future potential for the export-led growth model

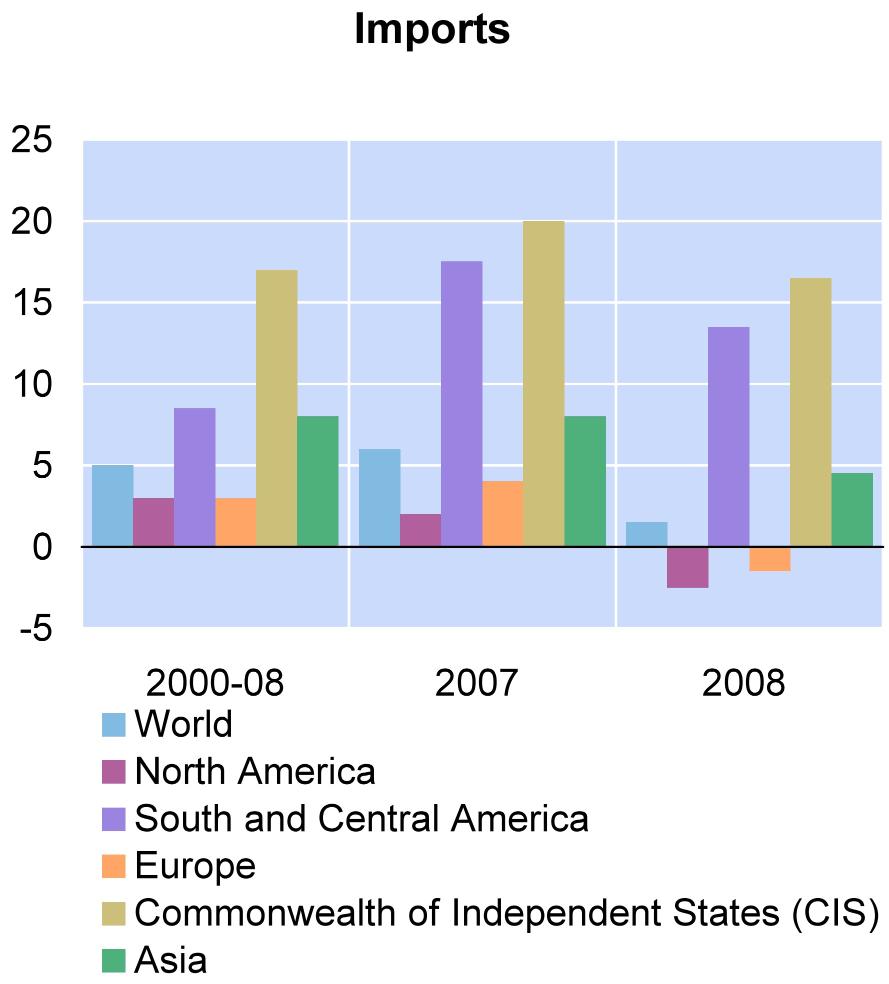
CEEC growth based mostly on domestic demand in the past, demand in Europe projected to remain less buoyant than in Asia

Role of China as the world‘s growth engine

Strong Trade Growth in Asia

World Trade Growth 2000-2008

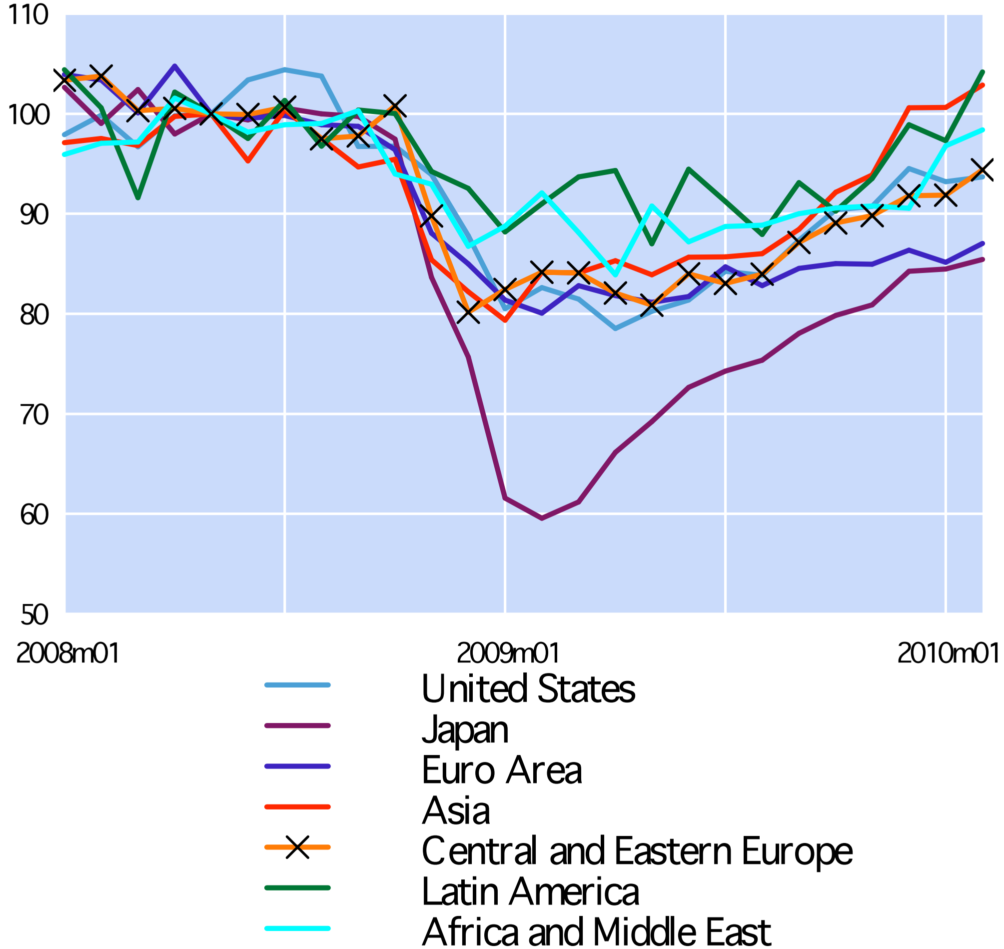




Source: WTO.

Regional and sectoral patterns of the trade collapse

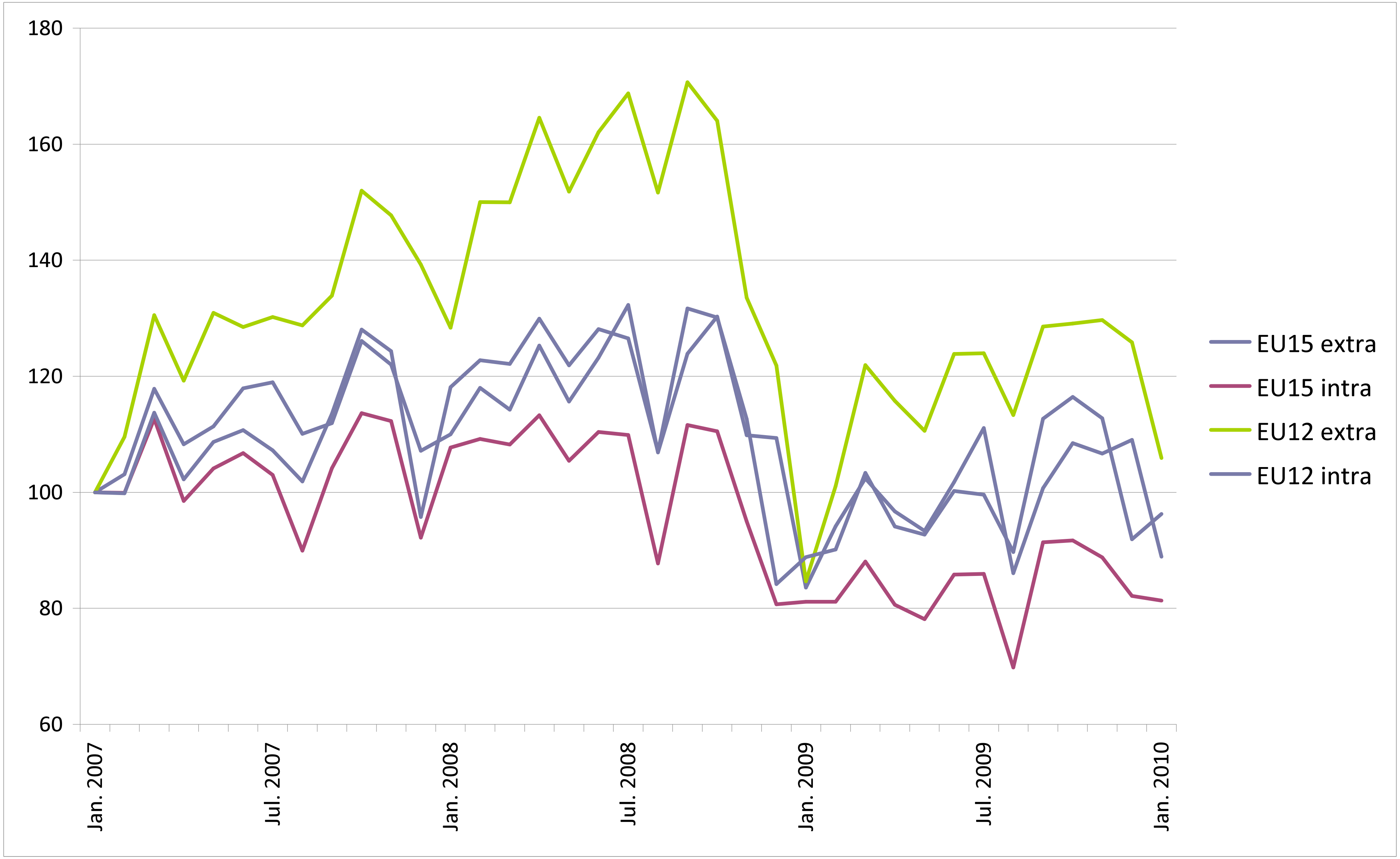
Volume index; May 2008 = 100



Quelle: CPB Trademonitor, Feb'10.

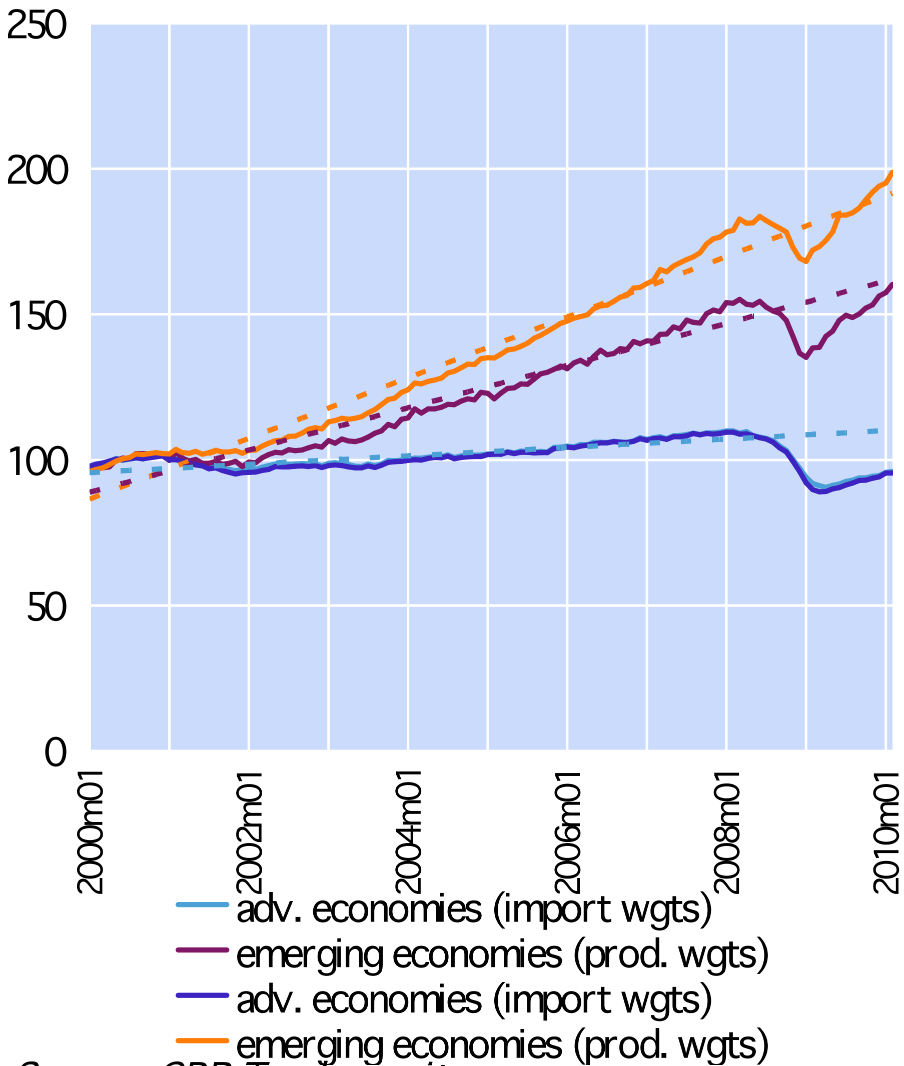
- Recovery in trade across regions reflects GDP recovery
- CEE recovery here is misleading (reflects FSU republics with Asia orientation, and also Russia)
- Recovery reflects slower growth in the Atlantic block (EU15, United States)
- GDP recovery should be faster than in old members, relative to trade recovery

Exports of EU15 and EU12



Global Shift in Demand towards Emerging Markets

Index, 2000 = 100

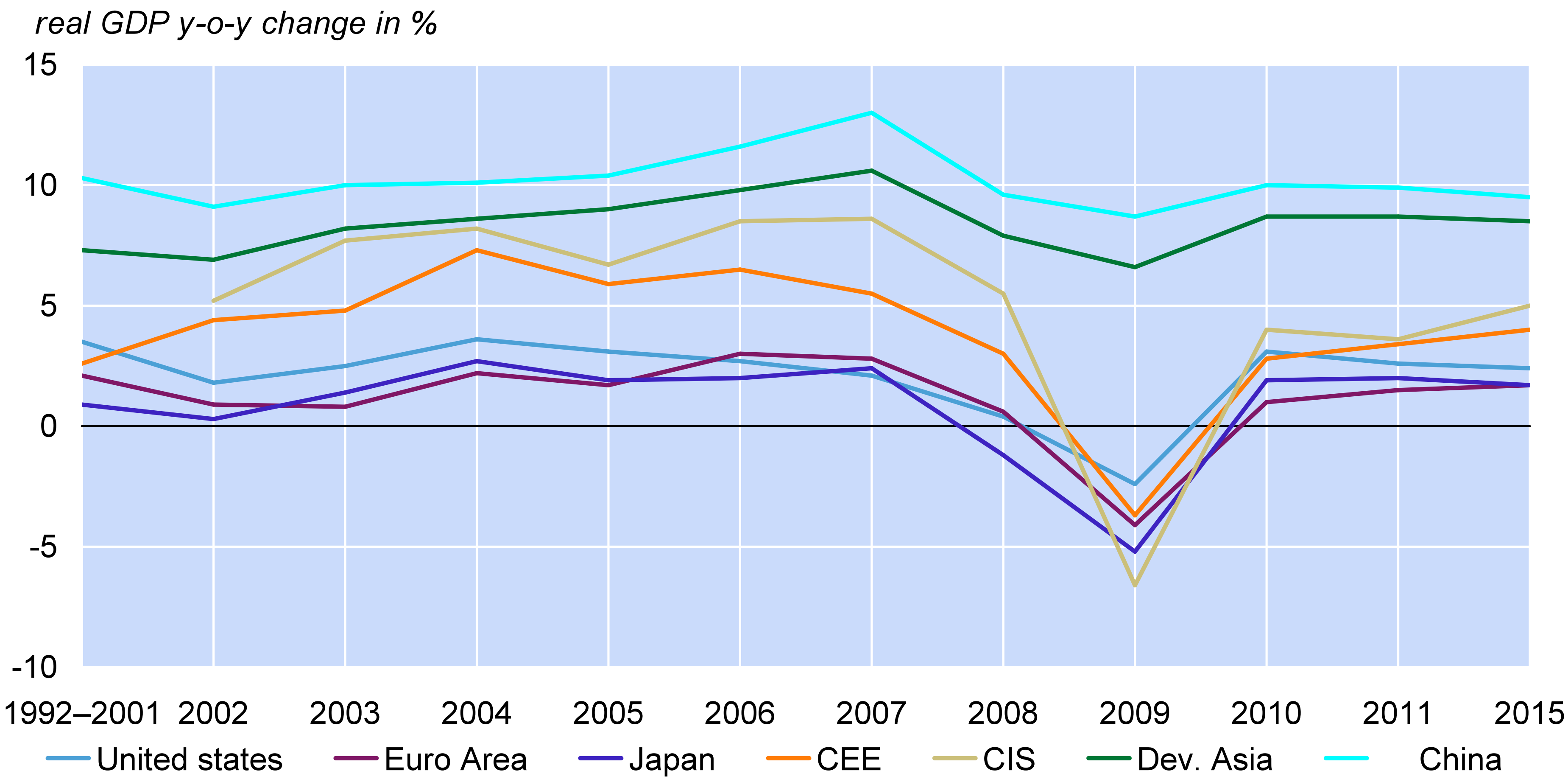


Source: CPB Trademonitor.

- Major share of world production still produced in advanced economies
- Yet dynamics are much stronger in emerging economies
- Emerging ec's have reached their pre-crisis trend level on average
- Adv. ec's still considerably below pre-crisis trend level

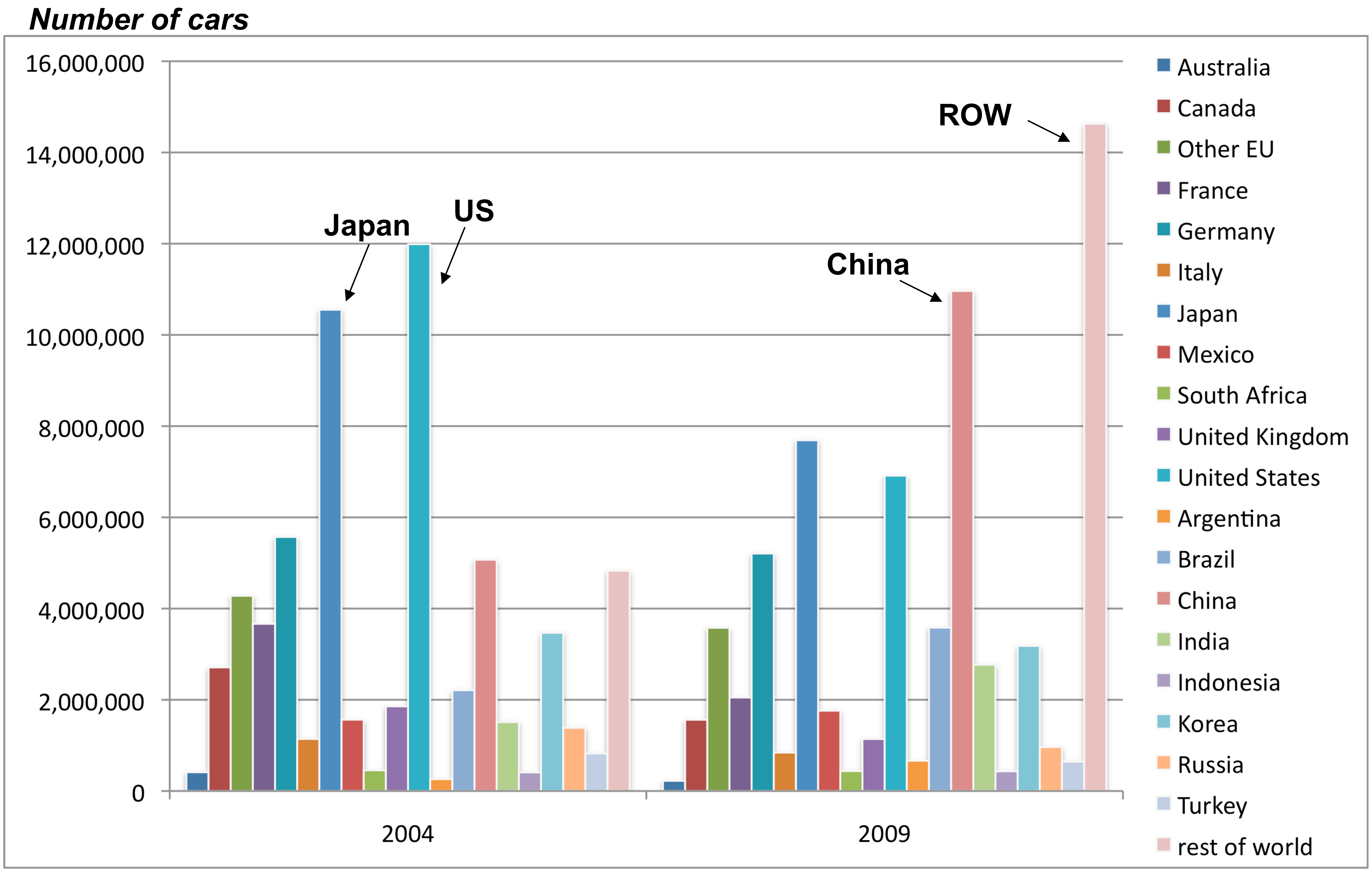
Asia remains the most dynamic region

GDP Growth and IMF Growth Projections

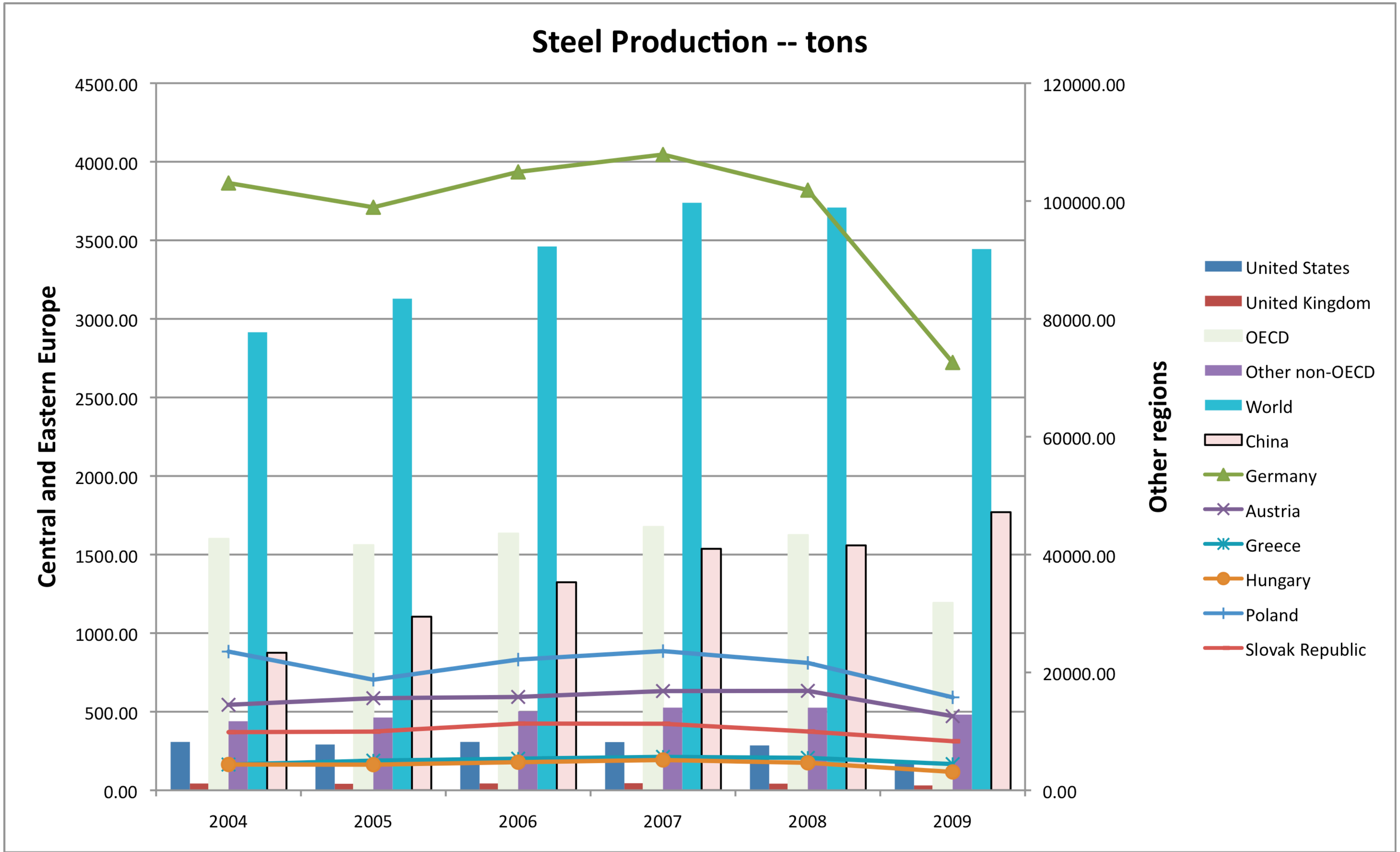


Source: IMF.

Motor Vehicle Production



Steel Production: a tale of two crises



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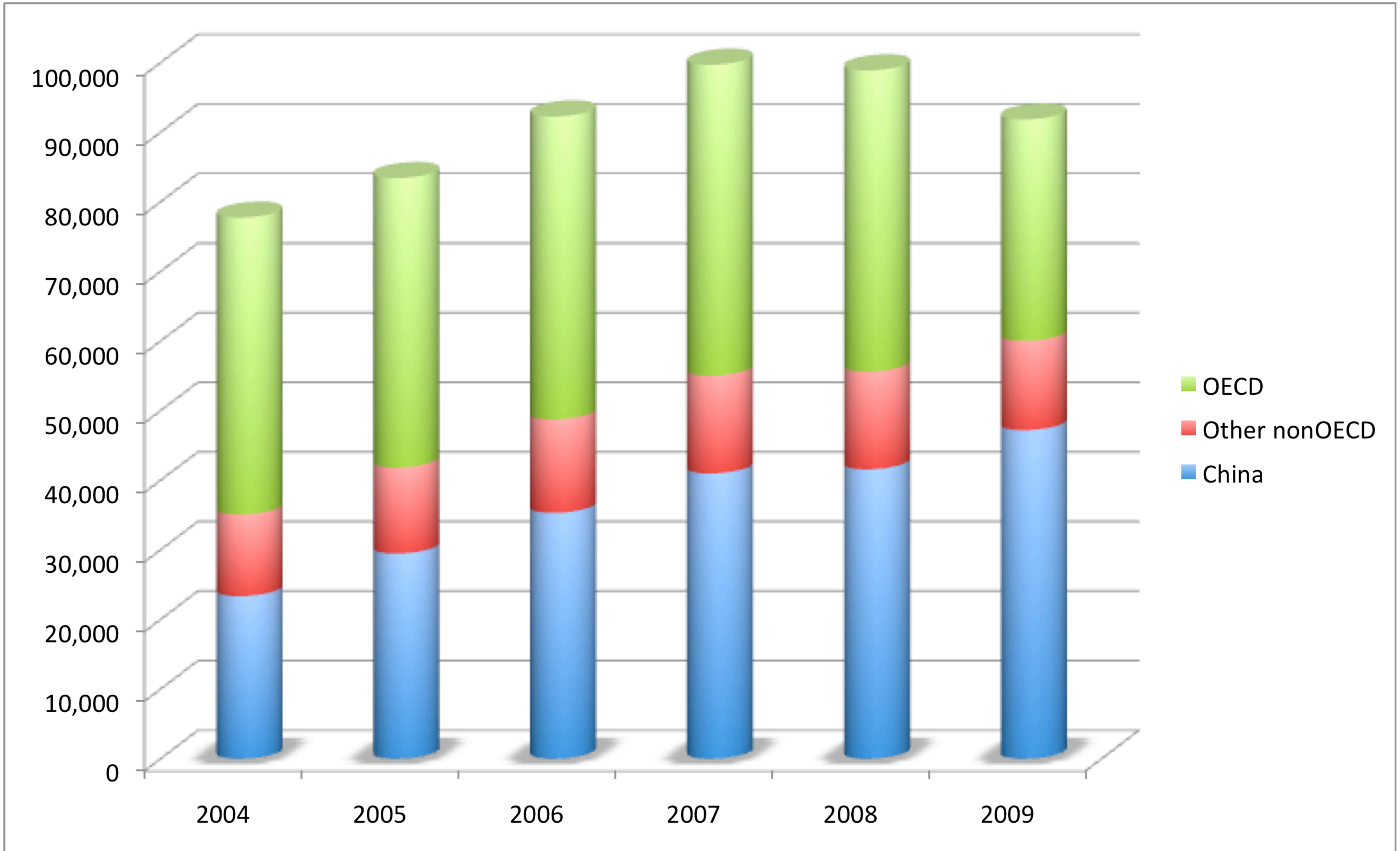
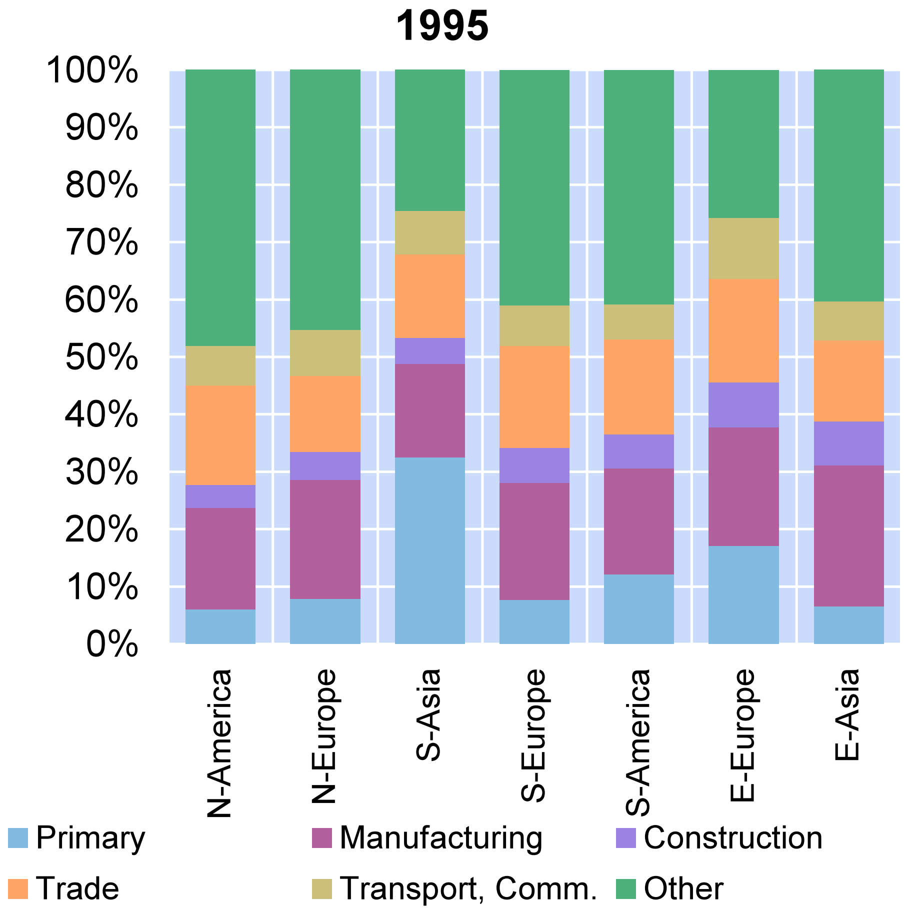
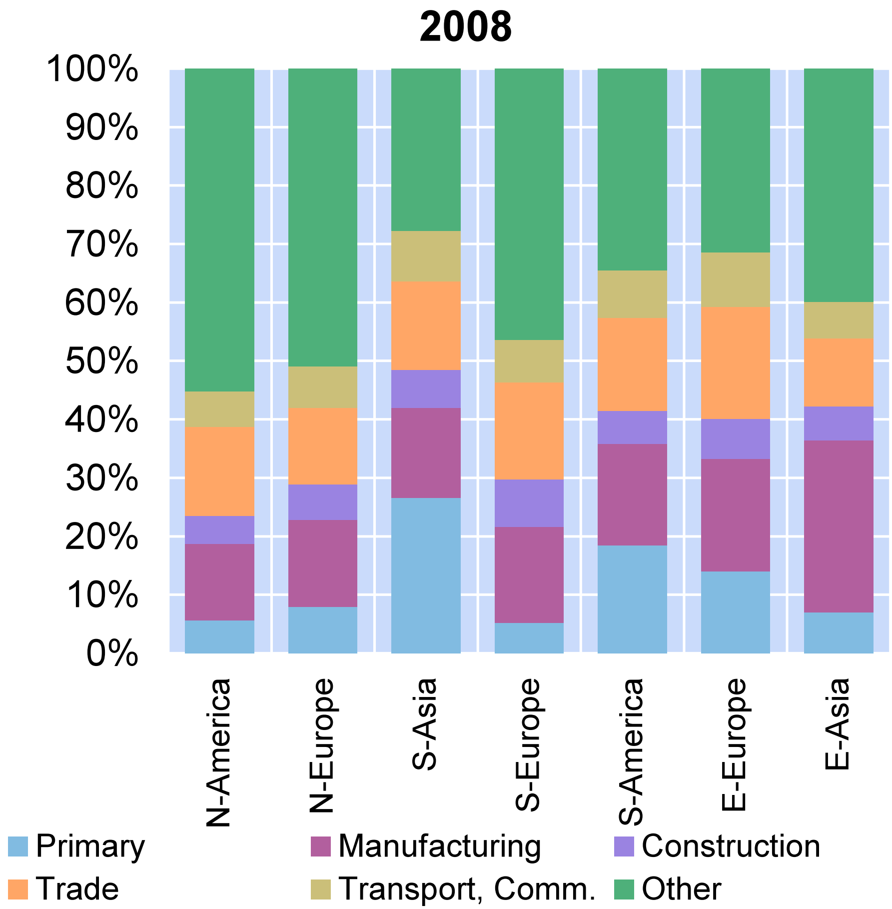


CEE highly sensitive to manufacturing demand

Structure of Domestic Value Added





Source: UN Statistics Division.

Conclusions

Trade collapse was closely linked to the composition of trade

Impact of trade on GDP was also linked to the composition of output and trade

Trade and demand recovery in CEE hinges on demand recovery in Europe, in particular for investment goods

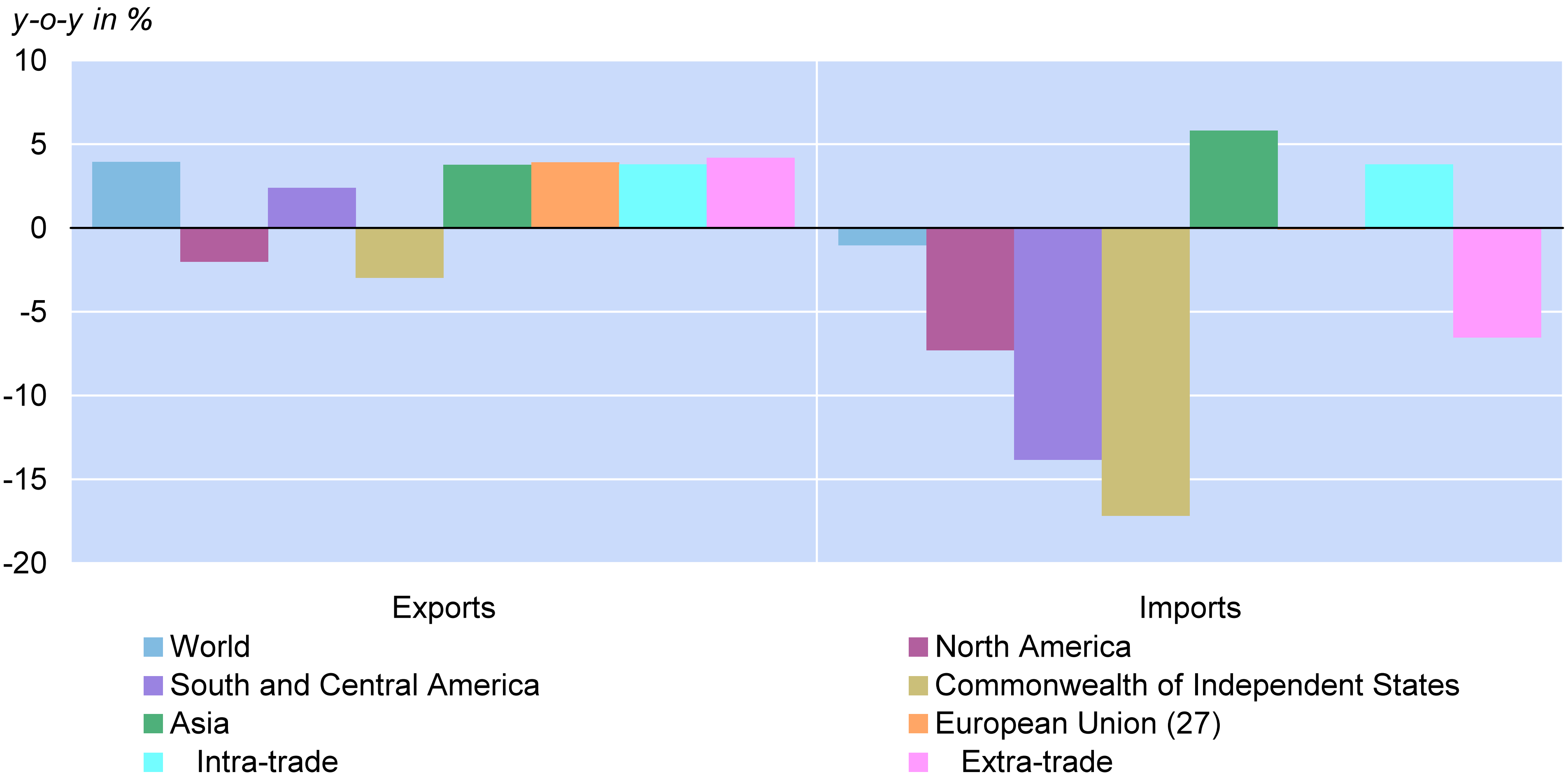
Trade shares have remained relatively stable in regional terms

Future rapid growth in Asia (China) may provide added opportunity for CEE exports

Some Revival of Intra-EU Trade

Grafik 1

World Trade Growth, Q4 2009

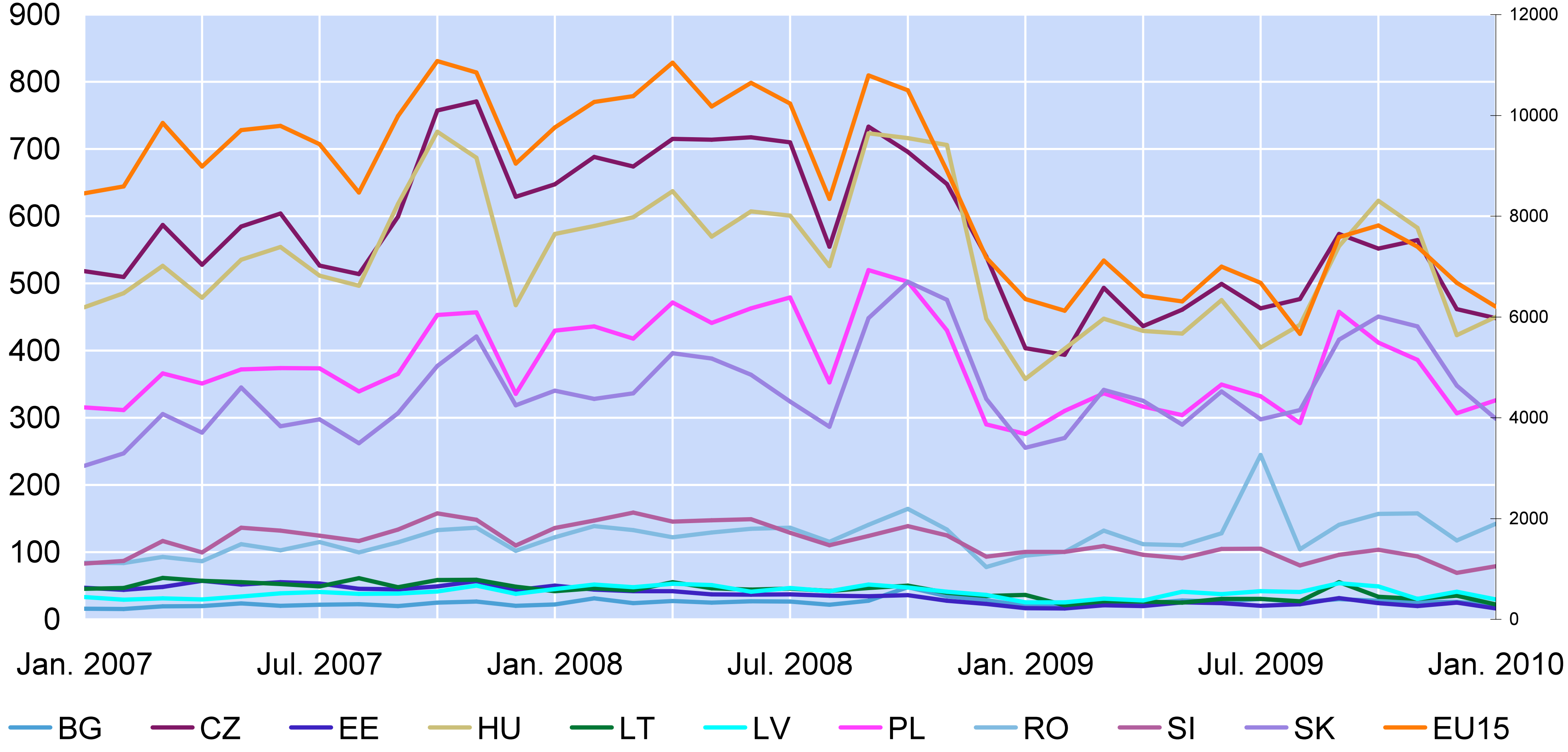


Source: WTO.

Machinery and Transport Equipment

Exports of machinery and transport equ. (SITC 7)

in mio EUR



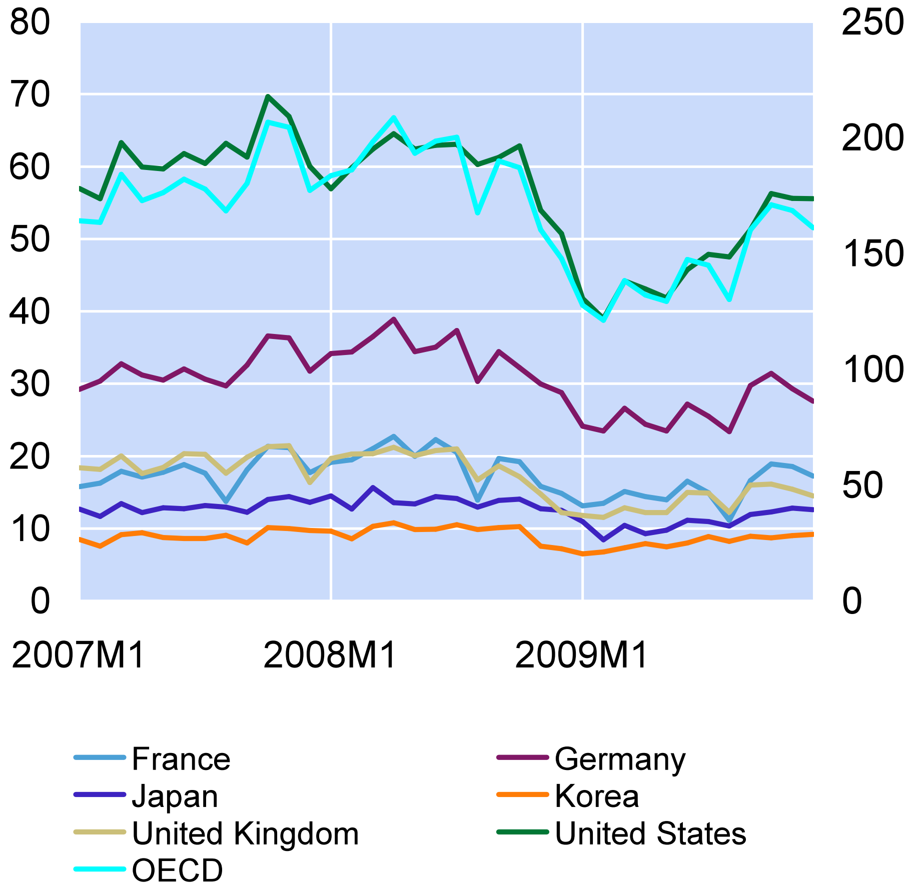
Source: Eurostat.

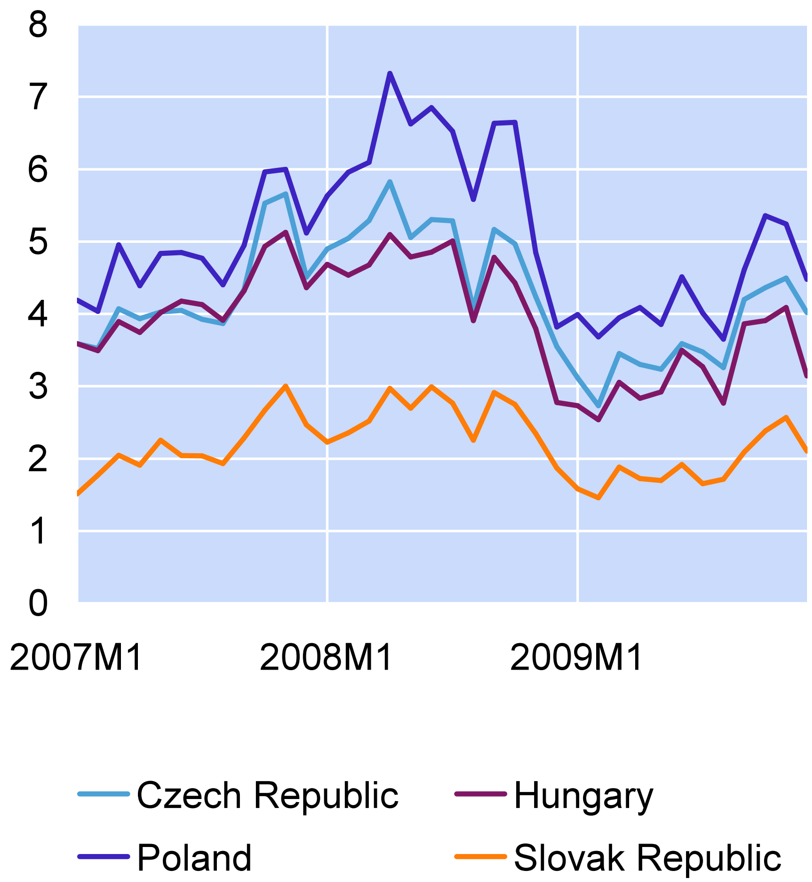
OECD Import Demand 2007-2009

Grafik 1

OECD Imports

in bio USD





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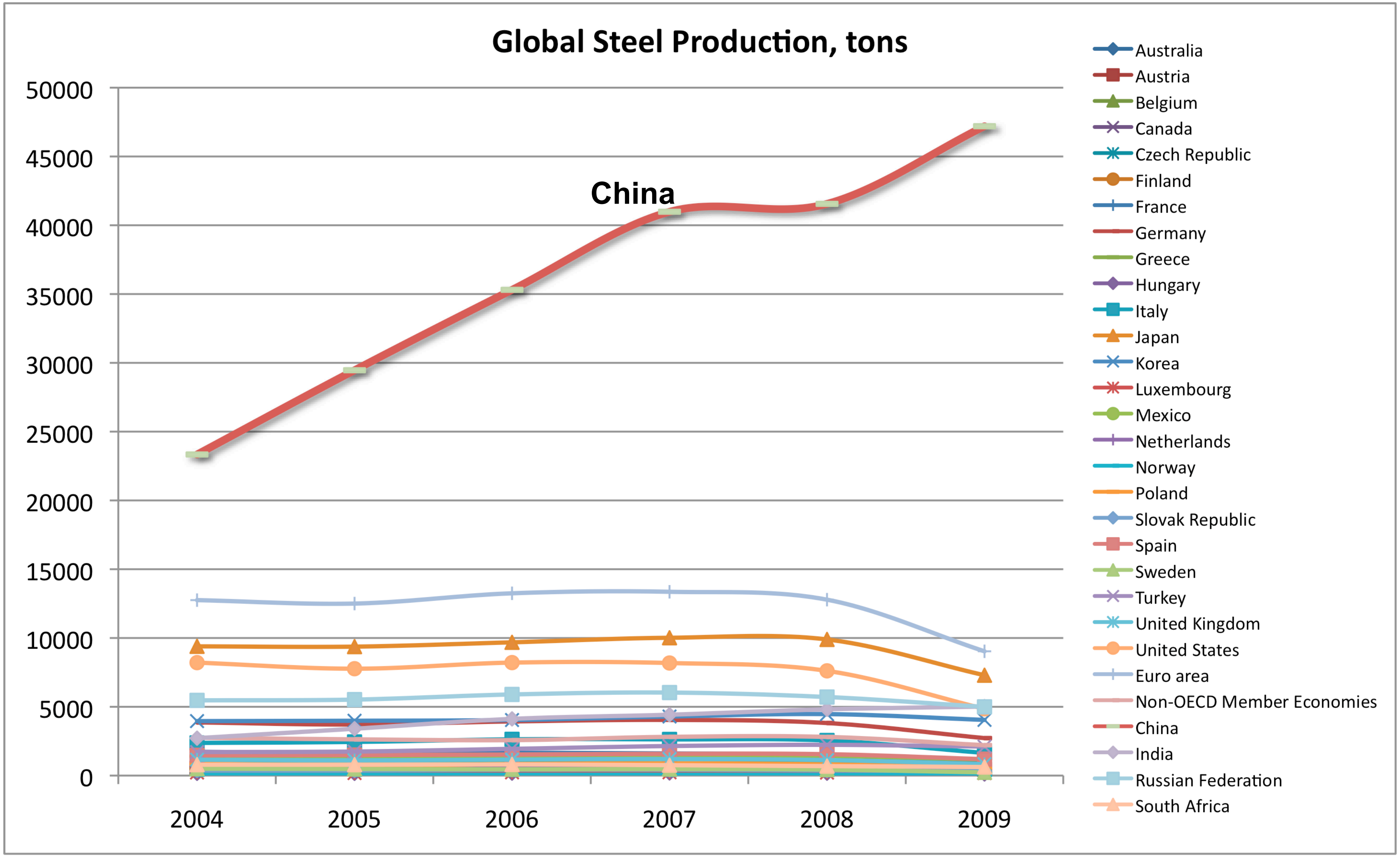

Manufacturing of Intermediate Goods