

Global value chains: a view from the euro area

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GVCs and 'traditional' competitiveness indicators

- Global value chains (GVCs) have been changing the organization of production across the world.
- Production is fragmented across countries; countries specialize in specific activities.
- Gross exports as reported in trade statistics may fail to capture the value actually created in an economy by the production of its exports.
- Economic literature has proposed many indicators to measure GVCs but:
 - Rather conceptual,
 - Insufficient work on the euro area and its member states,
 - No work available on the development of the GVCs after the crisis.

What does this paper add?

This paper:

1. considers how the euro area as a whole participates in the supply chains outside the monetary union,
 2. discusses the relevance of extra and intra area GVCs for each member state,
 3. identifies the impact of the great trade collapse and the subsequent rebound in 2011 on the GVAs for the euro area.
- It does not address the issue of the causes and consequences of the GVCs
 - It relies on the World Input-Output tables (WIOD) to disentangle domestic and foreign value-added in GVCs.

A simple approach:
gross exports can be decomposed into:

Domestic content of exports

*Domestic value-
added in exports
(DVAiX)*

*Re-imported
domestic value-
added in exports*

Subtracting this to DVAiX, yields the
“value added exports” (JN definition)

*Foreign
value-added in
exports
(broken down by
origin)
(FVAiX)*

Import content of exports (HIY definition)

A simple approach: gross exports can be decomposed into:

Both components provide information on supply links:

*Domestic value-added in exports
(DVAiX)*

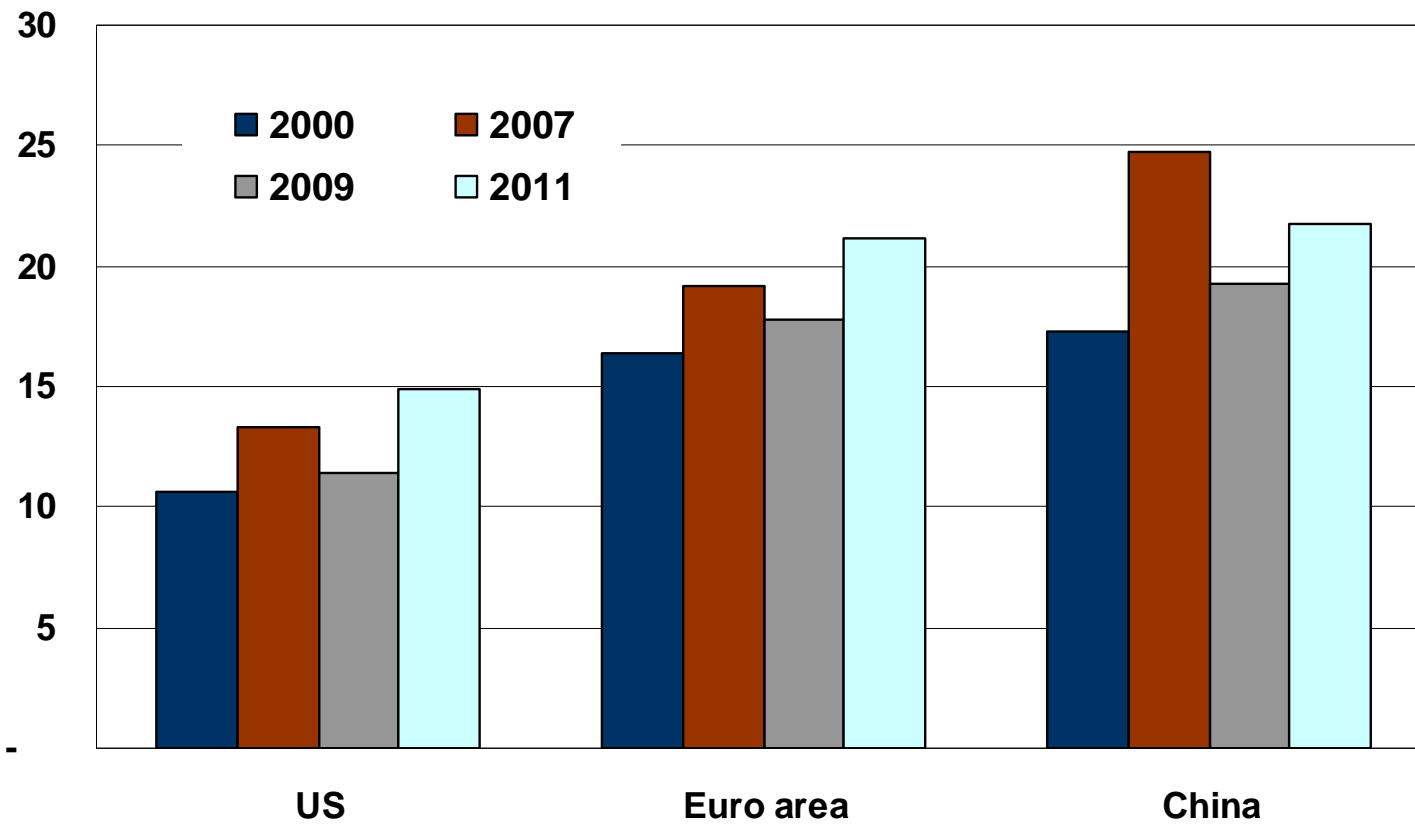
Re-imported domestic value-added in exports

Re-imported DVAiX suggests a relatively upstream position of the country in the GVCs

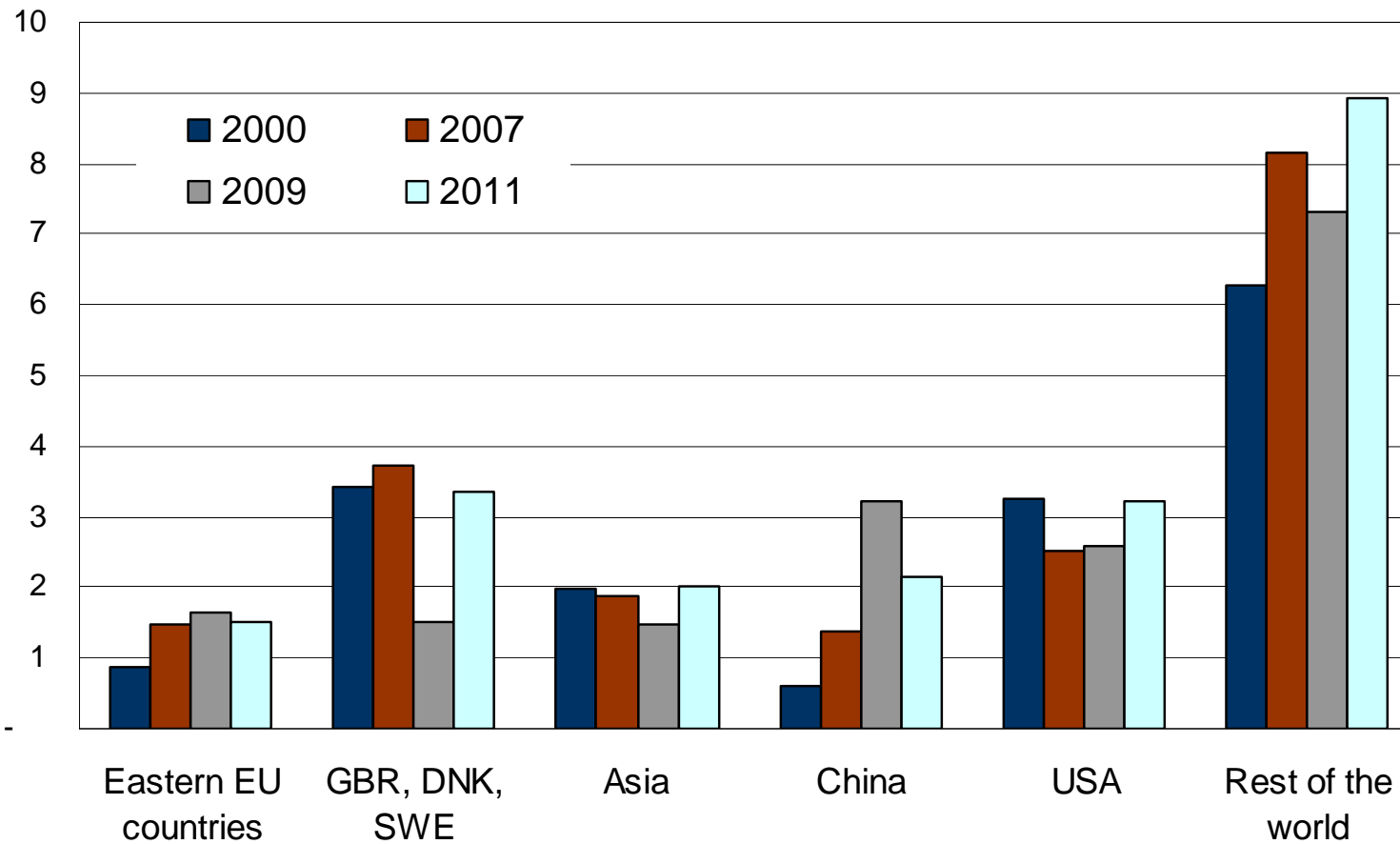
High FVAiX, country's role in assembling (downstream) activities

*Foreign value-added in exports
(broken down by origin)
(FVAiX)*

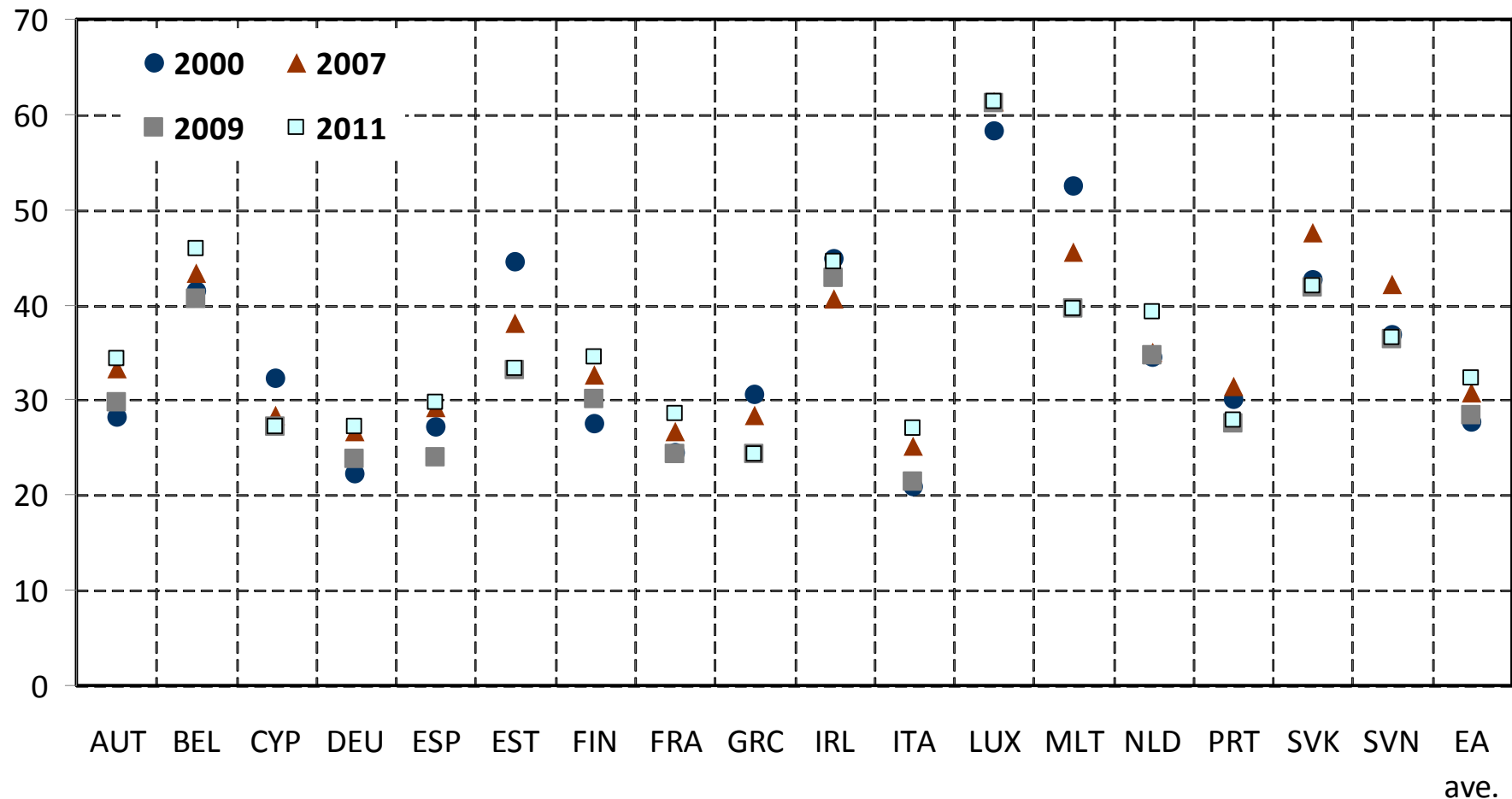
Foreign value added in exports, Euro area as a whole



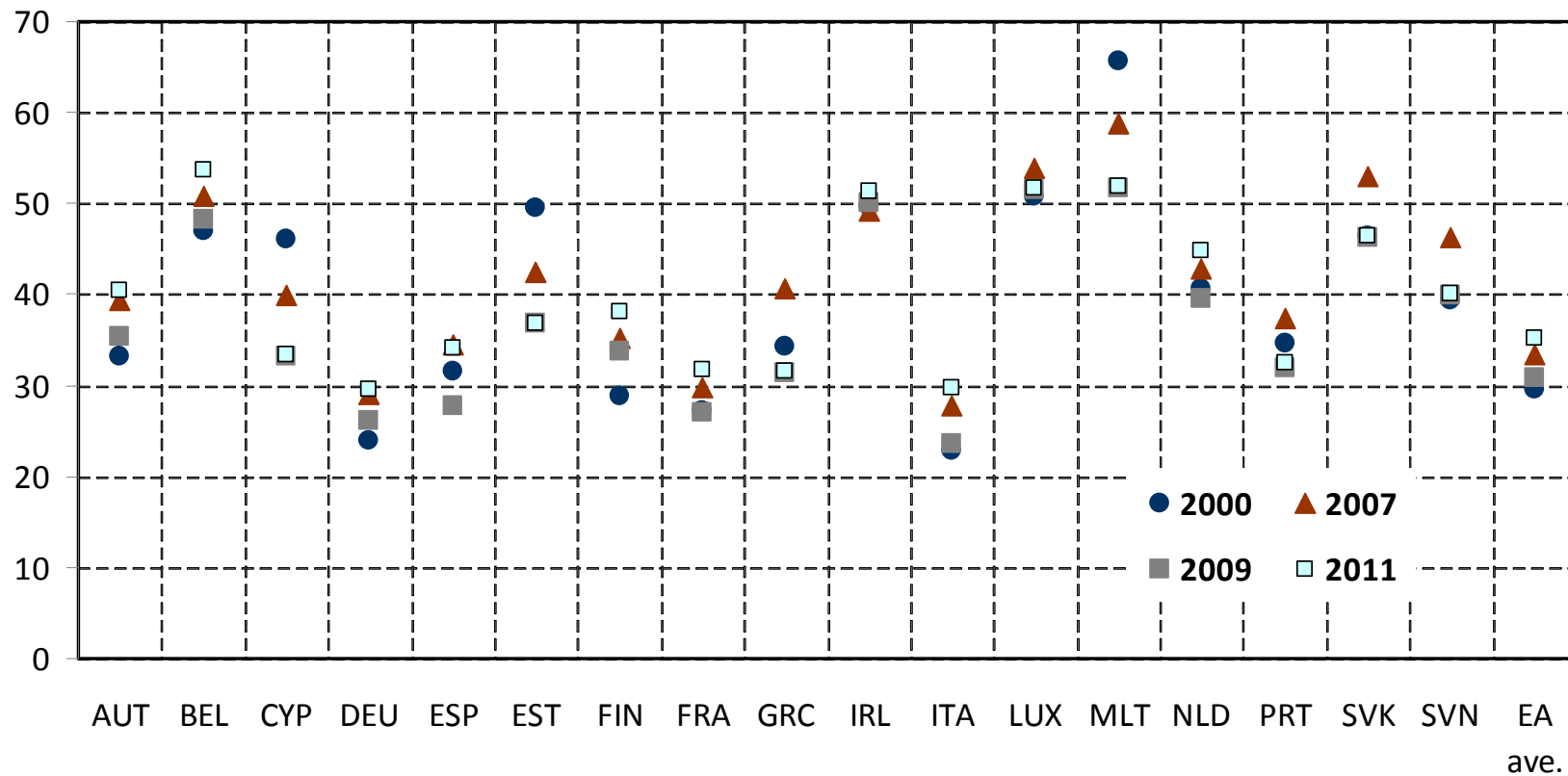
Foreign value added in exports by origin, Euro area as a whole



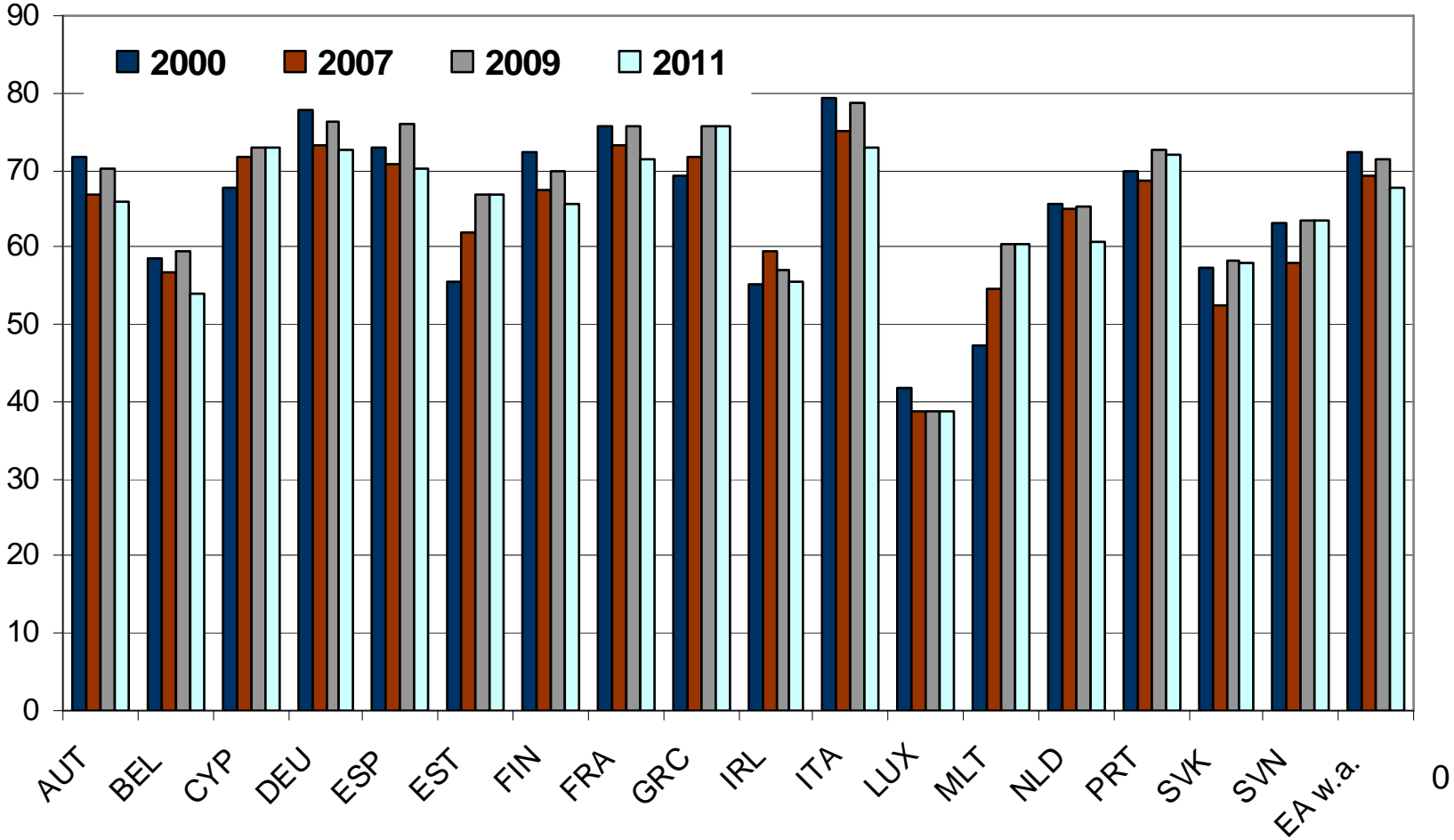
Foreign value added in exports: 2000-2011, individual euro area countries



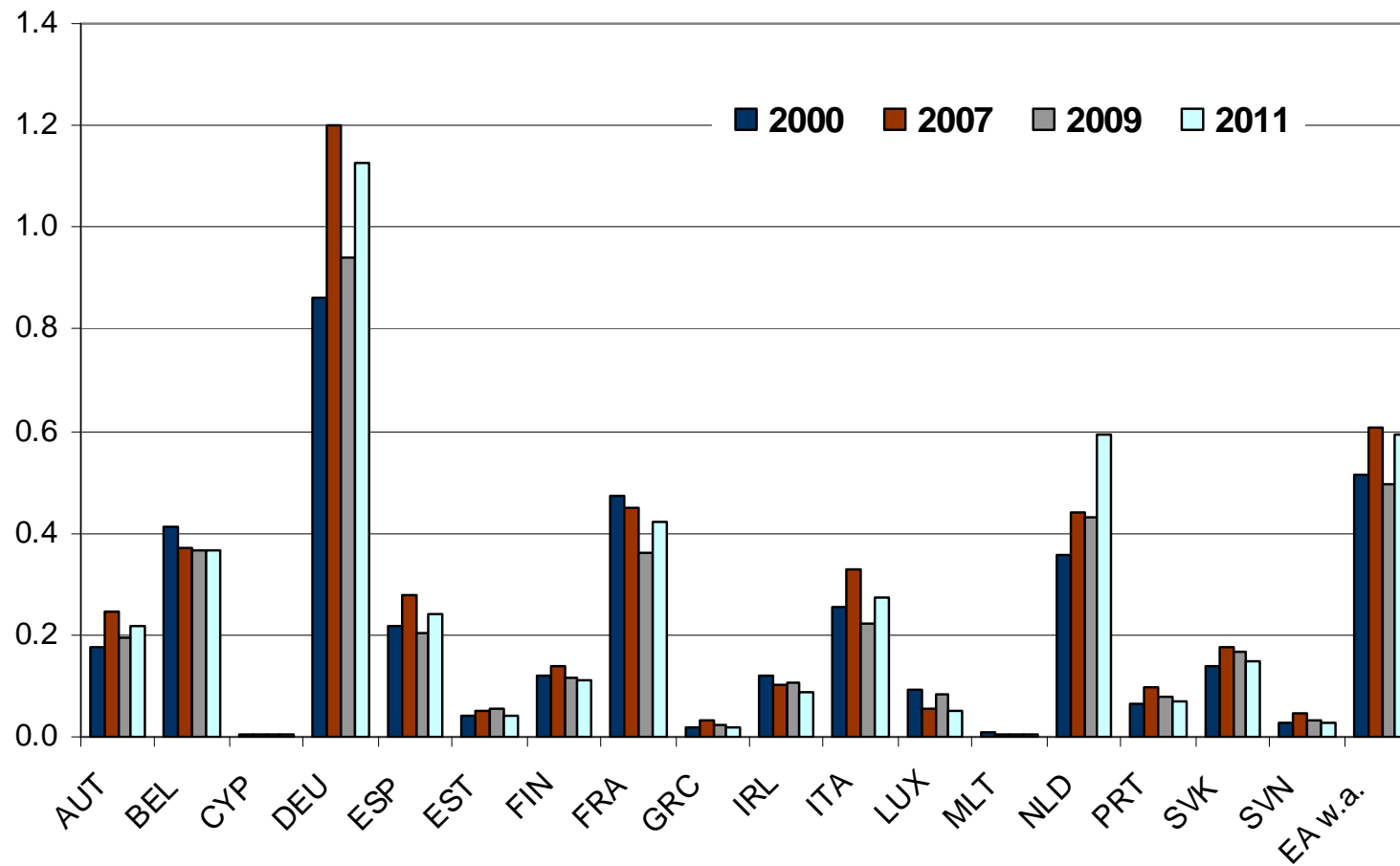
Foreign value added in exports of goods: 2000-2011, individual euro area countries



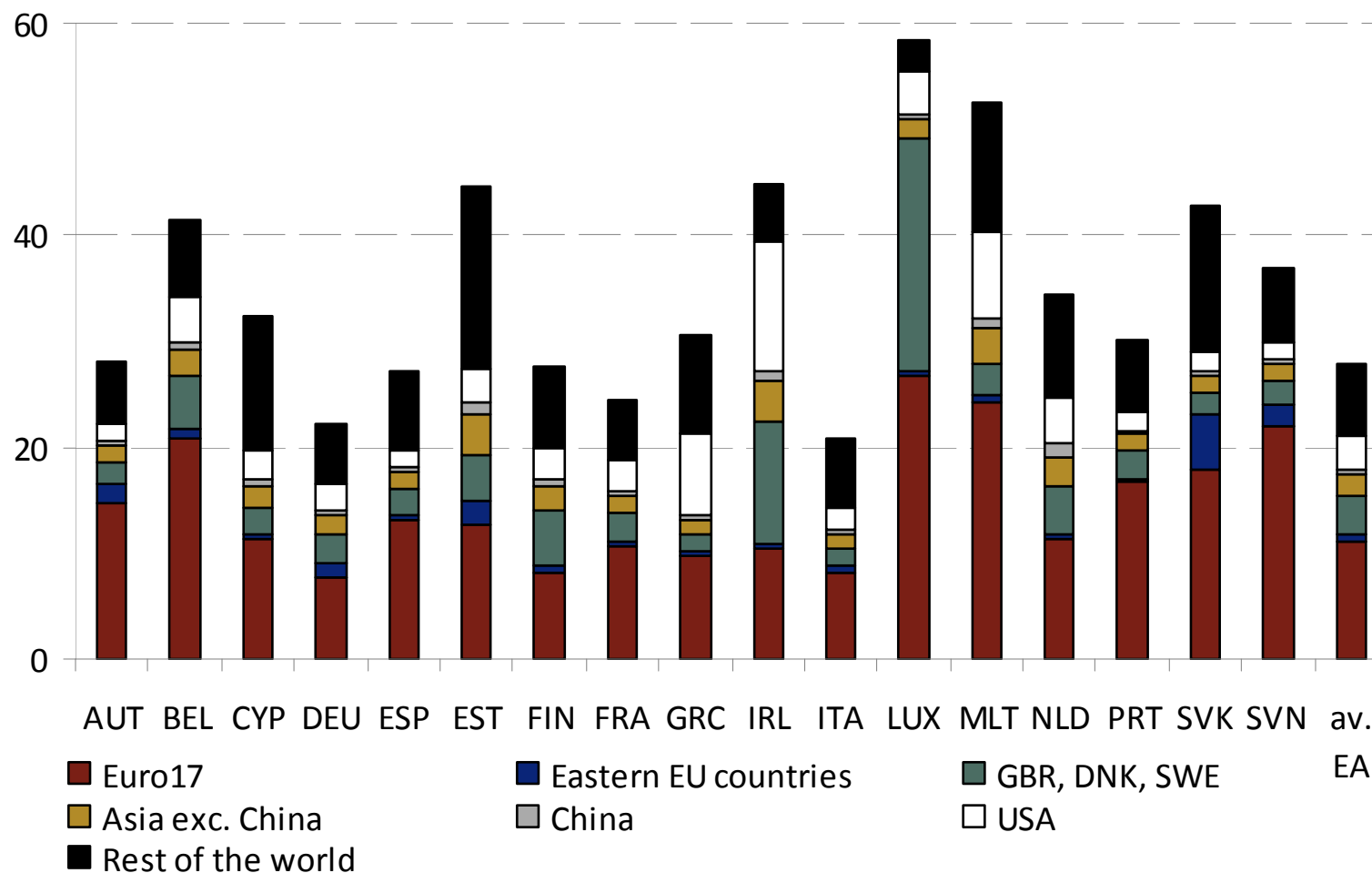
Domestic value added in exports: 2000-2011, individual euro area countries



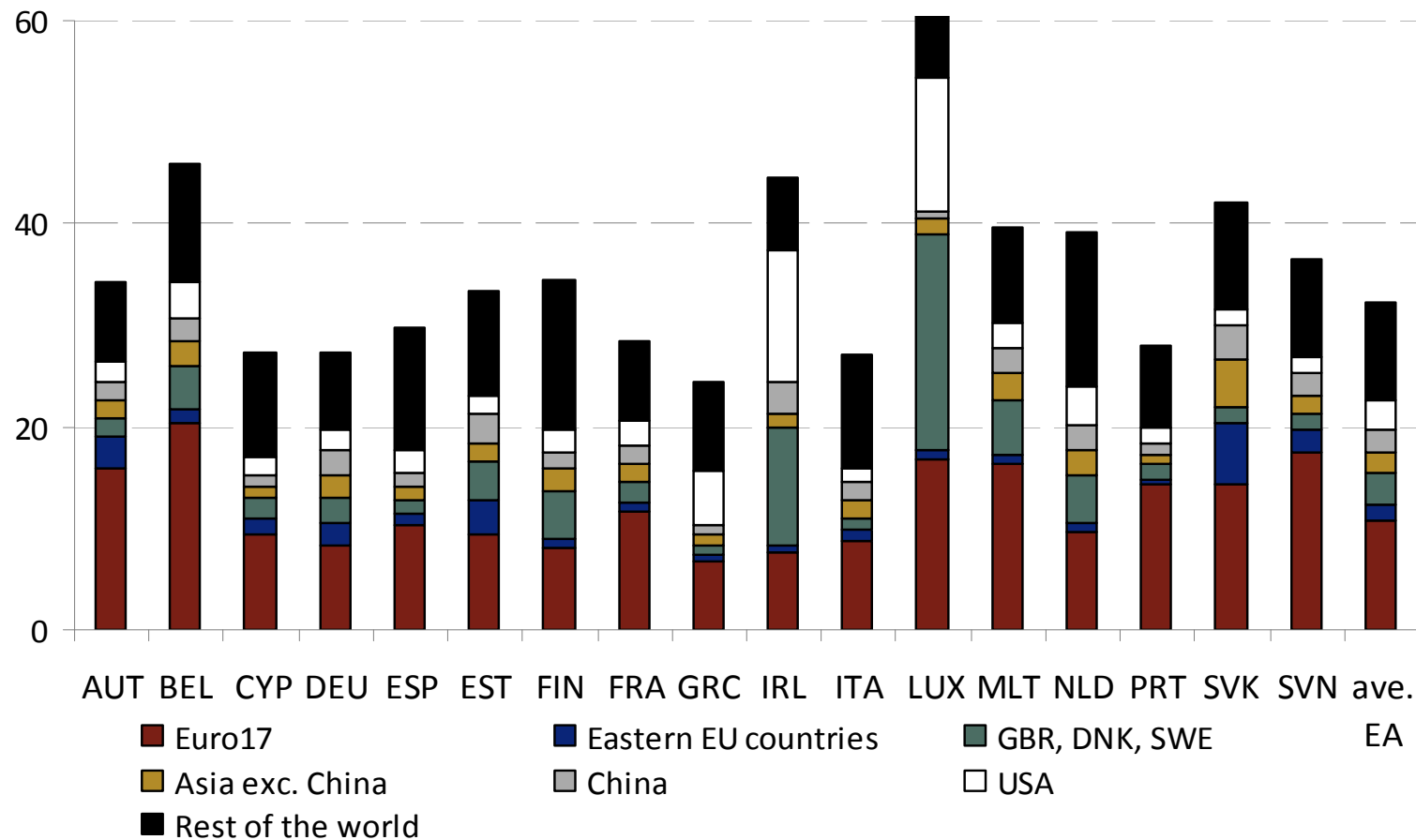
Re-imported DVAiX (in % of exports): why is Germany different?



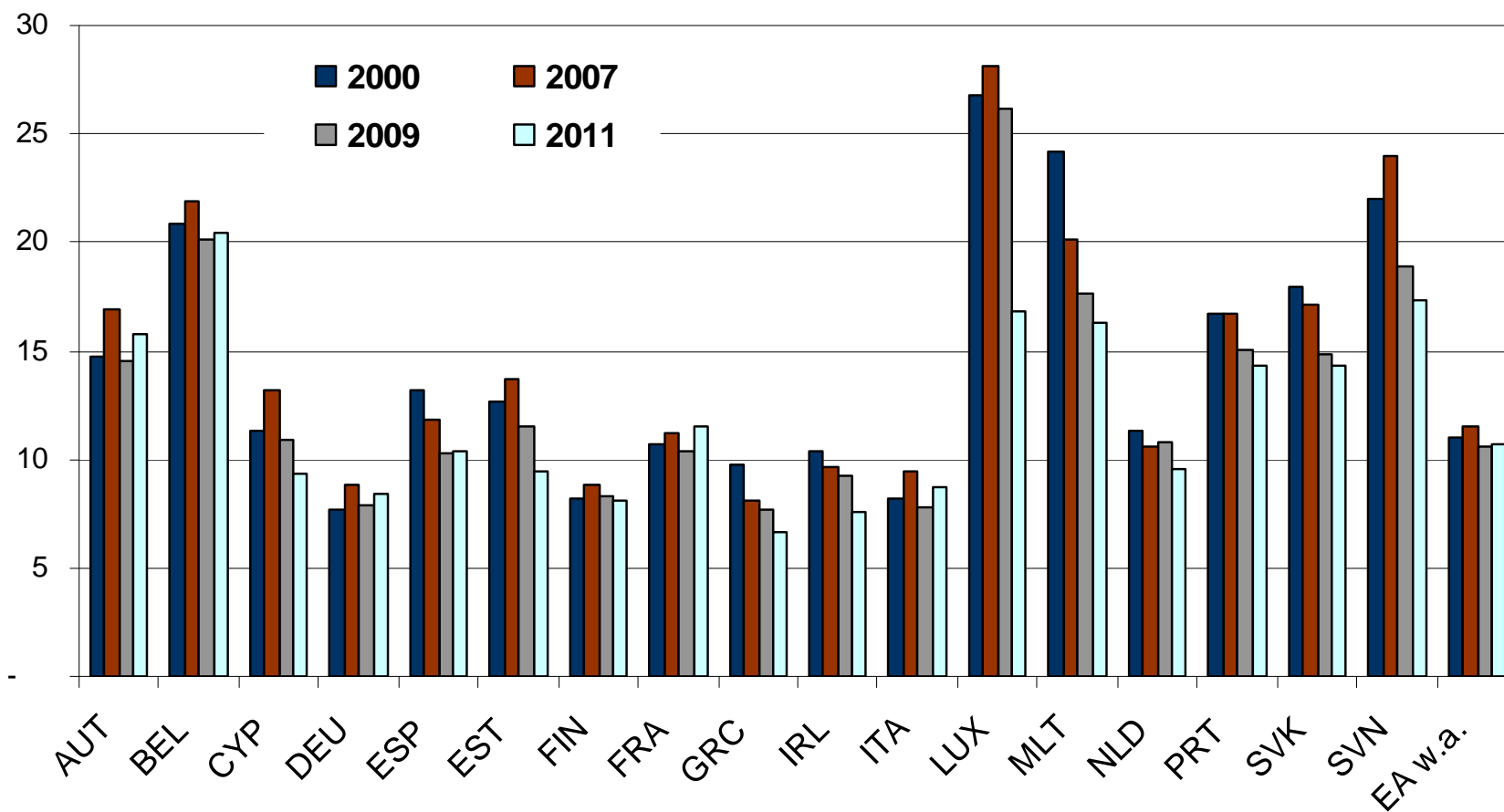
Supply linkages inside and outside the monetary union: FVAiX by origin 2000 (in % of exports)



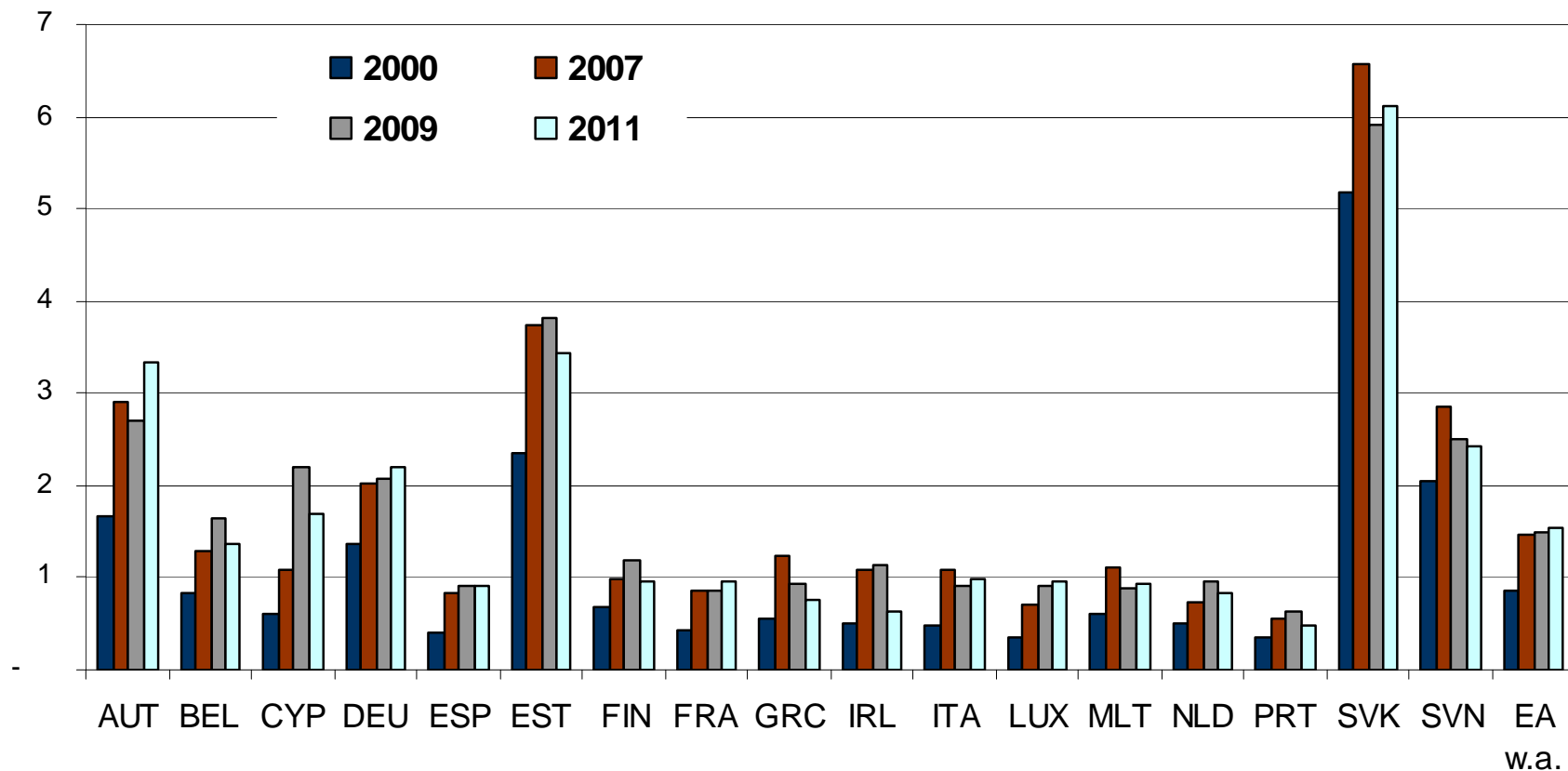
Supply linkages inside and outside the monetary union: FVAiX by origin 2011 (in % of exports)



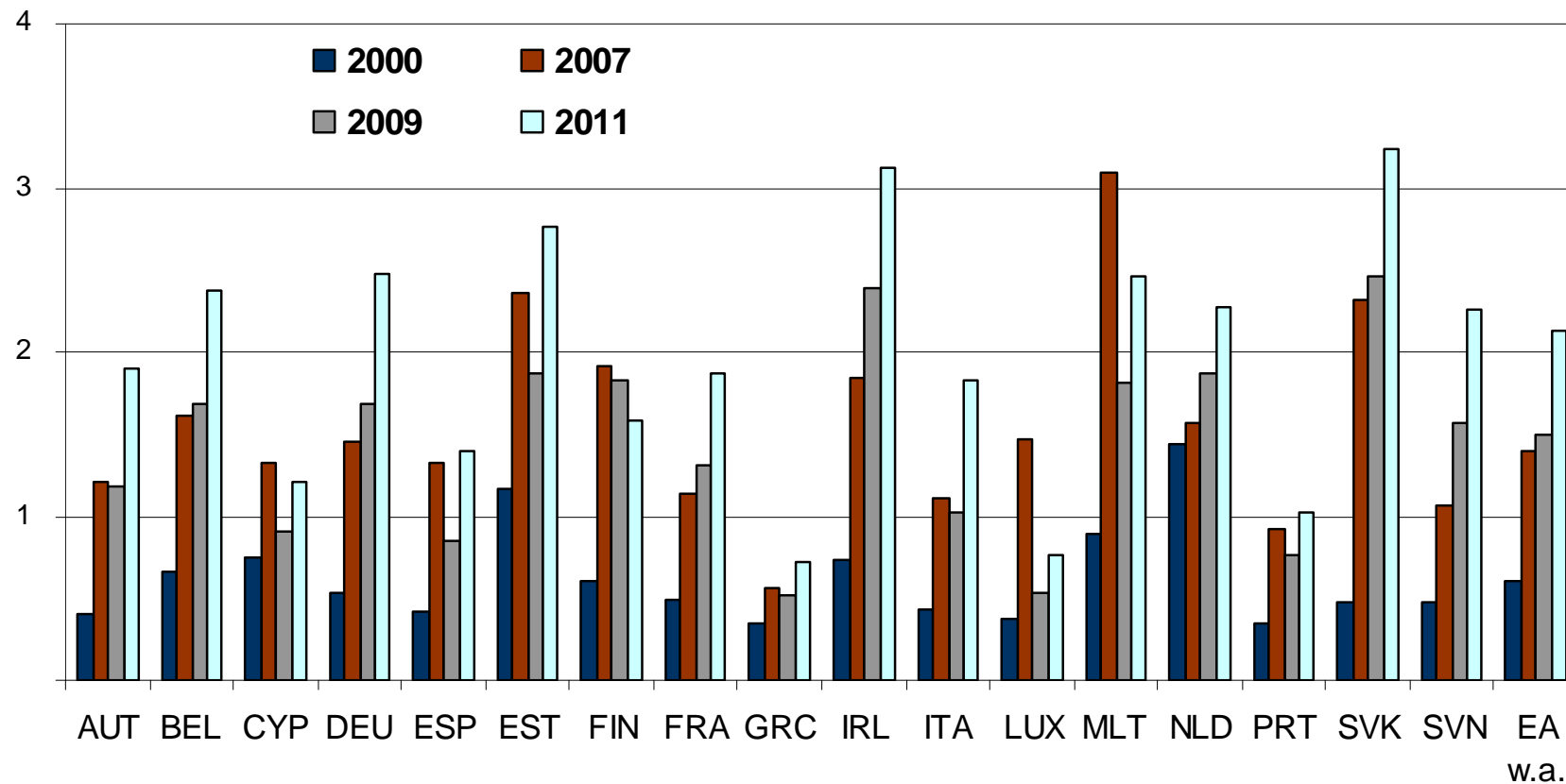
Supply linkages inside the monetary union: FVAiX from other EA countries (in % of exports)



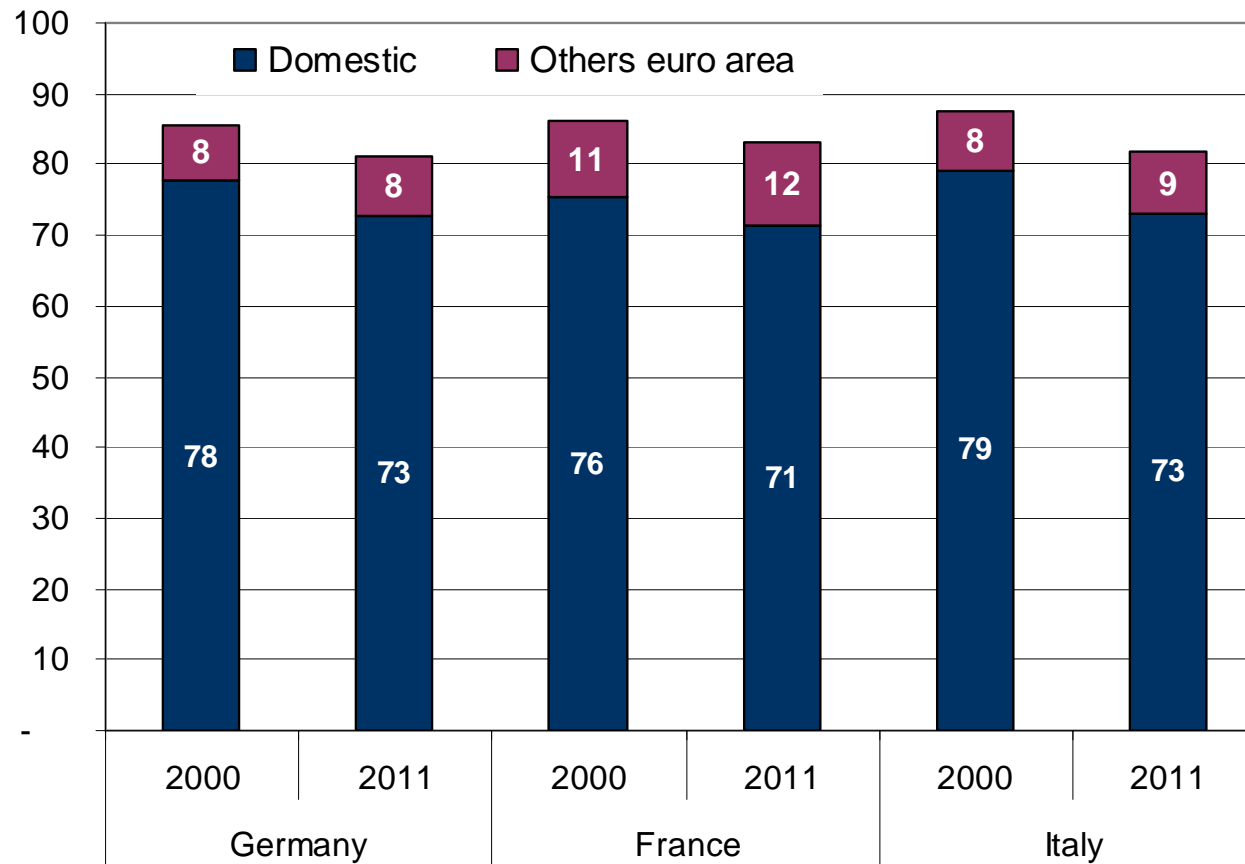
Supply linkages outside the monetary union: FVAiX from Eastern EU countries (in % of exports)



Supply linkages outside the monetary union: FVAiX from China (in % of exports)



Supply linkages within the monetary union: components of VAI_X from Euro area for some economies (in % of exports)



Conclusions

1. Over the 2000-2011 period, there is evidence of an increasing trend in the share of foreign value added in exports for the Euro area countries with a cyclical pattern.
2. The engagement in international production linkages, outside and inside the monetary union, increased for the majority of the euro area countries.
3. Even in a period of fast spreading of value chains at the global level, the "regional integration of production" among the Euro area economies remained quite strong and turns out to be just marginally weakened after the crisis, in 2011.
4. Beside the rising importance of emerging markets like China as a source of imported value added for the euro area, there has also been a strong integration process between the monetary union members with the Eastern European countries. They became important partners, in particular, for the German economy.



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