

Global value chains: A view from the euro area

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Outline

- 1 Motivation
- 2 Data and methodology
 - World Input-Output Database
 - A simple decomposition
- 3 Euro area as a whole
- 4 Individual euro area countries
- 5 Some results

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- Global value chains have changed the paradigm of world production with deep consequences on competitiveness and economic performance
- Production is fragmented across countries and 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 ...
 - Insufficient work on the euro area and little analysis after the crisis

What does the paper do?

- Consider how the euro area as a whole participates in the supply chains outside the monetary union
- Discuss the relevance of extra and intra area GVCs for each member state
- Identify the impact of the great trade collapse and the subsequent rebound in 2011 on the GVAs for the euro area

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The advent of global input-output matrices

- The analysis bases on the World Input-Output Database (WIOD).
- Global input-output tables are derived from national supply and use tables and combined with detailed trade data.
- The data are collected on an annual basis from 1995 to 2009 (2011), for 59 products and 35 industries (ISIC Revision 3) and cover 40 countries.

Gross exports can be decomposed into:

Domestic content of exports

Domestic value-added in exports (DVAiX)

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

Import content of exports (HIY definition)

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)

Possible interpretations for indicators

Both components provide information on supply links:

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

Re-imported domestic value-added in exports

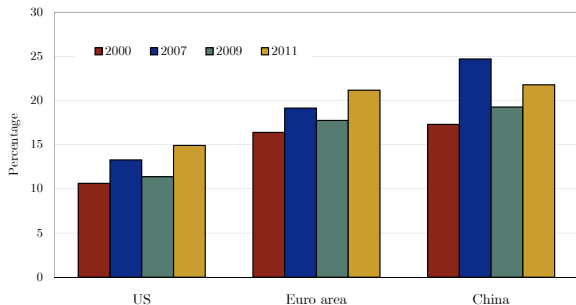
Re-imported DVAiX suggests a relatively upstream position of the country in the GVCs

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

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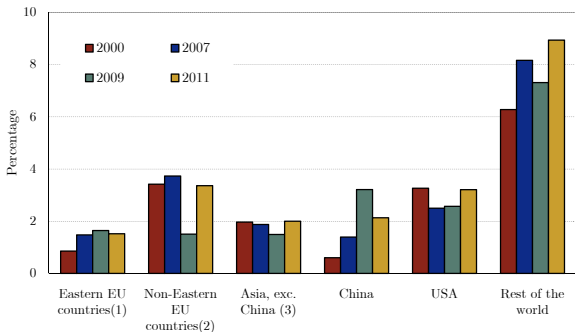
How has the FVAiX evolved?

FVAiX (% of total exports)



FVAiX by origin

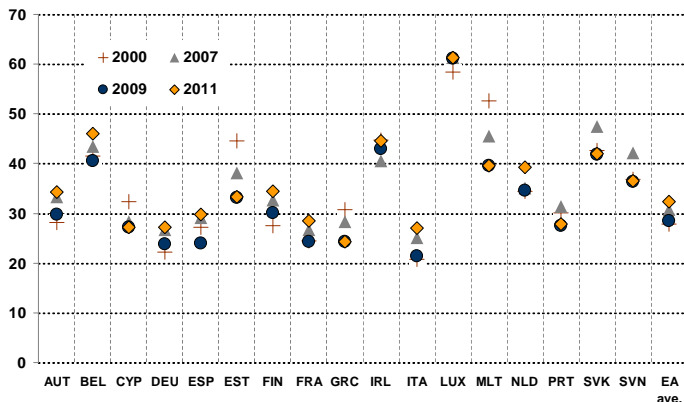
FVAiX (in % of total exports)



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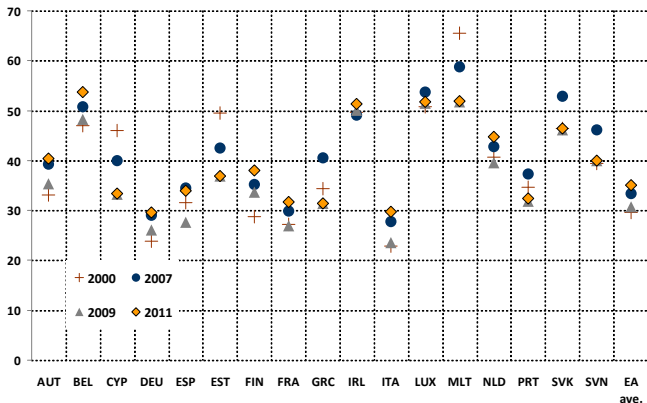
FVAiX: 2000-2011

FVAiX (in % of total exports)



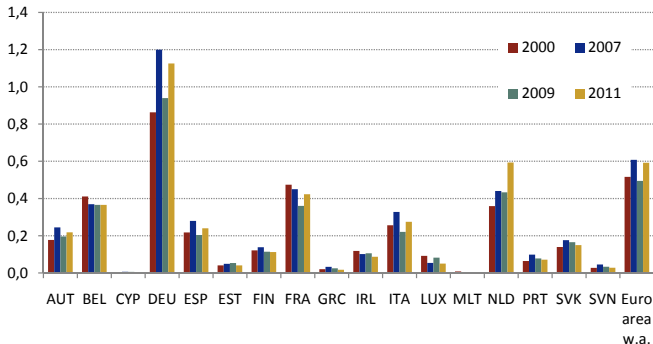
FVAiX - Goods: 2000-2011

FVAiX (in % of exports)

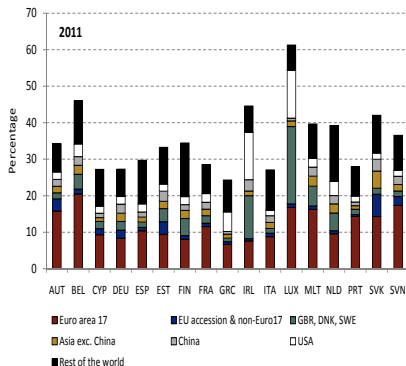
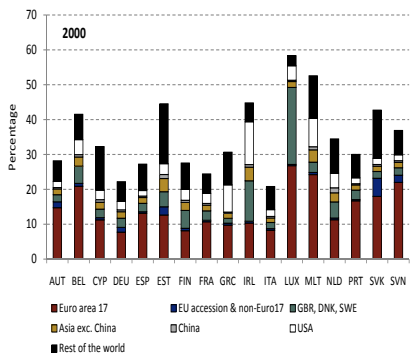


Re-imported DVAiX (% of total exports)

Germany stands out . . .

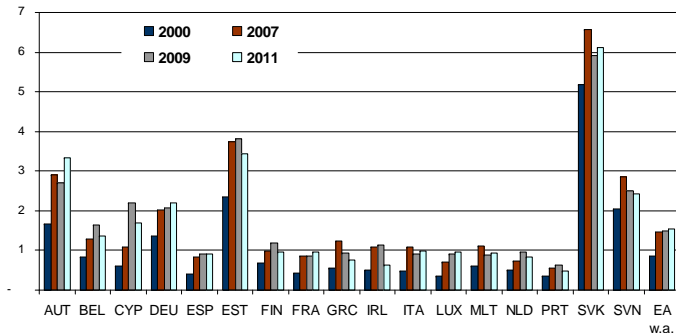


Supply linkages inside and outside the euro area: FVAiX by origin



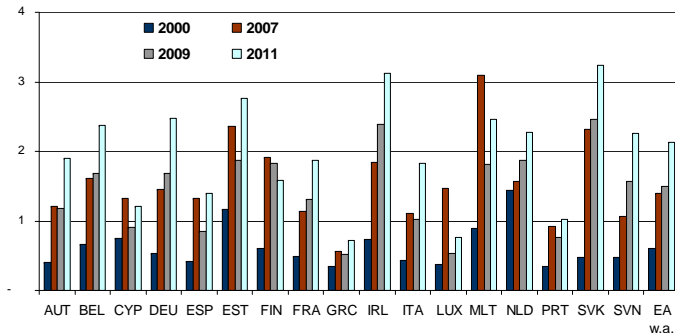
Supply linkages outside the euro area: FVAiX from Eastern EU countries

FVAiX (in % of total exports)



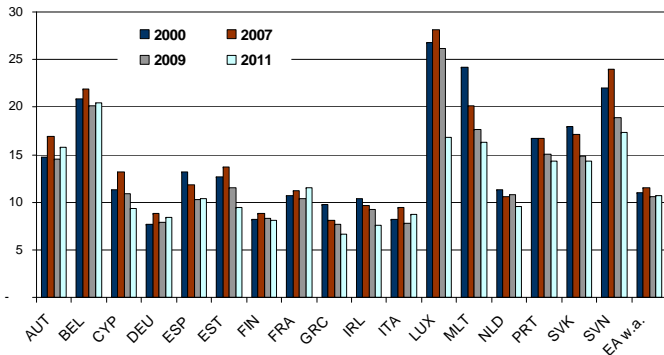
Supply linkages outside the euro area: FVAiX from China

FVAiX (in % of total exports)



Supply linkages inside the euro area: FVAiX from other EA countries

FVAiX (in % of total exports)



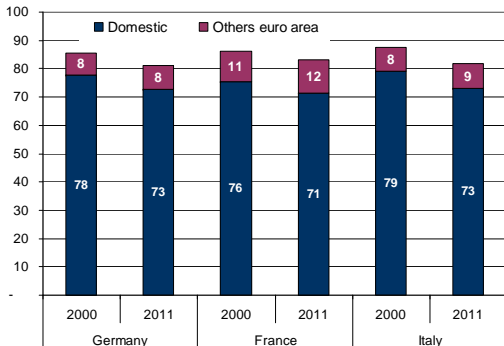
Supply linkages inside the euro area: important linkages exist

VAlX by row country from column country in % of total row country's exports: 2011

	AUT	BEL	CYP	DEU	ESP	EST	FIN	FRA	GRC	IRL	ITA	LUX	MLT	NLD	PRT	SVK	SVN	Total EA
AUT	65.8	0.6	0.0	9.4	0.7	0.0	0.2	1.1	0.0	0.1	1.9	0.1	0.0	0.8	0.1	0.5	0.2	81.6
BEL	0.4	54.0	0.0	5.7	1.2	0.0	0.3	3.4	0.1	0.5	1.3	0.4	0.0	6.8	0.2	0.1	0.0	74.5
CYP	0.3	0.6	72.8	2.2	0.8	0.2	0.1	1.0	1.6	0.1	1.4	0.1	0.1	0.7	0.1	0.1	0.0	82.1
DEU	0.9	0.9	0.0	72.7	0.8	0.0	0.3	1.8	0.0	0.2	1.5	0.1	0.0	1.4	0.1	0.2	0.1	81.1
ESP	0.3	0.6	0.0	3.2	70.3	0.0	0.2	2.6	0.0	0.2	1.6	0.0	0.0	1.0	0.5	0.1	0.0	80.7
EST	0.3	0.5	0.0	3.1	0.4	86.7	2.5	0.7	0.0	0.2	0.8	0.1	0.0	0.7	0.1	0.1	0.1	76.2
FIN	0.3	0.6	0.0	3.1	0.4	0.4	65.5	0.8	0.1	0.2	0.8	0.0	0.0	1.2	0.1	0.1	0.0	73.6
FRA	0.3	1.2	0.0	4.9	1.5	0.0	0.1	71.5	0.0	0.2	1.7	0.1	0.0	1.1	0.2	0.1	0.0	83.0
GRC	0.2	0.6	0.1	1.8	0.5	0.0	0.1	0.8	75.7	0.1	1.8	0.0	0.0	0.6	0.0	0.0	0.0	82.4
IRL	0.2	0.6	0.0	2.2	0.8	0.0	0.1	1.1	0.0	55.4	1.0	0.1	0.0	1.2	0.2	0.0	0.0	63.0
ITA	0.5	0.6	0.0	3.3	1.0	0.0	0.1	1.6	0.1	0.2	72.9	0.1	0.0	1.0	0.1	0.1	0.1	81.7
LUX	0.6	3.6	0.0	4.3	2.5	0.0	0.1	2.3	0.0	0.6	0.9	38.7	0.0	1.5	0.1	0.2	0.0	55.5
MLT	0.7	0.7	0.1	3.4	0.9	0.1	0.2	4.2	0.1	0.3	4.5	0.0	60.3	1.0	0.1	0.1	0.0	76.6
NLD	0.2	1.7	0.0	4.0	0.8	0.0	0.3	1.4	0.0	0.2	0.7	0.1	0.0	60.8	0.1	0.1	0.0	70.3
PRT	0.2	0.6	0.0	3.0	6.2	0.0	0.1	1.5	0.0	0.2	1.4	0.1	0.0	0.9	72.1	0.1	0.0	86.4
SVK	0.9	0.5	0.0	7.2	0.7	0.0	0.2	1.7	0.0	0.1	1.7	0.1	0.0	0.9	0.1	58.0	0.1	72.3
SVN	2.1	0.7	0.0	5.9	0.8	0.0	0.2	1.6	0.1	0.1	4.5	0.1	0.0	0.8	0.1	0.4	63.5	80.8

Supply linkages inside the euro area: VAiX components from the Euro area: major economies

VAiX (in % total exports)



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- Over the 2000-2011 period, there is evidence of an increasing trend in the share of FVAiX for the Euro area countries (with a cyclical pattern)
- The engagement in international production linkages, outside and inside the euro area, has increased for the majority of members.
- Even in a period of fast spreading of value chains at the global level, “regional integration of production” among the Euro area economies has remained quite strong since the crisis.
- Beside the rising importance of emerging markets like China, there has also been a strong integration process between the monetary union members, in particular Germany, with the Eastern European countries.