



EUROPEAN CENTRAL BANK

EUROSYSTEM

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The CompNet Compendium

9th CompNet Workshop

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1 Introduction: Entering a new phase

2 The structure of Compendium

3 WS1 Macro data

4 WS2 Firm-level data

5 WS3 Global Value Chains

6 Concluding remarks

CompNet has entered a new phase:

- First two years: Compiling data, launching research
- **New phase:**
 - Presenting the output of research, using the most robust and significant findings for **policy purposes;**
 - All novel indicators to be thoroughly checked/discussed before policy use

- ✓ **The Compendium: A Competitiveness Diagnosis Toolkit**
 - Prepared by the large team: Pavlos Karadeloglou, Konstantins Benkovskis, Benjamin Bluhm, Elena Bobeica, Chtistian Buelens, Styliani Christodouloupoulou, Alexandru Leonte, Paloma Lopez-Garcia, Kirsten Lommatzsch, Georgi Momchilov, Olegs Tkacevs, Lucia Orszaghova, Maria Silgoner, Julia Wörz, Robert Vermeulen

- ✓ **Tableau: Setting up the technical interface for the dissemination of CompNet indicators**

Competitiveness Diagnostic Toolkit:

- **Step 1:** Capturing more complex dimensions

Objectives:

- Complementing **the traditional price/cost indicators** (e.g. non-price competitiveness; GVCs indicators; product and geographical specialisation; competitiveness pressure)
 - Enhancing the understanding of indicators (e.g. analysis of distribution does matter)
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- **Step 2:** Establishing a solid **theoretical and empirical connection** between indicators and policy conclusions

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Structure:

1. Motivation for Compendium
2. Country coverage and data sources
3. Intuitive justification of novel CompNet-indicators
4. CompNet indicators: description, interpretation, added value
 1. Fiches
 2. Boxes
5. Appendix
 1. List of all indicators (traditional and novel)
 2. Methodological notes

List of Indicators:

- About 200 indicators/variables included in the Compendium 52 of which are the innovative ones
- Innovative indicators **over and above the traditional price/cost ones, covering work of all three CompNet workstreams:**
 - WS1, disaggregated macro data (export sophistication, export diversification, RCA, relative export prices adjusted for quality, etc.)
 - WS2, firm level data (TFP, ULC, OP gap, skeweness, quartile change)
 - WS3, Global Value Chain indicators using WIOD (exports of value added, GVC participation and position)
- For each indicator one explanatory **fiche**
- For some indicators one application **box** (case study)

CompNet-indicators

Group	Category		Group	Category
International trade	RCA indices		Competitiveness pressure	Dynamic trade link analysis
International trade	Shift-share analysis		Firm-level	Productivity, ULC
International trade	Intra/inter-industry trade		Firm-level	Allocative efficiency
Non-price competitiveness	Relative export prices adjusted for quality		Firm-level	Productive structure
Non-price competitiveness	Market-share decomposition		GVC	Domestic value added in exports
Non-price competitiveness	Export sophistication		GVC	Value-added exports
Non-price competitiveness	Economic complexity		GVC	Position/participation in GVCs

Structure of innovative indicators fiches:

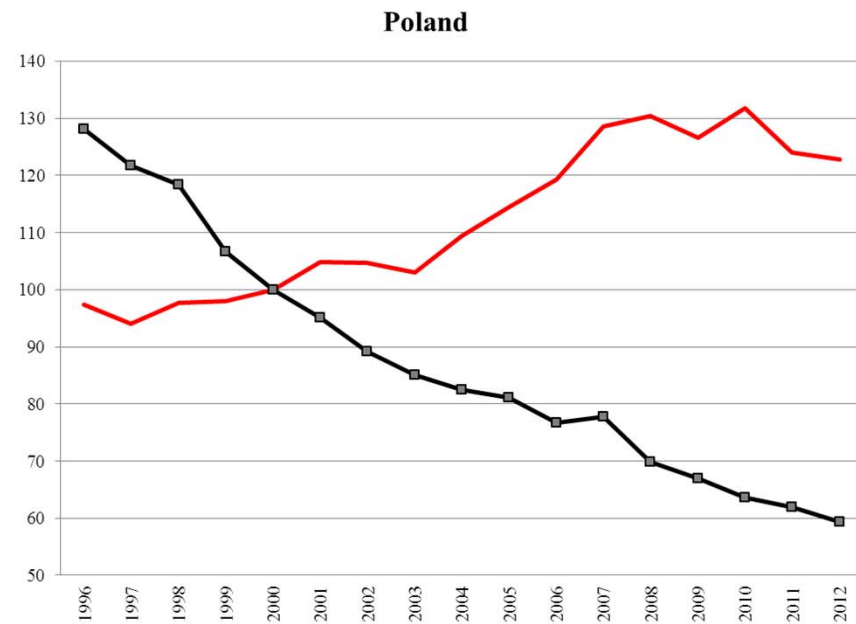
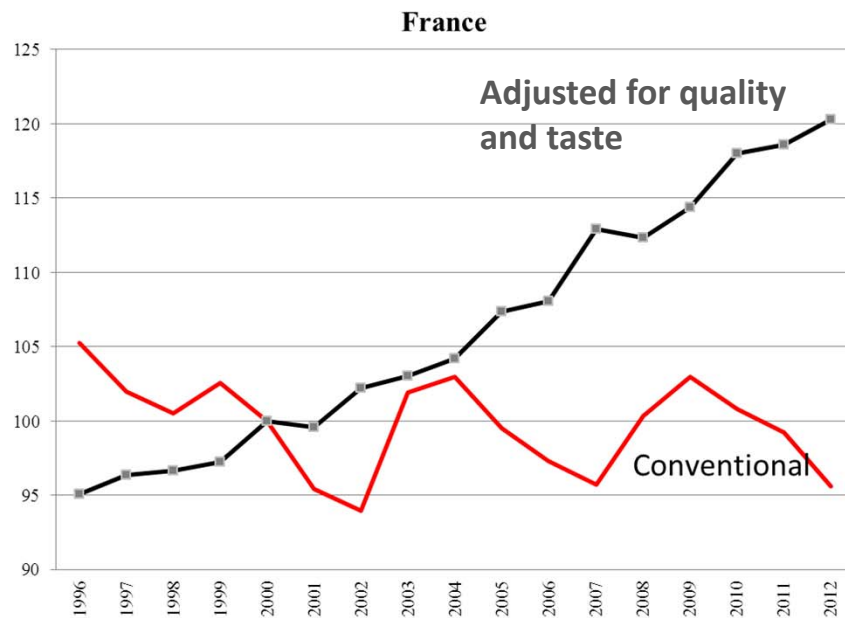
- **Motivation** underlying the use of the indicator: e.g. fill an existing gap in understanding competitiveness
- **Description** of the indicator: non-technical, innovative aspects, improvement of traditional indicators, formulas
- **Interpretation** of the indicator: user-friendly explanation with some examples on the facts revealed by the indicator
- **Pros/cons** of using the indicator: Non-technical explanation of the net benefits

Relative export prices adjusted for quality and taste

- *Motivation*: HICs limited to cost or price factors – **ignore other factors**
- *Description of the indicator*:
 - “Euros per unit of utility” definition - captures **changes in consumer tastes**
 - **Quality and taste** proxied by combination of relative UVs and relative export quantities
 - Very **disaggregated** trade data (to estimate the elasticity of substitution)
- *Pros*:
 - Accounts for **non-price factors** (quality/taste)
- *Cons*:
 - **Cannot** distinguish physical quality of a product from taste for a product
- *References*:
 - Benkovskis, K. and Wörz, J. (2013) "Non-Price Competitiveness of Exports from Emerging Countries", ECB Working Paper No. 1612, November

Overview

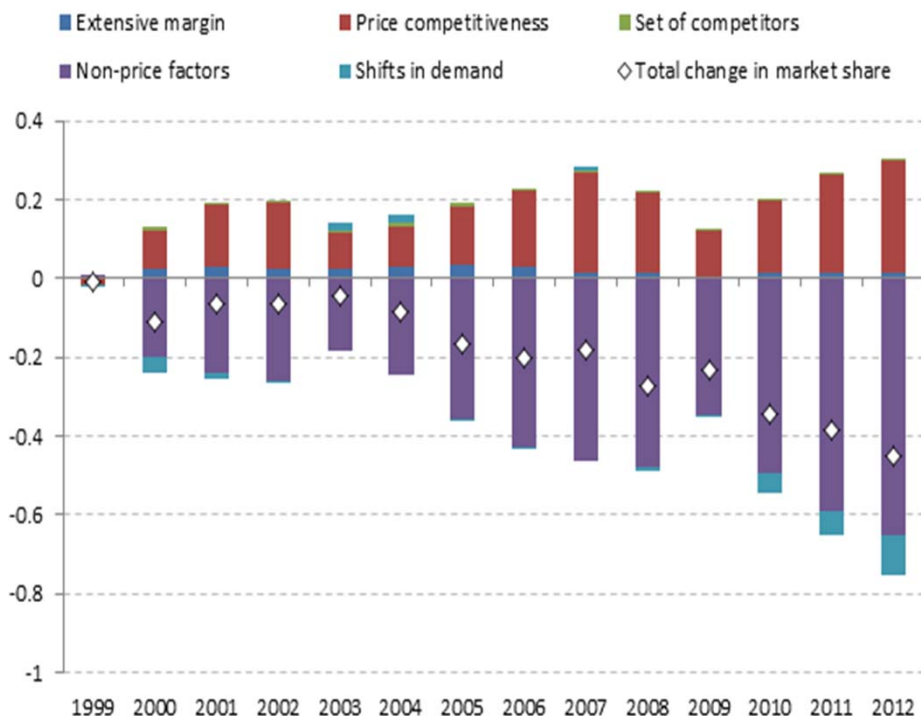
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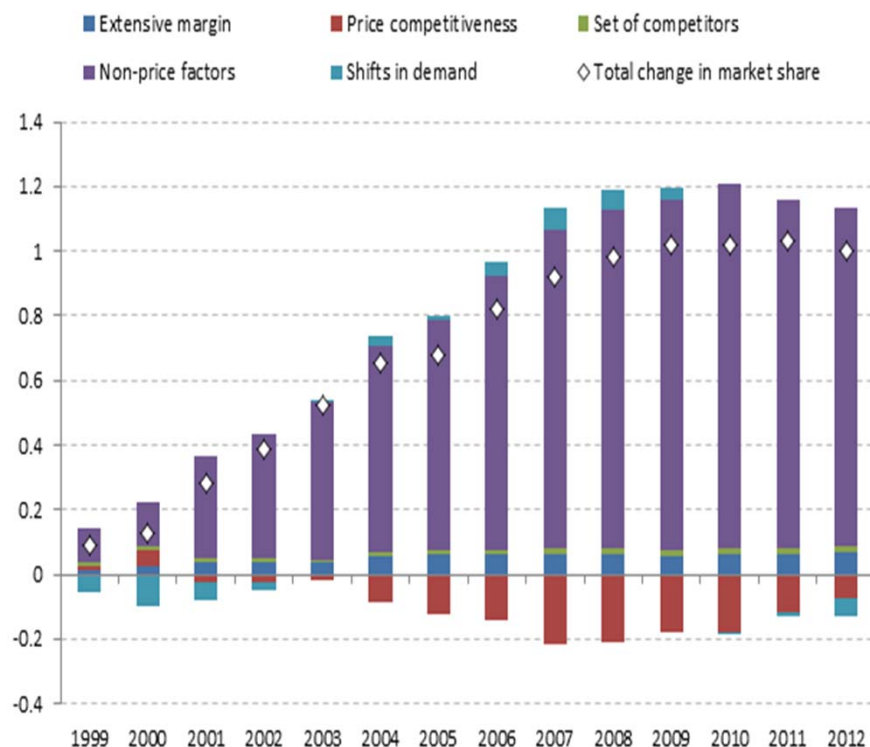
- Non-price factors **alter** the evaluation of performance;
- “Adjusted” reveals the decline (improvement) in relative **quality** of FR (PL) export products, and/or lower **consumers' valuation**
- **Policy implications**: Relying solely on price factors may lead to **wrong** policy conclusions
 - **Reduces** the policy focus to pure price competitiveness
 - **Rules out** any change in a country's competitive position due to non-price factors such as enhanced quality or better labelling of exported products
 - **Undermines** the impact of structural changes

Macro data: Market Share decomposition

France



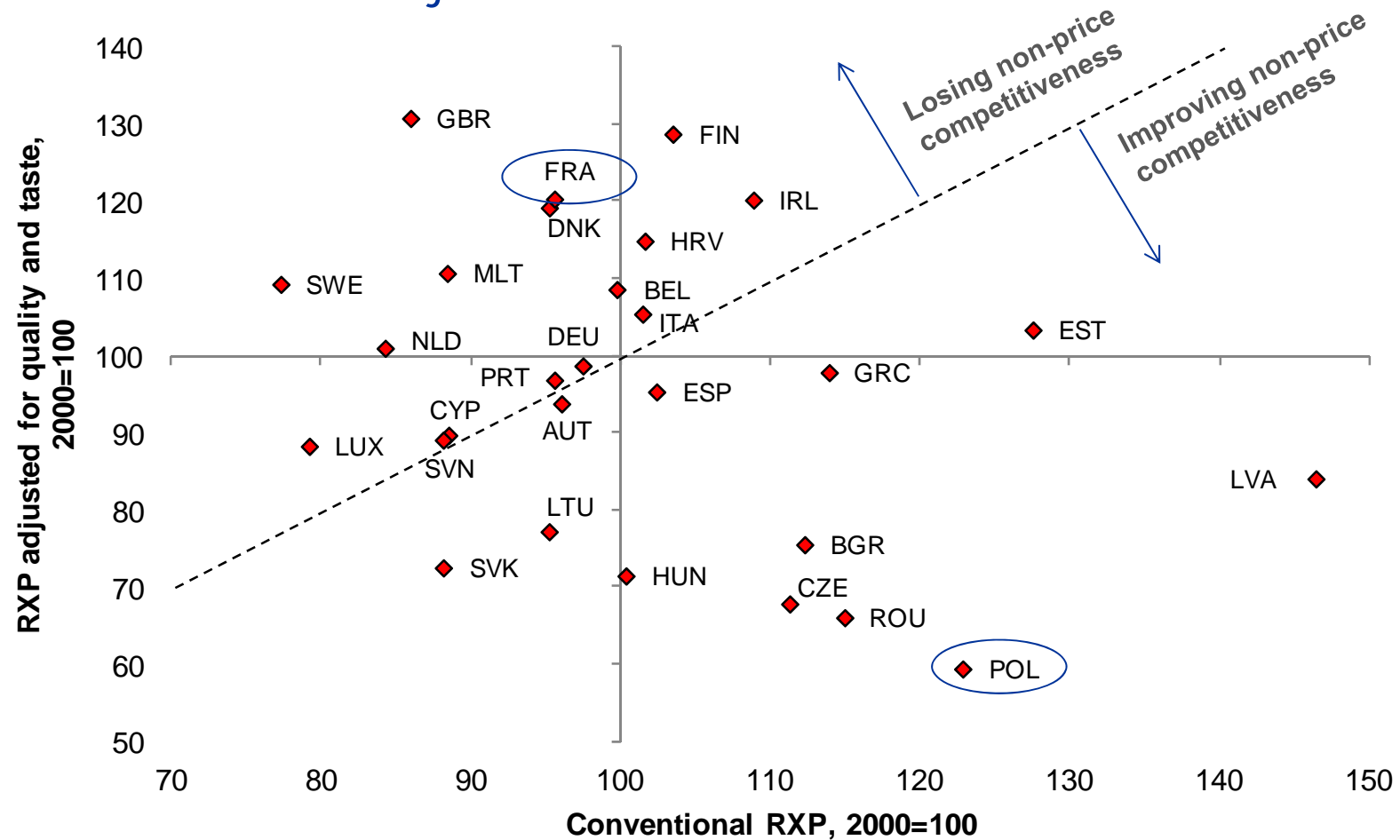
Poland



- According to disaggregated trade data, **non-price factors explain the largest part** of declining (growing) export market share for FR (PL)
- Secondary role of price competitiveness; minor contribution of extensive margin and changes in demand structure

Macro data: Non-price competitiveness in the EU

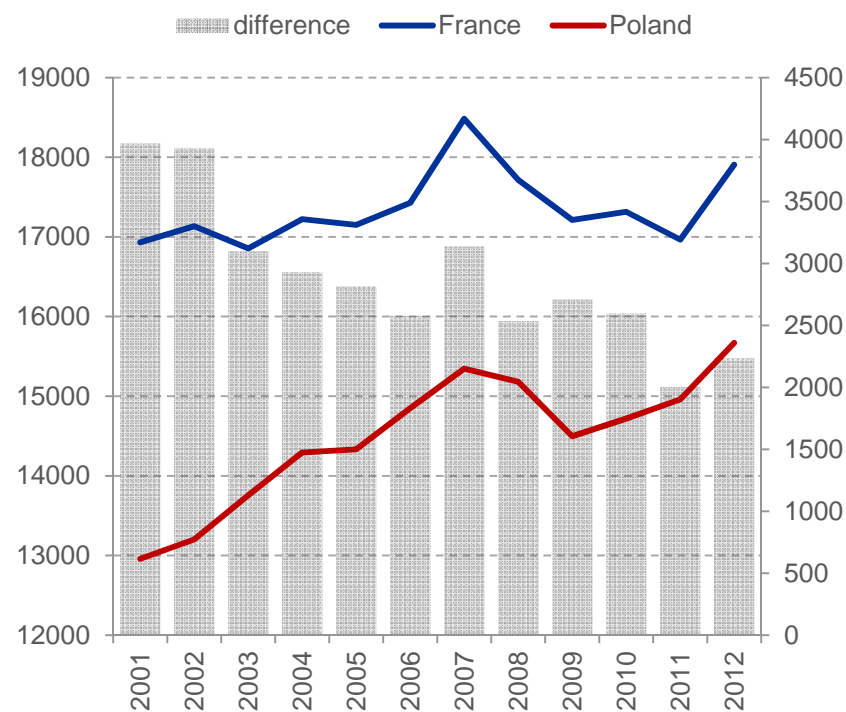
Conventional and adjusted RXP in 2012



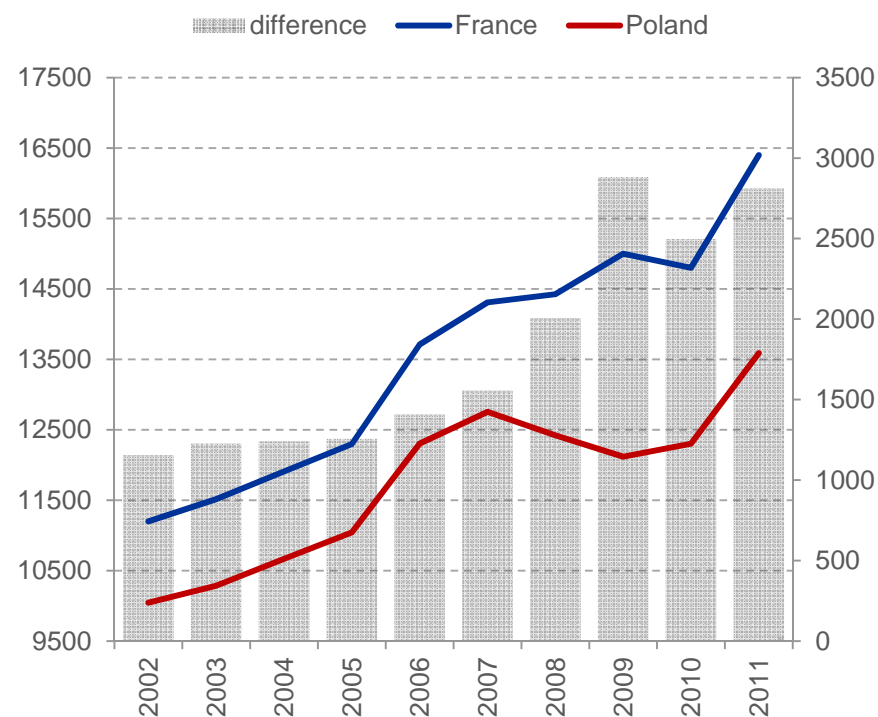
- **New EU members** (including PL) **gain non-price competitiveness**, old EU members (including FR) – lose it

Macro data: Export Sophistication

Goods



Services



- Non-price competitiveness gains are approved by **growing sophistication of PL merchandise exports** – PL closes the gap with FR
- **Sophistication increases for exports of services** in both countries, FR outperforms PL

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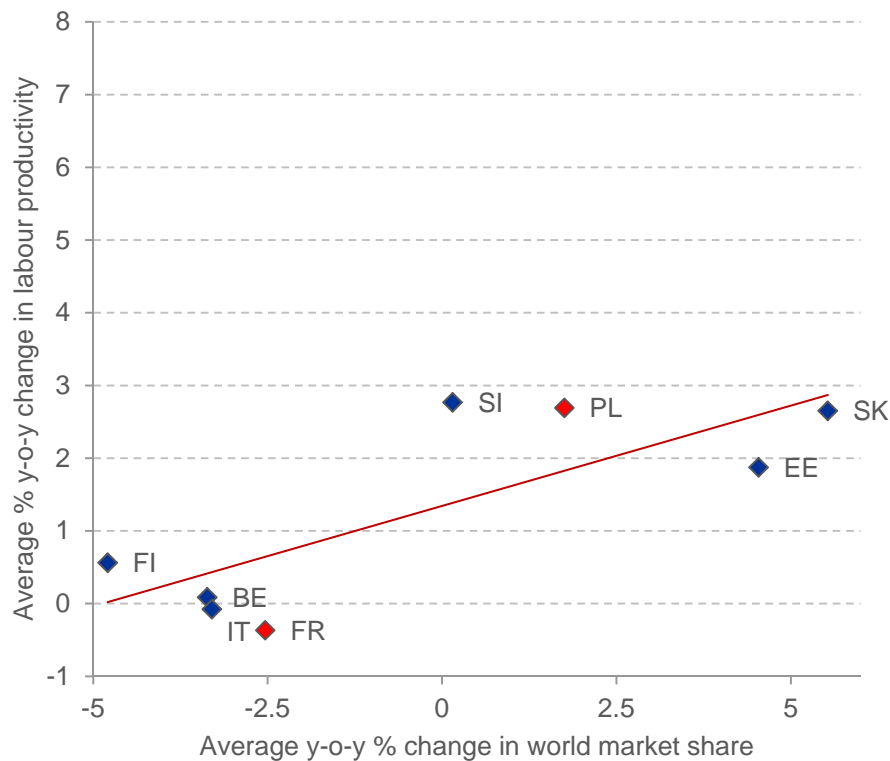
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Firm-level data: Labour productivity

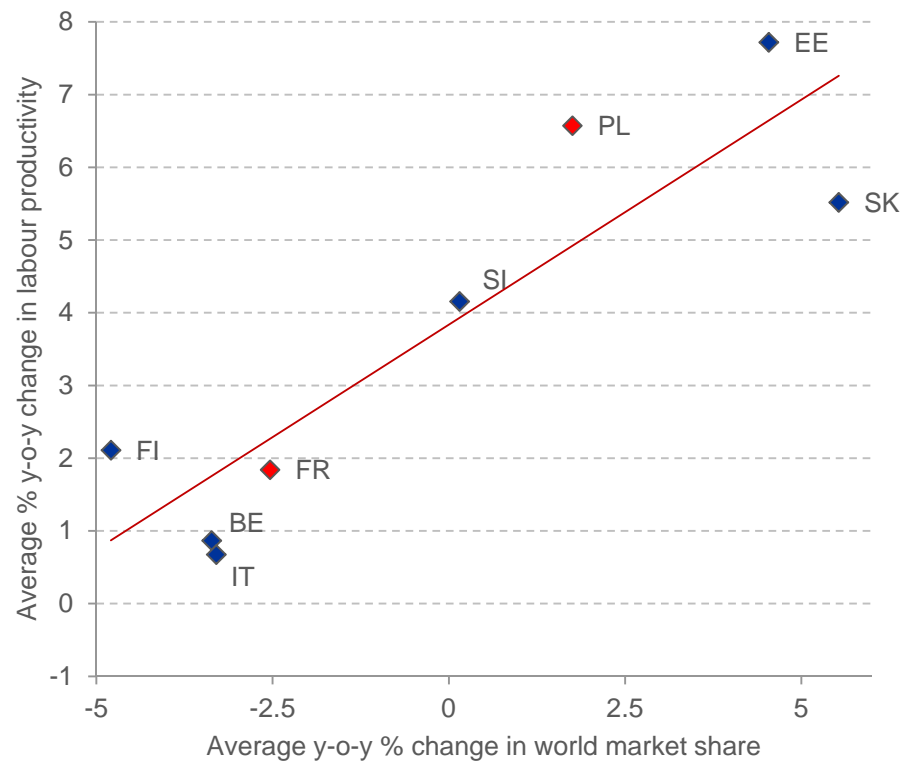
Labour productivity

(2001-2012 average y-o-y percentage change)

All firms



Exporters



- Exporting firms are more productive, macro indicators may not represent the exporting sector

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GVCs data: Foreign value added

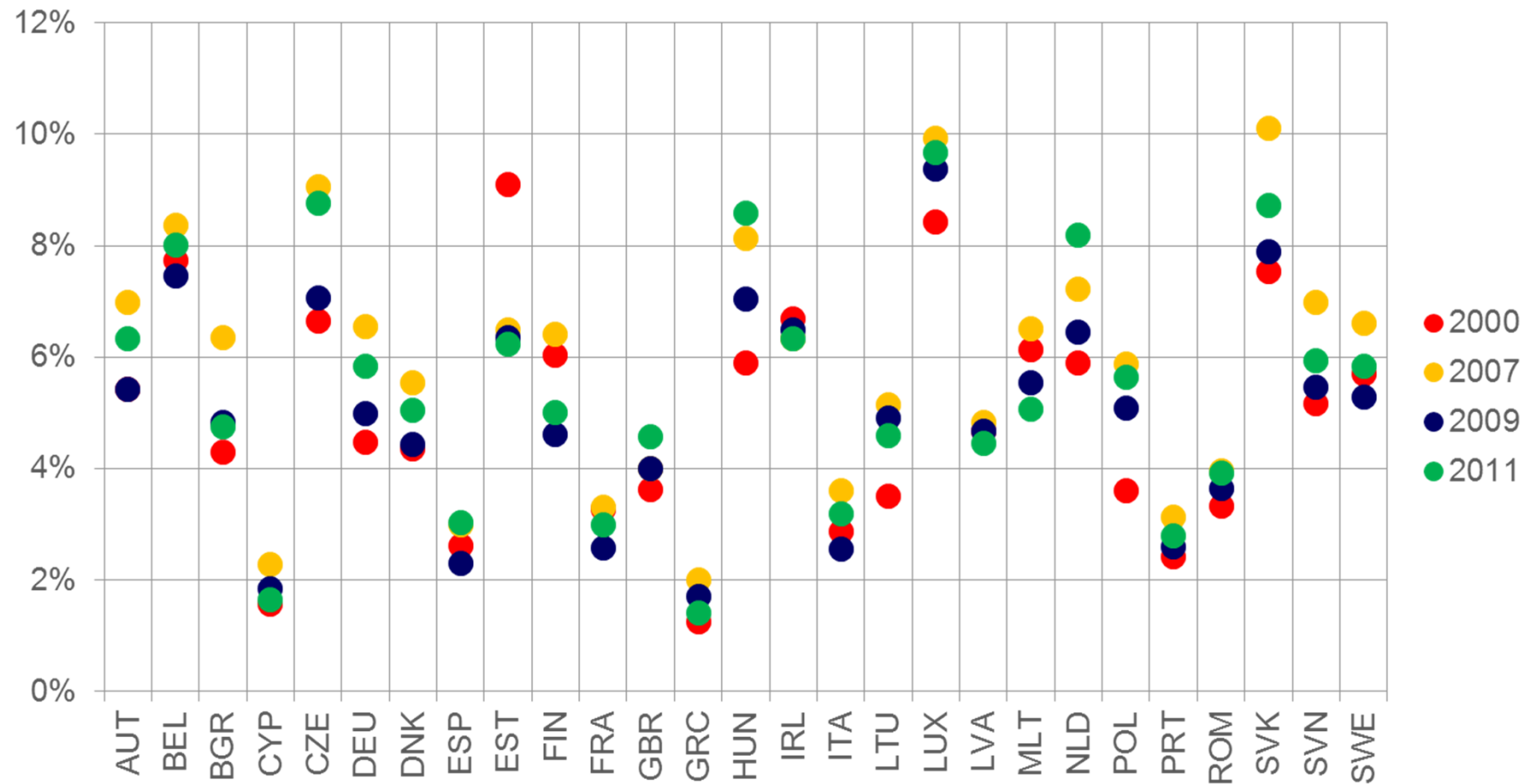
Total foreign VA embedded in gross exports, % of gross exports



- Foreign value added is high and rising for most EU countries
- The trend is positive, despite a temporary reduction during great recession

GVCs data: Forward linkages

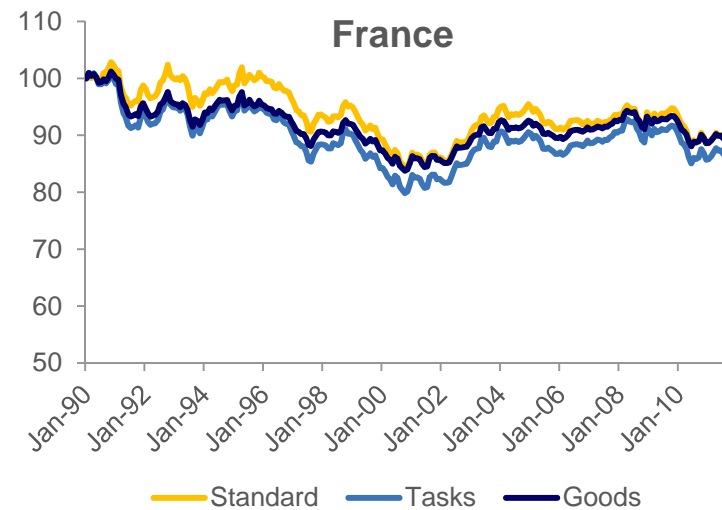
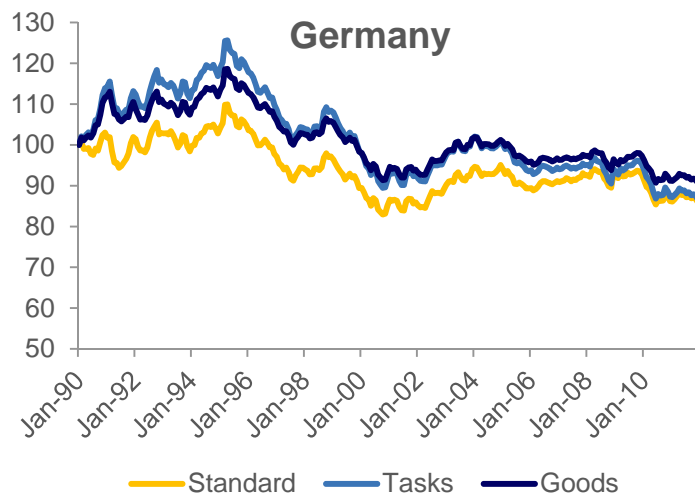
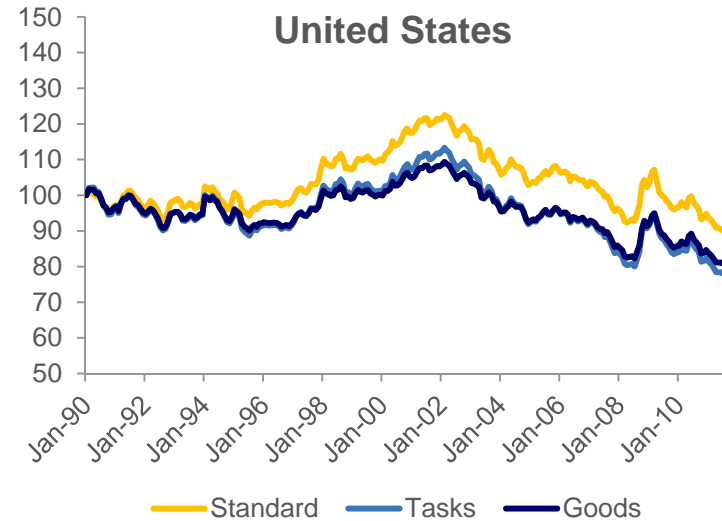
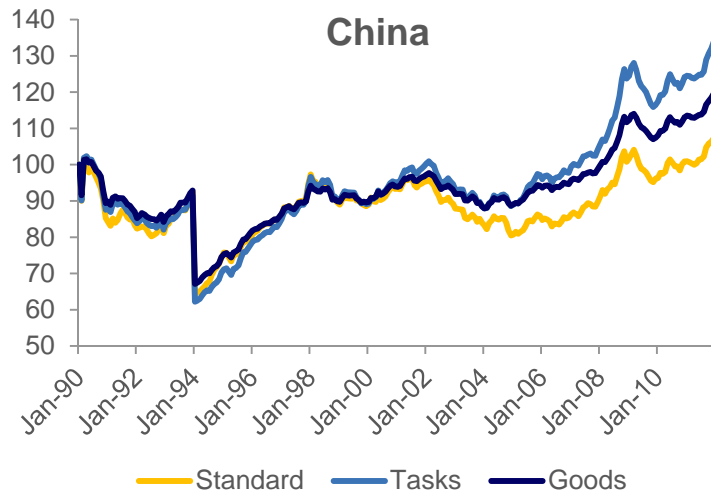
Forward (export related) linkages, % of GDP



- Contribution of forward linkages to GDP is growing as well
- EU countries where able to keep the share via participation in GVCs

GVCs data: Implications for competitiveness indicators

Real effective exchange rates



Source: Bayoumi, Saito and Turunen (2013)

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BMA analysis: novel indicators have good explanatory power

	Rank of posterior inclusion probability (out of 52)	
	Old EU members	New EU members
CompNet indicators:		
Existing competition with China	5	2
New competition with China	2	11
Crowding-out by BRICS	20	51
Relative quality	4	47
GVC participation	23	37
GVC position	22	19
Changes in GVC position	11	34
Export sophistication	28	26
Market effect	21	21
Product effect	37	32
Structural mixed effect	7	33
RCA in high-tech industries	52	3
RCA in medium-high-tech industries	49	41
Selected traditional macro indicators:		
FDI liabilities (% of GDP) growth	8	5
TFP growth	9	4
Regulation (Fraser Institute)	1	38
Investment (% of GDP)	3	31
Labour productivity growth	24	1
HCI based on ULC	34	45

Develop theoretical and empirical frameworks connecting indicators to policy analysis, in order to:

- Provide country teams with deeper understanding of country-specific structural issues (e.g. productivity, reallocation, cost of production factors)
- Improve cross-country policy advice on the basis of micro-founded indicators (e.g. “Was the recession cleansing? Which policy measures to improve reallocation?”)



**THANKS VERY MUCH FOR
YOUR ATTENTION!**