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FAX (+43 1) 798 93 86

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Consequences of the crisis: A high-road strategy for Europe

Harvard Conference: Europe in a Post-Crisis World
Session: Longer term consequences

Karl Aiginger, Susanne Bärenthaler-Sieber, Johanna Vogel

Harvard, 1. November 2013

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Focus and analytical base

- **Focus: Competitiveness of EU after the crisis relative to US**

  Based on WWWforEurope project (http://www.foreurope.eu/)

  "Welfare, Wealth and Work" (4 years, FP7)

  - **Searching for a new path of development for Europe: More dynamic, socially inclusive, environmentally sustainable**
  - **Four years programme, 32 partners (e.g. Ketels, Harvard)**
  - **Scientific board: Aghion, Arrow, Eichengreen**
- **US Evidence**
  - **MIT Project: Production in the Innovation Society, 2013**
  - **Delgado, Ketels, Porter, Stern, 2012.**

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European problems
Flash assessment

- Lower GDP dynamics (before/after the crisis)
- Less productivity per hour than in US
- Unemployment rising/employment stable
- Smaller public deficits/higher interest rates
- North/South divide
- Catching-up Eastern Europe (integration machine)
- Smaller loss of market shares, no external deficit
- Larger manufacturing sector, stronger Euro.

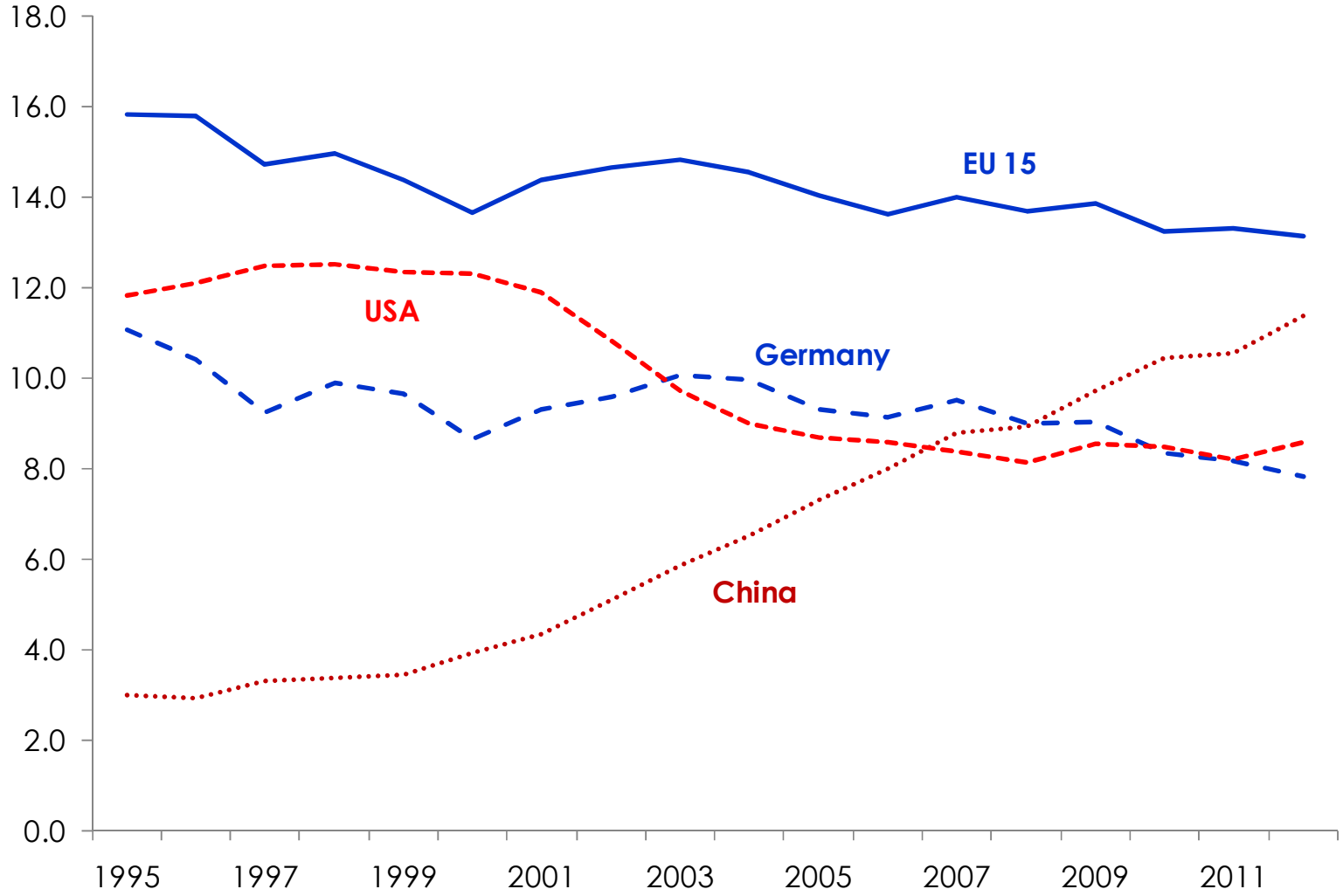
Reforms needed: flash assessment

- Better Governance (28 countries + 10 applying)
- Ex-ante policy coordination
- Globalisation strategy, ageing strategy
- New strategies for Southern Europe
- Vision or abandonment of European Model(s)

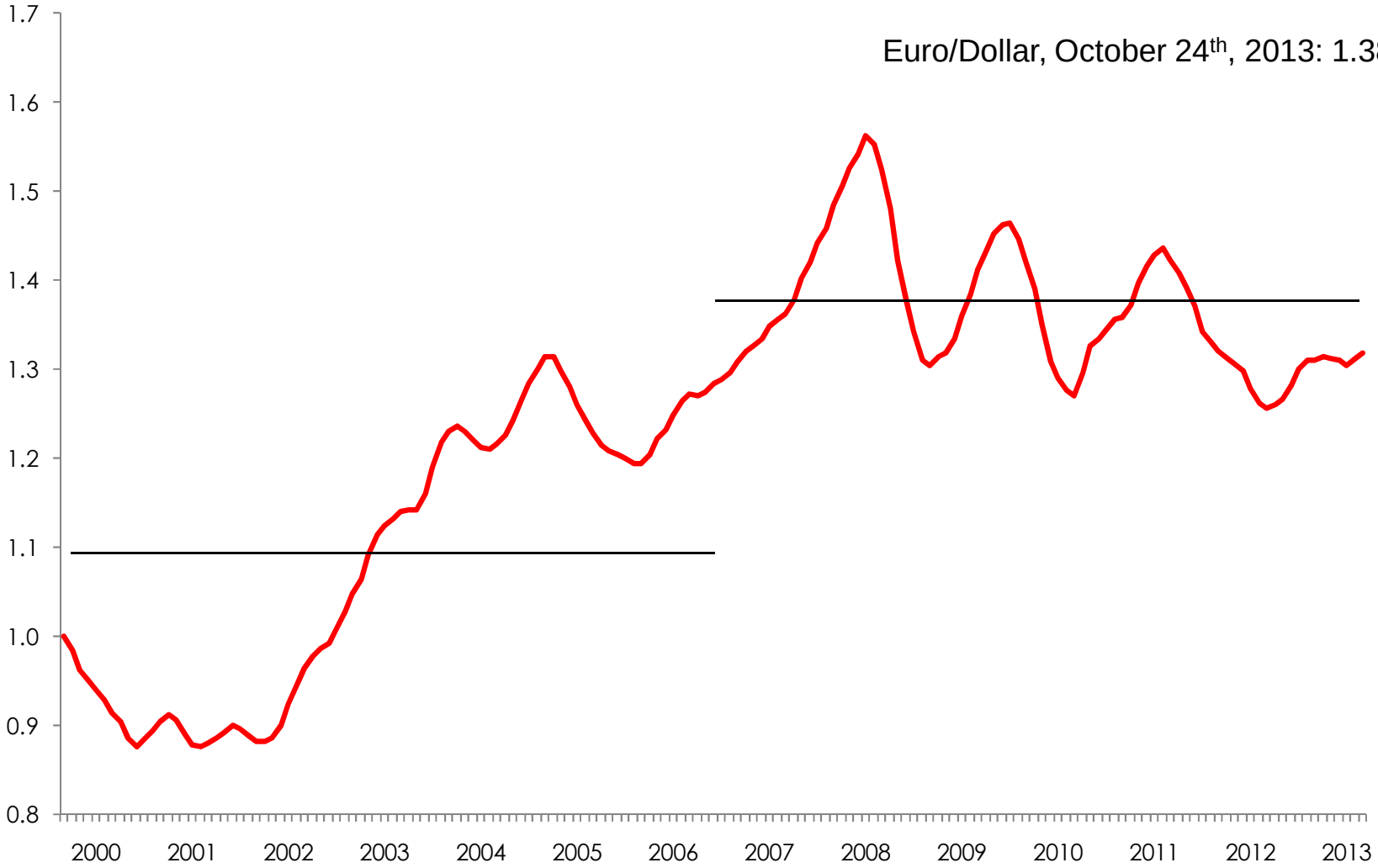
⇒ **Focus: competitiveness for tomorrow in globalizing world.**

Rather stable market shares

Share of exports (in % of world exports)



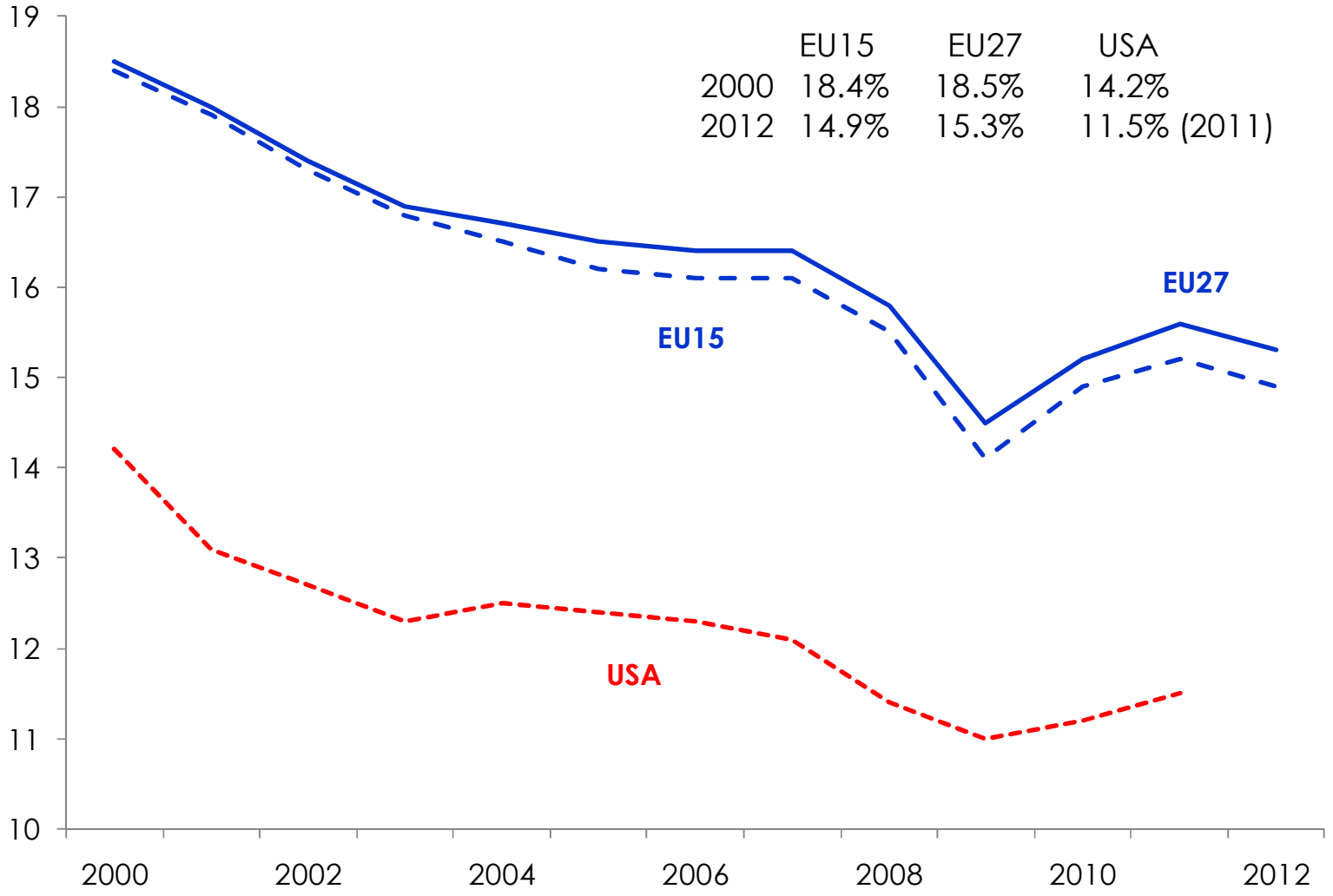
Euro stronger from at start



Outline

- Turning competiveness into a meaningful concept
- Capabilities and structure as drivers of competitiveness
- Results measured by Beyond GDP goals
- Competitiveness and reindustrialization debate
- Summary

The share of manufacturing in GDP decreased (at current prices)



Traditional concept

Competitiveness

- An old term, never well defined, persistently used
- In different connotations: for firms, regions, countries
- Not derived from theory, "misleading and dangerous"

⇒ **Price competitiveness:**

primitive version = low costs

enlightened version = low unit labor costs.

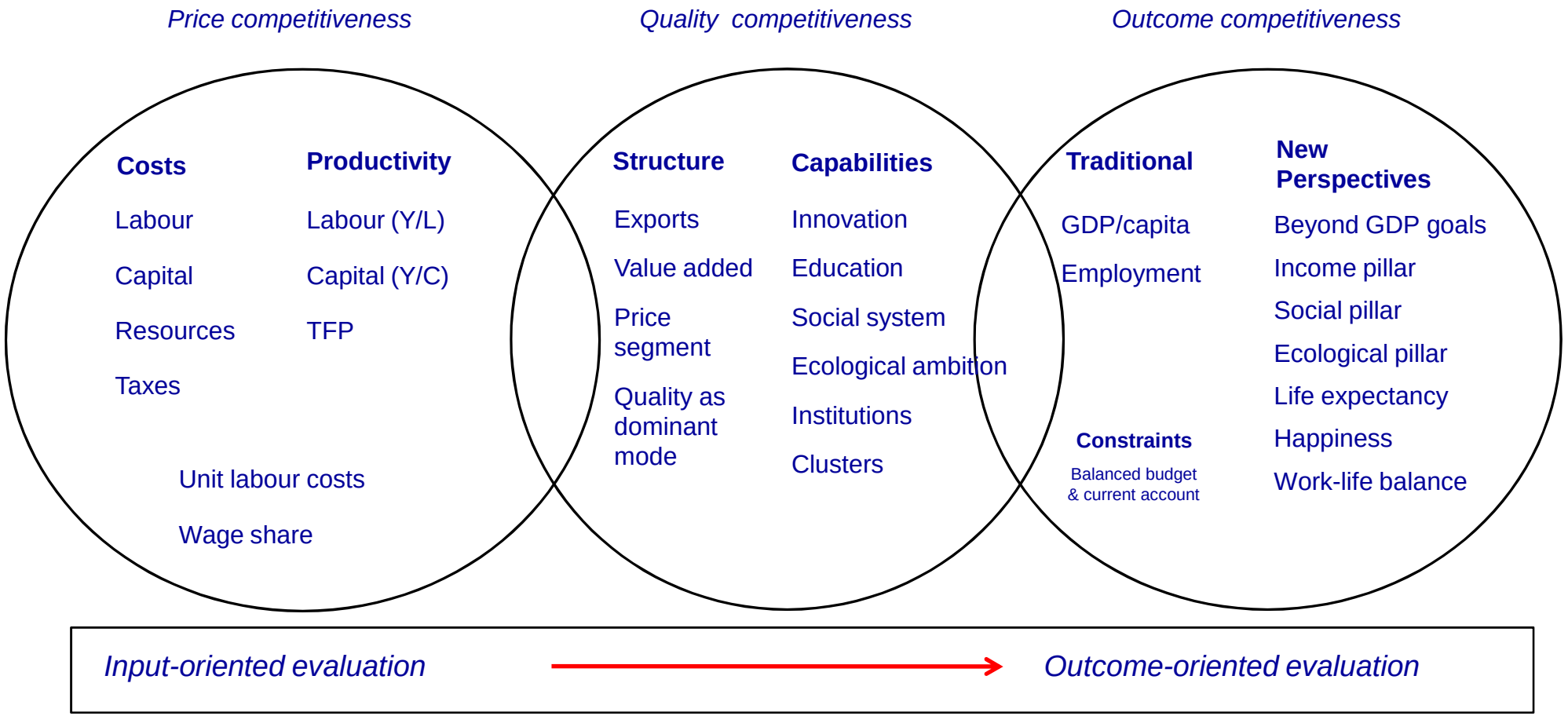
Redefining competitiveness

1. **Price competitiveness**
   Factor input costs, productivity (*Porter* 1990)
2. **Quality competitiveness**
   Structure of production/exports, country capabilities
3. **Outcome competitiveness**
   Generating incomes and employment (European Commission 1998)
4. **Outcome measured by Beyond GDP goals (WWWforEurope)**

⇒ **Competitiveness: ability of an economy to provide long-run goals**

⇒ **Beyond GDP goals: Income, social, ecological pillar.**

Competitiveness in a nutshell



Operationalisation of the conception

"Ability of a country/region to deliver beyond-GDP goals for its citizens"

Outcome competitiveness under new perspectives

Similar to OECD Better Life Index indicators

- *Income pillar* = disposable household income, consumption expenditure...
- *Social pillar* = poverty rates, inequality indicators, youth unemployment...
- *Ecological pillar* = resource productivity, CO2 emissions intensity...

Input competitiveness

- *Price* = wages, productivity, unit labour costs
- *Structure* = shares of high-tech/high-skill industries in VA & exports...
- *Capabilities* = R&D investment, higher education attainment, active labour market policy expenditures, governance, recycling/organic farming shares...

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Drivers of competitiveness I: Capabilities

Five groups of capabilities

- Innovation
- Education
- Institutions
- Ecological ambition
- Social capital

⇒ **Input competitiveness is driven by capabilities and structure.**

Drivers of competitiveness II: Industrial structure

- Technology-driven industries (vs. labour intensive industries etc.)
- Skill-intensive industries (high skills vs. low skills)
- Industries with quality competition (vs. price competition)
- Industries based on knowledge service
- Eco industries

⇒ Industrial structure is analysed according to share of most sophisticated segment.

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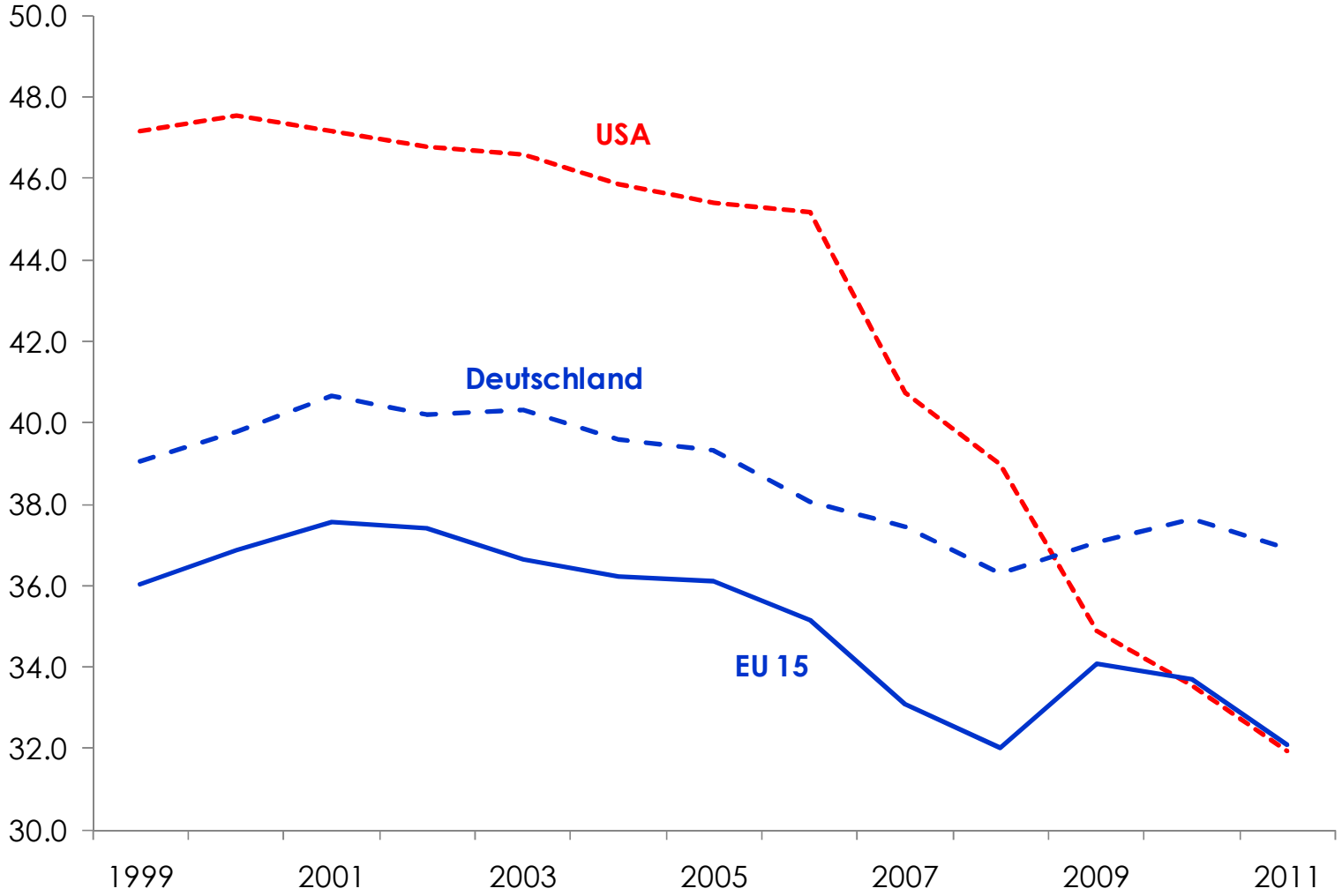
Capabilities: Innovation and education

- **US lead in most indicators on innovation**
  - **Private R&D double as high as in EU**
  - **Tertiary education (attainment, quality)**
- **US leads in entrepreneurship, risk capital**
- **Europe leads in:**
  - **Eco patents, share of MST-students**
  - **Pre-school education, vocational training**
  - **Investments more in active labor market policy**
  - **Social ambitions (retraining)**
  - **Ecological ambitions (taxing, standards).**

Europe gained lead in industrial structure and trade

- **Europe:**
  - **Higher shares of technology driven high skill exports**
  - **More than 50% in quality dominated markets**
  - **Surplus in technologic, skill intensive industries**
  - **Surplus in quality dominated markets**
- **US:**
  - **Large current account deficit**
  - **Half of it in technology-driven industries (180 bn €)**
  - **Active trade balance in energy-intensive industries**
  - **Higher share in price elastic industries.**

Share of technology driven industries in exports



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Results for the three pillars

of outcome competitiveness

- US lead in the income pillar (less in income per hour)
  - But median wages are stagnant since 1970
- US leads in (low) unemployment, partly at the cost of drop of employment rate
- Europe leads in the ecological outcomes
  - Energy efficiency, low emissions
- US: Large and increasing inequality (Gini, top vs. low)
- High and increasing poverty rate
- Europe: Lower deficits in budget, none in trade.

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The US seen as a challenge for Europe

- Energy costs are much lower in the US
- And falling due to shale gas exploitation & fracking
- Cheap gas and oil disencourage clean energy
- Energy intensive plants shift to US
- Labor costs in US flat, cheaper In south by one third

⇒ US: cost advantage in labor and energy threatens EU strategy.

The wrong message for Europe

- To stay competitive with the US, Europe has to match US in energy prices
- This is wrong since it sets limits to:
  - Higher taxes/standards
  - Reestablishment of emission trading
  - Progress of alternative energies
  - Lead in sustainability.

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The superior long-term response

Competitiveness : total costs must match total productivity

- **If costs of energy are higher (4% of total costs rel. to 2%)**
- **This can be compensated this by:**
  - **Boosting energy efficiency**
  - **Higher innovation and education expenditures**
  - **Or better efficiency of innovation and education system.**

⇒ Europe is lagging US in R&D and higher education

⇒ Closing the difference in R&D and higher education is more effective than closing gap in energy price.

"Production in the Innovation Economy": MIT Report 2013

- US firms currently "home alone"
  - Forced by finance in wrong direction
  - Industrial centers less based on externalities
- US has to copy elements of European system
- 'Rebuilding' industrial ecosystem, complementarities
- Convening, coordination, risk pooling, bridging
- Vocational schools and community colleagues

⇒ MIT proposes US firms to go for cooperation

  - Both with other firms, community.

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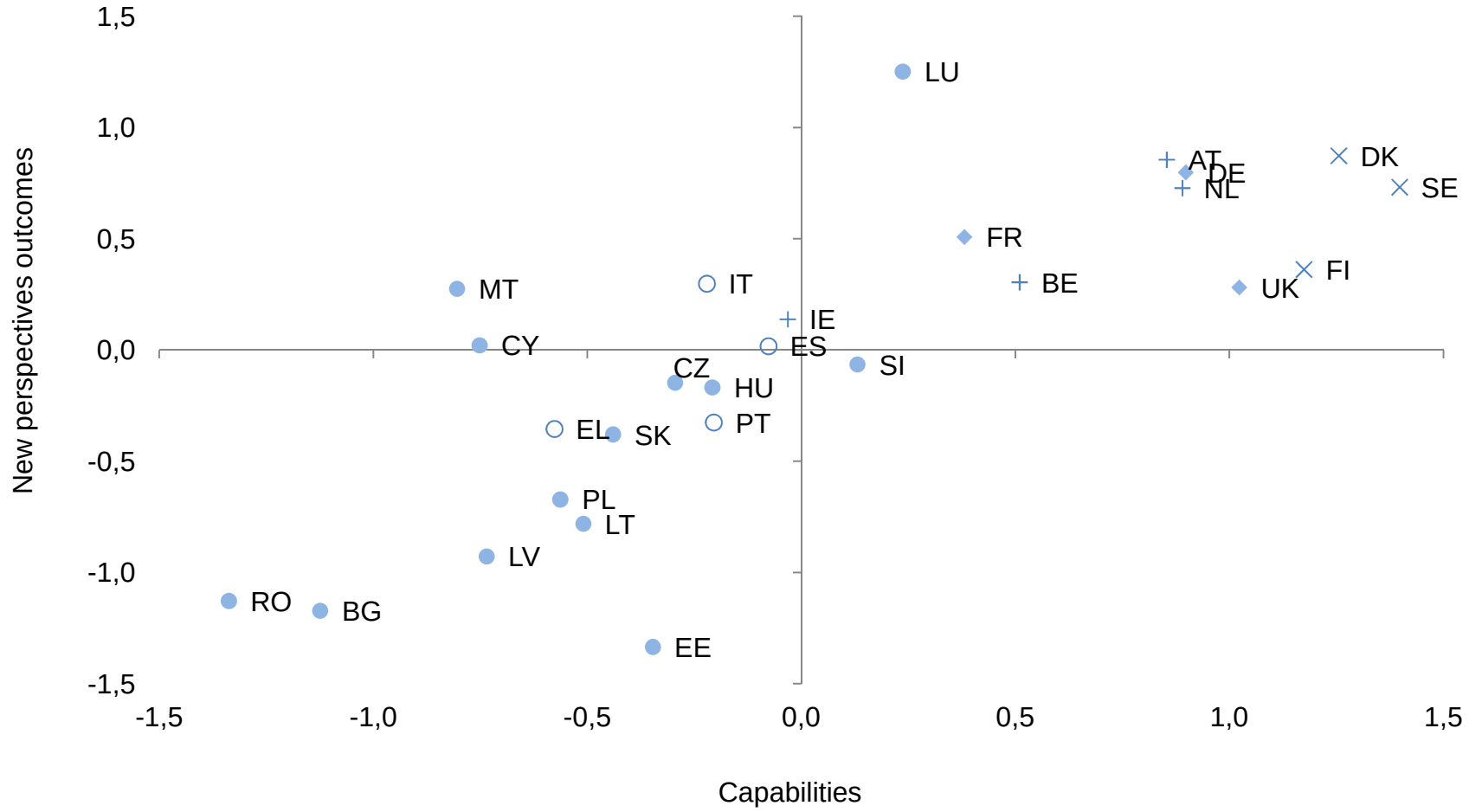
Differences across Europe in capabilities and outcome

New perspectives outcomes vs. capabilities



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Towards a meaningful definition of competitiveness

- "Competitiveness" for frontier countries should not be obtained through low costs (or unit costs)
- Drivers: Capabilities and structure
- **Ability to deliver societal goals.**

⇒ **Results:**

"Competiveness is ability of a country to provide welfare (measured by Beyond GDP goals)".

The two roads ahead for the US and EU

- **Low road path:**
  - **Competing by low wages, low prices for energy**
- **High road path:**
  - **Climbing up the quality ladder: education, innovation**
  - **Providing capabilities, "new" industrial policy**
  - **Convening, coordination, risk pooling & reduction, bridging**
  - **Consider societal goals in industrial strategy.**

⇒ Hopefully the MIT-project will help the US to take the high road

⇒ And Europe does not follow the "lower labor costs/lower energy costs" model.

Summary: Competitiveness of Europe

- Governance problems persist (28+), north/south divide
- Deficit in innovation, universities, entrepreneurship
- Less dynamics in GDP; rising median wages
- Less inequality, higher ecological priority
- Larger share of manufacturing
- Smaller decline in world market shares, no external deficit.

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Empirical Models

- **Outcome competitiveness under new perspectives:**

$$NPO_{it} = \beta_1 Price_{i,t-1} + \beta_2 Structure_{i,t-1} + \beta_3 Capabiliti\ es_{i,t-1} + \eta_t + u_{it}$$

…where *NPO = New Perspectives Outcomes*

- **Traditional outcome competitiveness:**

$$TO_{it} = \beta_1 Price_{i,t-1} + \beta_2 Structure_{i,t-1} + \beta_3 Capabiliti\ es_{i,t-1} + \eta_t + u_{it}$$

…where *TO = Traditional Outcomes*

- ***Traditional outcomes* = GDP per capita, (un)employment**
- ***Constraints* = deficit, debt, current account not persistently off-balance**

- **Overall, data on 68 indicators (27 countries, 2000-2010).**

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Empirical Methods

- **Principal components factor analysis (PCFA)**
  - Examine *correlation and fit* of indicators in each group
  - Extract main statistical information via *first common factor*
- Use factor loadings to construct composite indicators for each group
  - NPO, TO
  - Price (wages), structure, capabilities
    - Innovation, education, social, institutions, ecological ambition
- **Panel data estimation methods**
  - OLS, WG (country-specific fixed effects)
  - Generated regressors → bootstrap standard errors
  - *Endogeneity* → *t-1* on RHS.

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The need for a new Industrial Policy: European perspective

First push after 2000

- Decline of manufacturing
- Continued technology lead of US
- Globalization/China

Second push after the crisis

- Weak growth/high unemployment rate
- In Greece and Portugal trade deficit/GDP (at max) is as large as the share of manufacturing
- Rebalance economy away from finance and property
- Societal challenges (social, ecological, health).

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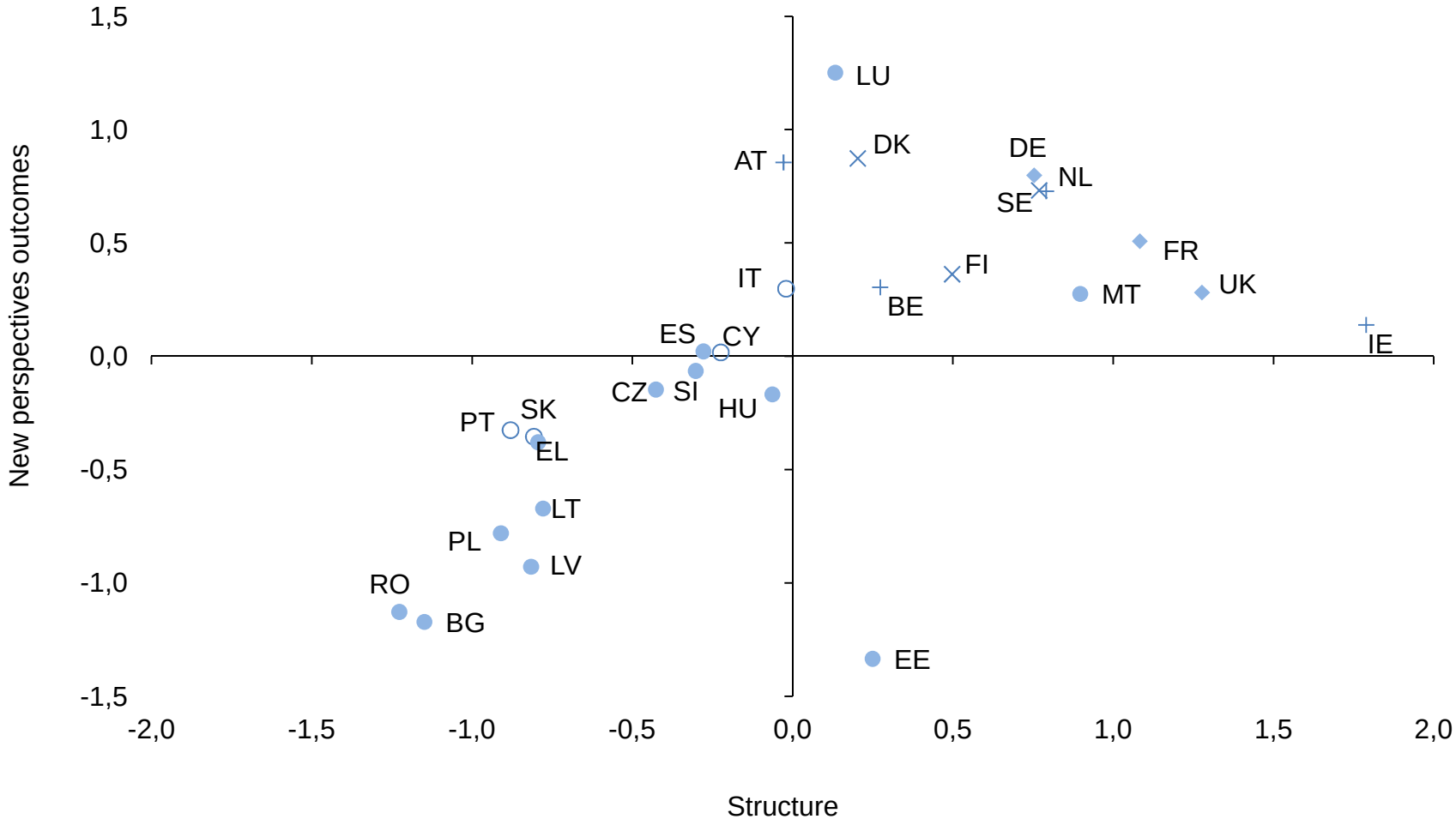
Previous Literature (brief)

- **Competitiveness rankings**
  - World Economic Forum, IMD...
  - Based on hard data, survey results
  - Pro: measure wide range of economic indicators
  - Cons: *mix indicators* of input & outcome competitiveness, levels & changes
- **Delgado, Ketels, Porter, Stern (2012)**
  - GDP/working-age population = function of composite indicators of macro & micro performance, social & political institutions
  - 130 countries, 2001-2008
  - Find *positive & significant effects*, larger for micro & sipi than for macro
  - ➢ We focus on *measures of social & environmental* outcomes & inputs

Outcomes vs. structure

New perspectives outcomes vs. structure



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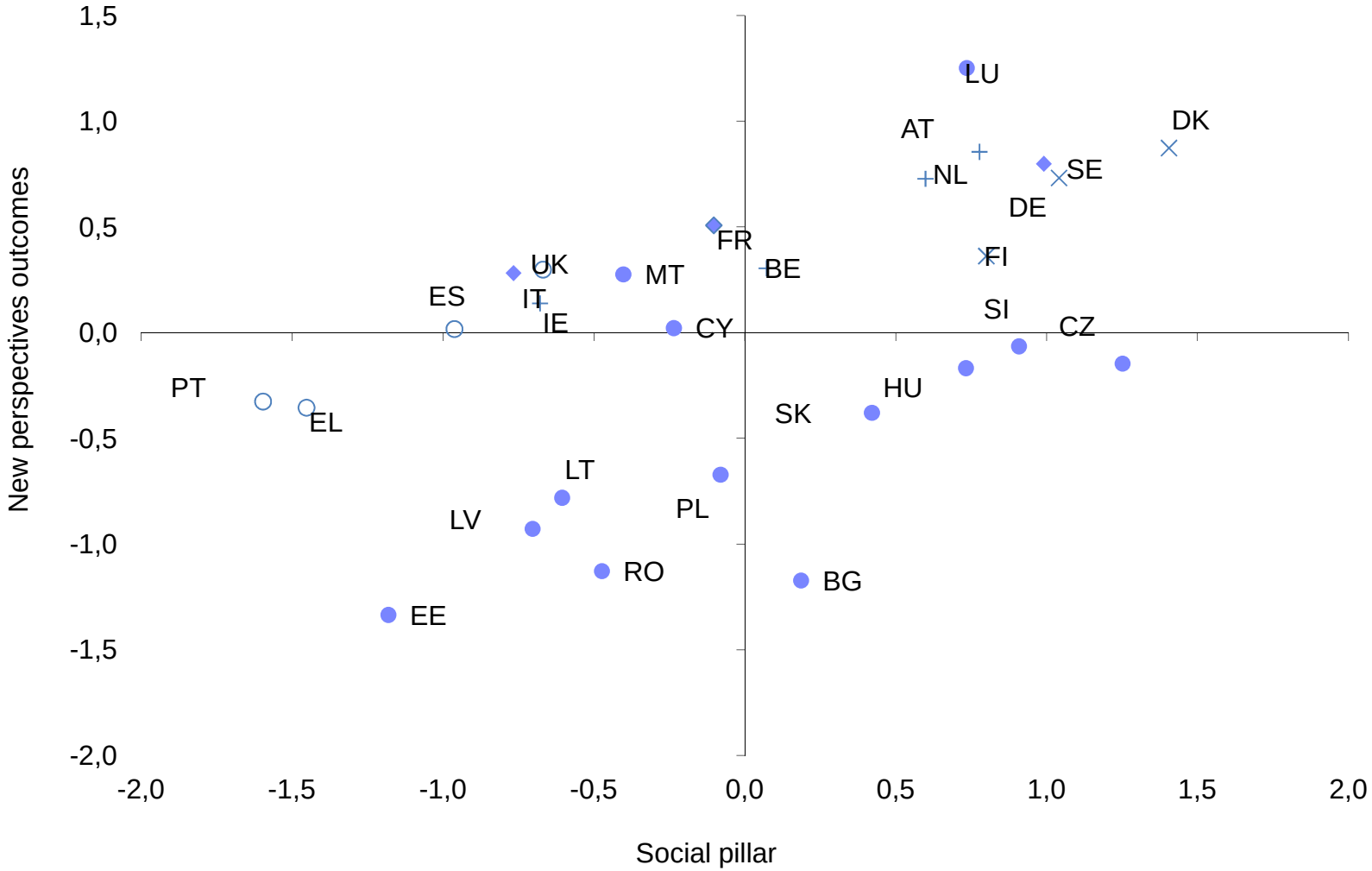
Key Features

- **Proposed definition**
  1. Distinguish between "*input*" and "*outcome*" competitiveness
  2. Include *social* and *environmental* aspects in both
- **Empirically relate outcome to input competitiveness**
  - EU vs. US
  - EU countries
- **Outcomes**
  - 3 pillars: *income, social, environmental* indicators
- **Inputs (determinants)**
  - Indicators on *price, economic structure, capabilities*
  - *Capabilities* = innovation, education, social system, institutions, environment.

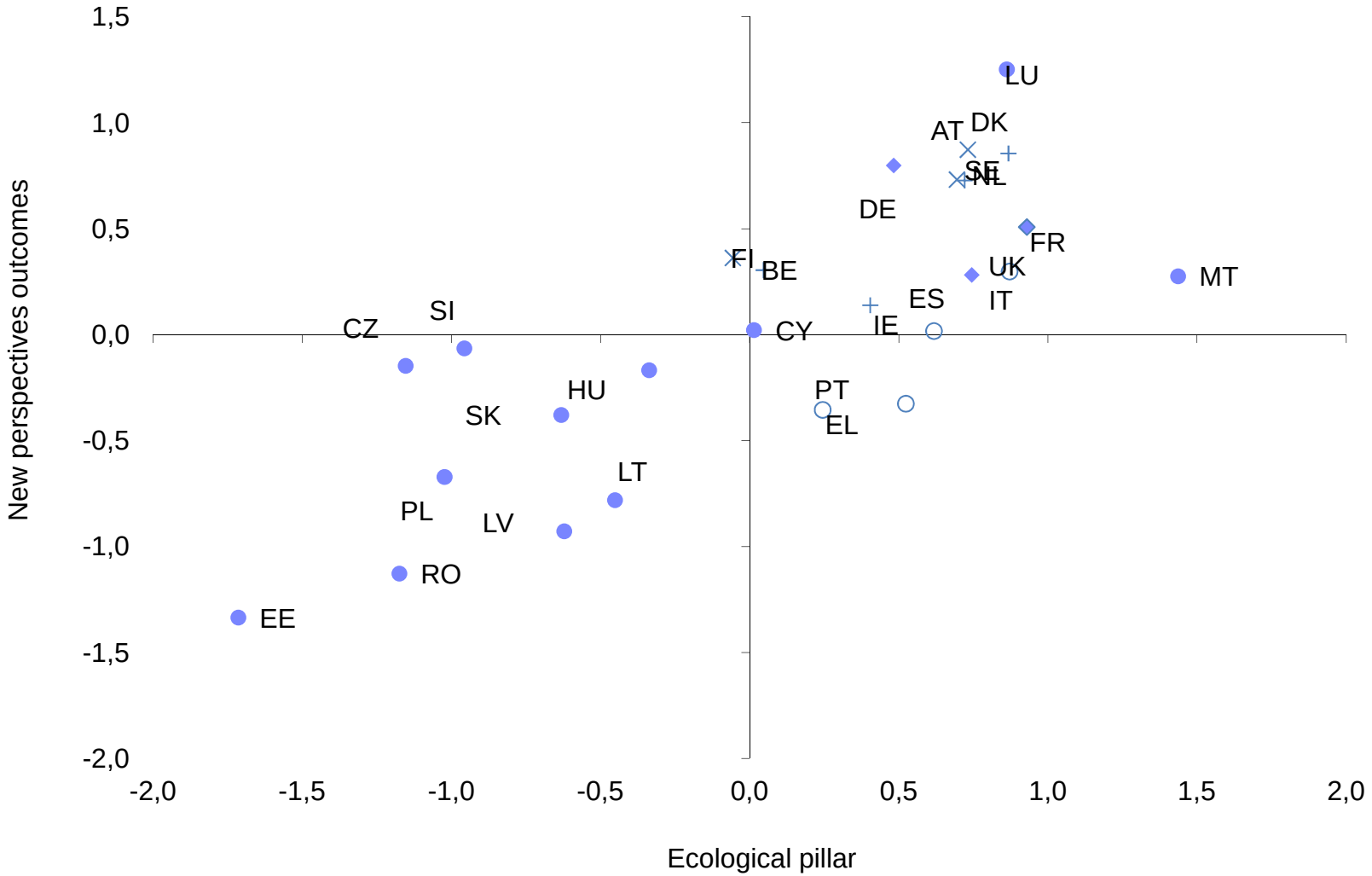
Outcome vs. social pillar

New perspectives outcomes vs. social pillar



Outcome vs. ecological pillar

New perspectives outcomes vs. ecological pillar



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Remaking manufacturing: the rational

- Reaction to slow growth (EU), large deficits (US)
- "Producing" is a necessary basis of the economy
- Less bubbles than finance, construction, housing
- If production is relocated, services/R&D follow

⇒ Looking for the role of industrialized countries in globalization.