

**WIFO**

TEL. (+43 1) 798 26 01-0  
FAX (+43 1) 798 93 86

ÖSTERREICHISCHES INSTITUT FÜR WIRTSCHAFTSFORSCHUNG  
AUSTRIAN INSTITUTE OF ECONOMIC RESEARCH

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## **Remaking Manufacturing in the US and Europe**

WWWfor Europe lecture Series

**Karl Aiginger**

**Vienna, 21<sup>st</sup> May, 2013**

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### **WIFO ■ The outline of the presentation**

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- **The quest for a new industrial policy**
- **The US challenge for Europe**
- **Europe as a model for US**
- **Summary**

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- 1983: Stresa: corporatism and flexible specialization
  - 1991 (MIT): searching for the secret of the Japanese
    - Toyoda system; "Made in America" (MIT Press, 1989)
  - 1995 Conference: US still leading in Unit Values
    - Spec. high tech industries, but US does not concentrate on these
    - Complementarities and supporting industries are lacking
    - Japanese economy starts lost decades
    - IT is now seen "everywhere": incl. productivity statistics
  - 2013: US economy "alone at home"; challenge China
    - MIT Commission: Production in the Innovation Economy

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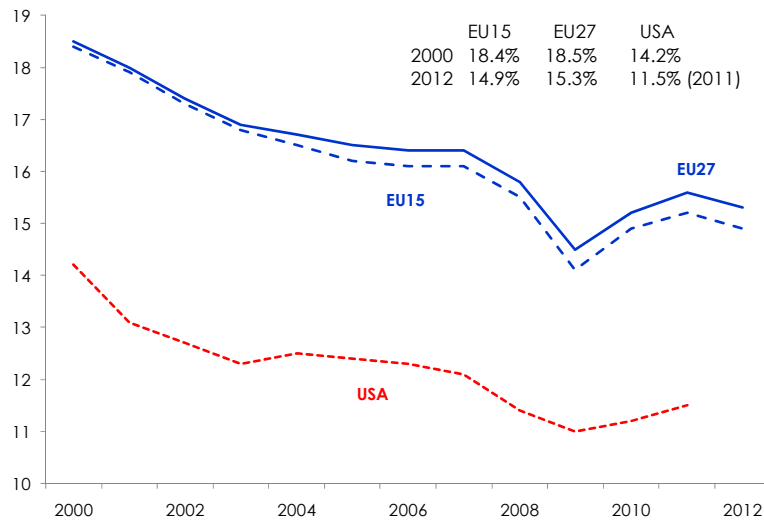
### First push after 2000

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

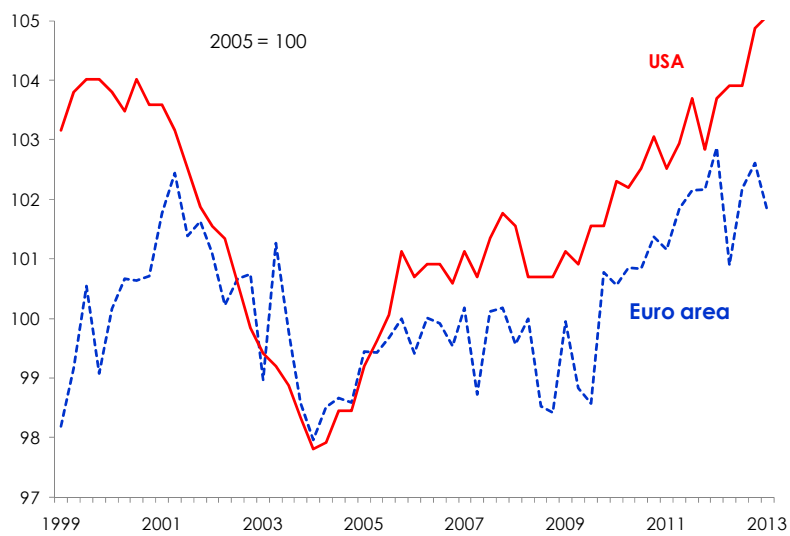
### Second push after the crisis

- 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).

### The share of manufacturing in GDP decreasing (at current prices)



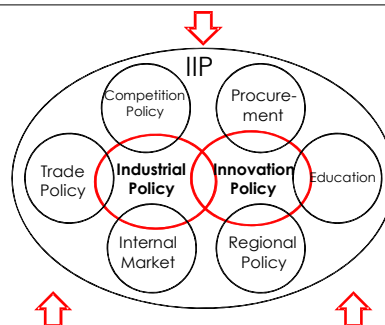
### Industrial production Euro area vs US Crisis and quicker recovery in the US



- Support of **market** forces (not against)
  - Foster **competition**, not single large firms
  - **Broad** technologies, not picking out one winner
  - Support goals with **long-term** interest of **society**
  - Based on **education** and **innovation**
  - **Systemic** not fragmented
- ⇒ Different this time (Rogoff, Aghion, Aiginger) .

### Pulling forces

Vision of a new growth path (welfare beyond GDP)  
Societal goals (health, climate, social cohesion)  
Excellence in specific technologies (e.g. energy)



### Pushing forces

Competition, openness and globalization  
Activated, trained and retrained labor force ( flexicurity )  
Competitive advantages (supported by policy )  
Climate change, ageing

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## WIFO ■ The answer of the Commission No 1: Integrated Industrial Policy (614/2010)

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### Industrial policy for the Globalisation Area

- Horizontal instruments plus vertical operationalisation \*
- Price, cost, innovative competitiveness
  - Standardization and innovation
  - 6 key enabling technologies \*
- Monitoring the effect of other policies
  - Transport, energy, consumer, single market, trade \*

⇒ “Competitiveness & sustainability at centre stage”

**■ Four pillars:**

- Investment, innovation
- Expand internal market
- Focus on finance of real economy & SME
- Human capital

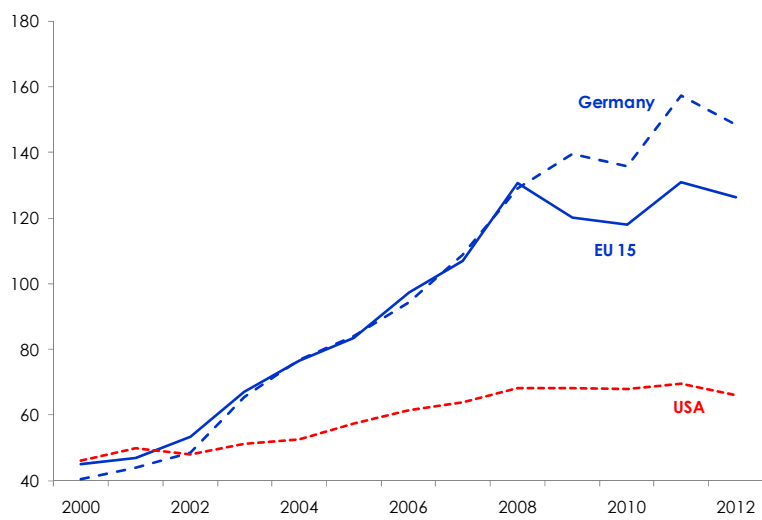
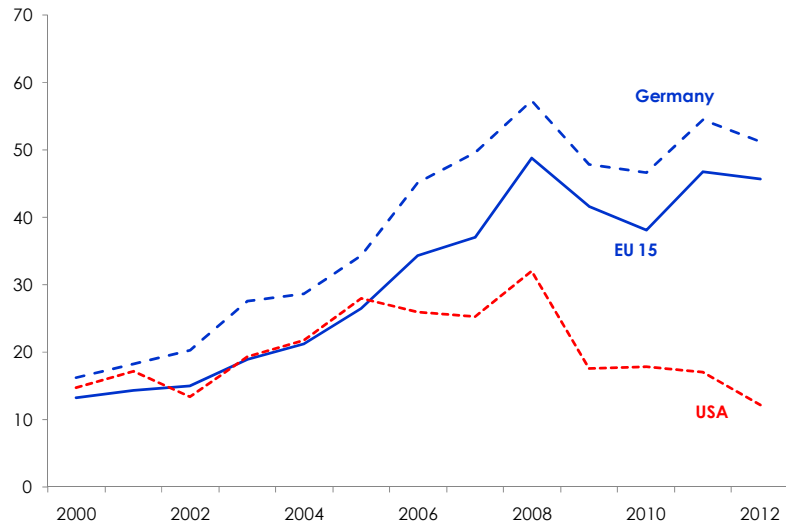
**■ Third industrial revolution:**

- New infrastructure and renewable energy

⇒ **Reverse downward trend: from 16% to 20% (2020).**

- Energy costs are much lower in the US
- And falling due to shale gas exploitation & fracking
- Coals demand decreases → exported to Europe
- Cheap gas and oil discourage clean energy
- Energy intensive plants shift to US
- Labor costs in US flat, cheaper in south by one third

⇒ **1/3 cost advantage labor, 2/3 lower energy prices  
threatens EU-strategy**



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

Competitiveness : total costs must **match** total productivity

- If costs of energy are higher (4% of total costs rel. to 2%)
  - Compensate this by:
    - Boosting energy efficiency
    - Higher innovation and education expenditures
    - Or better efficiency of innovation and education system
  - Technology: ultra-low carbon technology (e.g. steel).
- ⇒ 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.**



## WIFO ■ Complementary short-run measures

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- Negotiate with US about carbon tax
- Reduce taxes on labour (increase on property)
- Redirect energy subsidies to clean technologies
- Set standards in trade agreements
  - Preventing "carbon leakage"
  - Supporting technology transfer.

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## WIFO ■ Support for integrated industrial policy: WWWforEurope Project

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FP7 program: Searching for a new path of development for Europe

- More dynamic, more inclusive, more sustainable
- 33 research organization, 4 years, lead WIFO.
- Redefine competitiveness: ability to provide long-run goals
- Develop a Systemic Industrial Policy

⇒ Scientific support for systemic industrial policy in Europe

⇒ <http://www.foreurope.eu/>.

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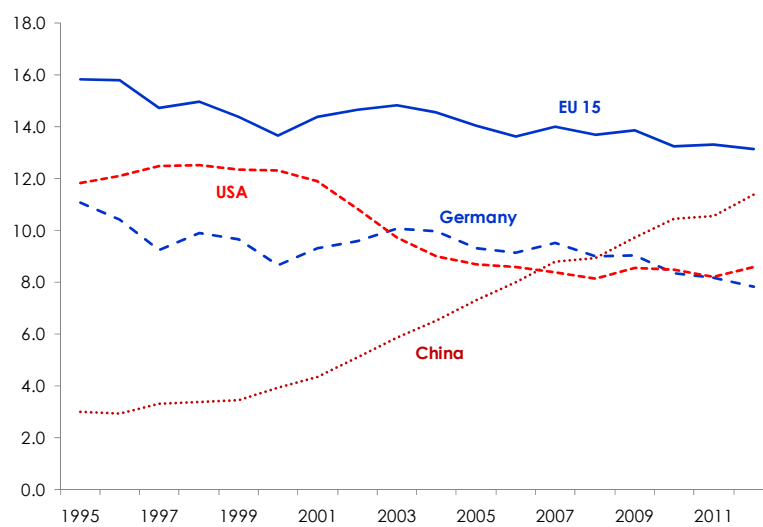
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## How market shares were lost: Share of exports (in % of world exports)

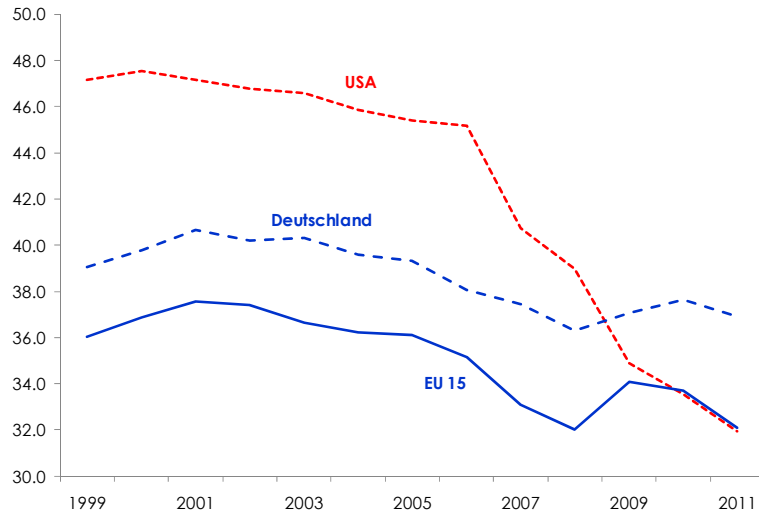
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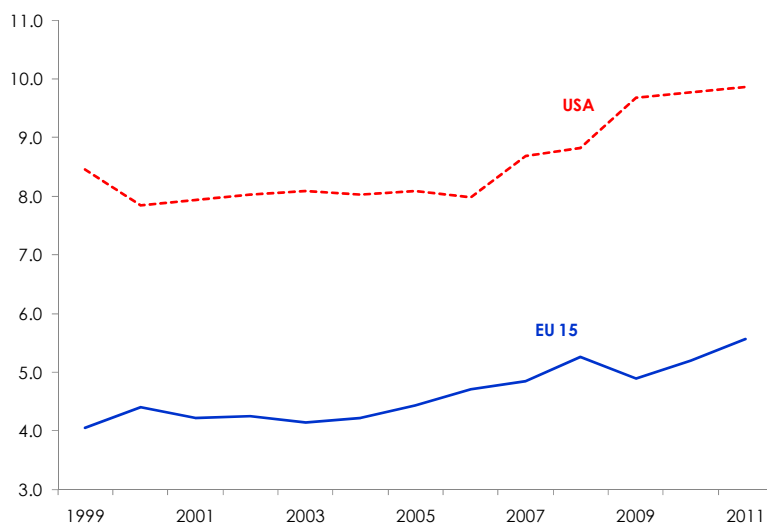
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### Share of technology driven industries in exports



### Share of resource based industries in exports



- US firms currently “home alone”
  - forced by finance in wrong direction
  - US has to cope elements of European system
  - 'Rebuilding' industrial ecosystem, complementarities
  - Convening, coordination, risk pooling, bridging
  - Vocational schools and community colleagues
  - Industrial centers less based on externalities
- ⇒ **MIT proposes US firms to go for cooperation**
- **Both with other firms, community**

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- **Summary**

- “Competitiveness” does not imply to be cheaper (not even price competitiveness)
- **Relation between cost and productivity**
  - With focus to increase productivity
- **And better: to be able to supply other goals.**

⇒ **New definition proposed in WWWforEurope**

**"Competitiveness is ability of a country to provide welfare (measured by Beyond GDP goals) for its citizens".**

- **Reaction to slow growth (EU), large deficits (US)**
- **“making”, “producing” is the stable, necessary basis of the economy**
- **Volatile cycles, less bubbles than finance, construction, housing**
- **If production is relocated, services/R&D follow**

⇒ **Looking for the role of industrialized countries in globalization.**

## WIFO ■ The two roads ahead for the US and EU

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- **Competing by low wages, low prices for energy**
    - “One third-two third model” of (Southern) US
  - **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 ‘One third/two third model’.**

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<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2011-0093+0+DOC+XML+V0//EN>
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- 
- Area 1: Challenges for the European Welfare State
  - Area 2: The Environmental and Biophysical Dimension
  - Area 3: Drivers for Change: Innovation, Industrial and Innovation Policy
  - Area 4: Governance Structures and Institutions at the European Level
  - Area 5: The Role of Regions in the Socio-ecological Transition
  - Area 6: Framing of the Project, Integration and Synthesis.

- 
- **Soft and holistic industrial policy**
    - Cooperation government/industry
    - Establish priorities
    - Solve coordination problems
    - Scope for experiments
    - Fight against particular interests
    - Increase productivity
  - **Action fields**
    - Product -, labour -, capital market, technology, institutions
- ⇒ **There is no "one size fits all" industrial policy**
- ⇒ **Systems, networks, institutions, abilities matter.**



## New systemic industrial policy should be continued

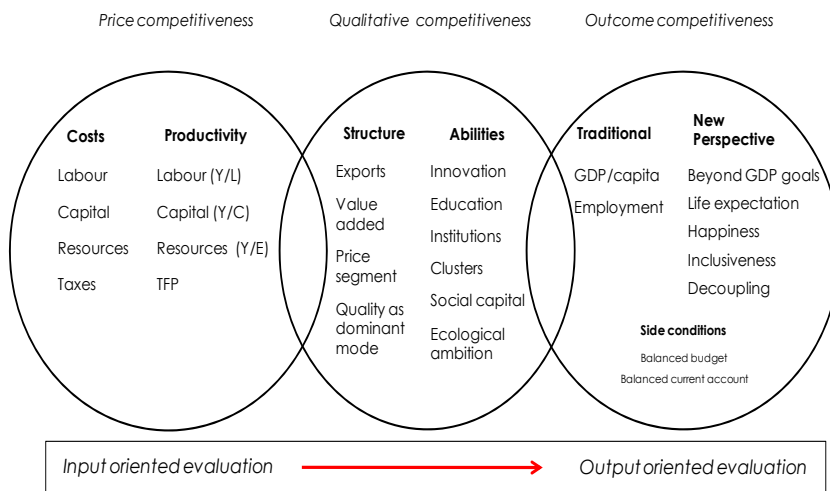
- Employment goals, competitiveness, climate goals cannot be attained separately
- If there are trade offs synergies have to be developed
- Permanently shifting priorities between goals will not work.

⇒ Gas maybe welcomed “transition technology”

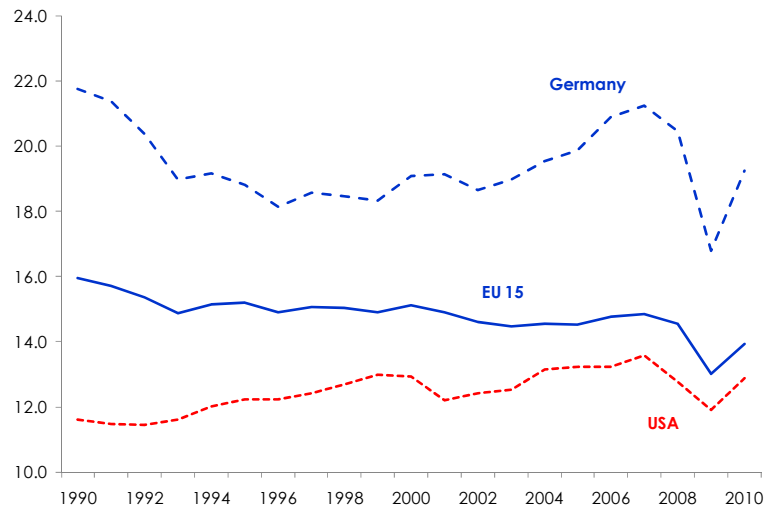
⇒ Low energy prices for a carbon emitting energy

- Is a short-run relief
- It should not destroy strife for non-carbon technologies.

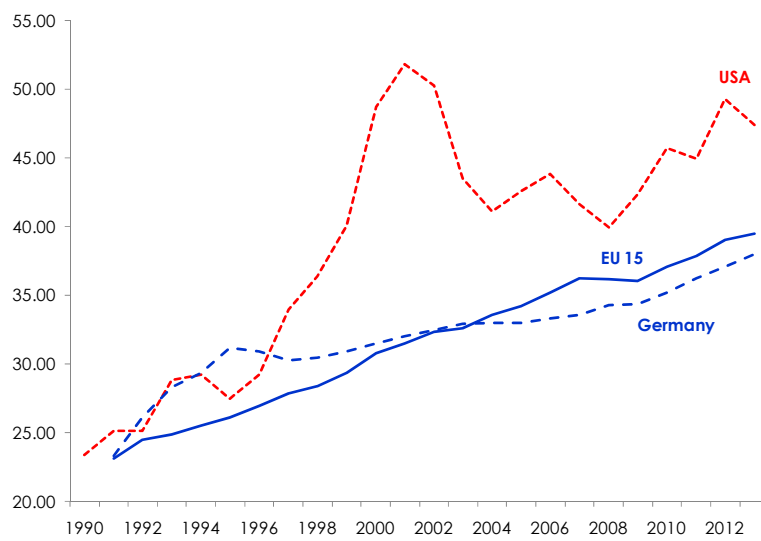
## Competiveness under new perspective in a nutshell



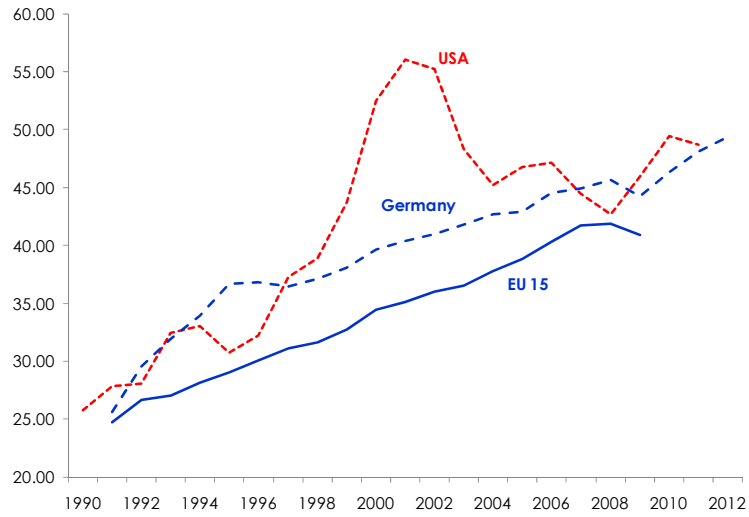
### Share of manufacturing in GDP (Prices 2005)



### Wages per employee: Total economy



## Wages per employee: Manufacturing



## Manufacturing proved to be important Industrial base improves performance after crisis

