Industrial Policy and the European Union

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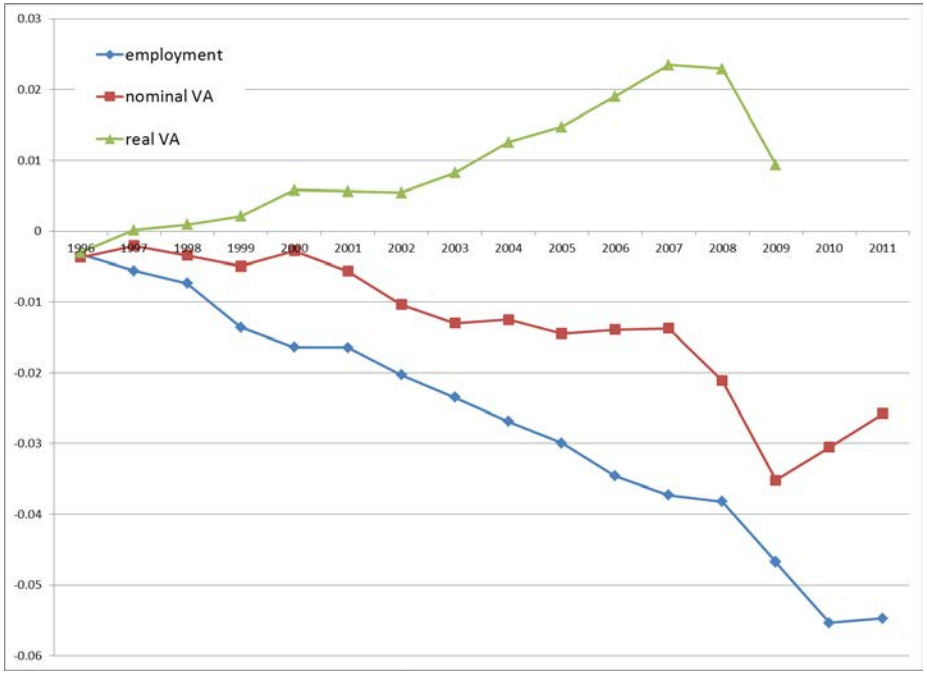
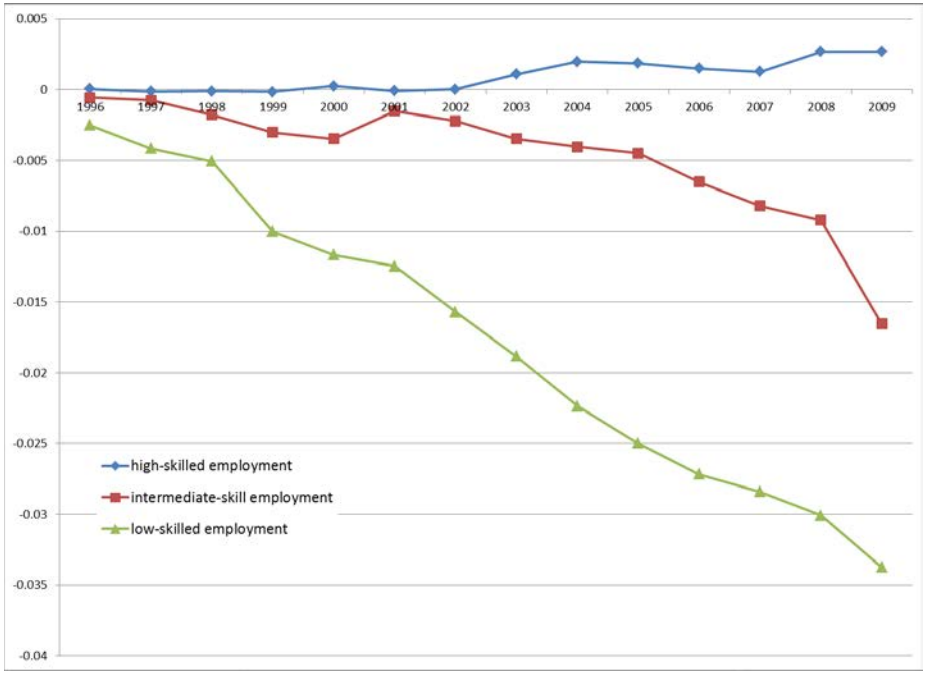
Outline

- How is manufacturing doing in EU?
  - a lot better than one may think
  - employment, VA and real VA
  - comparators
- What is industrial policy for?
  - the new industrial policy thinking
  - role in “normal” times
- Europe’s growth imperative
  - role of opportunistic industrial policies and/or structural reform
- Focus on broad strategy
  - rather than details

How is manufacturing doing?

Manufacturing shares of the economy in the EU since the mid-1990s
(part that is unexplained by income and demographic trends)

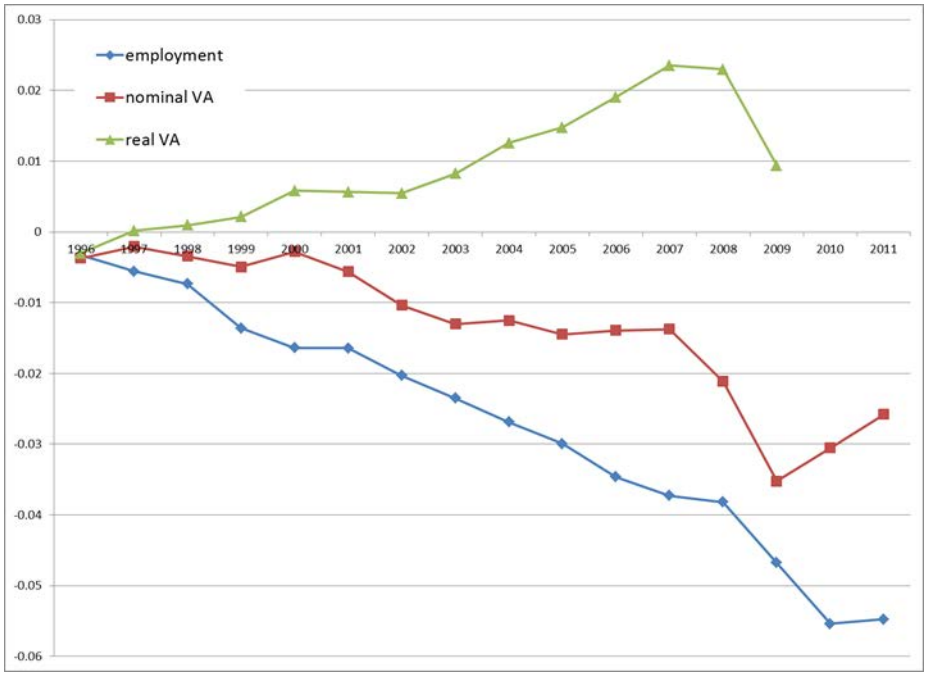




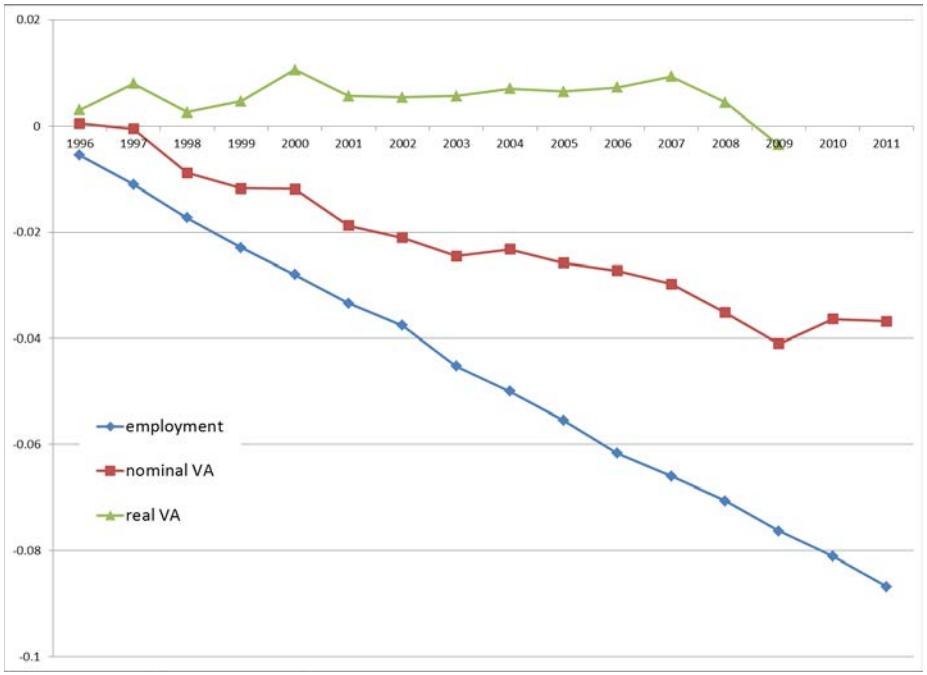
Estimated coefficient on year dummies obtained from regressing manufacturing shares on ln pop, ln pop squared, ln gdp per cap, ln gdp per cap squared, country and year fixed effects. Data from WIOD.

Is the EU different?

Manufacturing shares of the economy (EU versus non-EU) since the mid-1990s (part that is unexplained by income and demographic trends)



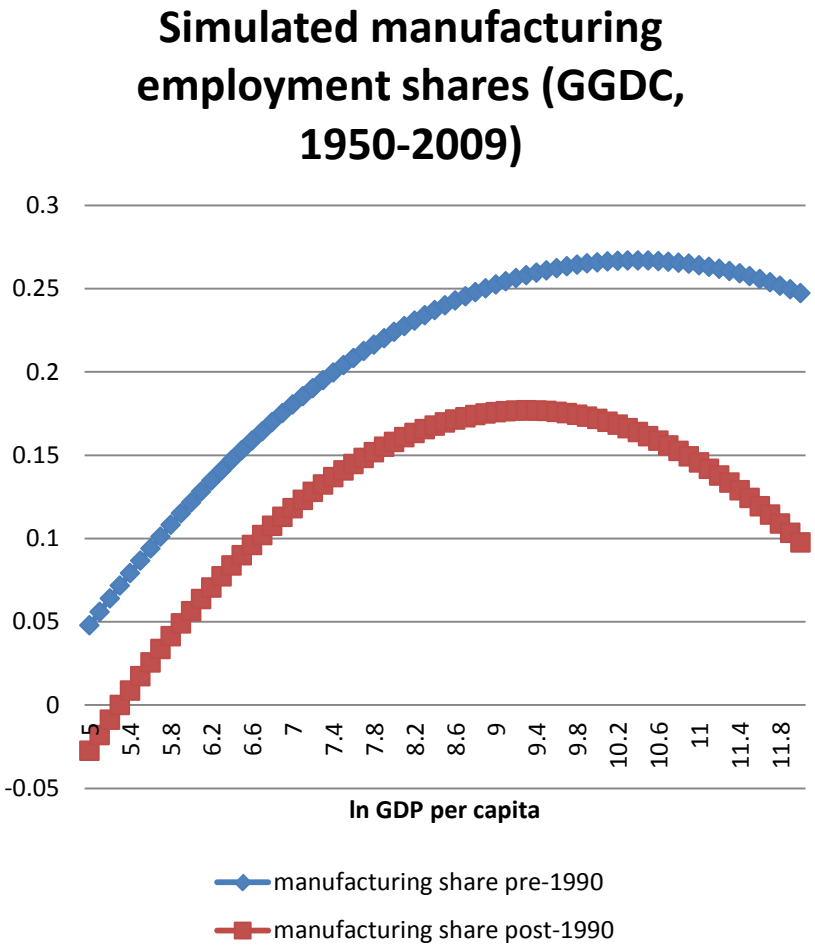
EU

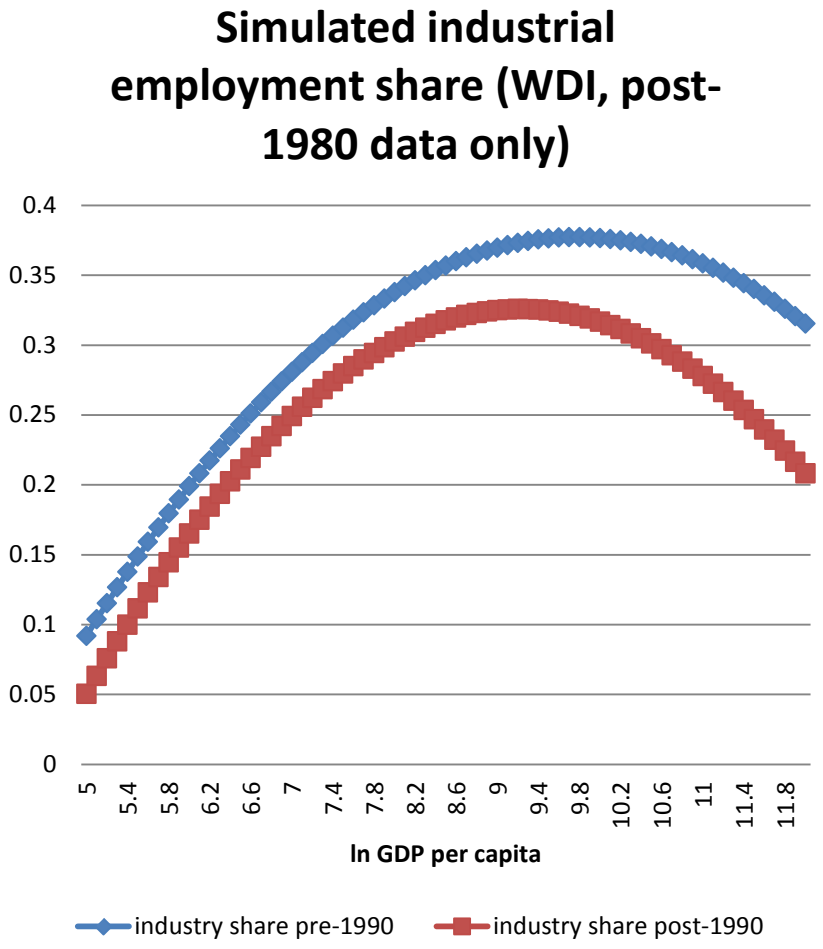


non-EU

Estimated coefficient on year dummies obtained from regressing manufacturing shares on ln pop, ln pop squared, ln gdp per cap, ln gdp per cap squared, country and year fixed effects. Data from WIOD.

De-industrialization (in employment): a global trend

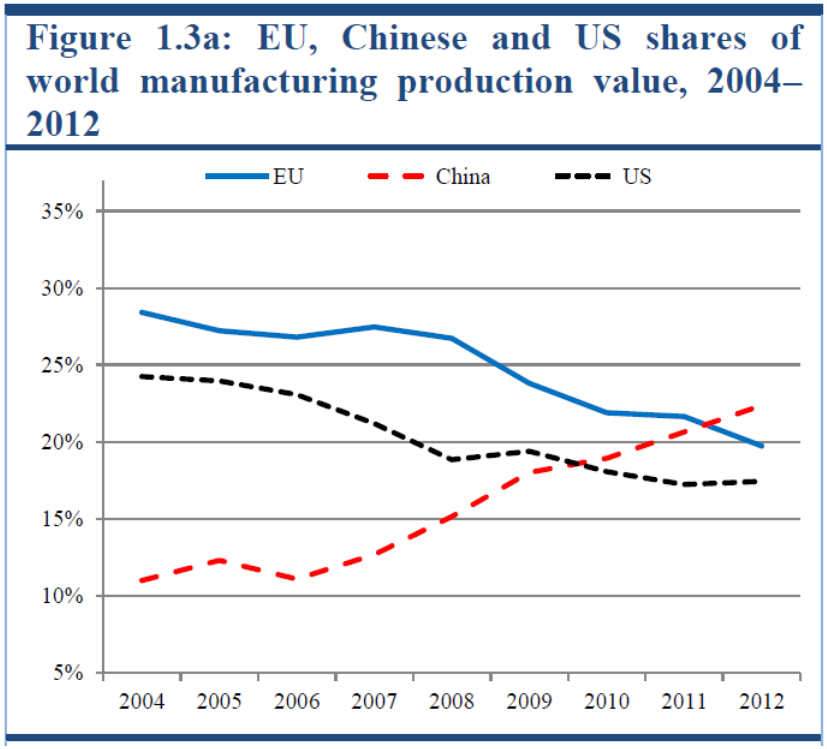




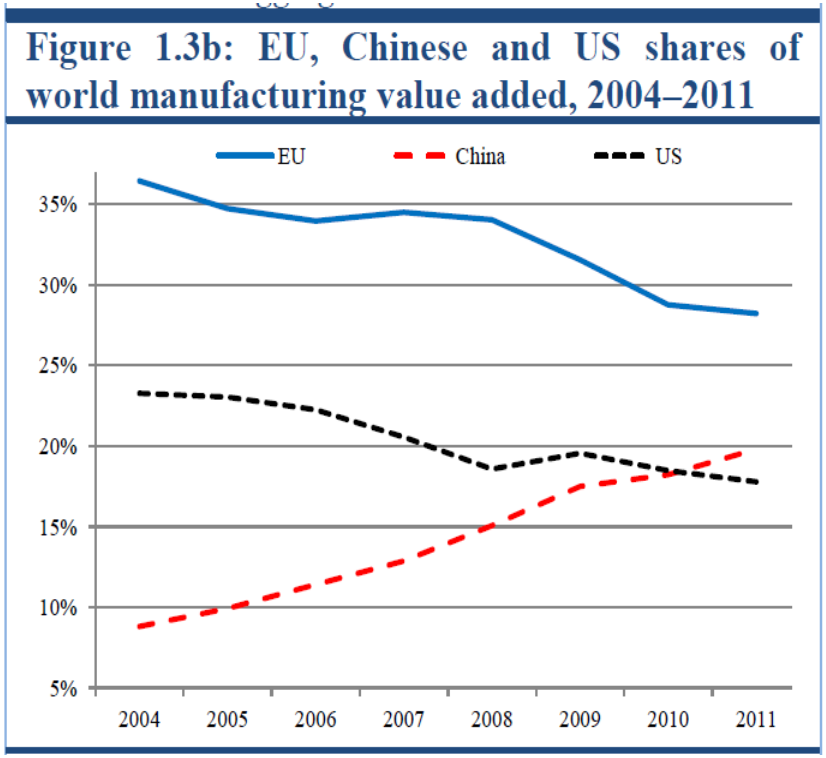
Generated from a regression of employment shares on ln population and ln GDP per capita (and their squares), country and year dummies, allowing for difference in post-1990 slope coefficients. Assumes a country with a population of 30 million.

What about China and the U.S.?

Global output shares

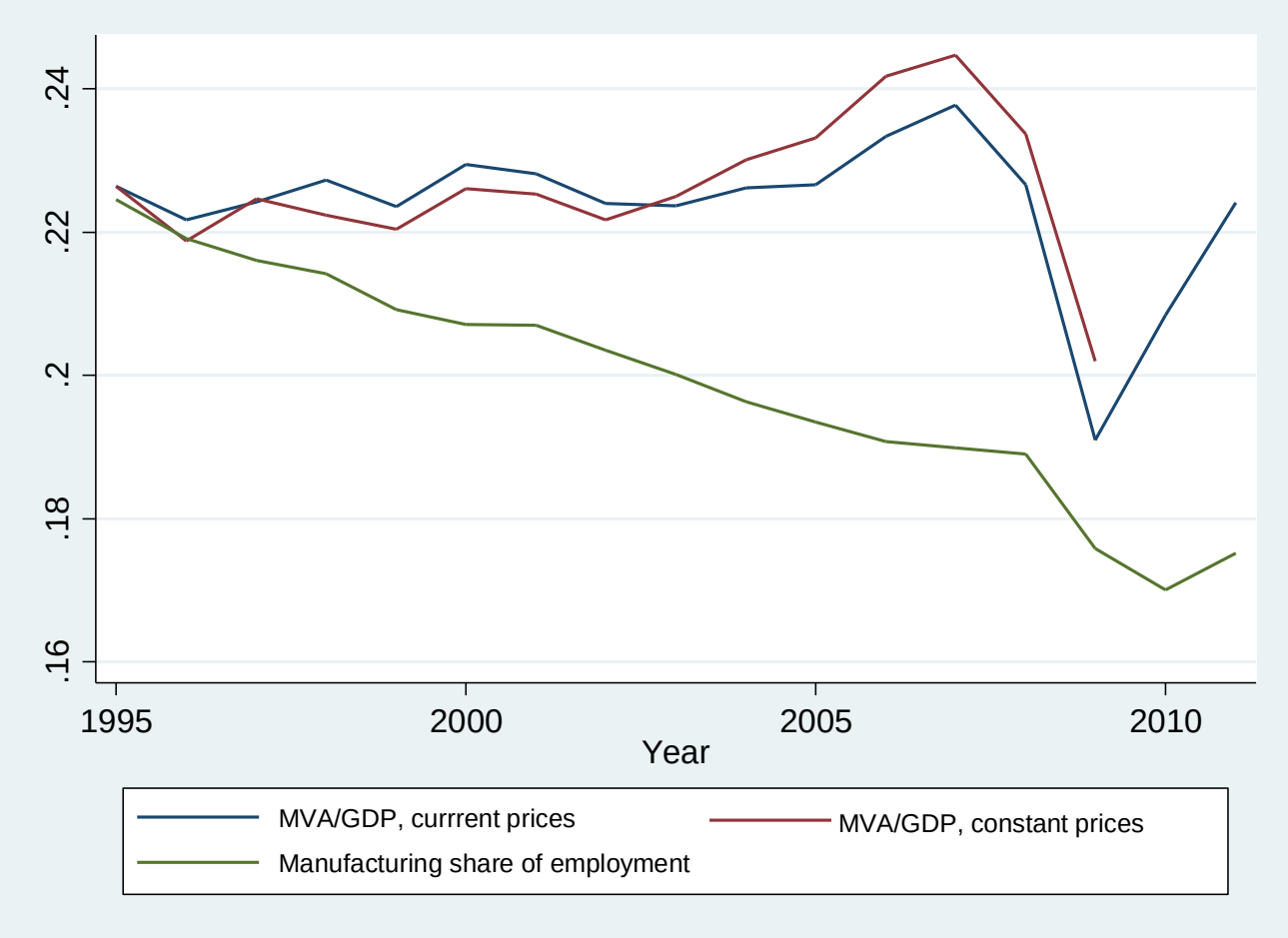


Global value added shares



Source: European Competitiveness Report, 2014.

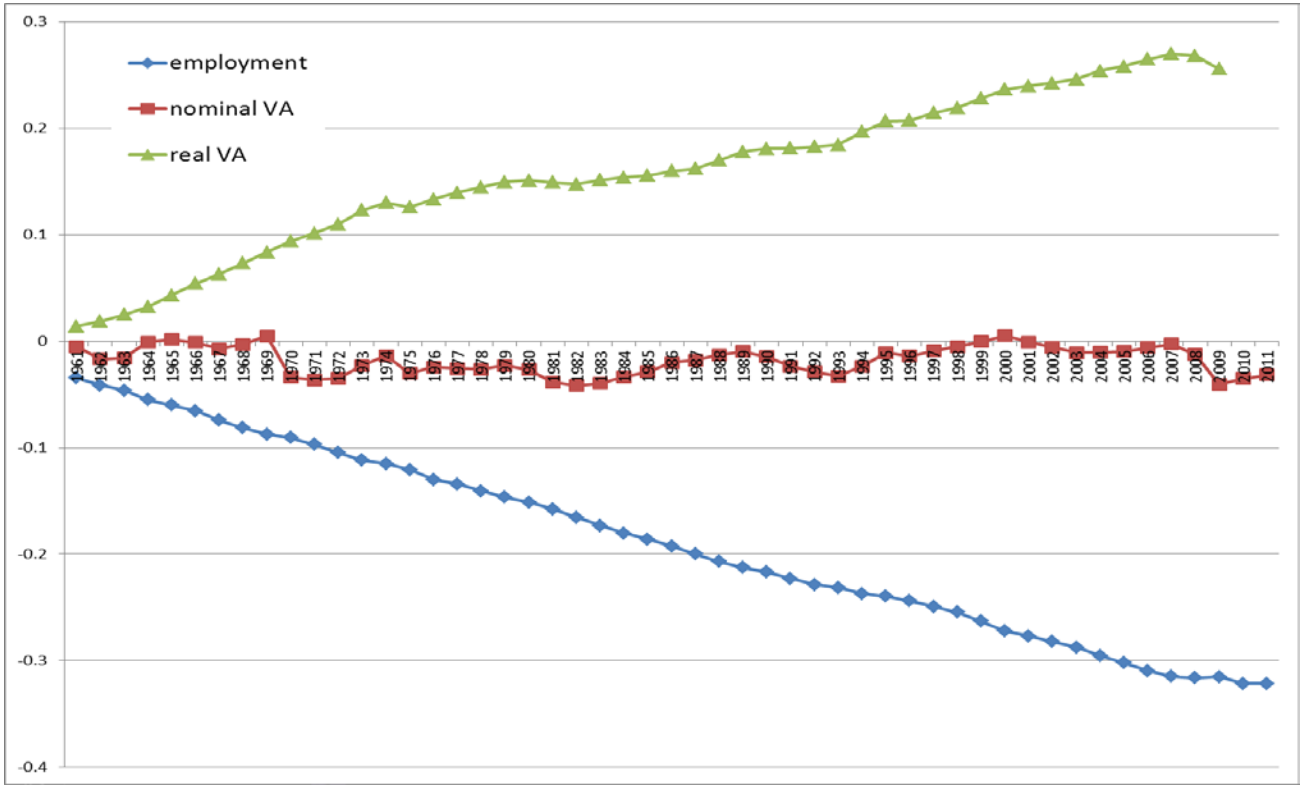
Or Germany?



Source: WIOD

Are the trends recent?

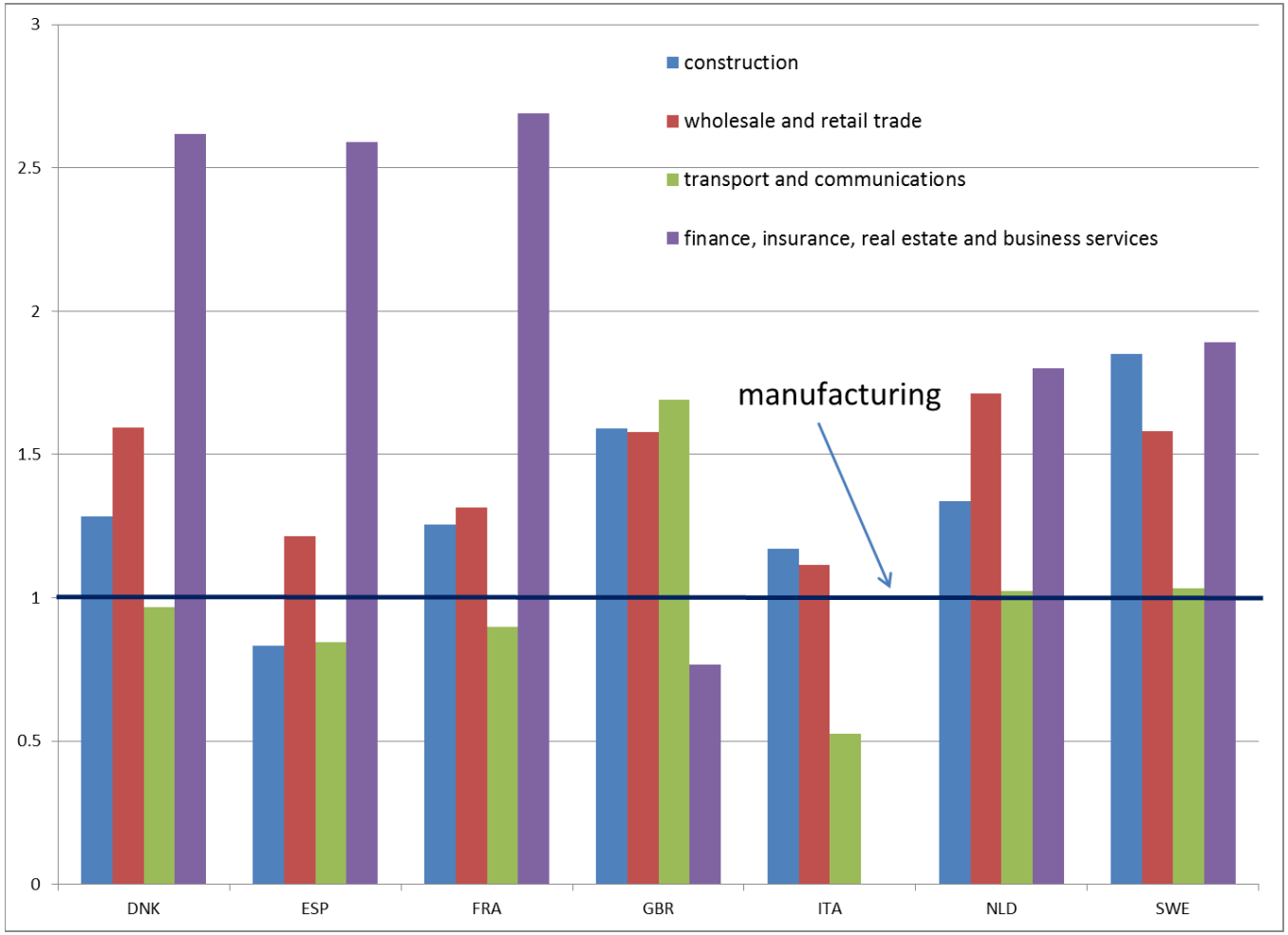
Manufacturing shares of the economy since 1960
(part that is unexplained by income and demographic trends)



Estimated coefficient on year dummies obtained from regressing manufacturing shares on ln pop, ln pop squared, ln gdp per cap, ln gdp per cap squared, country and year fixed effects. Data from GGDC, covers DNK, ESP, FRA, GBR, ITA, NLD, and SWE.

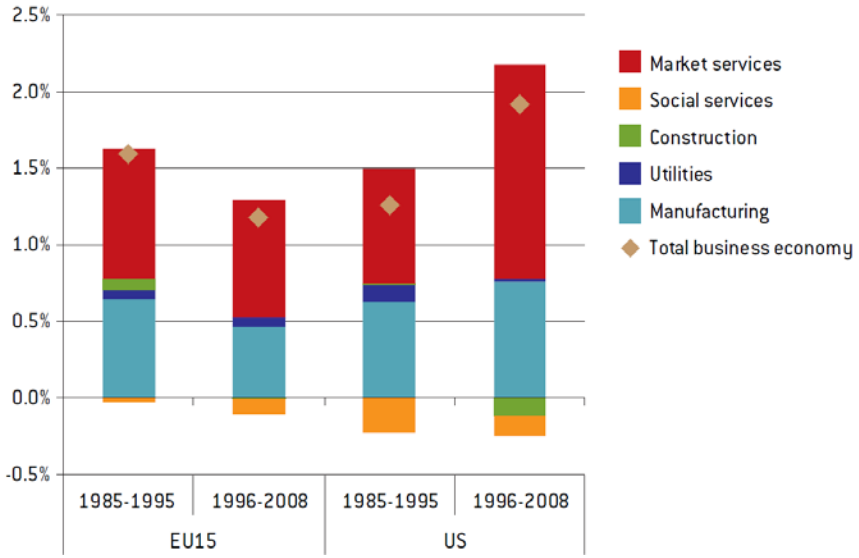
Does manufacturing still matter (1)

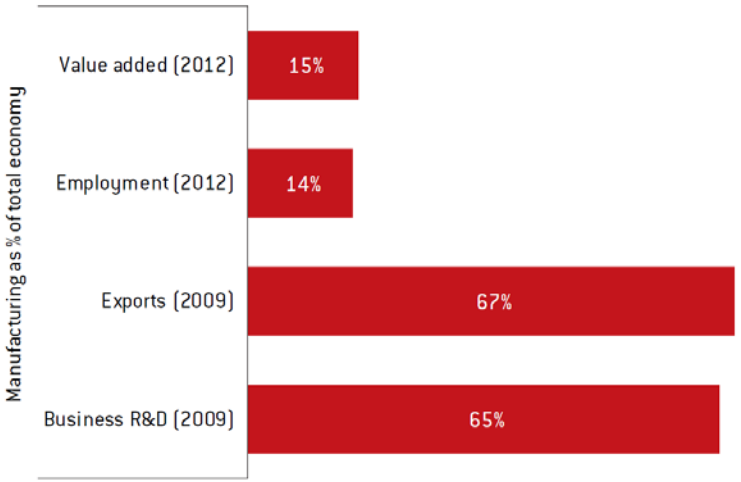
Labor productivity in manufacturing relative to selected sectors, 2009



Does manufacturing still matter (2)

Figure 7: The contribution of different sectors to productivity

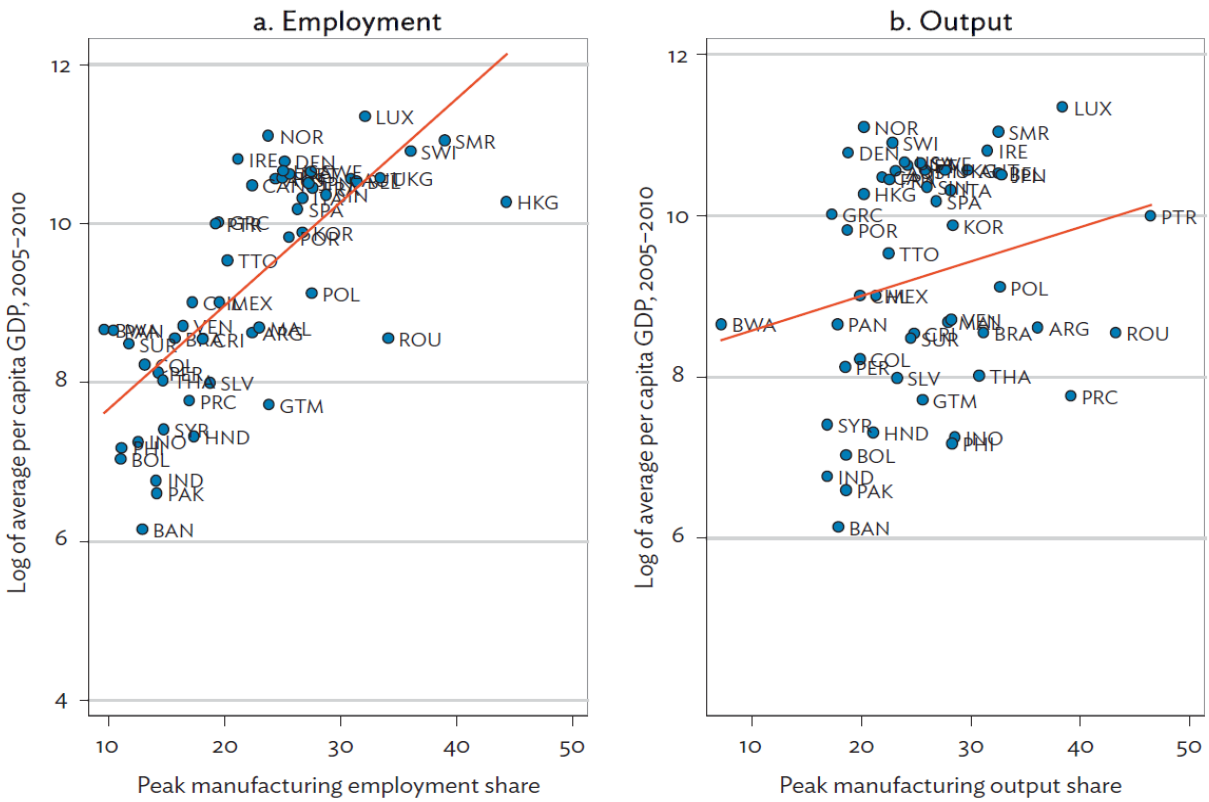




Source: Veugelers (ed.), 2013.

Does manufacturing still matter (3)

Figure 1: Peak Manufacturing Employment and Subsequent Prosperity



Notes: X-axis shows the level at which the 7-year moving average of the manufacturing employment and output shares peaked between 1970 and 2010. The dates of these peaks vary across countries. See Appendix Table A.3 for the definition of the codes.
Source: Authors' calculations.

Source: Felipe et al. 2014.

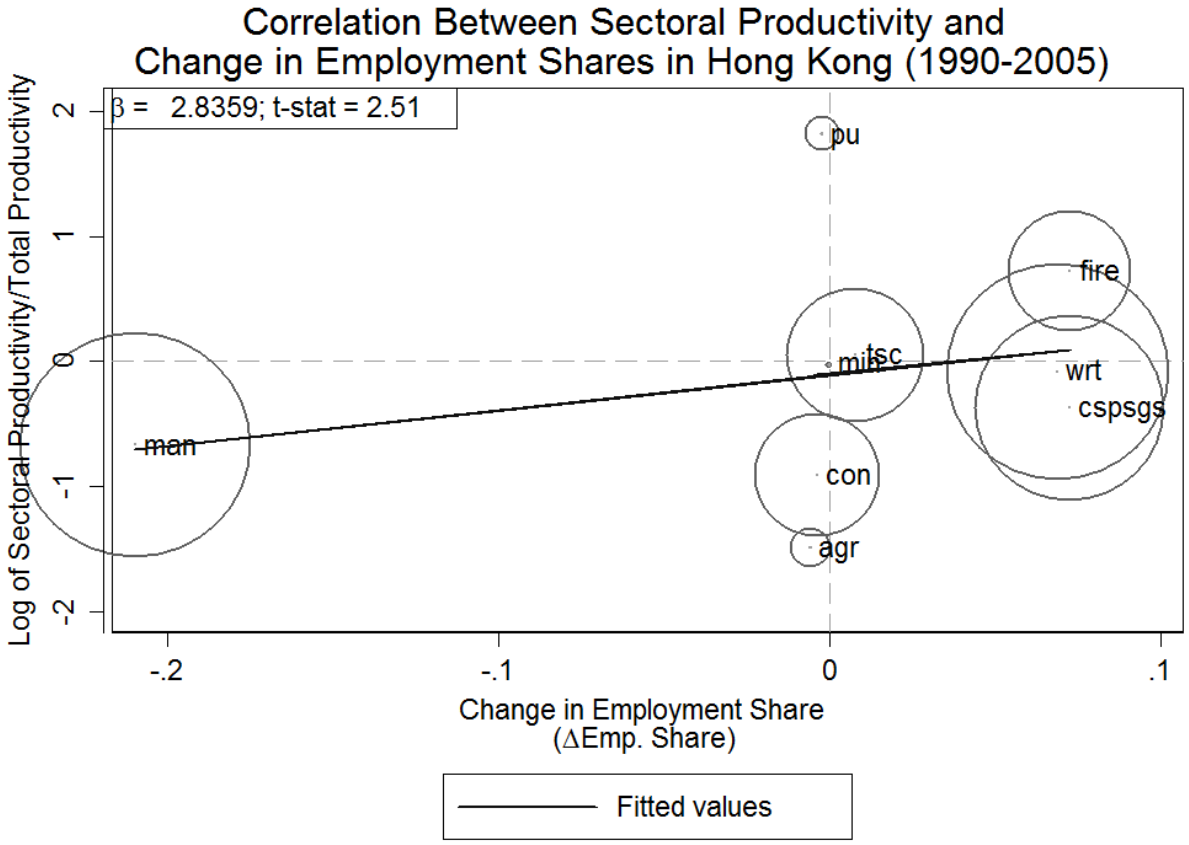
Europe's many advantages

- Already industrialized
  - has large, competitive manufacturing base
  - so does not have to worry about syndrome of premature deindustrialization
  - decline in employment in line with or more favorable than global norms
- Large, (mostly) integrated internal market
  - scale, standard-setting
- Skilled labor force
- Competent public administration
- Relatively ambitious goals re climate change
  - first-mover opportunities in green technologies
- A tradition of explicit public-sector engagement in building new industries

Industrial policy for what?

- Two possible motives
  A. promote employment growth in manufacturing
     - or at least delay de-industrialization
     - idea: good jobs (with high wages/high productivity) are there
     - presumed market/govt. failure: barriers that create wedges in compensation and reduce labor mobility
  B. foster R&D and innovation
     - presumed market failure: spillovers in new product/process development
- … with different policy implications
  - policies targeted at employment generation versus innovation
  - regional/cohesion/social policies versus innovation
  - no need to worry about deindustrialization per se if objective is *B*
- industrial policy in EU must focus largely on latter target
  - reversing (employment) de-industrialization unlikely
    - and 20% target for industry share (nominal) makes little economic sense
  - social objectives better dealt with social policies

(Employment) de-industrialization need not be a bad thing



*Note: Size of circle represents employment share in 1990
**Note: β denotes coeff. of independent variable in regression equation:
$\ln(p/P) = \alpha + \beta \Delta$Emp. Share
Source: Author's calculations with data from Timmer and de Vries (2009)

What kind of industrial policy? (1)

- Distinction between horizontal versus vertical policies
  - Economists' traditional preference for horizontal policies
    - education, R&D subsidies, …
  - Not too useful in practice?
    - even "horizontal" policies often involve choice and selection
      - e.g. location/type of infrastructure investments, forms of specialized training, public procurement specifications, regulatory reform priorities

What kind of industrial policy? (2)

- Only manufacturing? or services too?
- Many services have properties of manufacturing
  - innovative activity, tradability
  - “servitization” of manufactures
- A plausible strategy:
  - Target innovation in advanced manufacturing and tradable services
  - Target high wage (high-productivity) jobs in services
    - requires sustained improvements in human capital and institutions
    - less role for industrial policy, more role for regulatory reforms?

What kind of industrial policy? (3)

- Traditional versus modern industrial policy
  - traditional IP
    - a list of sectoral priorities + sectoral incentives
    - top-down, relying on quality of bureaucracy (honesty, competence, implementation)
    - presumes solutions are known
  - modern IP:
    - a process of institutionalized collaboration and dialog
    - focused on identification of constraints and opportunities
    - and the generation of pragmatic private-public solutions
    - continuous monitoring and evaluation
    - presumes only that solutions can be discovered

Institutional design for industrial policy

Must be built on three ideas, each of which leads to a different “design principle”:

1. The requisite knowledge about the existence and location of the spillovers, market failures, and constraints that block structural change are diffused widely within society

   => “embeddedness”

2. Businesses have strong incentives to “game” the government

   => carrots and sticks, discipline

3. The intended beneficiary of IP is neither bureaucrats nor business, but society at large

   => accountability

Design features for IP institutions: embeddedness

- Economists tend to think of policy design in top-down, principal-agent terms
  - takes informational incompleteness and asymmetries as given, while keeping the private-sector at arms' length
- This model has the advantage that it gives bureaucrats autonomy and protection from private sector rent-seeking…
- But it has the disadvantage that it severely restricts the flow of information from below
  - businesses cannot communicate information about the constraints they face other than through their actions
- "Capture" model also obviously wrong, since it leaves bureaucrats in the pockets of business

Design features for IP institutions: embeddedness

- Right model lies in between the two extremes:
  - strategic collaboration and coordination between the private sector and the government with the aim of uncovering where the most significant bottlenecks are
    - deliberation councils, supplier development forums, “search networks,” investment advisory councils, sectoral round-tables, private-public venture funds…
  - IP as a process of discovery rather than as a list of policy instruments
    - focusing on learning where the binding constraints lie, rather than on whether you should use tax breaks, R&D subsidies, credit incentives, and so on
    - eliciting information on private sector’s willingness to invest subject to the removal of obstacles (or provision of incentives)
  - cycles of goal-setting, monitoring, revision (e.g., PEMANDU, Sabel and Jordan 2014)
  - combination of autonomy and embeddedness

Design features for IP institutions: carrots and sticks

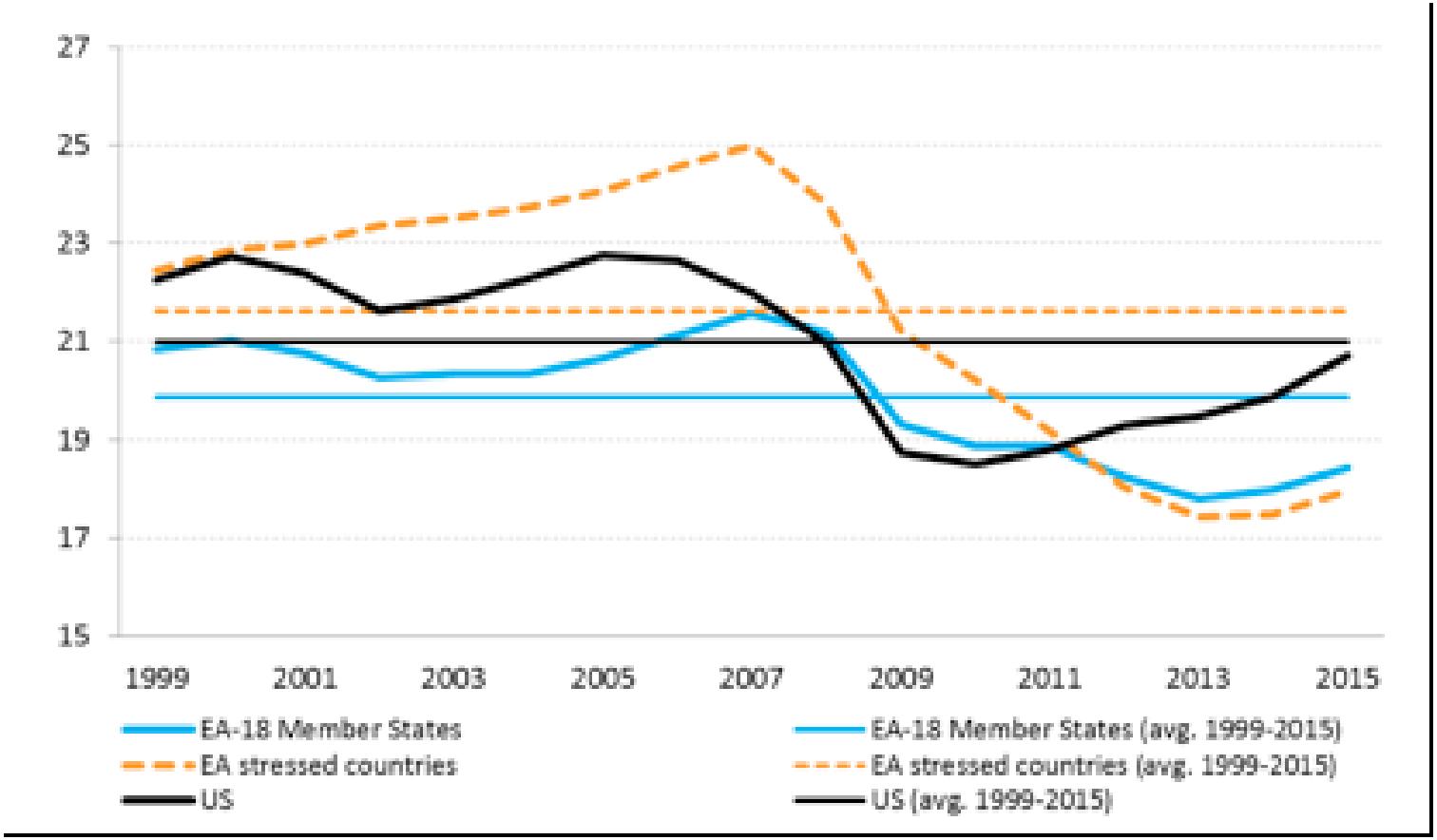
- Without rents for entrepreneurs, there is too little investment in cost discovery and other activities that promote structural change
  - Schumpeter's insight: entrepreneurship requires rents
  - rents as second-best mechanisms to alleviate market failures in innovation
    - patents are the obvious example
- But open-ended rents bottle up resources in unproductive activities
- Hence the need for carrots and sticks
  - incentives and disciplines
  - conditional subsidies, sunset clauses, monitoring and evaluation,…

Design features for IP institutions: carrots and sticks

- Can governments pick winners?
  - wrong question
- Success in IP is determined not by “picking winners” but by “letting losers go”
  - experimentation is unavoidable
  - given uncertainty, optimal policy outcomes will necessarily produce mistakes
    - Solyndra versus Tesla
    - must evaluate portfolio of projects, not individual projects
  - trick is not to avoid mistakes altogether, but to ensure that
    - mistakes are recognized as such
    - and entail phasing out of support
  - a much weaker requirement than “omniscience”
    - governments may not be able to pick winners, but they can recognize losers

What industrial policy cannot do: fix economic crisis

Aggregate demand and investment



Source: Buti and Mohl 2014.

A role for opportunistic industrial policy?

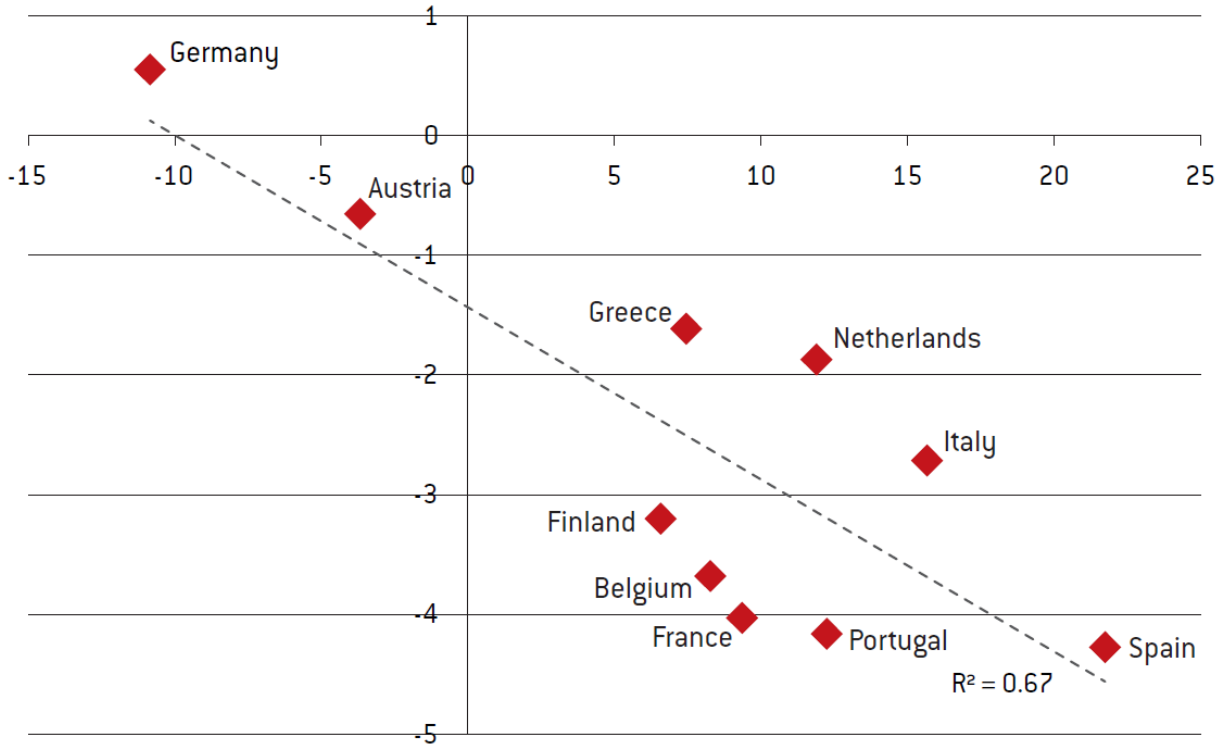
- Policies that simultaneously
  - lift aggregate demand and demand for labor
  - increase productivity
- Examples
  - public spending on infrastructure (transport, digital economy, energy)
    - proposed €315bn spending; but commitments?
  - extension of finance to SMEs and young firms
  - training and skill upgrading programs for displaced/unemployed workers
- Dangers of relying too much on structural reform as growth strategy under present conditions

The limits of structural reforms under depressed demand

- Theory: supply-side reforms boost can productivity, output, and employment
  - labor-market flexibility; deregulating professions; privatization
- How structural reform increases productivity in practice:
  - (a) shedding labor in low-productivity sectors
  - (b) expanding employment/output in productive sectors, through increase in capacity/investment
  - need both to get economy-wide productivity gains
- Under low aggregate demand, first of these tends to increase unemployment, while second mechanism operates very weakly
  - making it easier to fire labor has little effect on hiring when firms have excess capacity and cannot sell their output
  - even IMF is now making this point…

Don’t forget: role of real exchange rate

Figure 7: Change in manufacturing share vs. change in ULC-based REER 1999-2008

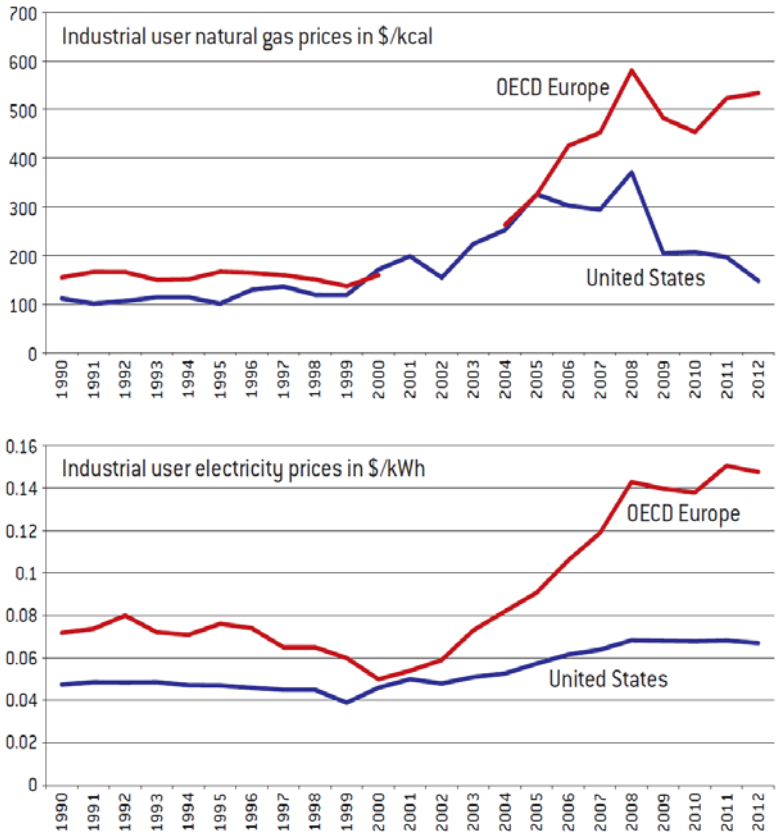


Source: Bruegel based on AMECO. Note: The REER used is relative to 36 industrial countries. ULC change on x-axis, change in manufacturing shares on y-axis.

Source: Veugelers (ed.), 2013.

What about high energy costs?

- Long-term benefits of comparative advantage in green technologies
  - the “high road” in competitiveness (Aiginger 2014)



Source: Zachmann and Cipollone 2013

Concluding words

- Now that industrial policy is reborn, important not to exaggerate what it can accomplish
  - industrial policy cannot reignite growth in the midst of macroeconomic imbalances
  - it cannot reverse inevitable de-industrialization
- Industrial policy is a craft
  - the importance of local learning-by-doing, and institutional innovation
- Industrial policy is a process and a frame of mind
  - not a set of policy tools and sectoral priorities
  - the quality of government-business dialog is critical