Industrial Policy: Emerging Issues and New Trends

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A connection to Babbage

Beyond Industrial Policy
EMERGING ISSUES AND NEW TRENDS
Ken Warwick
“Political economists have been reproached with too small a use of facts, and too large an employment of theory. If facts are wanting, let it be remembered that the closet-philosopher is unfortunately too little acquainted with the admirable arrangements of the factory; and that no class of persons can supply so readily..... the data on which all the reasoning of political economists are founded, as the merchants and manufacturer........ Nor let it be feared that erroneous deductions may be made from such recorded facts: the errors which arise from the absence of facts are far more numerous and more durable...
Renewed interest in industrial policy worldwide
Why the resurgence of interest?

- Need to stimulate growth and employment in response to the crisis
- Concerns over structural imbalances
- Prevalence of market failure
- Political economy of bail-out finance
- Success of emerging market economies
Share of global manufacturing value added

Source: OECD estimates, based on UNSD
Location of value added in the value chain

Source: Gary Gereffi, presentation at OECD workshop, September 2010.
OECD programme of work on industrial policy

1. Working paper on industrial policy and the new paradigm
2. Analysis of industrial policy responses to 2008-09 crisis
3. Experts group for peer review and lesson sharing
4. Guidelines on evaluation of industrial policy
5. Policy implications discussion
any type of selective intervention or government policy that attempts to alter the structure of production toward sectors that are expected to offer better prospects for economic growth than would occur in the absence of such intervention, i.e., in the market equilibrium (Pack and Saggi, 2006)

“Industrial Policy is any type of intervention or government policy that attempts to improve the business environment or to alter the structure of economic activity toward sectors, technologies or tasks that are expected to offer better prospects for economic growth or societal welfare than would occur in the absence of such intervention.”
Dimensions of industrial policy

- **Aim**: Industrialisation, productivity, sector growth, employment, social welfare, distribution.
- **Target group**: Sector (or technology, input, or stage of the value chain), firms or clusters?
- **Rationale**: Underlying philosophy that justifies active industrial policy (market failures, capacity building etc).
- **Orientation**: Is policy horizontal/functional or vertical/selective? Is targeting strategic or in response to market pressures? Is intervention time-limited or longer-term? Conditional or unconditional? Does policy work with existing comparative advantage or explore new areas?
- **Policy domain**: Product or factor markets – labour, capital, land and technology. Role for policies to develop entrepreneurship or facilitate coordination or the creation of new networks?
The evolving rationale for industrial policies

- Laissez faire
- Traditional, state-aids, ownership-based
- Neoclassical, market-failure correcting
- New growth, technological capabilities
- Institutionalist, neo-Schumpeterian, evolutionist, systems-based
## Typology of instruments by policy domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Horizontal Policies</th>
<th>Selective Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product markets</strong></td>
<td>Competition and anti-trust</td>
<td>National Champions</td>
</tr>
<tr>
<td></td>
<td>Indirect tax</td>
<td>Nationalisation/privatisation</td>
</tr>
<tr>
<td></td>
<td>Product market regulation</td>
<td>Output subsidies/state aids</td>
</tr>
<tr>
<td></td>
<td>Exchange rate policy</td>
<td>Export promotion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Price regulation (e.g. pharma)</td>
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<tr>
<td></td>
<td></td>
<td>Public procurement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trade policy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Car scrappage</td>
</tr>
<tr>
<td><strong>Labour and skills</strong></td>
<td>Skills and education policies</td>
<td>Targeted skills policies</td>
</tr>
<tr>
<td></td>
<td>Training subsidies</td>
<td>Apprenticeship policies</td>
</tr>
<tr>
<td></td>
<td>Wage subsidies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Income and employment tax</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management advisory services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Labour market regulation</td>
<td></td>
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<tr>
<td><strong>Capital markets</strong></td>
<td>Loan guarantees</td>
<td>Strategic Investment Fund</td>
</tr>
<tr>
<td></td>
<td>Corporate tax/capital allowances</td>
<td>Emergency Loans</td>
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<tr>
<td></td>
<td>Macro/financial stability</td>
<td>State Investment Bank</td>
</tr>
<tr>
<td></td>
<td>Financial market regulation</td>
<td>Inward investment promotion</td>
</tr>
<tr>
<td><strong>Land</strong></td>
<td>Planning regulation</td>
<td>Enterprise zones</td>
</tr>
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<td></td>
<td>Land use planning</td>
<td>Place-based clusters policy</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td>R&amp;D tax credit</td>
<td>Green technology</td>
</tr>
<tr>
<td></td>
<td>Science Budget</td>
<td>Lead Markets</td>
</tr>
<tr>
<td></td>
<td>IPR regime</td>
<td>Public procurement for innovation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Patent Box</td>
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<td></td>
<td></td>
<td>Selective technology funding</td>
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<tr>
<td></td>
<td></td>
<td>Centres of expertise</td>
</tr>
<tr>
<td><strong>Systems/Institutions</strong></td>
<td>Entrepreneurship policy</td>
<td>Indicative planning</td>
</tr>
<tr>
<td></td>
<td>Scenario planning</td>
<td>Foresight initiatives</td>
</tr>
<tr>
<td></td>
<td>Distribution of information</td>
<td>Identifying strategic sectors</td>
</tr>
<tr>
<td></td>
<td>Overall competitiveness strategy</td>
<td>Sectoral competitiveness strategy</td>
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<td>Clusters policy</td>
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</tbody>
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Typology by policy orientation

Industrial Policy

Horizontal

Selective

Framework conditions

Strategic

Defensive/Reactive

“Tasks”

Sectors

Technology

OECD
Typology by orientation – reactive/defensive policy

Reactive

Crisis response

- Bail-out Finance
- Incentivising reform

Defensive

- Managed adjustment
- Protecting losers
Two-way classification of strategic industrial policy

- Infant industry
- Seeking strategic advantage in new areas
- Building on strengths in development
- Consolidating on frontier strengths

Comparative advantage-developing

Comparative advantage-following

Catch-up

Frontier
Stages of industry lifecycle

Figure 2 – stages of industry lifecycle

Source: Livesey (2012)
Comparative industry maturity grid

Source: Livesey (2012)
Industrial policy orientation based on comparative maturity

Source: Livesey (2012)
New industrial policy in practice

- Cluster policies
- Investment promotion
- Public procurement
- Fostering green growth
“The emerging consensus is that the risks associated with selective-strategic industrial policy can be minimised through a ‘soft’ form of industrial policy, based on a more facilitative, coordinating role for government, consistent with the systems approach......

“The goal of ‘soft’ industrial policy is to develop ways for government and industry to work together to set strategic priorities, deal with coordination problems, allow for experimentation, avoid capture by vested interests and improve productivity.”
“...my chief political project last year was to establish a firm case for an industrial strategy – words previously banished from Whitehall. That case has been won – and I think is now broadly accepted on Right and Left. Work is now well underway with industry to develop long-range strategies for 10 important sectors by this summer. As they emerge, it will become clear that they are not all about extra money, but rest on a structure of cooperation with industry: in procurement, regulation, export and trade policy – indeed, every area where government interfaces with business. But, as with science, the spending element is still important.”
“In the coming weeks, I’m confident that the government will demonstrate its commitment to long-term industrial investment – investment which pulls in a private sector commitment many times larger; which supports essential areas of industry; which proves to business and to investors that our strategy is no flash in the pan and that Britain intends to deliver on its promise to rebalance its economy.”

Vince Cable 7 March 2013
Industrial strategy: UK sector analysis
Analyses evidence on which sectors could contribute to UK future economic growth and employment.

Lifting Off: Implementing the Strategic Vision for UK Aerospace
An industrial strategy for aerospace, implementing a shared government and industry vision for the sector.

Strategy for UK life sciences
The government’s strategy for the UK life sciences industry. Focuses on applying biology in healthcare applications.

UK Oil and Gas: Business and Government Action Plan
Government and industry strategy for the future of the UK upstream oil and gas sector.

Nuclear Industrial Strategy: The UK's Nuclear Future
Government and industry strategy for the future of the nuclear sector in the UK.
Developing strategic partnerships with industry

The government is developing long-term strategic partnerships with industry sectors where we can have the most impact on growth.

**Advanced manufacturing**
- Aerospace
- Automotive
- Life sciences
- Agri-tech

**Enabling sectors**
- Energy: nuclear
- Energy: oil and gas
- Energy: offshore wind
- Construction

**Knowledge services**
- Education
- Information economy
- Professional business services

**Partnership strategies will:**
- be long term
- be created with industry, committing business and government to specific actions
- involve the whole of government
- identify actions to benefit all businesses
‘Eight great technologies’

- **Big data**: transforming scientific enquiry and many industries - the UK can lead in this and in the energy-efficient computing revolution.
- **Satellites**: building satellites and analysing and using the data from satellites.
- **Robots and other autonomous systems**: applications range from assisted living for disabled people to nuclear decommissioning.
- **Synthetic biology**: engineering genes to help heal, feed and fuel the UK.
- **Regenerative medicine**: new medical techniques for repairing and replacing damaged human tissue.
- **Agricultural technologies**: to put the UK at the forefront of the next green revolution.
- **Advanced materials**: with targeted properties enabling technological advances in sectors like aerospace and construction.
- **Energy storage**: technologies for storing energy when it is produced so that it can be used when it is needed.
Conclusions

- Definition and new typology by orientation proposed.
- Approach varies with maturity of country and ‘sector’.

- Typology by policy domain based on growth accounting.
- Echoes evolving rationale.

- Theoretical rationale versus risk of Government failure.
- Role for ‘soft’ industrial policy.

- Need for better monitoring and evaluation.
- Focus on selective policy, and industrial strategy.
• “One size doesn’t fit all”.
• Both flexibility and tenacity needed.
• Some (e.g. Korea) moving to more horizontal policy; while others moving to more selective.
• “Choosing races and placing bets”.
• Convergence in thinking on “fourth generation” industrial policy with emphasis on systems, networks, institutions and capabilities.
• Challenges for evaluation, especially of strategy and policy programmes.
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