



Giovanni Federico
[New York University, Abu Dhabi]

Industrial policy in the 21st century

[IMF, Kuwait City, January 19th 2026]

What is industrial policy?

Defined as 'policies explicitly seeking to affect the sectoral structure of an economy'

- i) What is a sector? E.g. computer equipment? Semi-conductors? Some specific type? Do agriculture and services qualify?
- ii) What is the 'sectoral structure'? Just the composition of GDP by sector or other features (e.g. the distribution of firms by size/characteristics or the location)?
- iii) What does it mean 'affect'? Does it refer only to policies to develop the sector or also to stave off or manage decline?
- iv) What does it mean 'explicitly'? Should the law state explicitly the aim (almost nothing IP) or is it sufficient the likely ex-post effect (almost everything is IP)
- v) What are 'policies'? Is there a list of tools (e.g. trade policies, direct subsidies, subsidies via tax cuts etc.) or any measure would qualify, provided it affects the sectoral structure
- vi) Which is the policy-making body? Central/Federal state (possibly via ad-hoc agencies) or regional and local authorities?

Why industrial policy?

- i) The baseline economic motivation: addressing market failures (e.g. lack of learning by doing, poor co-ordination) which prevent socially optimal allocation of resources
- ii) public good. 'The goal is typically to stimulate innovation, productivity, and economic growth, but it could also be to promote climate transition, good jobs, lagging regions, exports, or import substitution' [Juhasz et al 2024]
- iii) National security. Control of domestic sources of raw materials of supply of manufactures

In most cases, these aims are structurally in conflict and thus wide range of trade-off

Assessing industrial policy: efficiency and effectiveness

- i) The IP is efficient if it increases GDP and Total Factor Productivity –i.e. it improves the economic conditions of the country
- ii) The IP is effective if it achieves its aims – whatever they are

Effectiveness is necessary but not sufficient condition for efficiency: an ineffective measure cannot be efficient (at most harmless), but an effective measure may be inefficient if it determines a misallocation of resources

The empirical work: mission impossible ?

Most literature deals with effectiveness or (less frequently) efficiency of specific policies – mostly but not only for trade policies

Its results are useful - knowing what has or has not worked helps avoiding mistakes and designing future policies

But it does not show whether the policy is efficient (or effective) relative to the alternatives, including no intervention, and a fortiori whether the whole IP strategy has been successful

These big picture issues question so far have been dealt with only with a narrative approach, with post hoc propter hoc inferences - e.g. debate East Asian success

The Working paper

Estimate of effectiveness of trade policy in comparative perspective with state-of-the-art regression approach

Results in a nutshell – IP effective in changing trade specialization but no clearly positive effect on firm performance in the medium run

Any lesson from history?

- i) States have always implemented 'industrial policies', although not explicitly stated
- ii) Aims have changed in time – 'national security' prominent until the 19th century, industrialization in the 19th and 20th century, while mixed aims in the 21st
- iii) Lobbying has always been a very relevant if not the main determinant of IP – with methods for gaining influence determined by the decision-making process
- iv) The tools have changed with increasing state capabilities and resources and, to a much lesser extent, developing economics
- v) Thus history offers a wealth of examples of policy and it is very easy to cherry-pick to uphold any argument with post-hoc propter hoc inferences

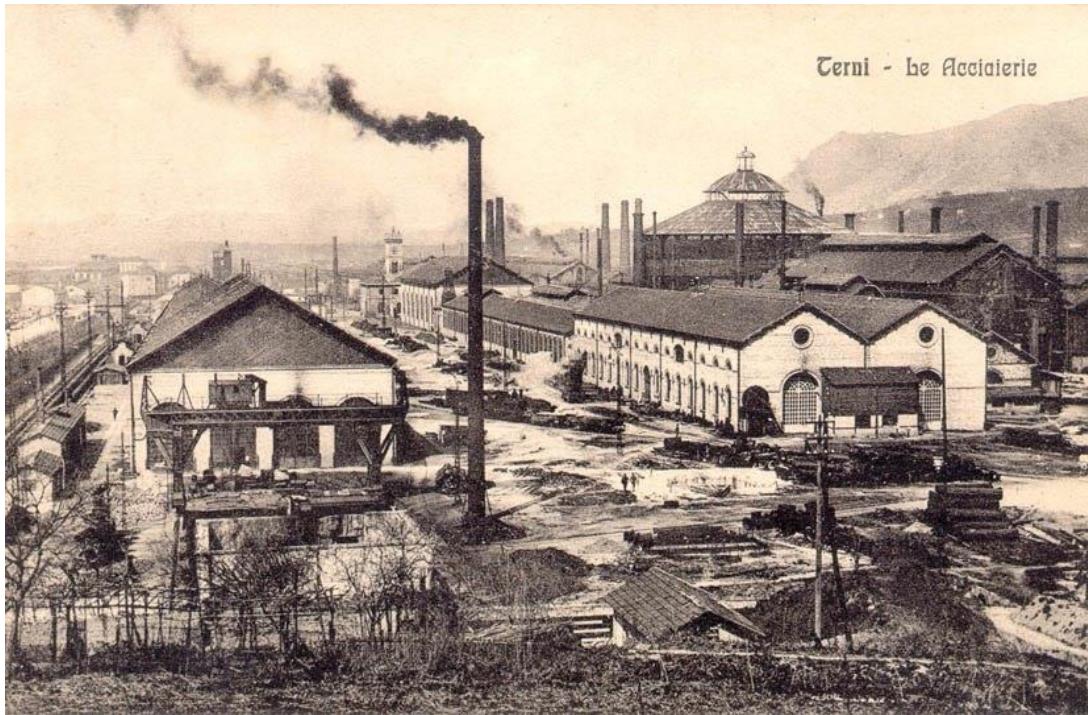
The pre-industrial age

- i) Prevalent national security motivation plus vanity projects. Thus targeted sectors production of weapons, foreign trade and shipping, luxury production
- ii) Mercantism (Europe 17-18th centuries) added an 'economic' rationale – having a positive trade balance to cumulate gold to fund wars.
- iii) Tools – high tariffs or prohibition imports, subsidies exports and import competing production, incentives to attract skilled workers (and prohibition emigration), monopolies to 'innovative' entrepreneurs and companies
- iv) Decision taken by the ruler –need funds, political expediency and personal friendship major determinants

The 19th and early 20th century

- i) Change world: British competition made industrialization a pressing concern, globalization threatened some traditional productions and colonial expansion offered new opportunities of controlling the supply of raw materials to colonial powers
- ii) Thus change aims: national security still very important but pursued via more broad-based industrialization and protection of domestic production (above all agriculture). Peak protection 1930s
- iii) By far the main tool tariffs, then subsidies and bail-outs, investment in education and construction specialized infrastructures (e.g. railways). Progressive introduction of all 'modern' tools – e.g. competition policy late 1890s USA, quotas since the 1930s, regional policies etc.
- iv) Decision making in Europe and Western Settlement countries more 'democratic': IP decided with a democratic process - different interests fighting in parliament. Colonies no or very little autonomy

National security motivations: the Terni steelworks (1884-1886)



The late 20th century

- i) New political and economic situation: Europe and Western Settlement countries already industrialized, while in the EMDE decolonization and political evolution (e.g. Socialist countries, Argentina) gave independent governments power to pursue their own Industrial policy
- ii) New motivations in advanced countries – less national security and protection industries, development via liberalization (GATT). In contrast industrialization and national security still prominent Socialist countries and EMDEs. In the twenty final years poor results of with import-substitution IP prompted liberalization (Washington consensus)
- iii) Full range of ‘modern’ tools – still conditional to resources and state capabilities
- iv) Decision making different – democratic process in advanced countries, party decision (five year planning) in Socialist ones, mix of authoritarian and democratic procedures in the EMDEs

The 21st century: back to the past?

- i) New scenario from globalization, Chinese economic growth and political affirmation and climate change
- ii) New aims – most notably policies for global warming (addressing market failure?).
- iii) End of liberalization world trade (failure Doha Round), only partially substituted by bilateral agreements
- iv) Return of national security as major aim IP, with ‘personal’ use tariffs
POTUS