

The Logic and the Method of Industrial Policy: Concepts and Practices

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- **Over time different paradigms prevailed in thinking on how to promote development**
- **... basic needs, capabilities, structural adjustment, “market-friendly” environment, ...**
- **... often only “cosmetic” changes and little consequences on actual policy strategies**
- **Now “Industrial Policy” and “Private Sector Development (PSD)”! Following a simple logic: Private sector → growth → poverty reduction**
- **Interest confirmed by several policy papers. E.g. *European Union Strategy for Africa* (October 2005)**

Aim of this seminar

- **Review/Discuss the theoretical foundations of industrial policy in the economics literature**
- **Overview of selected practices of industrial policy and PSD policies, to disclose and discuss their intrinsic logic – with empirical evidence and cases of best, good and bad practices –**
- **Draw implications for governments (and donors)**

Definitions of Industrial Policy

- **Traditionally (market failures approach):** identify and remedy distortions that prevent competitive market functioning, e.g. taxes and subsidies.
- **Heavier and widespread interventions (in theory) fell in disrepute in many countries, due to inefficiencies and waste. Yet, often remained in place.**
- **Now a revival of respectability...: "...Policies that may promote the overall productivity of an economy. Proposed to call them productive development policies (PDPs). The final objective is to raise growth...(IADB and Rodriguez Clare, 2008).**
- **Rodrik and Harvard group: "A policy to speed up the process of structural change towards higher productivity activities, And to assist firms in their search and discovery processes for new lines of comparative advantage" (Hausmann, Rodrik, Sabel, 2008)**
- **Micro-foundations of industrial policy (Lall and others)**

The economic rationale for industrial policies

- 1. Market failures vs. government failures**
- 2. The microeconomic foundations. Technological Capabilities and market failures in technology and learning**
- 3. When the “system” fails**
- 4. Coordination failures**
- 5. Who should identify and address these failures?**
- 6. New Industrial Policy: Search Networks and System Integrators**
- 7. All this in practice: the “New Minimalist Approach” (NMA) of donors and multilateral organisation**

1. Market failures vs. Government failures

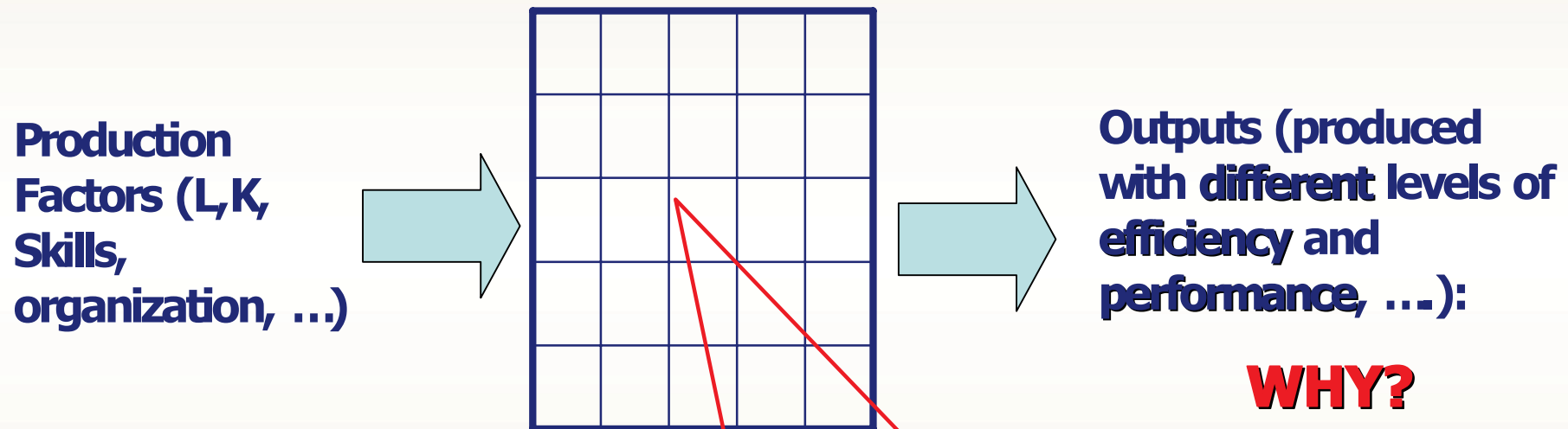
- **Market is the optimal way of allocating scarce resources**
- **Public policies to offset pre-existing market failures; Skeptical stand towards government intervention.**
- **Typical market failures: externalities, market power, information problems (asymmetries, incompleteness), public goods, ... E.g. frequent for the market for R&D and knowledge creation.**
- **Yet existence of market failures does not by itself establish the case for intervention.**
 - **Design of interventions require information and skills, effective implementation requires autonomy, skills, impartiality.**
 - **Thus Governments may “fail”, and the related costs may more than offset the benefits of intervention.**
- **Ideological assumption that Governments are bound to fail more frequently in developing c.s, and that Governments never learn.**

2. The microeconomic foundations. Technological Capabilities and market failures in technology and learning

- Neoclassical case against interventions based on a particular conceptualization of *technology at the enterprise level* ;
- An alternative is the “technological capability (TC)” approach to understand innovation and learning in developing countries. TCs are the skills- technical and managerial – firms need to utilise technology efficiently and improve upon it.
- This draws on the evolutionary approach, and on concepts such as tacitness of technology, and technological efforts;
- Thus, technological change is not exogenous but complementary to production. No essential difference between absorbing, adapting and improving technologies and “breakthrough” innovation
- A learning process is always needed, and needs to be learnt.
- The macroeconomic environment and the policy support framework strongly affect the development of TCs.

1. TCs may explain differences in production performance (efficiency, productivity)

“Production Function” (often a black box, the “firm”)



capabilities needed to carry out functions such as (pre-)investment, production (product-process-industrial engineering), linkage with markets and technology, ...

1. Many Possible Categorizations of TCs (Lall)

| | | FUNCTIONS | | |
|----------------------|--|------------|------------|------------------------------------|
| Degree of COMPLEXITY | | Investment | Production | Linkages (with Technology-Markets) |
| BASIC | SIMPLE, ROUTINE (Experience based) | | | |
| INTERMEDIATE | ADAPTIVE, DUPLICATIVE (based on search, experimentation, inter-firm cooperation) | | | |
| ADVANCED | INNOVATIVE, RISKY (Based on research, purposive effort, advanced forms of collaboration) | | | |

3. When the “system” fails

- Building on the idea of “... national, regional, local “systems” of innovation that influence the development, diffusion and use of innovation” (Freeman, Nelson, Lundvall, Edquist ...);
- Innovation is not sequential but the result of interactions among many actors within a system;
- Institutions shape the actions and incentives of firms through laws, technical standards, public funding, social rules, ...
- Innovation is context-specific and interactive;
- The flows of knowledge within the system are crucial (access to complementary knowledge is prerequisite for firms to innovate);
- Differences between developed and developing countries....
Often focus on different organizations;
- Policies need to address the failures of the system.

4. Coordination Failures

- Production and investment decisions in upstream and downstream segments of industry are often interdependent;
- Firms' productivity also depends on the actions of other firms and organizations influencing infrastructures, intermediate goods and public goods provisions, regulations,...
- When market failures emerge in these markets for (intermediate) goods and services, the economy could be trapped in a low investment equilibrium;
- Rosenstein-Rodan's notion of underdevelopment traps: no sector would be profitable industrializing alone.

E.g. Build an airport with no hotels, train personnel in fashion design with no firms...

- Failure to coordinate individuals' actions leads to an equilibrium that is worse for everyone than an alternative equilibrium where many sectors were industrializing simultaneously
- Coordination failures frequently occur at the local (cluster) level, but it is right in clusters that such failures may be addressed.

5. Who should address/identify these failures?

Old and difficult question

- **Not anymore an alternative between two extremes: State vs. Market, or Government vs. Private Sector**
- **In fact, greater reliance on markets needs a more proactive role for the government (not *vice versa*)**
- **The issue is: How to exploit the best capacities of both?**
- **Build a clever, dynamic and pragmatic partnership – inducing smart and effective forms of collaboration.**
- **Policies to promote industry and the private sector should be seen as a process of economic self-discovery in a broad sense, with an interactive process of strategic cooperation between the public and private sectors to elicit information on business opportunities and constraints, and also generate policy initiatives in response.**
- **Partnership at the national as well as at the local level**

6. "New Industrial Policy". Search Networks and System Integrators

Somehow along similar lines the approach proposed by Rodrik

- Aims at "... Solving economic development problems without picking winners".
- Focus is on
 - bridging private–public institutions (*Fundación Chile*)
 - Business networks linking global and local (i.e. search networks) like innovation clusters & value chains, diasporas)
 - Best performers in public and private sectors.
- Target to generate missing connections – without allowing rent-seeking – and start a process of discovery have low enough cost to be profitable.
- System integration: move from good programs to good systems (Tekes, Corfo, ...)

“Best”, “Good”, “Bad” PRACTICES

Analysis of several approaches followed in specific projects (not a detailed evaluation)

- 1. Enterprise clusters as a tool for industrial policy**
- 2. Domestic and international inter-firm linkages**
- 3. Scientific and Technical support organisations**
- 4. Business Development Services**
- 5. Entrepreneurship Promotion**

Some selected ideas on these approaches

1. Enterprise clusters as a tool

Drawing from earlier research (Pietrobelli and Rabellotti for HUP 2007 and others...)

- Economic performance may be improved in clusters due to **collective efficiency** (external economies and joint actions)
- Clusters may help **remedy market and coordination failures**
- Policies need to be **context-specific** and – in several regards – **cluster- and sector-specific**. Take into account:
 - ✓ local specificities and cluster's collective efficiency,
 - ✓ mode of *governance* of value chain(s),
 - ✓ Local sectoral and cluster (filière) specialization
- **No general recipes are valid everywhere, regardless local history, idiosyncrasies and peculiarities.**
- **Policies need to evolve over time**

2. Domestic and international inter-firm linkages

- Global Value Chains and local firms
- Foreign Direct Investments, Transnational Corporations and Spillovers on domestic firms

3. SCIENTIFIC RESEARCH AND TECHNICAL SUPPORT ORGANIZATIONS

- In the present context of globalization and rapid technological changes, countries need to create and upgrade new skills to manage technical change,
- New role for technical support organizations in standards, metrology, quality, testing, R&D, productivity, SME extension to complete and improve the “technology system”
- Industrial policies in advanced countries are often truly Science, Technology and Innovation (S&T&I) Policies
- The practice of the European Union
- *Industria 2015* in Italy (and similar efforts in France and Germany)

4. ENTREPRENEURSHIP PROMOTION

Drawing from recent comparative studies of entrepreneurship promotion programs (Kantis, 2005 IADB).

- no single prescription for success: strategies are always context-dependent; significant differences in the strategic, geographic, and budgetary reach;
- Knowledge of the initial conditions is essential;
- common to combine generic (national and sectoral) and *niche*-based strategies (the latter oriented to local and social groups);
- Sustainability crucially depends on involvement of the private sector and of civil society;
- The style of interventions must be itself “entrepreneurial”;
- A flexible strategy requires efficient monitoring and evaluation.

5. Business Development Services (BDS) or *real services*, to indicate their impact on structural features of company behaviour, and notably on their competitiveness, Pietrobelli and Rabellotti, 2002

- **no easy recipes to copy, no 'ideal' best practice.**
- **BDS centres have a role, but the market may do a lot without public subsidies.**
- **Embeddedness in the local business environment is crucial (deep involvement of private sector, sectoral specialisation, location close to potential customers).**
- **Managerial and technical skills in the Centres and capabilities are key**
- **The density of their presence matters.**

5. Business Development Services (BDS)

- **A role in stimulating demand of new services from firms. This requires anticipating tacit, unexpressed needs -in collaboration with firms- and convincing them of their relevance for future competitiveness**
- **An alternative: help BDS Centres act as “network-facilitators”;**
- **But in poorer countries, a Centre is often bound to operate on its own, and should first improve its skills and capabilities;**
- **Evaluation is difficult but necessary (quantify benefits, costs, impacts, and repeat evaluations regularly).**

Concluding: Implications (1/3)

Preliminary question: what “policy space” in the WTO regime?

- **A process (dynamics not statics)**
- **a mindset?: not a big-bang, once for all reform: trial and error with continuous efforts and learning**
- **experimentation, gradual transformation through self-correction and identification/removal of obstacles.**
- **Public-private dialogue and active collaboration for effective policies (e.g. *Fundación Chile*)**

Concluding: Implications (2/3)

- address market and coordination failures.
- remove “systemic imperfections” in markets, and notably in knowledge & technology, i.e. target components and their relationships.
- Target the coherence of the whole system of policy support. Beyond good “projects” to good “systems” of consistent and integrated programmes and interventions (e.g. CORFO)
- Improve capabilities for strategic policy design, formulation, implementation.

Concluding: Implications (3/3)

What concrete practices to improve the effectiveness of policy interventions, of their design and delivery?

- **Benchmarking with other experiences.** This may also provide firms and organizations with the incentives to act and improve.
- **Starting point is the firm-level.** Analysis of firm-level weaknesses – notably in innovation and learning – should drive policy-makers and donor agencies.
- **Experiment with indirect inducements** instead of direct interventions, i.e. building appropriate institutions and **incentive mechanisms** (Pietrobelli and Scarpa, 1992)
- **Open dialogue, transparency, accountability and constant evaluation** in policy design and implementation (...minimize corruption and private capturing all benefits)

Thank you !!!!

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