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# **Industrial Policy: Can We Go Beyond an Unproductive Confrontation?**

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# East Asian Industrial Policy I

- coordination of **complementary investments** (Big Push)
- coordination of **competing investments** through entry regulation, "investment cartels", and (in declining industries) negotiated capacity cuts
- policies to ensure **scale economies** (e.g., licensing conditional upon production scale, emphasis on the infant industries starting to export from early on, state-mediated mergers and acquisitions)
- regulation on **technology imports** (e.g., screening for overly obsolete technologies, cap on technology licensing royalties)

# East Asian Industrial Policy II

- regulation on **foreign direct investment** (e.g., entry and ownership restrictions, performance requirements on local contents technology transfer, export)
- mandatory **worker training** (for firms above a certain size)
- **the state acting as a venture capitalist**
- **export** promotion (e.g., export subsidies, export loan guarantees, marketing help from the state trading agency)
- government **rationing of foreign exchanges**, with top priority going to capital goods imports (especially for export industries)

# East Asian Industrial Policy III

- The widespread use of industrial policy in East Asia does not mean that it was the cause of the 'miracle'.
- It is possible that these countries could have grown even faster, had they not used industrial policy.
  - It may be that industrial policy is bad for growth but that there were country-specific "countervailing forces" that cancelled out the harmful effects of market-distorting industrial policy.
- However, the counterfactual is implausible (there are counteractuals and there are counterfactuals)
  - No country has ever grown at higher rate than what the East Asian countries managed during the 'miracle' years, **industrial policy or not.**
- No convincing 'countervailing forces' story (culture, Japanese colonialism, Cold War politics, etc.)

# Industrial Policy beyond East Asia I

- Successful industrial policy experiences in the late 20<sup>th</sup> century are not confined to East Asia
  - **national industrial policies** in France, Finland, Norway, and Austria;
  - **regional industrial policies** in Italy and Germany;
  - **industrial policy under another name** in the US **through government R&D funding**
    - between the 1950s and the 1980s, the US federal government financed anywhere between 47% and 65% of national R&D spending, as against around 20% in Japan and Korea and around 30% in Europe).

# Industrial Policy beyond East Asia II

- In the 19<sup>th</sup> and the early 20<sup>th</sup> centuries, all of today's rich countries, except for the Netherlands pre-WWI Switzerland, practised protectionism and other forms of industrial policy (subsidies, state ownership, regulation on FDI).
  - Interestingly, Britain and the US – the supposed homes of free trade – had the world's highest levels of tariff protection during their respective catch-up periods.

**Table 1. Average Tariff Rates on Manufactured Products for Selected Developed Countries in Their Early Stages of Development**  
(weighted average; in percentages of value)<sup>1</sup>

	1820 <sup>2</sup>	1875 <sup>2</sup>	1913	1925	1931	1950
Austria <sup>3</sup>	R	15-20	18	16	24	18
Belgium <sup>4</sup>	6-8	9-10	9	15	14	11
Canada <sup>5</sup>	5	15	n.a.	23	28	17
Denmark	25-35	15-20	14	10	n.a.	3
France	R	12-15	20	21	30	18
Germany <sup>6</sup>	8-12	4-6	13	20	21	26
Italy	n.a.	8-10	18	22	46	25
Japan <sup>7</sup>	R	5	30	n.a.	n.a.	n.a.
Netherlands <sup>4</sup>	6-8	3-5	4	6	n.a.	11
Russia	R	15-20	84	R	R	R
Spain	R	15-20	41	41	63	n.a.
Sweden	R	3-5	20	16	21	9
Switzerland	8-12	4-6	9	14	19	n.a.
United Kingdom	45-55	0	0	5	n.a.	23
United States	35-45	40-50	44	37	48	14

# Industrial Policy beyond East Asia III

- Developing countries had best growth performance when they used industrial policy more extensively
  - They grew much faster during the ‘bad old days’ of import substitution in the 1960s and the 1970s than during the ‘age of imperialism’ or during the more recent neo-liberal period, when they used less or no industrial policy.

**Table 2. Historical Rates of Economic Growth by Major Regions during and after the Age of Imperialism (1820-1950)**  
(annual per capita GDP growth rate, %)

Regions	1820-70	1870-1913	1913-50	1950-73
Western Europe	0.95	1.32	0.76	4.08
Western Offshoots*	1.42	1.81	1.55	2.44
Japan	0.19	1.48	0.89	8.05
Asia excluding Japan	-0.11	0.38	-0.02	2.92
Latin America	0.10	1.81	1.42	2.52
Eastern Europe and former USSR	0.64	1.15	1.50	3.49
Africa	0.12	0.64	1.02	2.07
World	0.53	1.30	0.91	2.93

\*Australia, Canada, New Zealand, and the USA.

**Table 3. Per capita GNP Growth Performance of the Developing Countries, 1960-80**

	1960-70 (%)	1970-80 (%)	1960-80 (%)
<b>Low-income countries</b>	<b>1.8</b>	<b>1.7</b>	<b>1.8</b>
Sub-Saharan Africa	1.7	0.2	1.0
Asia	1.8	2.0	1.9
<b>Middle-income countries</b>	<b>3.5</b>	<b>3.1</b>	<b>3.3</b>
East Asia and Pacific	4.9	5.7	5.3
Latin America and the Caribbean	2.9	3.2	3.1
Middle East and North Africa	1.1	3.8	2.5
Sub-Saharan Africa	2.3	1.6	2.0
Southern Europe	5.6	3.2	4.4
<b>All Developing Countries</b>	<b>3.1</b>	<b>2.8</b>	<b>3.0</b>
<b>Industrialised Countries</b>	<b>3.9</b>	<b>2.4</b>	<b>3.2</b>

**Table 4. Per capita GDP Growth Rates of the Developing Countries, 1980-2000**

	1980-90 (%)	1990-20 (%)	1980-2000 (%)
<b>Developing Countries</b>	<b>1.4</b>	<b>2.0</b>	<b>1.7</b>
East Asia and Pacific	6.4	6.0	6.2
Europe and Central Asia	1.5	-1.8	-0.2
Latin America and the Caribbean	-0.3	1.7	0.7
Middle East and North Africa	-1.1	1.2	-0.1
South Asia	3.5	3.7	3.6
Sub-Saharan Africa	-1.2	-0.2	-0.7
<b>Developed Countries</b>	<b>2.5</b>	<b>1.7</b>	<b>2.1</b>

**Table 5. Annual per capita GDP growth rates**

	'Bad Old Days' 1960-80 (%)	'Brave New World' 1980-2009 (%)
<b>All Developing Countries</b>	<b>3.0</b>	<b>2.6</b>
Latin America and the Caribbean	3.1	1.1
Sub-Saharan Africa	1.6	0.2

*Source: World Bank, United Nations*

# Industrial Policy beyond East Asia IV

- If industrial policy was not confined to East Asia in the late-20<sup>th</sup> century, it becomes even more difficult to downplay its role in East Asia by resorting to some region- and time-specific “countervailing forces”.
- Given the history of today’s rich countries, a good industrial policy may be a necessary, although not sufficient, condition for economic development.
- If industrial policy is so bad, how is it that in every era, the fastest growing economies happen to be those with a strong industrial policy – Britain during the mid-18<sup>th</sup> century and mid-19<sup>th</sup> century, the US, Germany, and Sweden during the late 19<sup>th</sup> and the early 20<sup>th</sup> century, East Asia, France, Finland, Norway, and Austria in the late 20<sup>th</sup> century, and China today.

# Lessons from the Debate

## - Overview

- Does targeting work? ('picking winners')
- Can the state "beat the market"?
- Political economy questions
- Bureaucratic capabilities problem
- Performance measurement
- The role of export
- Changing global environment.
- Further issues (productive capability-building, adjustment costs) – not discussed in this paper, but see the references in the paper

# Targeting

- *In a world with scarce resources, **targeting is inevitable.***
- In such a world, every policy choice you make, however “general” it may look, has discriminatory effects that amount to targeting.
  - no such thing as R&D subsidies that supports all industries equally or “general” engineers or infrastructure that benefit every industry.
- Moreover, it is **not true that less targeted policies are necessarily better** (cf. social policy)
- The debate should not be on whether we should target, but **how to target well.**

# Can State “Beat the Market”?

- The state *has* frequently beaten the market.
  - e.g., Japanese auto industry, Korea’s POSCO, Brazil’s EMBRAER
- More importantly, many (although not all) of the “superior” decisions made by the state were made not because the government officials were omniscient or cleverer than businessmen but because they could look at things from **a systemic and long-term**, rather than sectional and short-term, **point of view**.
- Therefore, instead of debating whether the state can beat the market, we should be debating how to improve the quality of state decisions.

# Political Economy Questions I

- Successful industrial policy requires right “political” conditions – the commitment of the leadership to economic development, the coherence of the state machinery, and the ability of the state to discipline the recipients of its supports.
- When considering the political realities of developing countries, it seems difficult to imagine how industrial policy, even if it were “correct”, can be implemented well in a developing country.
- **But we should not let the best be the enemy of the good.**
- In the real world, successful countries are the ones that have managed to find “**good enough**” **solutions to their political economy problems** and went on to implement policies, rather than sitting around bemoaning the imperfect nature of their political system.

# Political Economy Questions II

- In order to take the debate forward, we have to improve our understanding of issues like:
  - (i) how effective political visions can be formed and deployed to inspire various individuals and groups to act in a concerted manner
  - (ii) how to build nations and communities out of groups that may have very long history of hostility and mistrust
  - (iii) how to work out social pacts and build lasting collations behind them
  - (iv) how to partially accept but improve the customs and organisational routines in the bureaucracy
  - (v) how to minimise socially harmful lobbying and bribing while maximising the flows of information between the states and the private sector

# Bureaucratic Capabilities I

- No basis for the assumption that industrial policy is more difficult than other policies.
- Industrial policy does *not* require sophisticated knowledge of economics, as often believed.
  - The industrial policy-makers of East Asia were *not* economists (lawyers in Japan and Korea, engineers in Taiwan and China today), and what little economics they knew was usually the “wrong” kind – Marx, the German Historical School, Schumpeter.
- High-quality bureaucracies are not as impossible to build as people think.
  - France, Korea and Taiwan in the post-WWII period

# Bureaucratic Capabilities II

- There is also “learning-by-doing” in policy.
  - Without trying out “difficult” policies, capabilities cannot be improved.
- The fact that something is “difficult” cannot be a reason not to recommend it.
  - After all, developing countries are routinely told to adopt “best practice” or “global standard” institutions used by the richest countries, when many of them clearly do not have the capabilities to effectively run such institutions.

# Performance Measurement

- Performance targets clearly specified and the reporting requirements announced at the outset.
- The targets should be set in consultation with the business community.
- Targets need to be revised along the way, but too much flexibility should be avoided, as government flexibility can be abused by lobbying groups
- Where possible, **export performance should be given a high status as a performance measure**, as they are far less open to manipulation.
- Policy-makers need to pay more attention to **the trends in performance indicators, rather than their absolute levels** at any give point of time.

# Export-related Policies I

- **Economic development is impossible without good export performance.**
- But, saying that export is the key to economic development is *not* to say that developing countries should have free trade.
- **Export success requires significant industrial policy** even for comparative advantage-conforming industries, as export markets have high fixed costs of entry, which smaller firms and farmers may not be able to bear.

# Export-related Policies II

- Direct **export subsidies** (but banned by the WTO, except for the LDCs).
- State **marketing help** (JETRO, KOTRA, the Danish agricultural marketing boards in the early 20<sup>th</sup> C.
- **Risk-sharing** through loan guarantees for exporters and insurance for payment defaults.
- **Help with meeting quality standards** through export product quality control, advice on sanitary and phyto-sanitary requirements, subsidised extension services.
- Indirect help through legal and financial **supports for co-operative arrangements**.

# Changing Global Environment I

- Changes in global business environment
  - Increasing importance of FDI
  - Increasing industrial concentration
- Changes in global rules of trade and investment
  - WTO
  - Bilateral trade and investment agreements

# Changing Global Environment II

- Importance of FDI has increased, but not as dramatically as is often claimed.
- Industrial policy (e.g., performance requirements) not as important for FDI decision as market factors (size, growth), infrastructure, quality of labour
- Business concentration has increased, but it goes up and down.
- “Chopping up” of value chains can open new opportunities.

# Changing Global Environment III

- WTO rules not as restrictive as believed.
  - Tariffs allowed
  - Emergency tariffs (sectoral surge, overall BOP problems)
  - Subsidies for environment, agriculture, R&D, regional policies, and (for LDCs) export allowed de jure or de facto
  - TRIPS constraining but not for older technologies
  - TRIMS constraining but performance requirements for local labour, technology transfer, R&D, etc. allowed.
- Bigger constraints are aid/loan conditionalities and bilateral/regional trade/investment agreements
- All these rules are ‘man-made’ and can be changed if deemed necessary.

# “Futile Debates”?

- Too much focus on “grand” things, like the Big Push, when **much of real-life policy has been about “boring” things** (e.g., getting the production scale right, export marketing)
- **Some theoretical issues** that both the proponents and the opponents consider to be critical actually **dissolve into thin air**, once looked at closely (e.g., targeting).
- Many proponents of industrial policy do not fully appreciate **how critical export is for the success of industrial policy**, while many opponents do not fully appreciate **how export success also requires industrial policy**.
- We often let sensible worries (e.g., political economy, bureaucratic capabilities) degenerate into a recommendation for inaction, **letting the best become the enemy of the good**.
- Real life success stories were often based on **“good enough” compromises**, rather than perfect solutions.