

# Prof. Izumi Ohno

National Graduate Institute of Policy Studies (GRIPS)

Senior Research Advisor, JICA Ogata Sadako Research Institute for  
Peace and Development

**Japanese Experiences of Industrial Development and Development Cooperation:  
Analysis of Translative Adaptation Processes**

# **Policy Learning for Industrial Development and a Perspective of Translative Adaptation**

October 14, 2021  
(for SEPIP 2021 session #15)

Izumi Ohno

National Graduate Institute for Policy Studies (GRIPS)/ JICA Ogata RI

# Outline

1. Why industrial policy now?
2. Why revisiting Japanese experiences?
3. Translative adaptation and local learning for industrial catch-up
4. Challenges of industrial development
5. Findings from case studies
6. Implications and further thoughts

Based on *Policy Learning for Industrial Development and the Role of Development Cooperation* (edited by I. Ohno, Amatsu & Hosono, 2021 forthcoming)  
<https://www.jica.go.jp/jica-ri/research/strategies/20190724-20240331.html>

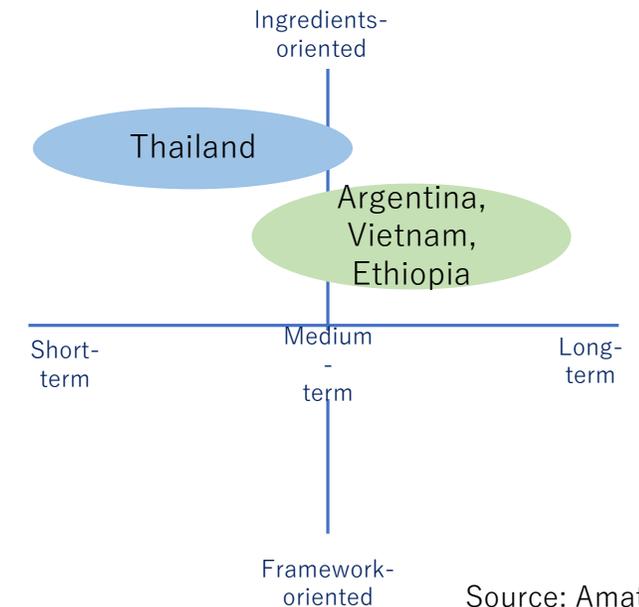
# Why Industrial Policy Now?

- Industrial development as a key driver of structural transformation in developing countries.
- Driving factors that prompt attention to industrial policy today:
  - **Broadening the scope and rationale:** sustainability, inclusiveness, & resilience building (Aiginger & Rodrik 2020, Otsubo & Otchia 2020)
  - Growing **complexity:** digitalization, servicification of manufacturing, GVC reshaping
  - Changing the **nature of debates:** from ideological & theoretical aspects (whether) to **practice** (how) (Rodrik 2008, Lutkenhorst 2019).
- *Urge to **enhance policy capability** for industrial development (Cimoli et. al 2019); **Policy learning** is important, esp. for developing countries.*
- Here, we define industrial policy “broadly” to cover:
  - (1) **horizontal (functional)** policies - improving the general business environment, promoting specific activities across sectors; and
  - (2) **vertical (selective)** policies - promoting specific activities or sectors (Warwick 2013, UNCTAD 2016)

# Why Revisiting Japanese Experiences?

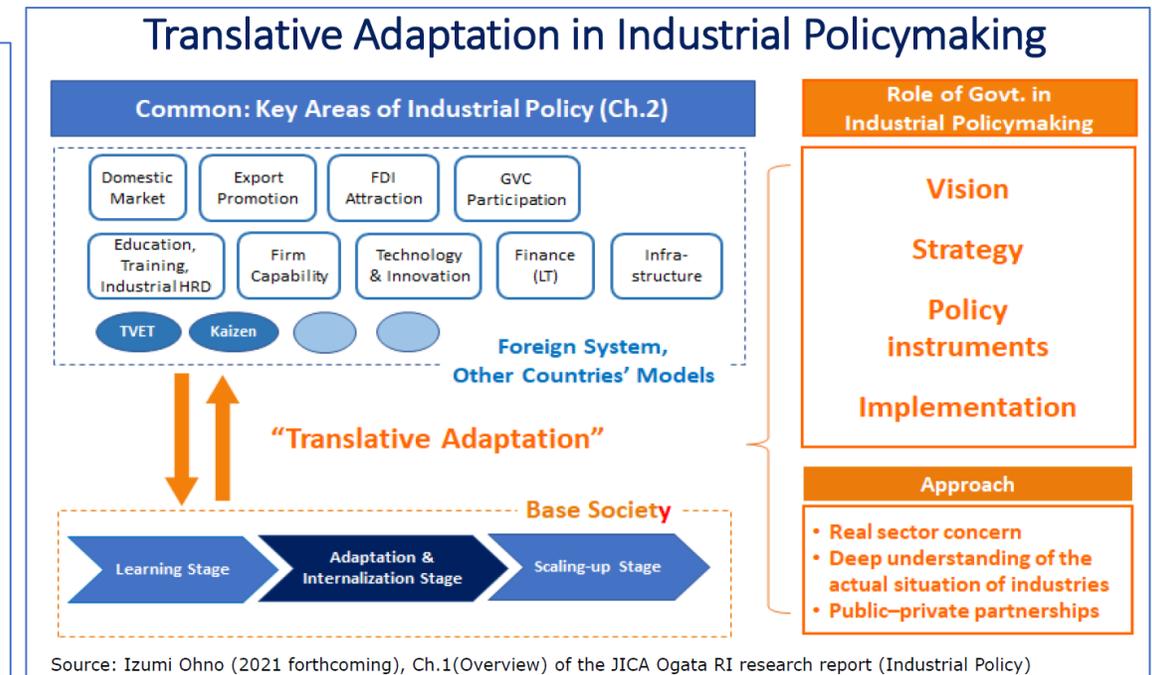
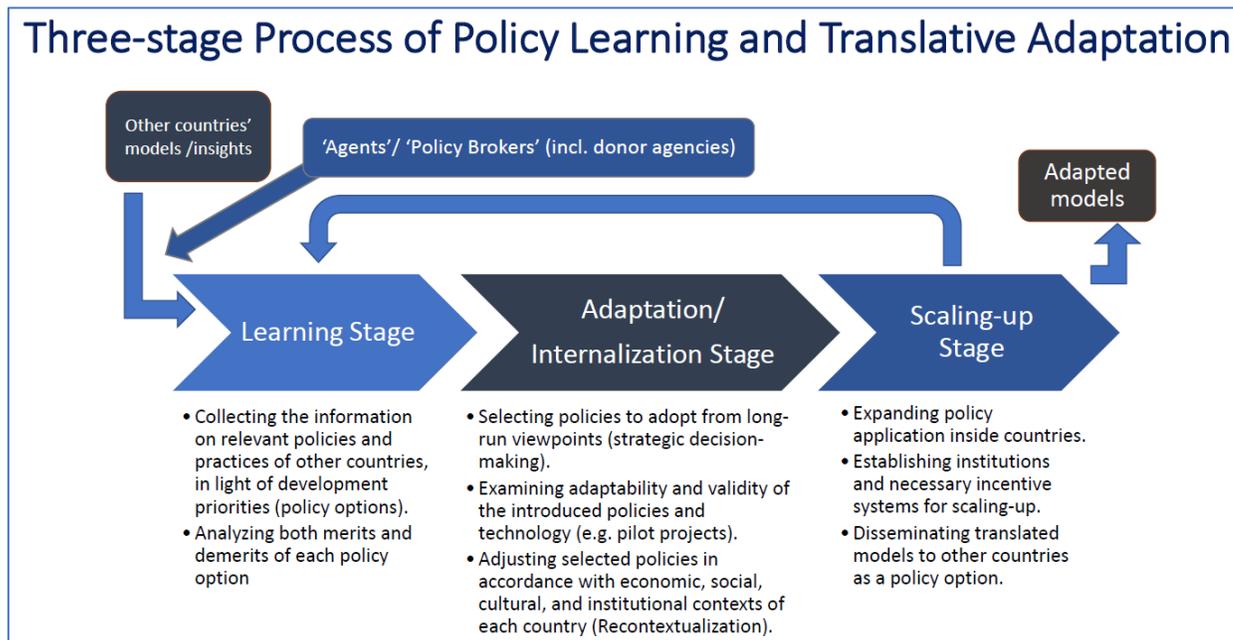
- Japan's own experience of **learning & adaptation** of foreign knowledge & technologies (Meiji modernization, postwar economic development)
- **Chain reaction of learning** in her neighboring Asian countries (e.g., 'Look East' policy)
- Perspectives on economic development: real-sector concern (**'ingredients'** (Yanagihara 1998) vs. framework), **joint work & hands-on pragmatism** (vs. normative)
- Approach to development cooperation: **industrial policy support** to developing countries as a menu, based on the above perspectives (see below).

Country/Policy Support	Period	Main Features
Argentina (Okita Report)	1985-1986	Origin of Japan's development policy support; study & policy recommendations for economic development
Vietnam (Ishikawa Project)	1995-2001	Policy support to a low-income country in Asia in transition to a market economy; joint research
Ethiopia (Industrial Policy Dialogue)	2009-present	Policy advice to a low-income country in Africa; combination of policy advice and concrete support
Thailand (Mizutani Plan)	1999, follow-up	Industrial policy support and follow-up cooperation in response to the Asian economic crisis



# Translative Adaptation and Local Learning for Industrial Catch-up

- **Translative adaptation** (Maegawa 1998): the process of adaptive acceptance of advanced systems and foreign cultures by developing countries in the process of modernization.
- Stiglitz & Greenwald (2014) also emphasize the importance of **local learning** and **creating a “learning society”** for industrial development
- These require internal mechanisms within a country that absorb foreign knowledge, adapt to the local context and scaling-up (see below).

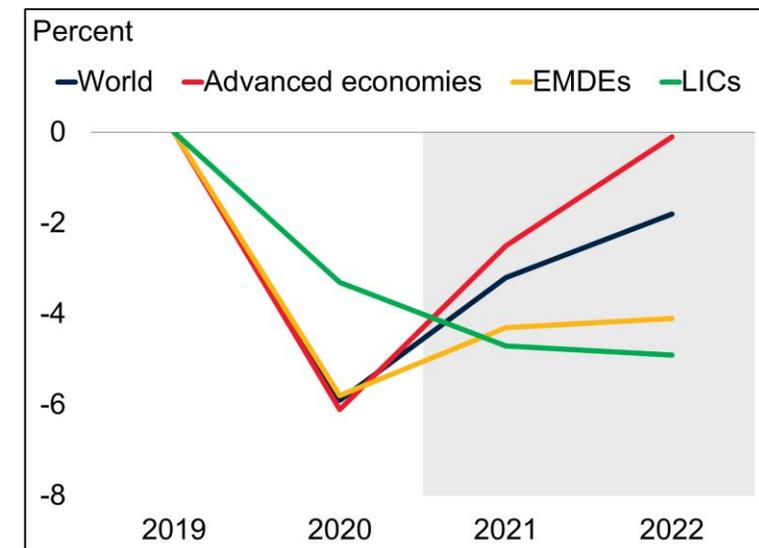


# Challenges of Industrial Development (Short-term vs. Long-term Problems)

- In navigating the post-pandemic recovery, it is important to address both **Covid-19 induced shocks (short-term)** and country-specific **structural (long-term)** problems.
- Overcoming the Covid-19 crisis does not guarantee a sustained economic recovery, if other problems are serious and unattended.
  - **Premature de-industrialization**; challenge of economic transformation & domestic value creation, youth employment (esp. Africa)
  - **Development traps** at each stage.
- Moreover, addressing sustainability, inclusiveness, and resilience of industrial development requires long-term efforts (skill development, firm capability).
  - Greening, digitalization, biz continuity planning, etc.
  - Existing industrial capabilities should serve as the basis for coping with new challenges.

## Deviation of Output from Pre-Pandemic Projections

Highly unequal recovery prospects among country groups



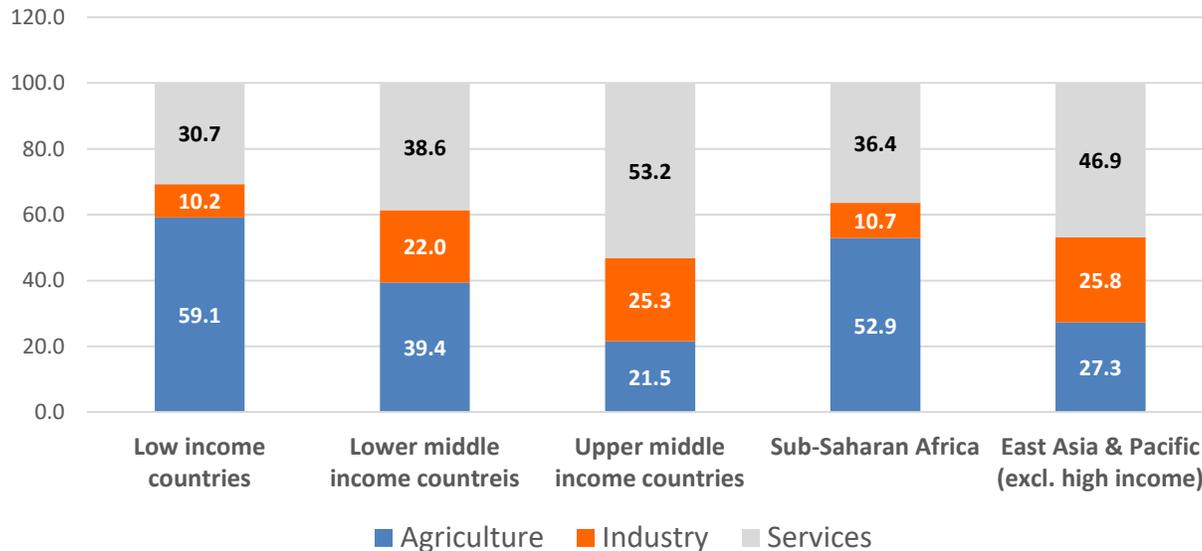
(Source) World Bank, Global Economic Prospects, 2021

## Sectoral Value Added (percentage of GDP)

	Agriculture, forestry, & fishing value added (% of GDP)		Manufacturing, value added (% of GDP)		Industry (incl. construction), value added (% of GDP)		Services, value added (% of GDP)	
	2000	2019	2000	2019	2000	2019	2000	2019
Sub-Saharan Africa	17.5	14.0	12.6	11.0	30.7	27.1	46.3	48.8
East Asia & Pacific (excl. high income)	14.8	7.8	5.3	25.4	44.1	38.0	40.0	53.1

Source: World Development Indicators (World Bank)

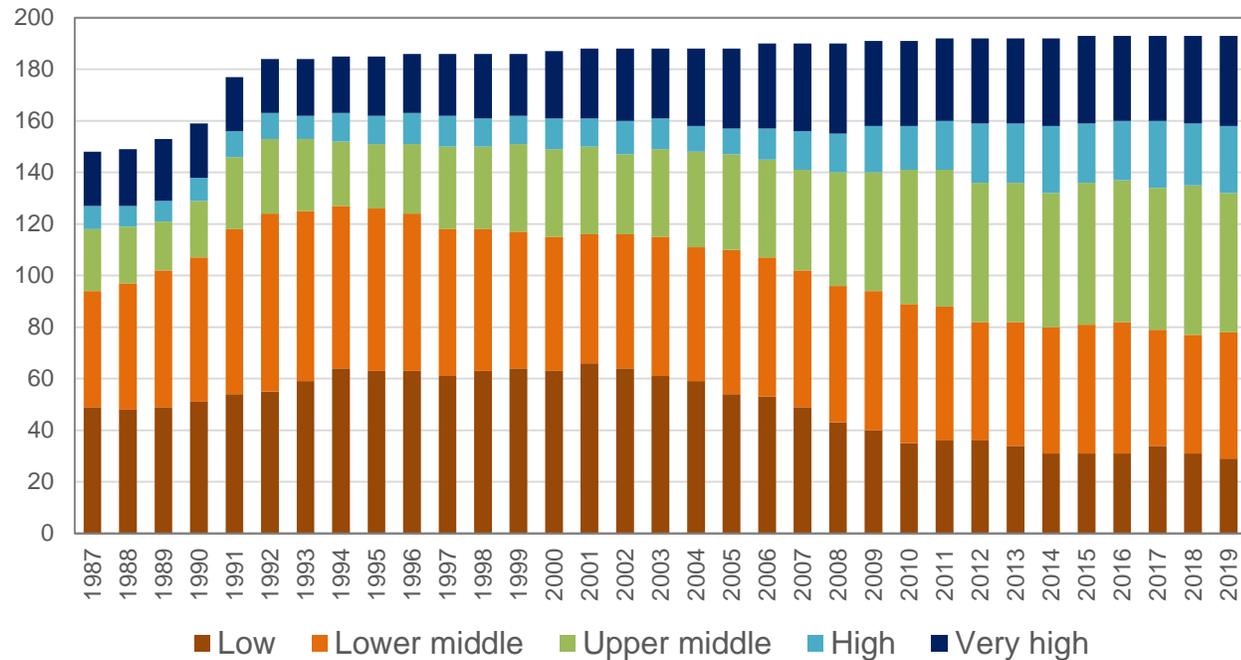
## Employment Distribution by Broad Economic Activity (% of total employment, ILO estimates 2019)



- Africa's growth (pre-Covid-19) has not yet translated into structural transformation.
- Manufacturing value added (% GDP) remains low (premature deindustrialization).
- Economic transformation requires workforce equipped with knowledge and skills to be highly productive.

Source: I. Ohno (presentation at JSAS Annual Conference on July 3, 2021)

# World Bank Income Classification (Count)



>USD25,000: traditional OECD countries, plus Lichtenstein, Kuwait, Singapore, Korea, Qatar, Bahamas, Brunei, Israel.

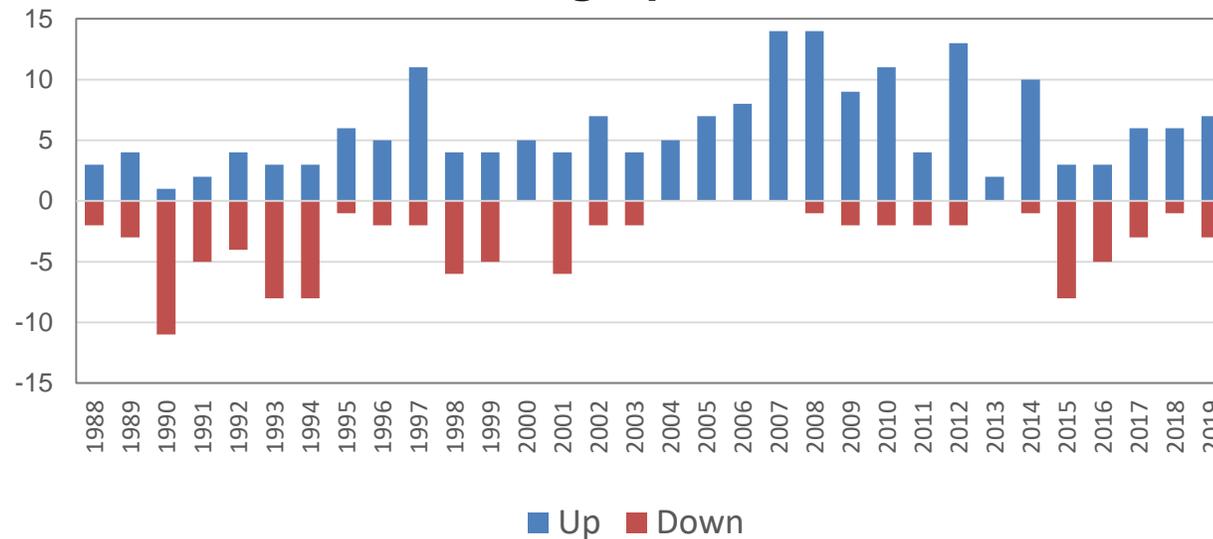
>USD12,535 to 25,000: mostly Eastern European, LAC (Chile, etc.) & 2 SSA (Mauritius, Seychelles) countries moved up.

>USD4,046 to 12,535: 4 SSA (Botswana, South Africa, Equat. Guinea, Namibia) & 9 EA countries moved up.

>USD1,036 to 4,045: 4 SSA & 6 EA countries moved up

>USD1,035 or less: 22 (of 29) countries never moved (incl. 20 SSA countries)

## Moving Up & Down



- Only a few emerging economies caught up with traditional advanced countries.
- Some countries stagnate or fluctuate btw. income categories.

Note: UN member countries only. Equatorial Guinea which moved up two ranks from low income to upper middle income in 2004 is counted as two.

Source: Calculated by the author, based on the World Bank income classification data.

# Findings from Selected Case Studies

- Diverse development strategies, with a mix of horizontal & vertical industrial policies
  - Steel & automobile industries (Japan, South Korea, Malaysia)
  - Grain & food value chain (Brazil)
  - Natural resource-based industries (Malaysia, Brazil, Chile)
- Mindset of leaders in the govt. & private sector (passion and keen interest in the real sector)
  - Meiji Japan & Post WW II Japan (MITI), South Korea (HCI drive)
- Role of core agencies for industrial policymaking, implementation & innovation
  - MITI (Japan), BNDES (Brazil): grasping the reality, economic rationality
  - R&D organizations (Korea/industry-specific research institutes, Malaysia/palm oil, Brazil/agriculture research, Chile/forestry research)
- Public-private partnership (mutual learning and co-creation)
  - METI's deliberation council (stakeholder consultations), partnership with industry associations
  - Chile Foundation (PPP/JV), BNDES (policy coordination & dialogue with biz)
- Learning as a dynamic process (trial & error)
  - Meiji Japan (gap reduction) and other cases

**'Ingredients' of  
translative adaptation  
& local learning**

**Attention to  
Uniqueness**

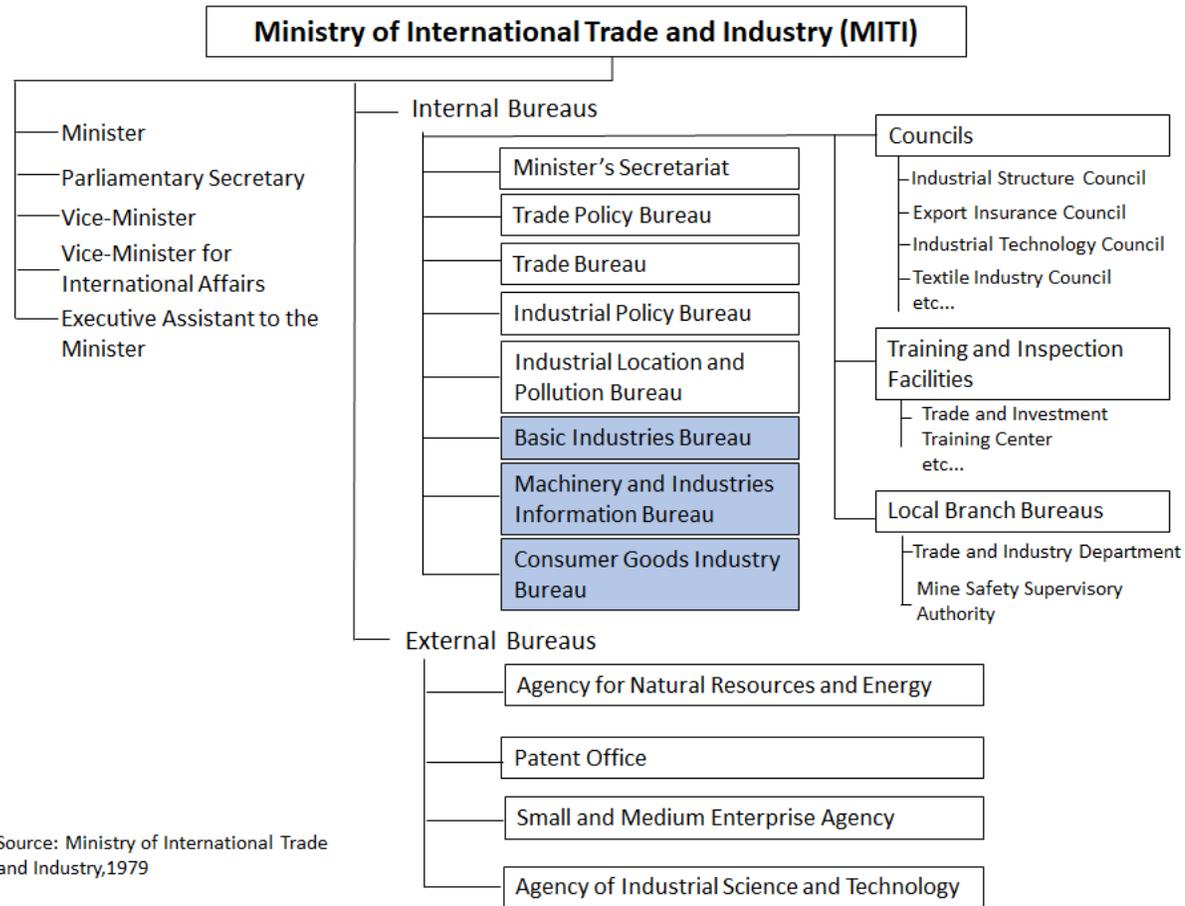
**Ownership**

**Process-  
oriented**

Source: Elaborated by the author, based on Ch. 2 (Hosono), Ch. 3 (Hamaguchi), Ch. 4 (Wada) & Ch. 5 (Amatsu) in *Policy Learning for Industrial Development*, edited by Ohno, Amatsu & Hosono (forthcoming 2021).

# The Role of CORE Organizations for Industrial Policymaking and Implementation

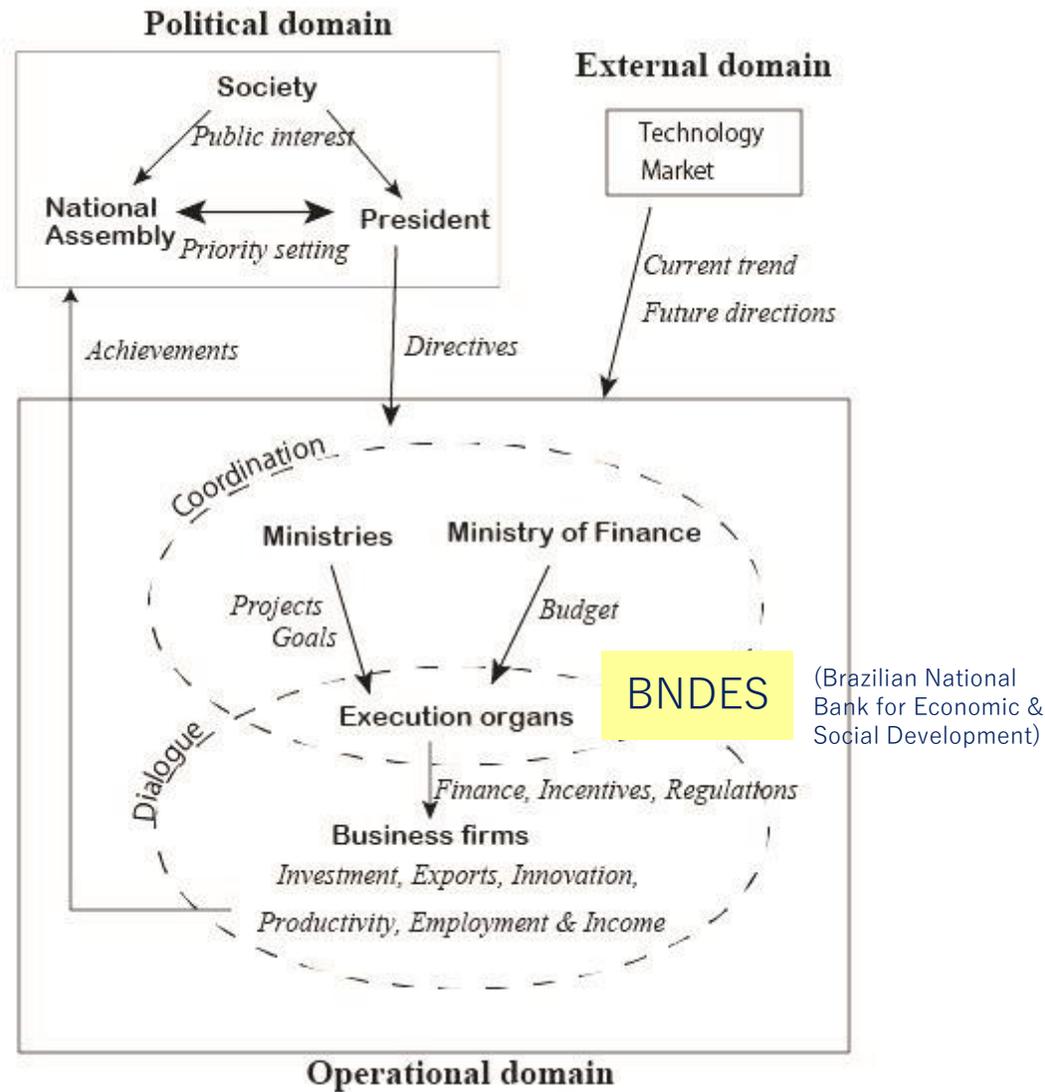
Organizational Structure of MITI in Japan (as of 1973)



Source: Ministry of International Trade and Industry, 1979

Source: Ch. 4 (Wada), Figure 4.1

Framework of Industrial Policymaking in Brazil



Source: Ch. 3 (Hamaguchi), Figure 3.8

# Vision Formulation and Correction in Meiji Japan

	MOE era (1868-1873)	MOHA era (1873-1880)	MOAC era (1881-1897)
<b>Basis of vision formulation</b>	Euphoria-based	Euphoria and reality-based	Reality-based
<b>Gap</b>	Large	Being reduced	Reduced
<b>Desired industrial composition</b>	Silk reeling and western style modern industries	Western style modern industries + indigenous industries in ISI	Same as the left
<b>Main actors</b>	State-run factories	Private sector, but substantially state-run factories	Private sector
<b>Gov. stance and policy actions</b>	Direct intervention through simple copy & paste	Direct intervention	Indirect intervention
<b>Functioning factors</b>	Strong interests and learning appetites, triggers (State survival)	Strong interests and learning appetites, error correction factors, triggers (State survival and emerging private sector)	Knowledge accumulations, better understanding on industries, error correction factors, economic rationality, trigger (private sector vitality)

Source: Presentation by Kuniaki Amatsu (Aug. 5, 2021), based on Ch. 5

Note: Abbreviation means: MOE (Ministry of Engineering), MOHA (Ministry of Home Affairs), MOAC (Ministry of Agriculture & Commerce)

# Implications and Further Thoughts

- Relevance of the East Asian development model?
  - Yes. But, what should be learned is the **methodology** for industrial policy formulation & implementation and **dynamic capacity development** for local learning (vs. replicability of a particular development model).
  - **Translative adaptation** requires that ‘any policy must be crafted and executed the context of a particular age, society, and international environment’ (K. Ohno 2013).
  - ‘Deconstructing’ the success of the export-led manufacturing model is essential for developing a new strategies of structural transformation (Stiglitz).
- Even in the past, Asian countries adopted diverse industrial strategies, tailored to the economic environment at the time and corresponding to its own comparative advantage (JICA & JBIC 2008).
- Role of development cooperation
  - Promoting knowledge sharing and learning of industrialization experiences
  - Facilitating the process of translative adaptation and local learning of partner countries, mindful of their ‘ingredients’ (**dynamic capacity development for policy & societal learning**).