

Economic Development of Japan



No.12 MITI and Industrial Policy

Topics for Discussion

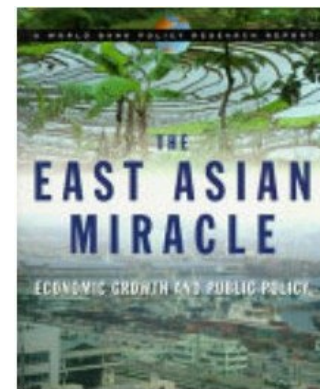
- ❑ What is industrial policy? Why do some people regard it as a necessity while others emotionally condemn it?
- ❑ What are the past and current debates over the desirability and feasibility of industrial policy?
- ❑ What were the concrete policy instruments of MITI?
- ❑ How did MITI communicate and work with the private sector? Did businesses welcome MITI's intervention?
- ❑ Why did public-private collaboration not produce corruption, collusion and distorted policies?
- ❑ How do Japanese and foreign researchers evaluate the role of MITI in Japan's industrialization in the 1950s and 60s?

MITI and Japanese Miracle

- ❑ The Ministry of International Trade and Industry (MITI) was created in 1949 by merging the Ministry of Trade and Industry, the Coal Agency and the International Trade Agency. In 2001, it was renamed to the Ministry of Economy, Trade and Industry (METI). Functions basically remained the same.
- ❑ Various policy instruments were prepared for MITI in the late 1940s and early 50s. Policy measures were not unique to Japan but MITI used them more effectively than most others—tax incentives, subsidies, policy loans, technical support, SME promotion, entry regulation, industrial zones, regional plans, etc.
- ❑ MITI excelled in working with the private sector at arm's length, knowing different plans and problems of individual firms, and coordinating and guiding them under the existing Japanese politics and society.
- ❑ MITI drafted policies bottom-up within MITI and vis-à-vis government and parliament. MITI officials were the creators and promoters of industrial policy, not passive executors of top-down orders. They were politicized technocrats.
- ❑ Many Japanese officials, including those at MITI, were dedicated to national goals and worked hard with relatively low compensation and with little corruption.

Debate on Industrial Policy

- ❑ Historically, industrial policy was practiced by virtually all latecomers: Europe, US, Japan, Korea, etc. (Chang 2002). But now, the West and international organizations advise latecomer countries not to do it.
- ❑ The World Bank and IMF (“Washington Consensus”) advocated liberalization, privatization and integration for all. In the 1990s, they forced big-bang reforms on Africa, Latin America, former USSR, etc.
- ❑ Anne Kruger (WB chief economist 1982-86): “infant industry promotion always fails because government (i) has little knowledge of promising sectors; and (ii) is captured by interest groups.”
- ❑ World Bank’s East Asian Miracle report (1993) and World Development Report 1997: “some East Asian governments were wise, but industrial policy is difficult. Developing countries should not try it but should instead concentrate on capacity and institution building.”
- ❑ UNCTAD’s Least Developed Countries Report 2004: “There is little evidence that trade liberalization promotes growth or reduces poverty.”



- ❑ The World Bank's development policy evolved greatly over time.

1960s	Build big industrial projects and infrastructure
1970s	Basic Human Needs (BHN) - social concern becomes priority
1980s	Structural reforms (liberalization, privatization), with IMF
1990s	Big-bang reforms from plan to market, with IMF
2000s	Poverty reduction (PRSP) as a conditions for debt relief
2010s	Returning to infrastructure and positive role of government
SDGs	Incorporation of broad social objectives, with businesses

Meanwhile, Japan's cooperation philosophy remained largely constant: self-help; building HR and institutions for industrialization and aid graduation.

- ❑ Joseph Stiglitz, Dani Rodrik, Ha-jung Chang et al. strongly advocate an active state as promoter of technology, economic transformation and learning society.
- ❑ Ideological debate on the desirability of industrial policy seems endless and barren. The world needs pragmatic discussion on how to design and execute good policies concretely and effectively.

MITI: Key Features (by Ohno)

- ❑ MITI had a **broad mandate** covering industries, services, investment, trade, technology, skills, ICT, SMEs, telecom, energy, other resources, intellectual property, etc. all in one ministry.
- ❑ MITI **targeted specific sectors**. It collected vital information for designing and implementing policies. MITI was neither captured by special interests nor detached from industrial reality (arms' length; “Embodied Autonomy”). MITI and the business community “picked the winner” together.
- ❑ MITI had **many formal and informal channels to talk to the private sector**. Among them, the deliberation council 審議会 was a mechanism actively used by central, ministerial and local government levels. MITI used, and still uses, deliberation councils to draft policies with the participation of businesses, academia, media, consumers, etc.
- ❑ MITI proposed, drafted, disseminated and executed concrete policies, being responsible for **the entire policy chain**. It did not remain a passive implementer of top orders.
- ❑ MITI officials were **highly motivated, proud and clean**. They were happy to contribute to national development, even with low salary.

MITI and the Japanese Miracle

Chalmers Johnson, Stanford University Press, 1982



- ❑ The Japanese economic bureaucracy is different from both the Western model and communist planning.
- ❑ In Japan, the state role in the economy is shared with the private sector. Both the public and private sectors have perfected means to make the market work for developmental goals.
- ❑ This pattern proved to be the most successful development strategy, and was repeated in Taiwan, Korea, Singapore, etc.
- ❑ Japanese analysts believe that government was the inspiration and the cause of HCI drive and structural transformation.
- ❑ MITI said industrial policy “grew” without guiding theory. Only recently, government tried to rationalize and systematize it.

Johnson did not say MITI was a strong commander of Japanese industries. He was unhappy when his book was interpreted as such.

Between MITI and the Market

R. Daniel I. Okimoto, Stanford University Press, 1989



- ❑ The view of “Japan Incorporated” (the state plans and controls the economy) is incorrect.
- ❑ In the US, the state and businesses remain at arm’s length and often hostile. In Japan, the state and firms cooperate as an integrated and well-coordinated machine.
- ❑ The content and method of MITI’s policy differs from one sector to another. They reflect complexity and dynamism of Japan’s politics and economy.
- ❑ MITI’s policy is more effective than those of other countries. This is because MITI plays the right role in the complex Japanese system with unique social features and LDP-business-MITI relationship. MITI’s power and vision are less important than how MITI behaves in this social complex.

Industrial Policy of Japan

R. Komiya, M. Okuno & K. Suzumura eds., Academic Press, 1988



Komiya Ryutaro (introductory chapter)

- ❑ MITI officials and supporting economists did not accept the basic economic approach to industrial policy [identification and correction of market failures].
- ❑ They just argued that Japan, with little land, few resources and large population, must carry out an industrial policy in order to catch up with advanced nations. I do not think such an argument provides a case for policy intervention.
- ❑ MITI selected sectors with large size and symbolic value for promotion.
- ❑ Postwar industrialization was driven by private effort. Business CEOs would certainly deny that industrial policy was strong and systematic.

Wada Lecture at GRIPS

Wada Masatake, former MITI official during 1966-96 (lecture of Feb. 25, 2021; excerpted and summarized by K Ohno)



Goal and objectives of MITI in the 1960s

< Goal >

Catch up with the industrial level of Europe and America by rationalization and modernization

< Policy objectives >

- ❑ Obtain information from developed economies to absorb advanced features—technology and management system for **productivity and quality improvement**.
- ❑ Overseas market development—raise **international competitiveness** under the Western pressure to liberalize trade and capital.
- ❑ Shift from quantity to **quality growth** by solving external diseconomies—environmental damage, regional gaps, etc.

Wada: 3 Policy Types

Sectoral policies

- ❑ **Promotion policy [positive]**—after grasping the real condition of each sector, most appropriate measures for modernization and rationalization were devised and implemented. Global competitiveness was the final target.
- ❑ **Market adjustment [negative]**—in recession, adjustments were made through collective production cuts, recession cartels, and measures for structurally depressed sectors.

General policies (for all sectors)

- ❑ Finance, tax incentives, infrastructure, human resource training, adoption of advanced technology, domestic R&D, acquisition of overseas information, overseas market development, etc.
- ❑ Rules for sound industrial activities—rules for investment, construction and operation of plants, education of workers, sales and marketing, etc.

Alleviating external diseconomies

- ❑ Regulations for pollution, safety, hygiene, regional development, corporate social responsibility, etc.

Wada: 3 Methods

Supporting measures (legal)

- ❑ Tax incentives, financial support, overseas market development, etc.
- ❑ Regulations for safety, stable and fair business activities, etc.
- ❑ Establishment of policy implementing organizations

Government guidance (non-legal)

- ❑ Policy guidelines for investment, joint R&D, joint overseas marketing, etc.
(no legal power but still effective)
- ❑ Contents were discussed between government and business circles, and businesses willingly accepted guidelines

Industrial policy visions

- ❑ Long- and short-term visions were produced by deliberation councils composed of government officials, academicians and business leaders.
- ❑ Visions showing basic policy direction had strong influence on the management decisions of businesses

Wada: How Policies were Made

1. Collecting domestic and foreign information

- ❑ Domestic information was collected via many active information channels (government agencies, local governments, industrial associations, individual companies, academicians); this extensive information network was vital.
- ❑ Overseas information was collected by frequent survey missions with the support of Japanese embassies and other government agencies abroad.

2. Setting targets and measures

- ❑ This was done in close cooperation among many stakeholders, where all information and ideas were shared. This was critical for ensuring the effectiveness of policies after adoption.
- ❑ Industrial associations often collected technology information via overseas missions. Sample products were analyzed and results were shared by member firms of the association, then to all interested parties in Japan.

(Cont.)

3. Implementation

- ❑ MITI had many organizations to implement policies—Japan Development Bank, Japan Export and Import Bank, SME Financial Promotion Fund, Japan External Trade Organization, etc.
- ❑ For promotion of selected sectors, several laws were drafted and passed. Under these laws, each sector created a development plan with concrete targets and action plans. These plans were supervised by MITI, in close contacts with implementing organizations, local governments, industrial associations and their member companies.

4. Monitoring

- ❑ MITI's responsible divisions continuously monitored the progress of policy implementation. Every year, ongoing policies were reviewed and revised if necessary.
- ❑ Most laws had time limits for policy support.

Wada: Why MITI was Effective

- 1. Broad perspective and capacity**—MITI had visions, monitoring capability, broad and worldwide information networks, and flexibility to respond to changes in economic, political and global situations.
- 2. Clean and good relationship with politics**—MITI submitted policy proposals to politicians who deliberated on them. Politicians also requested MITI to study certain issues and propose policy measures. MITI as a professional body kept a neutral stance vis-à-vis politics.
- 3. Close and frequent communications**—MITI acted as a communication hub between policy organizations (ministries, local governments, policy implementing organizations, etc.) and policy beneficiaries (business and industrial associations, individual firms).
- 4. Thick information network with private sector**—MITI and businesses shared the same awareness and future visions. Industrial policy was a joint work between MITI and business circles, and this improved policy efficiency.

(Cont.)

- 5. Internal structure**—MITI was composed of vertical and horizontal bureaus. The former were responsible for sectoral issues and the latter managed common issues across sectors. This mechanism provided good balance. MITI staff rotated every 2-3 years to experience many positions, including overseas placement, to cultivate a broad perspective.
- 6. Private trust**—private businesses appreciated and relied on MITI's policy capacity and fairness in gathering and analyzing information and making judgement.
- 7. Strong motivation of MITI staff**—despite low salary, MITI staff were very proud to work on industrialization, which was a big national dream. They were very concerned about Japan's future, and organized private study meetings inviting academic and business people after working hours. During the catch-up phase, the national goal was clear and opportunity was immense.



Features of Japanese Industrial Policy

Summarized from Prof. Akira Suehiro's 2006 lecture

Japan's industrial policy helped to develop the market rather than distort it.

- ❑ The Fiscal Investment and Loan Program (FILP) mobilized a huge pool of official funds outside annual budget (postal saving deposits, pension contributions, etc.) to industrial and infrastructure development. The Japan Development Bank (JDB) and Exim Bank dispensed such fund.
- ❑ JDB and Exim Bank loans were relatively small, but they had a signaling effect and catalyzed private commercial bank loans.
- ❑ JDB loans for business investment were combined with management support of JDB and technical support of MITI. Rejected firms were allowed to apply many times. JDB and MITI coached them until they succeeded (“return match game”).
- ❑ MITI's deliberation councils formulated policies for targeted sectors and strategic issues. Junior officials drafted plans which were discussed within MITI, across ministries, by businesses and other stakeholders.



MITI's Policy in the 1950s and 1960s

Prof. Tetsuji Okazaki, Nikkei Shimbun, July 15, 2016

Policy finance, tax incentives and R&D support were the major industrial measures:

- ❑ Exim Bank and Japan Development Bank were created for policy finance.
- ❑ Enterprise Rationalization Promotion Law (1952) subsidized rationalization and R&D.
- ❑ Foreign exchange budget allocation was used for promoting targeted sectors and import protection (1950s only).
- ❑ Power generation, steel, artificial fiber, automobile and petrochemical were targeted for expansion while coal and natural fiber were targeted for downsizing.
- ❑ Sectoral targeting was later criticized by the US and abandoned in the 1980s.

Organization Chart

MITI

- Minister
- Politically appointed VM
- Administrative VM
- Deputy VMs
- Special assistants

Main Bureaus

- Minister's Secretariat (incl. Research & Statistics)
- Int'l Trade Policy Bureau
- Int'l Trade Admin. Bureau
- Industrial Policy Bureau
- Industrial Location & Environment Protection Bureau
- Basic Industries Bureau
- Machinery & Information Industries Bureau
- Consumer Goods Industries Bureau

Attached Organizations and External Bureaus

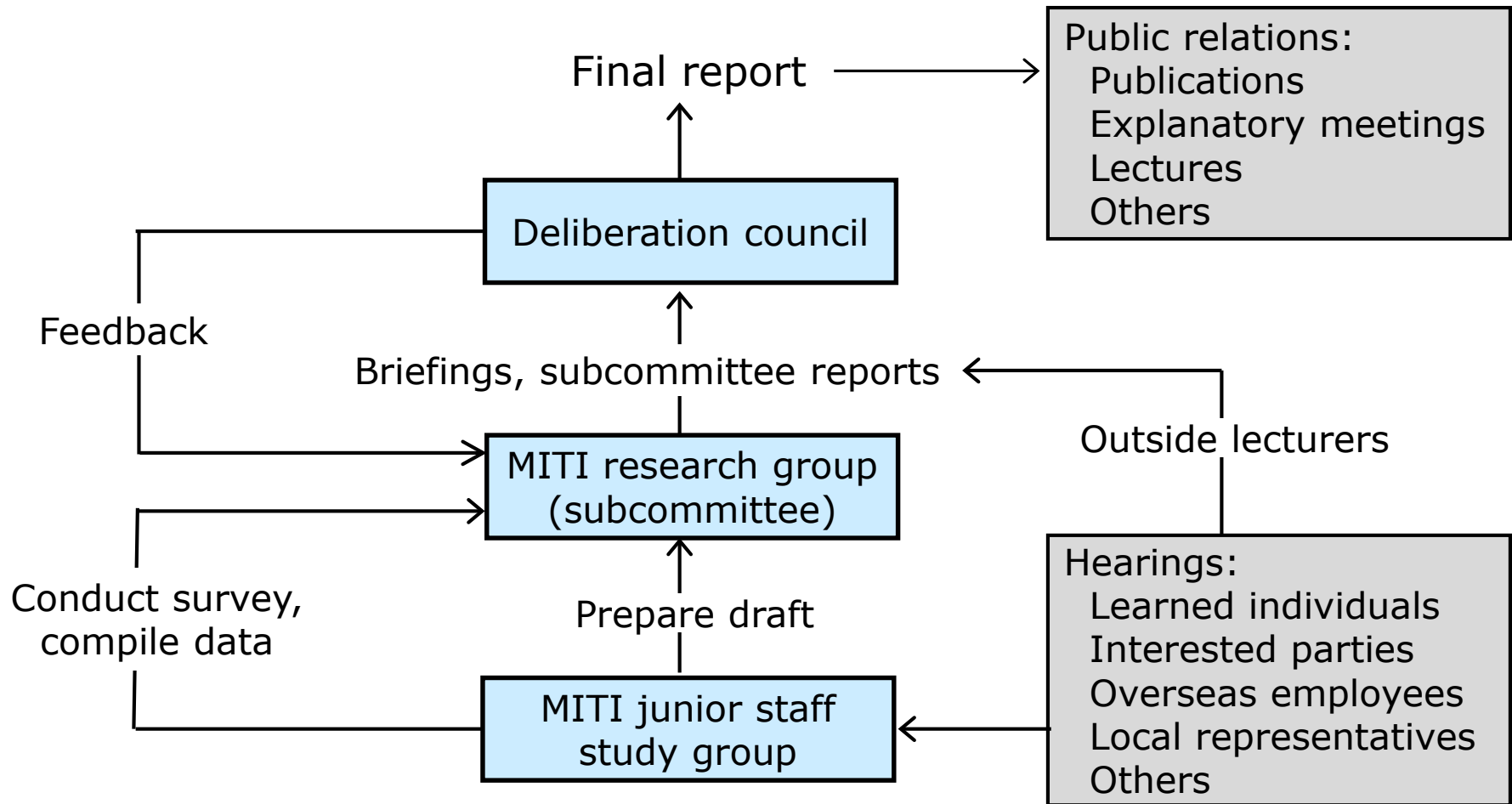
- Agency of National Resources & Energy
- Patent Office
- SME Enterprise Agency
- Agency of Industrial Science & Technology
- Trade & Investment Training
- Other

Deliberation Councils

- Industrial Structure
- Export Insurance
- Textile
- Petroleum
- Electrical Works
-

- Int'l Trade Transaction
- Industrial Location & Water
- Product Safety & Household Goods Quality Indication
- Aircraft & Machinery Industry
- Traditional Crafts Industry
-

MITI's Policy Making Was Bottom-up



Young officials in their 30s actively gathered information and interacted with stakeholders, thus having substantive influence on final result—unlike in most other countries where young officials only take orders from above and do what was assigned.

Source: Ono (1992); original graph was rearranged so reporting direction goes from bottom to up.

Clean and Dedicated Bureaucrats

Not Just MITI

In 2018, we brought the Ethiopian metal industry delegation to the Saitama Industrial Technology Center (under Saitama Prefecture) which assisted SMEs with product design, analysis, testing, etc.

Ethiopian delegation: “Mr. Fukushima, why do you work so hard even with low local government salary?”

Mr. Fukushima: “Why? ... I don't know... I am just happy to help enterprises in my hometown.”



In Ha Nam Province, Vietnam, provincial government has built industrial parks to attract Japanese and Korean investors. Japanese firms have internal agreement never to pay illegal money to provincial officials, while Koreans are targeted by officials for bribery. KOICA asked JICA: “How can Japanese firms not offer bribes and still operate in the industrial parks? Tell us how to do it.”

Japanese SME Policy Shifted from Protection to Competitiveness

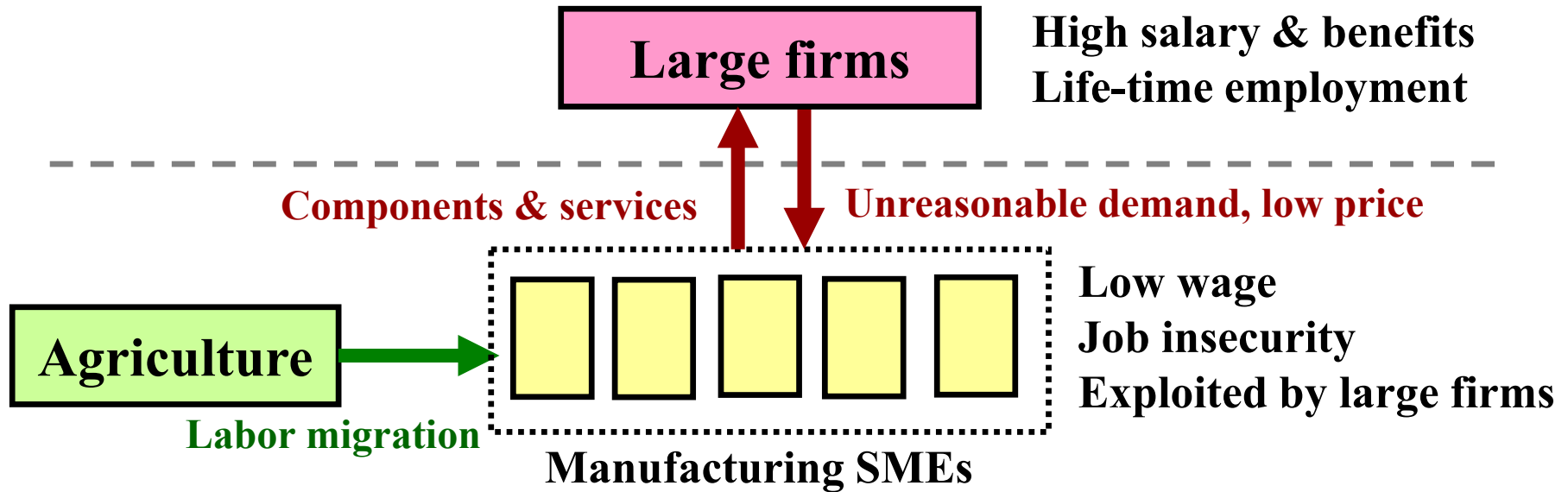
Japan currently has 3.81 million SMEs (all sectors) accounting for 99.7% of establishments and 70% of employment. Their number peaked in the 1980s and has now declined by about half.

- In the 1950s-80s, policy thrust was **protection** of weak SMEs against exploitation by large firms. Many manufacturing SMEs were captured suppliers to large firms (*keiretsu* group).
- SMEs suffered from low productivity, low wage and job insecurity.



- After the 1990s, policy shifted to supporting high-tech SMEs to **excel and globalize** as a source of national competitiveness.
- SMEs now face slow domestic demand, aging of owners, and the lack of young managers and engineers.
- In 2010, government began to actively promote outward FDI of SMEs. In 2018, Japan decided to accelerate foreign labor import.

Large Firms, SMEs and “Dual Structure”



- ❑ Problems of SMEs were low productivity, low wage and job insecurity, which called for policies to protect SMEs and their workers.
- ❑ As the labor market tightened from around 1960, the wage gap between large and small firms began to narrow. Government also subsidized farmers.
- ❑ Despite policy measures and growth of some SMEs, the gap between large vs. small manufacturing firms still remains.

Key Players of Japanese SME Policy

Japanese SME promotion has a long history with multiple support tools at different administrative levels.

- **Ministry of Economy, Trade and Industry (METI)** is responsible for SME promotion at the national level.
- **SME Agency** under METI is in charge of national policy formulation.
- **SME Support, JAPAN (SMRJ)** under METI is the policy implementing agency at the national level.
- There are many SME support mechanisms at **local government levels** (prefectures and cities) which are not directly under METI but coordinate with national agencies.
- There are also many **non-government players** such as local banks, credit unions, industrial and business associations, NPOs, research institutions and universities that support SMEs.

Kishin-ho & Denshin-ho

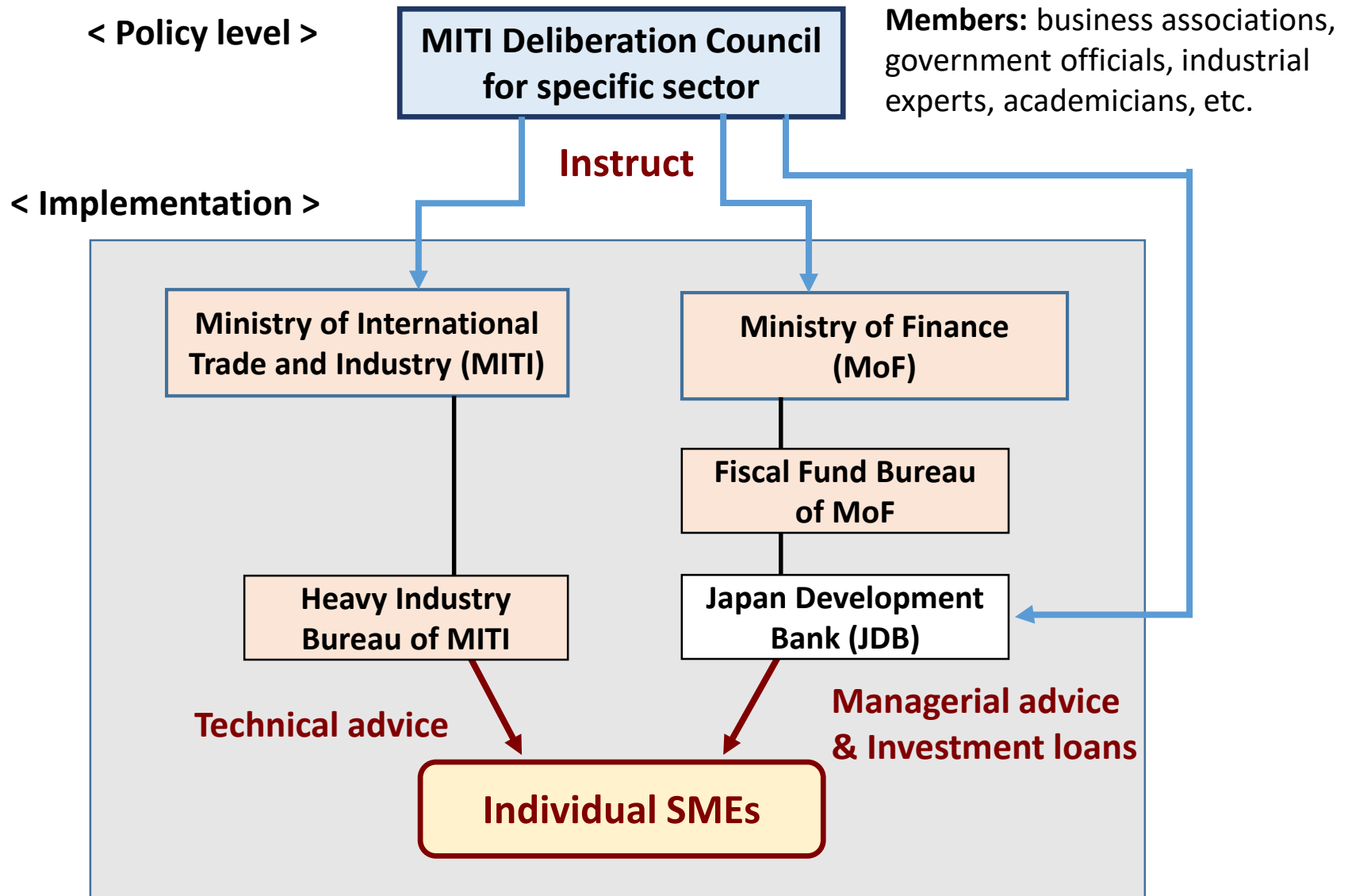
(Supporting Industry Promotion Laws for Automobile & Electronics)

- **Kishin-ho** is short for the Provisional Act to Promote Machinery Industry, enacted in 1956 and renewed two times (in effect 1956-1971).
- **Denshin-ho** is short for the Provisional Act to Promote Electronics Industry, enacted in 1957 and renewed two times (in effect 1957-1971).
- These were time-bound laws for developing component suppliers in machinery and electronics, with almost identical contents.

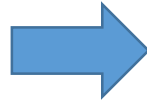
Basic Mechanism – combining technology support (by MITI) with loan provision for new investment (by MoF)

1. MITI's **Machine Industry Deliberation Council** identifies potential key components and creates promotion programs every year.
2. MITI invites and screens applications from SMEs.
3. MITI coaches SMEs on production plan, equipment choice, purchase negotiation, etc. so applications are improved.
4. Selected applications are sent to **Japan Development Bank** or **Japan Finance Corporation for SME** for additional check and loan provision.

Integrated SME Support



5S and Kaizen



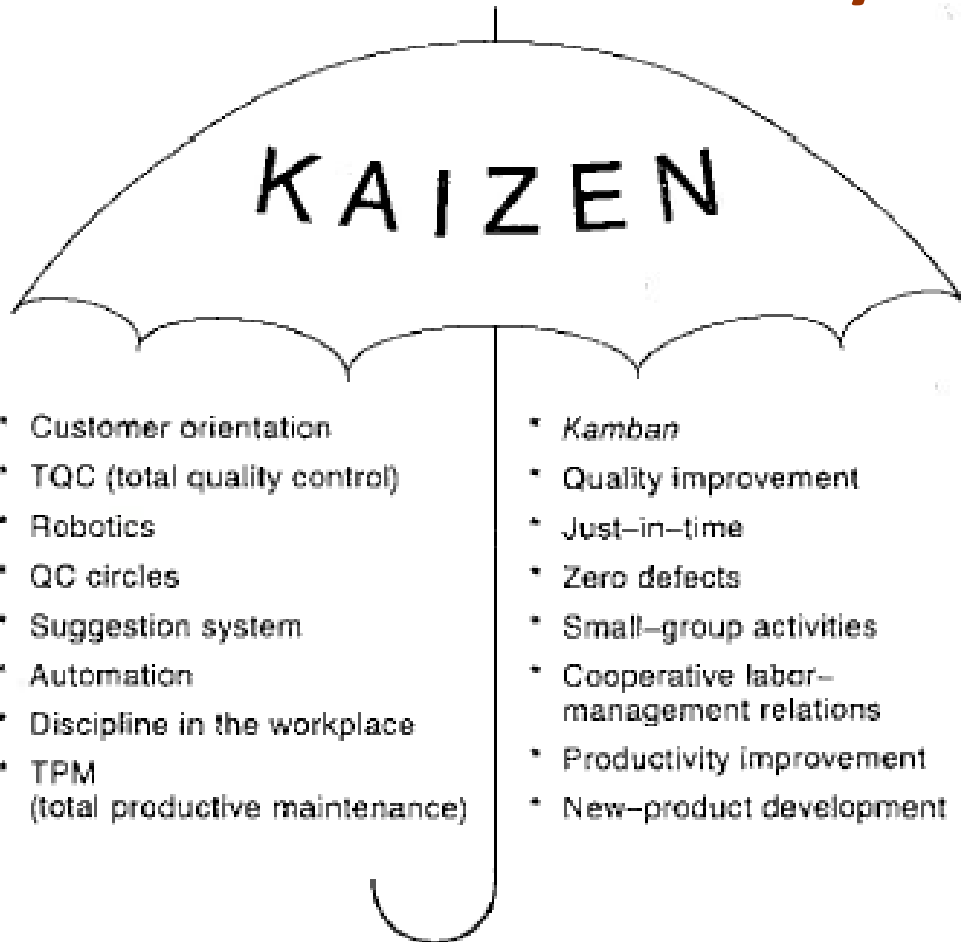
- Kaizen is a bottom-up, low-cost way of improving efficiency at workplace, imported from USA and developed in Japan.
- Kaizen is a philosophy with many practical tools. It pursues elimination of *muda* (any thing or action that does not add value).
- The most basic kaizen tool is **5S** (Seiri, Seiton, Seiso, Seiketsu & Shitsuke; or Sàng lọc, Sắp xếp, Sạch sẽ, Sẵn sóc & Sẵn sàng). Seiri is removing unnecessary things from the workplace. Seiton is placing remaining things in clear visibility for easy pickup.
- Kaizen was developed in the late 1950s and practiced all over Japan. It also spread to many countries through FDI, ODA and private consultants (Singapore, Taiwan, Korea, China, Thailand, India, Mexico, Argentina, Tunisia, Ethiopia, Tanzania, Mauritius, etc.)



Mr. Taiichi Ohno who developed Toyota Production System



Kaizen Tools Are Many



Quality Control Circle (Singapore)



Shindan and Shindanshi

- **Shindan** is diagnosis and advice for SMEs. **Shindanshi** is a state-certified person—official or private expert—who practices this. Japan's shindan system was created in the late 1940s and evolved as social needs changed.
- Japanese shindanshi are increasing and stands at 26,000 in 2020. Shindanshi must pass written and practice tests, and certificate must be renewed every five years with additional training and practice. **SME Universities** administer tests and training.
- Shindanshi work both in Japan and abroad. Many JICA experts are shindanshi.

https://www.j-smeca.jp/contents/018_english_contents.html



Mr. Panuwat Triyangkulsri
(Thai MOI) who manages
shindan system in Thailand



SME University (Tokyo Campus)

JICA senior volunteers who coached supporting
industry firms in Hanoi and HCMC



Handholding

- Handholding (also called hands-on support) is an official program to assist a small number of SMEs with customized and intensive support for 2-3 years. Firms with proper mindset and potential are selected.
- One goal is set for each firm, and an expert team is formed (official, business consultant, technical expert, etc.) to offer marketing, design, technology, ICT and other support as needed.
- JETRO and Japanese local governments conduct many handholding programs for SMEs that want to improve management, export or invest abroad. Japan has many experienced experts (shindanshi and others) willing to work for small fees.
- Korea, Taiwan and Malaysia also provide handholding support for export, outward FDI and creation of high-quality products.

Kobe City's
handholding
office



Taiwan's OTOP products



Kosetsushi (technical support centers for SMEs)

- Kosetsushi is Public Testing and Research Organizations located in every prefecture in Japan. They perform technical support for SMEs such as analysis, testing, equipment rental, research, training, certification, product development and production support.
- Kosetsushi has a long history of more than a century. Many are run and subsidized by local governments. Others are operated by NPOs. SMEs are charged with low or no fees.
- Technical staff at kosetsushi are highly experienced but receive low local government salary. They are very busy due to high demand for their services.



Osaka Municipal Industrial Research Center (est. 1916)



Higashiosaka City



Saitama Prefecture

Kosen (technical college)

- Kosen is a Japanese technical and vocational higher education system for producing practical and creative engineers. It offers a five-year program to students aged 15 to 19.
- Japan has 57 kosen. 51 are state-run, 3 are under local governments and 3 are private. 10,000 students enter and graduate from kosen each year with a total student body of about 50,000 at any time.
- Kosen combines theory and practice. Besides technical skills, it teaches proper mindset, creativity, problem-solving capacity and communication skills.
- Kosen builds close and practical linkage with firms through factory visits, internship and graduation studies. Graduates are highly demanded by industry.



Kosen
Robocon

Additional Topics for Discussion

- ❑ Why were Japanese officials relatively clean? How can industrial officials establish a productive and trusted relationship with private businesses without corruption?
- ❑ If a developing country government lacks the policy capacity to conduct industrial policy, how can it build it? Where should it start?
- ❑ What is the best way to introduce a complex policy (say, SME promotion) to a new society, step by step?
- ❑ Do you see any weakness in MITI's industrial policy in the 1950s-60s?
- ❑ Why is today's METI not as dynamic or autonomous as MITI in the 1960s?