

# Japan's Postwar Recovery and High Growth 1946-1970

## Extracting Lessons for Ethiopia



# Nations Are Not Equal in Policy Capacity

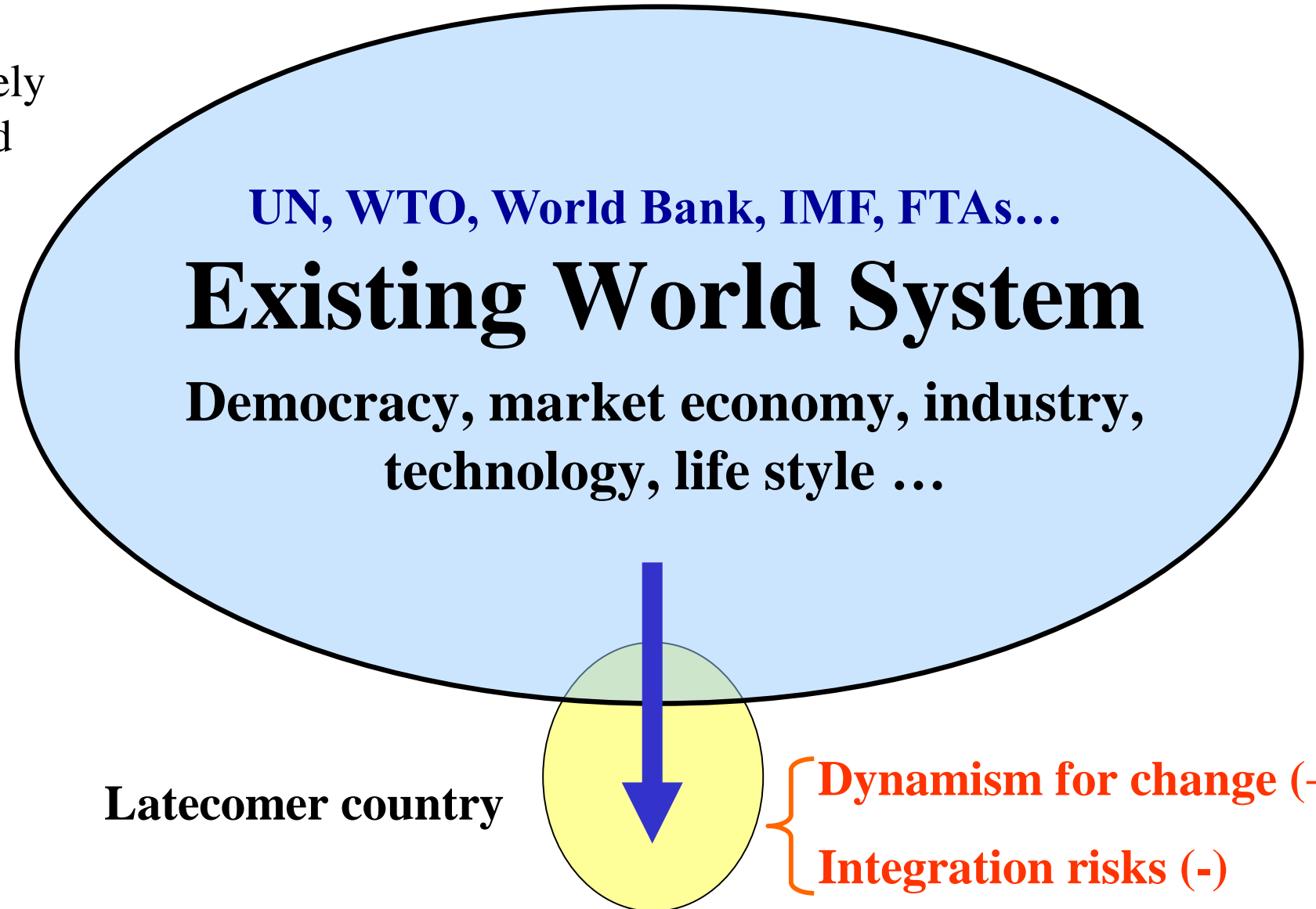
- ❑ My research interest is international comparison of industrial policies.
- ❑ I have studied the policy methods of the following 26 Asian and African economies: Japan, Singapore, Taiwan, Korea, Malaysia, Thailand, Indonesia, **Vietnam**, Cambodia, Myanmar, India, Sri Lanka; Kyrgyzstan, Uzbekistan, Kazakhstan; **Ethiopia**, Rwanda, Mauritius, Egypt, Tanzania, Kenya, Djibouti, Ghana, Zambia, Mozambique, South Africa
- ❑ Developmental performance differs greatly across nations. Some nations quickly reach high income while others slow down or stagnate at low or middle income.
- ❑ In my view, this mainly reflects differences in **private dynamism** and **policy quality**—not amounts of aid, trade, FDI, natural resources, big projects, history of colonization, initial difficulties, etc.

**Economic performance = Private dynamism + Policy quality  
+ External factors**

- ❑ **Historically, Japanese growth was driven by strong private dynamism (main cause) supplemented by mostly appropriate policies (supplementary cause).**

# Integration Viewed from Outside

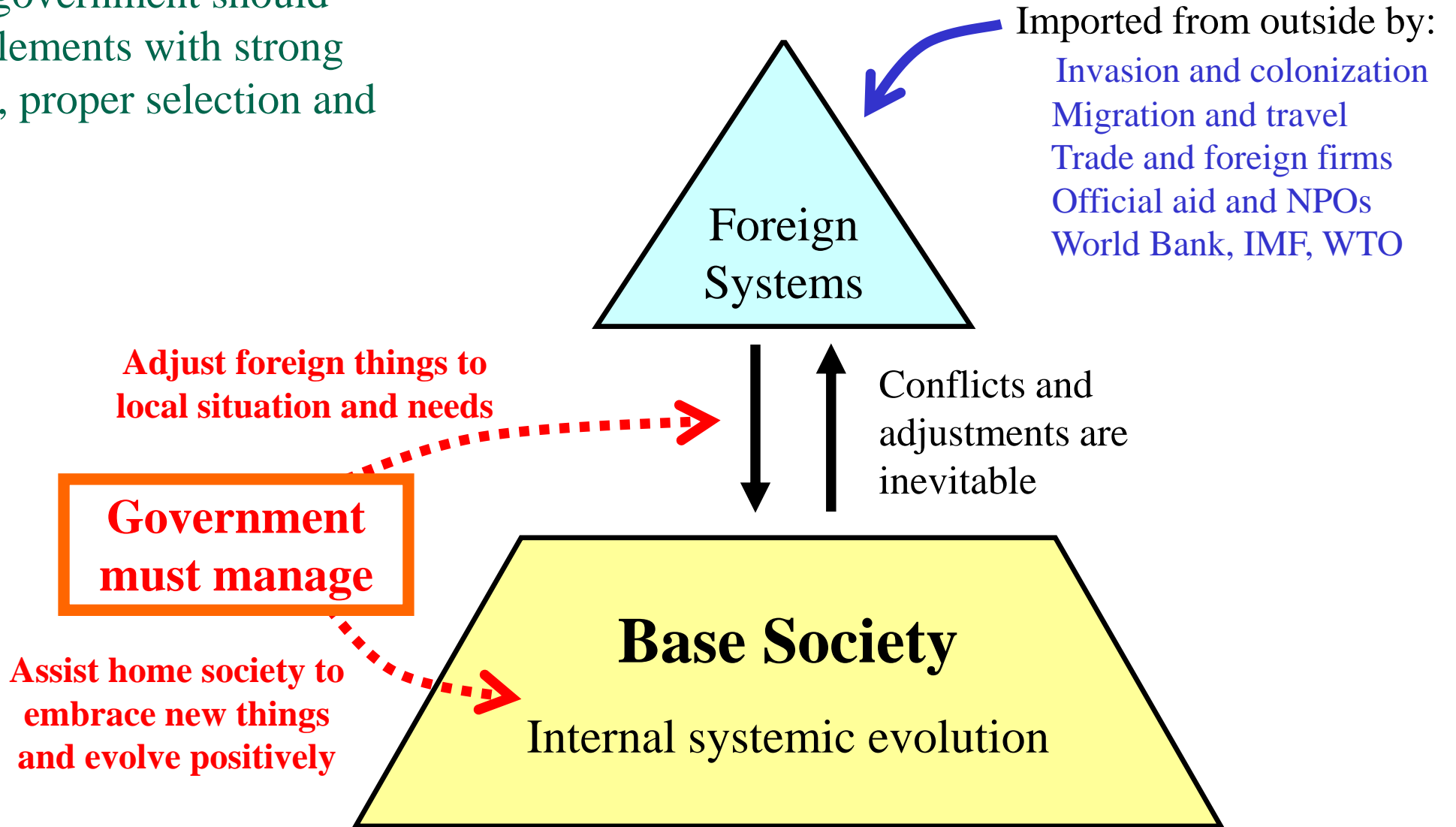
Small countries must passively accept dominant systems and global norms.



# Integration Viewed from Inside

Home society and government should introduce foreign elements with strong national ownership, proper selection and adjustments

Can government do this? It is part of the base society and faces many problems (politics, corruption, lack of knowledge, etc.)



# Translative Adaptation



- ❑ Keiji Maegawa, economic anthropologist, says that a latecomer society may be weakened or even destroyed by the powerful West, but it may also be activated by a foreign encounter.
- ❑ He argues that a latecomer society is not really weak or passive *if* it controls the type, terms and speed of importation of foreign things, using them to stimulate the existing society for new growth.
- ❑ Global integration with national ownership, with proper selection of the model and management of the process—this he calls *translative adaptation*.
- ❑ But not all countries can do this. Translative adaptation requires great policy skill, knowledge and national effort under wise national leadership.

# 2000+ Years of Japanese History

Active importation of foreign things and systems with local adaptation:  
Nara/Heian, Sengoku, Meiji, Postwar periods

## I. Emperor's Rule



**NARA**  
Centralization

Jinshin War × 671  
Taika Reform × 645

**HEIAN**  
Court politics, decentralization

Clan fights

## II. Samurai's Rule



**KAMAKURA  
MUROMACHI  
SENGOKU**

Internal wars, dynamic & fluid society

1603

## III. Modernization

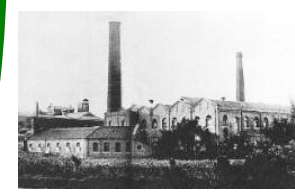


**EDO**  
Tokugawa Shogunate

Peace, isolation, conservative class society

X  
1867

**MEIJI**  
Westernization, industrialization, militarization



## IV. Postwar



Rapid recovery and growth



**WAR**  
1937-45

Maturity, slowdown and stagnation

Hunting & gathering

Rice cultivation

Buddhism

Chinese culture & political system

WEST: guns & Christianity

WEST!!!

US occupation 1945-52

XXXX

XXXX

XXX

# Postwar Recovery and High Growth 1946-1970

## Possible Issues for Latecomer Nations

- Strategy for post-crisis output recovery and macro stabilization
- National movement for quality and productivity (kaizen)
- Effective policy support for industrial competitiveness
- Dedication and cleanliness of government officials
- Strategy for trade liberalization
- SME promotion
- Internal labor migration and the dual structure
- Coping with negative aspects of growth—environmental damage, traffic congestion and accidents, etc.

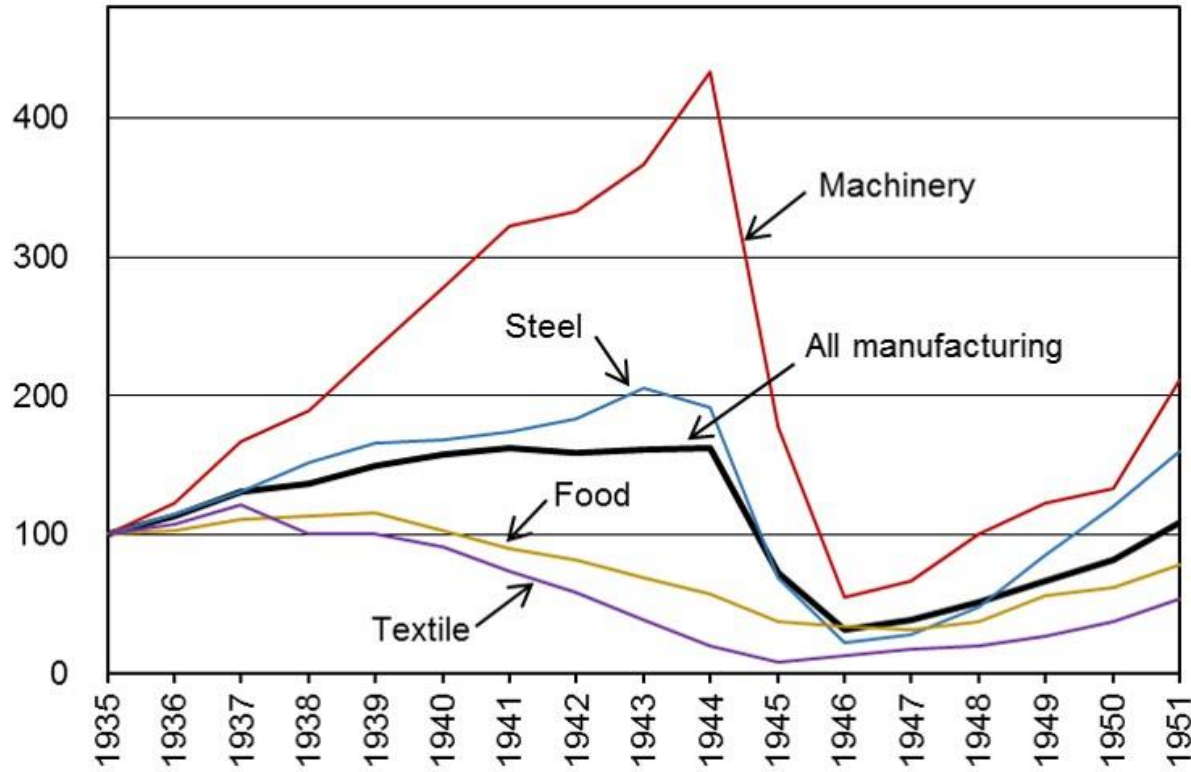
# Postwar Economic Planning 1946-1949

- ❑ Japan waged total war against China (1937-) and the US and its allied powers (1941-). Japanese major cities and urban houses were destroyed by US bombing and atomic bombs. Japanese ships were sunk. Japan's economy collapsed due to the lack of inputs (energy and raw materials).
- ❑ After the war defeat in August 1945, the US forces occupied Japan until 1952. Food and other consumer goods were in severe shortage. Under the US order and supervision, the Japanese government had to restart production and stop inflation.
- ❑ Output recovery was initiated by reviving coal and steel production through planning method (1947-48). In 1949, the Dodge Line stabilization (macroeconomic austerity) imposing fiscal balance ended inflation, returning Japan to a basically (but not completely) market-oriented system.





(1935 = 100)

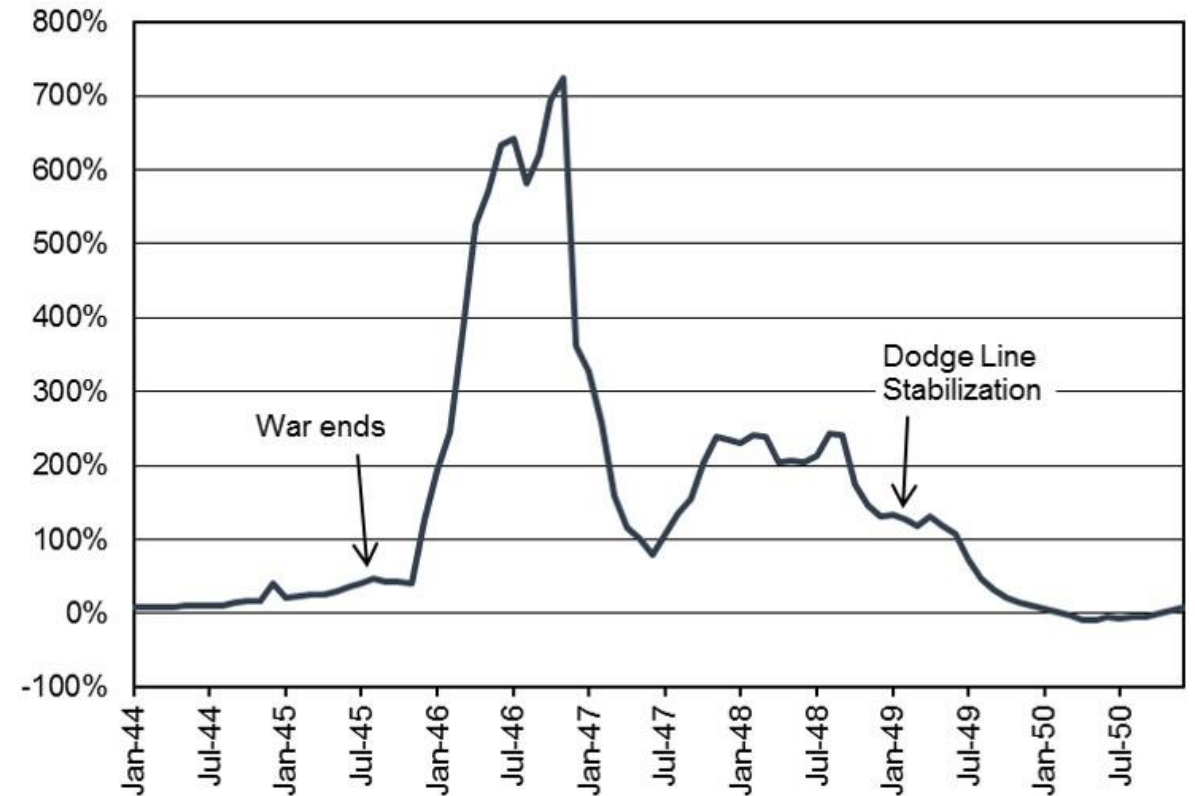


## Industrial Production Index

Production of consumer goods was suppressed throughout the war. Artificially boosted machinery production collapsed at war defeat.

Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 2, 1988.

(12-month change)



## Tokyo Retail Price Inflation

Price control became ineffective after the war. Bank deposit blockade did not produce lasting results. The triple-digit inflation was finally ended by a Washington-imposed macroeconomic shock therapy in 1949.

Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 4, 1988.

# The Basic Problems of Japan's Economic Reconstruction (Sep. 1946)

(English edition: Special Survey Committee, Ministry of Foreign Affairs ed., *Postwar Reconstruction of the Japanese Economy*, compiled by Saburo Okita, University of Tokyo Press, 1992)

- ❑ Toward the end of the war, young engineers Okita Saburo and Goto Yonosuke knew that Japan would be defeated, and decided to organize study meetings to discuss postwar recovery strategies.
- ❑ The first meeting was held on August 16, 1945, one day after Japan's defeat. The topic was the impact of the Bretton Woods Agreement of 1944 which created the IMF and the World Bank.
- ❑ Various topics were discussed every week with the attendance of prominent officials and academics. Okita and Goto served as the secretariat. The study group began informally but was later officially recognized as the Special Survey Committee of the Ministry of Foreign Affairs.

- ✓ **Long-term goals** must be set for Japan's recovery and global industrial repositioning.
- ✓ **Concrete real-sector strategies** must be created to attain these goals, sector by sector.



# Excerpts from the 1946 Report

(The two page numbers refer to Japanese original and English translation, respectively)

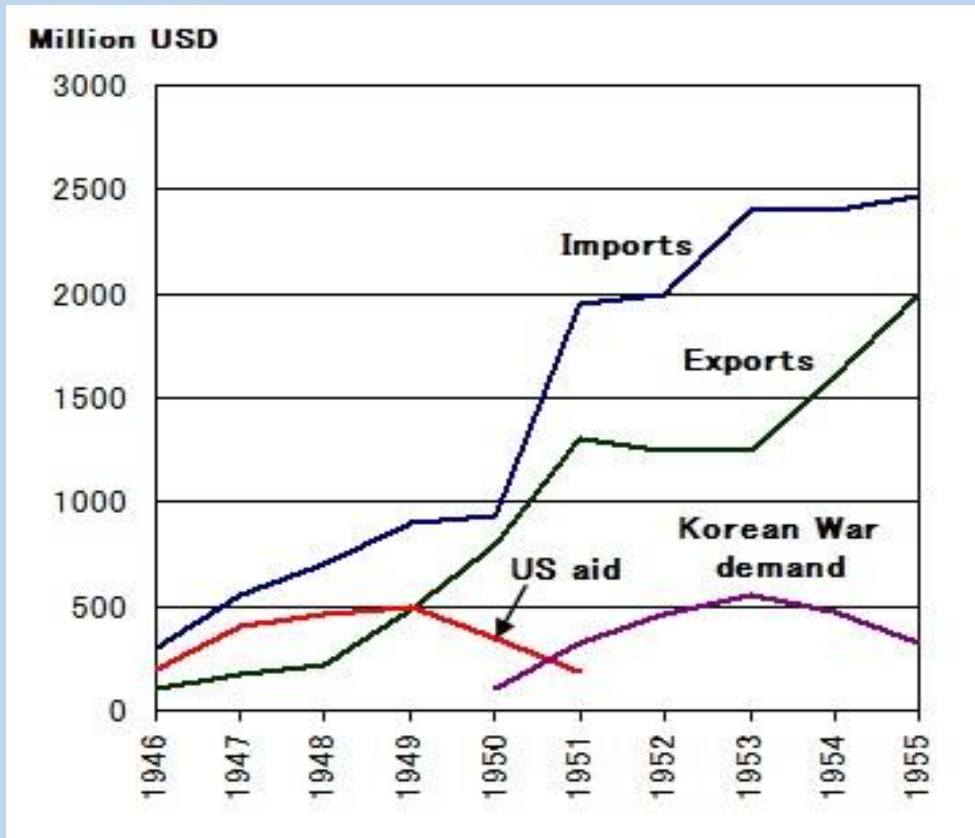
“In capitalistic free competition many Japanese industries will be overwhelmed by gigantic modern foreign industries, and Japan’s industrial structure will thus be deformed. This will make it necessary to **adopt State policies that will keep at least basic industries intact.**”  
(p.81/p.85)

“A national posture will have to be assumed in which all the people do not seek an affluent consumer life but are **content with minimum standards of living, consume conservatively, and increase savings**—thereby contriving to recover economic power and not seeking financial assistance from the outside world for consumption purposes.” (p.85/p.88)

“**A comprehensive and specific year-to-year reconstruction program** will have to be formulated in order to revive the Japanese economy from the extreme destitution in which it finds itself now. The waste of economic power that would result from **allowing laissez-faire play to market forces will not be permitted** in order that all the meager economic power remaining may be concentrated in a direction toward reproduction on an enlarged scale and that the process of reconstruction may be expedited.” (p.92/p.94)

# Two Artificial Supports (US Aid and Government Subsidies)

## US Aid and Korean War Boom



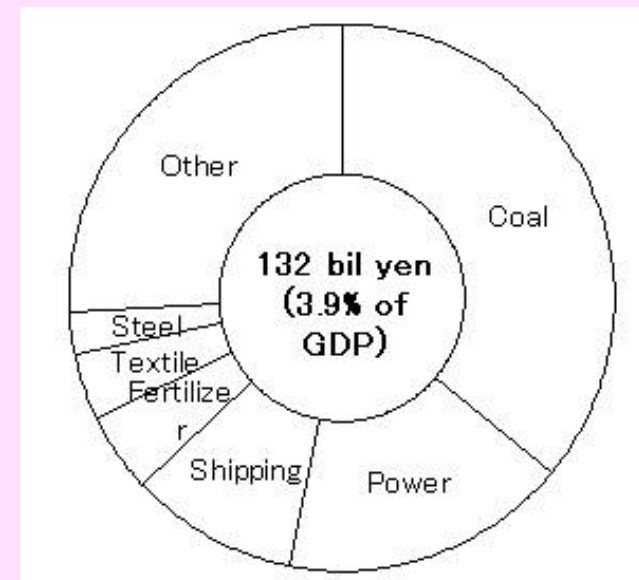
US food and medical assistance was provided until 1951. Then, US military procurement for the Korean War supported Japanese industries through increased demand.

## Price Gap Subsidies

	Mil yen	% of GDP
1946	9,011	1.9%
1947	22,511	1.7%
1948	62,499	2.3%
1949	170,213	5.0%
1950	60,161	1.5%
1951	30,261	0.6%
1952	27,000	0.4%

Production subsidies were directed to coal, steel, copper, fertilizer as well as food to cover the difference between controlled prices and production cost.

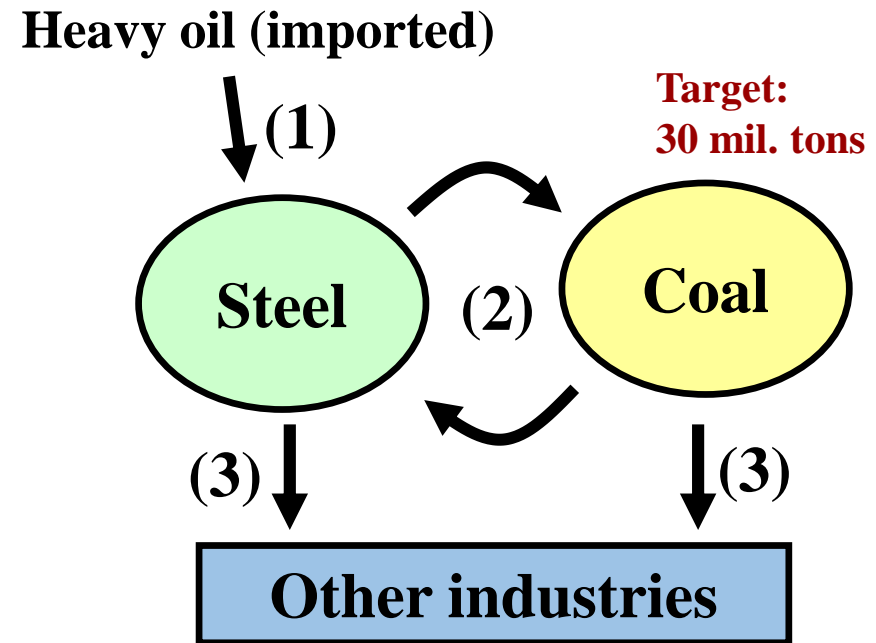
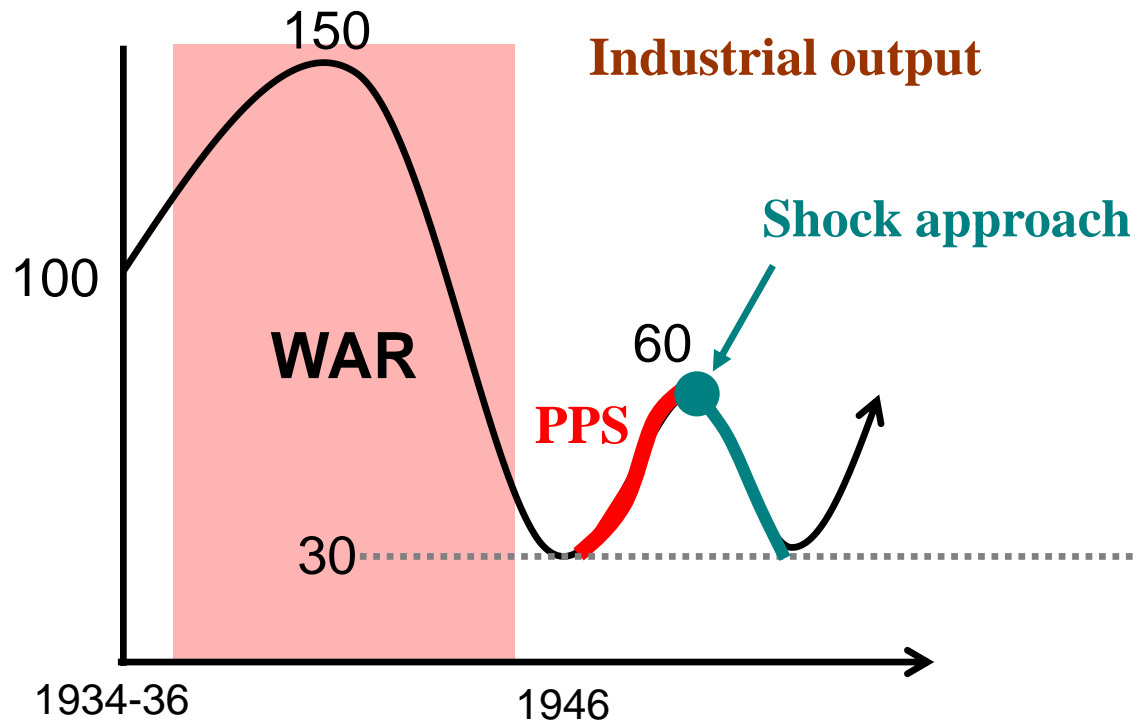
## Fukkin Loan Balance (March 1949)



The Recovery Financial Fund (*fukkin*) loans were poured into priority industries. The Ministry of Finance issued *fukkin* bonds which were immediately purchased by the Bank of Japan—this increased money supply. The pie chart shows the final *fukkin* balance prior to termination.

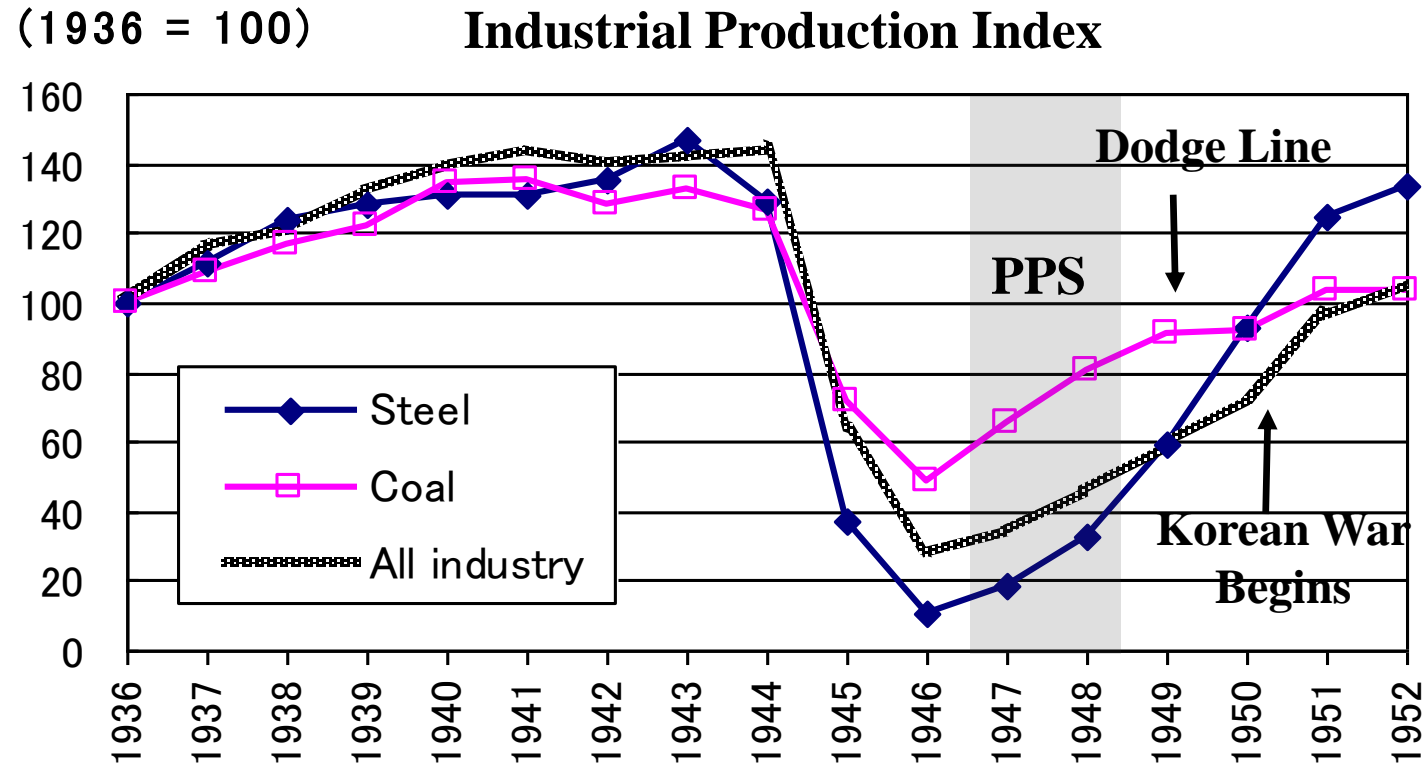
# Conditional Shock Approach

- ❑ Debate emerged between a shock therapy vs. gradualism in stopping inflation.
- ❑ Recover output first, then stop inflation by bold measures was proposed separately by Prof. Arisawa Hiromi (Tokyo University) and the Ministry of Commerce and Industry.
- ❑ Prof. Arisawa argued that (i) minimum living standard must be ensured even after the shock therapy; and (ii) coal and steel production should be jump-started by planning method in mutual interaction.



Prof. Arisawa

# Priority Production System: Actual Performance



Source: *Historical Statistics of Japan*, vol.2, 1988.

- PPS was conducted by carefully estimating coal mine capacity as well as energy demand, concentrating limited resources on coal mining, and publicly announcing daily production. A dedicated radio program sent heartfelt messages from all over Japan to coal miners.
- In 1947 and 1948, output targets were mostly met and industrial production turned around for recovery. Prof. Arisawa wanted to continue PPS into 1949, but Washington ordered disinflation.

# Dodge Line Stabilization & Shoup Tax Reform (1949)



Joseph Dodge

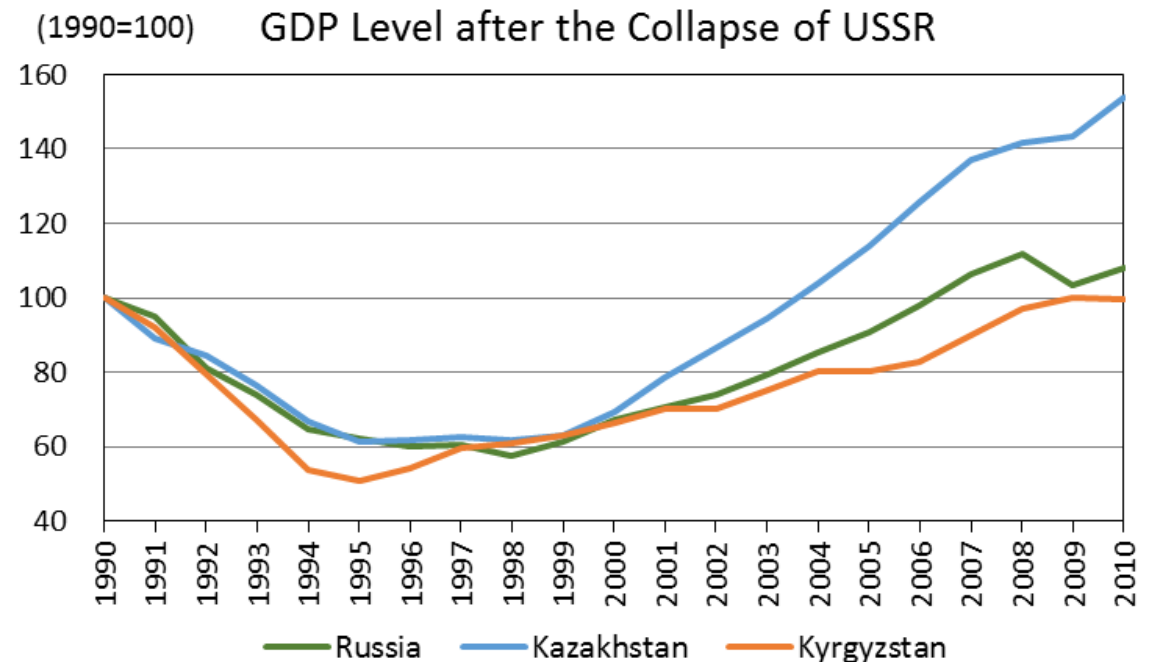


Prof. Shoup

- ❑ Washington sent Joseph Dodge, a US banker with strong belief in free market and sound budget, to occupied Germany to end inflation. Then he was dispatched to Japan to do the same.
- ❑ “Super-balanced (i.e., surplus) Budget” was imposed by cutting expenditure, ending subsidies (including fuckin loans) and raising utility charges. The fiscal deficit, which rose from 92.3 to 141.9 billion yen in 1946-48, suddenly turned to a surplus of 156.9 billion yen in 1949.
- ❑ The exchange rate was unified and fixed at \$1=360 yen.
- ❑ It was feared that Dodge Line measures would plunge the Japanese economy to another depression. This did not happen because the Korean War (1950-53) increased US demand for Japanese goods.
- ❑ Professor Carl Shoup was also sent to Japan for tax reform. A direct tax-based system (personal and corporate income taxes) was introduced, the local tax base was strengthened, and tax collection was rationalized.

# Big Bang vs. Recovery First

- ❑ In Japan, policy response to a severe economic crisis often prioritizes output recovery before stopping inflation. Real-sector goals are first set, then concrete policies for targeted industries are designed and implemented. *The Basic Problems of Japanese Economic Reconstruction* (MoFA, 1946) and the Priority Production System epitomized this approach.
- ❑ This is in sharp contrast to the advice of the IMF, World Bank and Western donors, especially in the 1980s-90s, which (i) regards attaining macro stability as the pre-condition for recovery, (ii) tries to improve institutions and business climate *generally* without targeting specific sectors; and (iii) trusts the power of free market in generating growth.
- ❑ Japan argues that liberalization, privatization and global integration must be paced to the speed of competitiveness improvement. Attaining free markets without building industrial competitiveness is considered unwise.





# Japan's Advice on African Development in 2008

## A More Recent Example of the Japanese Approach at TICAD IV

Source: Japan International Cooperation Agency and Japan Bank for International Cooperation, *Report of the Stocktaking Work on the Economic Development in Africa and the Asian Growth Experience* (May 2008), pp.14-15.

Establish “Industrialization Strategy” as a process, not just a document, in the following sequence.

1. Identify the desired vision, economic structure, and positioning in the global value chain.
2. Through public-private dialogue, discover growth-leading industries for future.
3. Identify their constraints (infrastructure, human resource, etc.)
4. Devise measures to remove constraints and promote targeted industries.

Proposed measures must be consistent with the country's institutional capability and executed under discipline and competition.

# High Growth Era 1956-1970

- ❑ From the mid-1950s to the early 1970s, the Japanese economy grew rapidly. Product quality and competitiveness improved. Rising output and income, and strong investment and consumption, reinforced each other. This was partly a rebound from war damage and partly a result of strong private dynamism supplemented by mostly appropriate policies. Macroeconomic and global economic conditions were also favorable.
- ❑ Heavy industries advanced greatly. Car and electronics giants such as Toyota, Honda, Panasonic and Sony expanded or newly emerged. The *monozukuri* (manufacturing) spirit guided vigorous investment, productivity movement and innovation. Kaizen was practiced widely to improve factory efficiency.
- ❑ Government provided support for rationalization, assistance for SMEs and component suppliers, integrated management-finance-technology support, the Fiscal Investment Loan Program, regional plans and a global integration roadmap. Some of these measures were not unique to Japan but were executed competently in close and uncorrupted relation with targeted sectors.
- ❑ The Japanese business model in this period was characterized by *long-term relationship* and *active official intervention*—such as administrative guidance, subcontracting, lifetime employment, keiretsu, mainbank system, etc.

# Rationalization

- ❑ Rationalization means cost reduction and boosting competitiveness by replacing old equipment and methods by better ones. The concept existed even before WW2 but became a hot industrial issue in the late 1950s.
- ❑ Korean War inflation pushed up Japanese costs, especially those of coal and steel. Competitiveness was to be regained by investing in new technology financed by private profits generated during the Korean War boom. Any industry that failed to do this had to exit (coal).
- ❑ Government supported rationalization with tax incentives and relatively tight macroeconomic policy stance under a fixed exchange rate (to force rationalization instead of lobbying for protection or devaluation).
- ❑ However, trade unions suspected that rationalization was an excuse for laying off workers. They often resisted and staged strikes. Government and management argued that productivity gain was good for everyone and its fruits would be shared by workers as well.



**Anti-rationalization negotiation, 1955**



**Anti-rationalization rally, 1961**

# Examples of Rationalization

Product	Cost reduction	Method
Pig iron	- 4%	Pre-treatment of materials
Steel making	-10%	Large-scale open hearth furnace using oxygen
Flat steel	- 27%	Comparison of continuous casting and traditional equipment
Steel pipe	- 30%	Comparison of Fretz-Moon method and old seamless pipe making method
Oil refinery	- 15%	Comparison of latest and traditional method
Rayon fiber	- 25%	Comparison of continuous & traditional method
Ammonium sulfate	- 21%	Joint production of urea

Sources: *Postwar History of the Steel Industry*; *Industrial Rationalization White Paper*.

Heavy and chemical industries and their products (industrial materials) were the main target of rationalization. Cost reduction was achieved by investing in new technology and/or large-scale production capacity. This in turn improved competitiveness of downstream industries which used these products as inputs.

# Kaizen: Improving without Big Investment

- ❑ Kaizen is eliminating *muda* (waste—any motion, time, materials, stock, reworking, etc. that does not add value) without spending much money on new equipment, unlike rationalization which costs money.
- ❑ Kaizen aims at a mindset change of the entire firm by constant and endless effort, team discussion and visualization of procedure and results. It starts with such instructions as remove all unnecessary things, set tools and materials in good visibility, clean the floor and toilets, etc. These sound simple but are actually difficult to sustain.
- ❑ Firms with good kaizen practice are neat and well-organized. Kaizen has the effect of immediately reducing cost and increasing profit. When basics is learned, advanced methods are available. Even Toyota, the leader of kaizen, is still trying to improve.



Factory with kaizen



Factory without kaizen



Kaizen scenes  
in Ethiopia



# How Japan Developed Kaizen

## **Phase 1: Introduction** (1950s-)

- American statistical management (W.E. Deming & J.M. Juran) was introduced. Japanese firms learned it enthusiastically.
- The private sector drove the kaizen movement with government's support. NPOs were created to propel productivity and management.
- American method (top-down, statistical) was modified to Japanese style (teamwork, bottom-up and participation).

## **Phase 2: National diffusion** (1960s-80s)

- Kaizen spread to all nation including small factories. Many quality control circles (intra-firm kaizen groups) were established. Energy-saving component was added.

## **Phase 3: Globalization** (mid 1980s-)

- Kaizen spread to Asia and the rest of the world. The philosophy and tools were taught at Japanese factories and partner firms.
- Japanese firms and official agencies taught kaizen abroad. It is now a common tool for JICA's industrial cooperation.
- Any factory in any country can improve by muda elimination despite the skepticism that kaizen is unique to Japanese culture.

# Leaders who Taught Kaizen to Japan and the World



**Kohei Goshi** (Chairman of Japan Productivity Center who taught productivity to Singapore) 1900-1989

“The transformation of mankind’s way of thinking [toward quality and productivity] is like a marathon with no finish line.”



**Taiichi Ohno** (Toyota engineer and founder of Toyota Production System) 1912-1990

“Kaizen means finding the best working method with given equipment. Working method is more important than making or buying equipment.”



**Masaaki Imai** (Founder of Kaizen Institute, an private consulting firm) 1930-

“The Kaizen philosophy assumes that our way of life—be it our working life, our social life, or our home life—should focus on constant-improvement efforts.”

# Ministry of International Trade and Industry (MITI)

- ❑ MITI had a **broad mandate** covering industries, services, investment, trade, labor skills, technology, ICT, SMEs, telecom, energy, new 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 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. It was responsible for **the entire policy chain**, not 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. The public and private sectors together 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 politics-business-technocrats relationship. MITI’s power and vision are less important than how MITI behaves in this social complex.



# Wada Lecture on MITI

Wada Masatake, former MITI official during 1966-96  
Summary of lecture at GRIPS delivered on Feb. 25, 2021

## 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: Three 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: Three Policy Methods

## Supporting measures (law-based)

- ❑ 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 through 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.



Old MITI building



Current METI building

### **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's Summary: 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. A thick information network with the 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.



## **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.

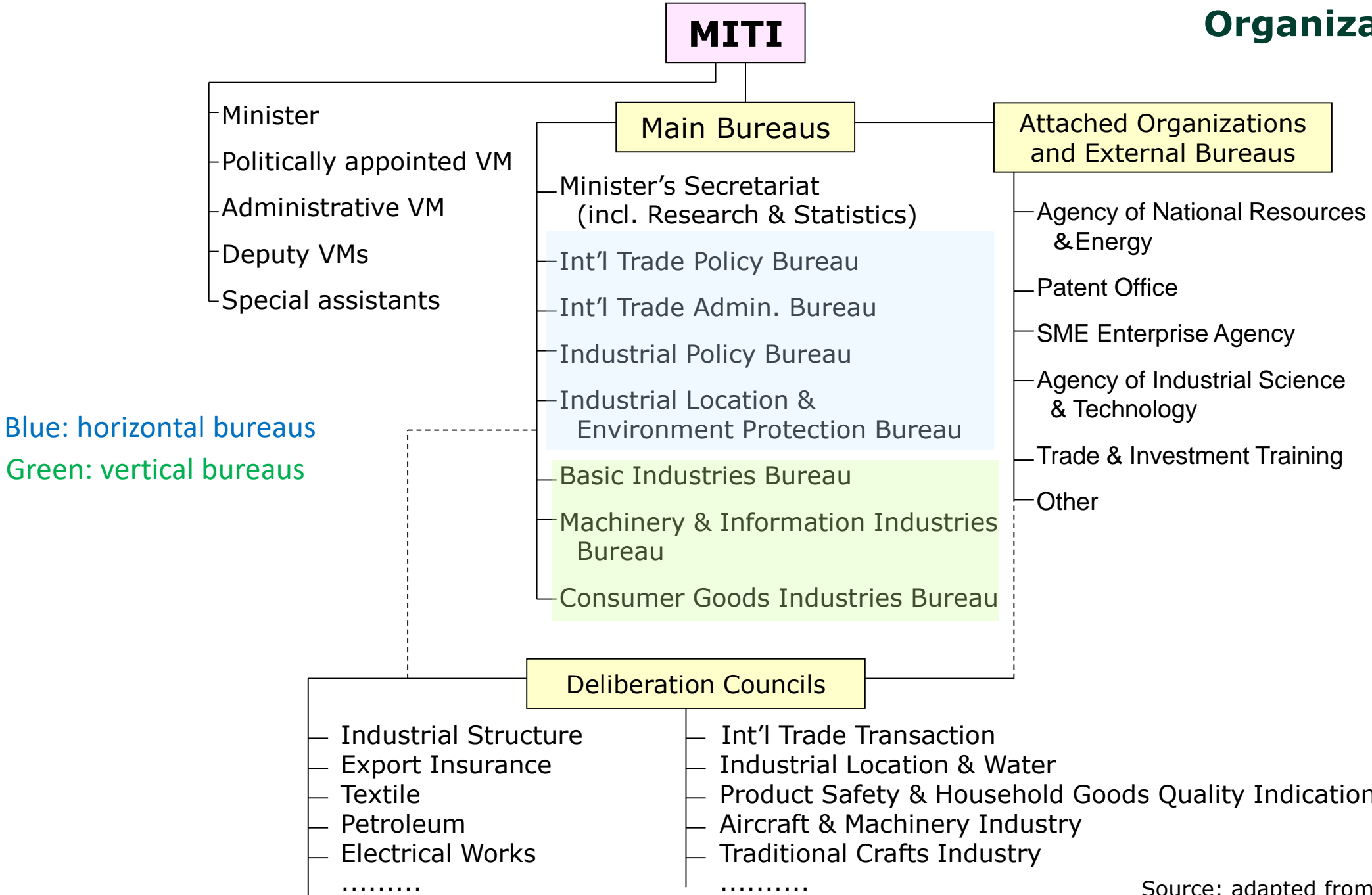
## **6. Private trust**

Private businesses appreciated and relied on MITI's policy capacity and fairness in gathering and analyzing information and making judgement.

## **7. Strongly motivated MITI staff**

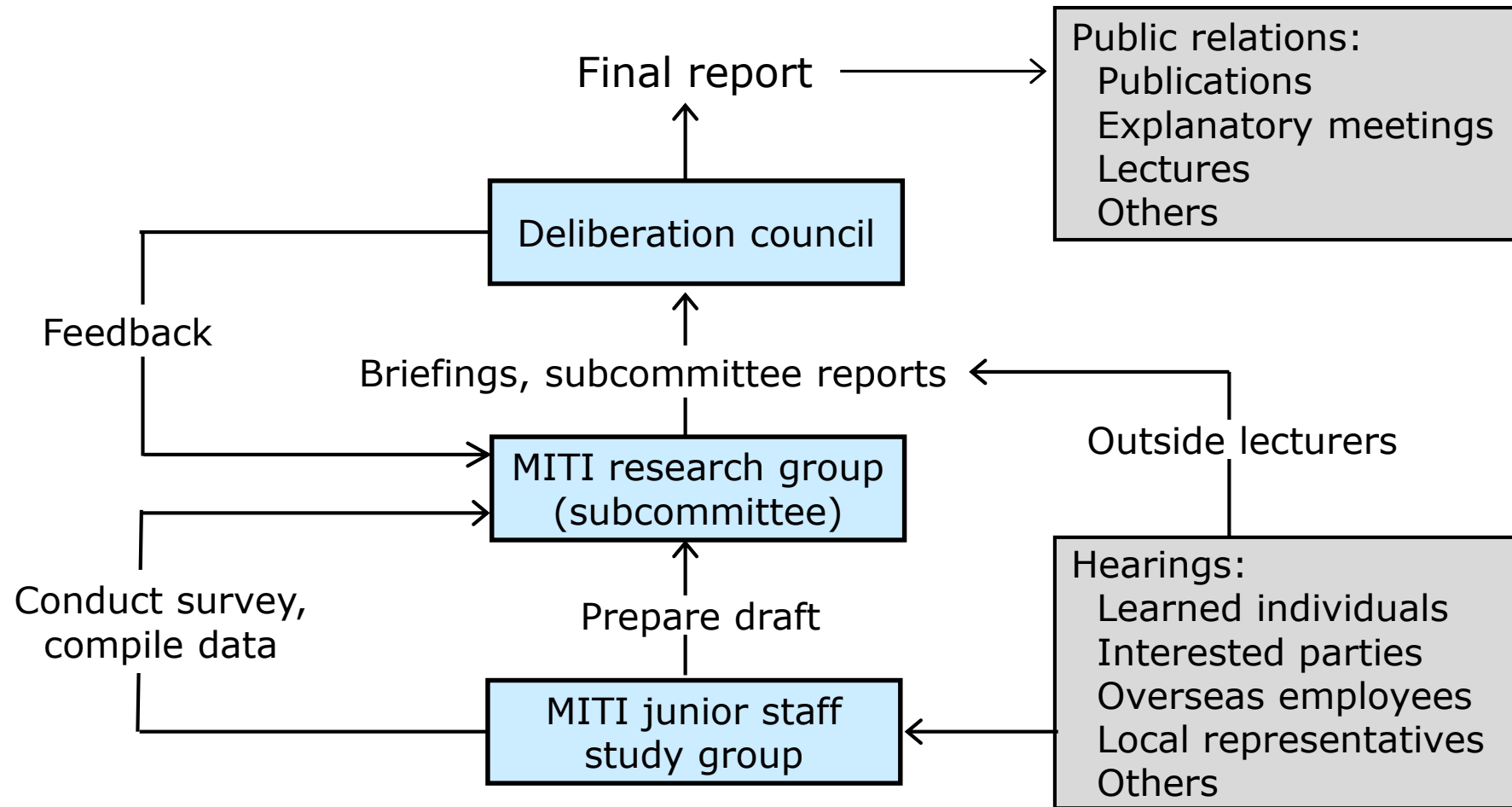
Despite low salary, MITI staff were very proud to work on industrialization, which was a big national dream. They were very concerned about Japan's future, and organized private study meetings inviting academic and business people after working hours. During the catch-up phase, the national goal was clear and opportunity was immense.

# Organizational Chart



Source: adapted from Okimoto (1989), p.117.

# 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 top.

# Clean and Dedicated Bureaucrats

## Not Just MITI

Since the late nineteenth century (or even before), Japanese officials were (are) clean and highly dedicated in comparison with officials in other latecomer countries. They do not work just for money or status but for the joy of serving the society. MITI was no exception.

In 2018, we brought the Ethiopian metal industry delegation to the Saitama Industrial Technology Center 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.”



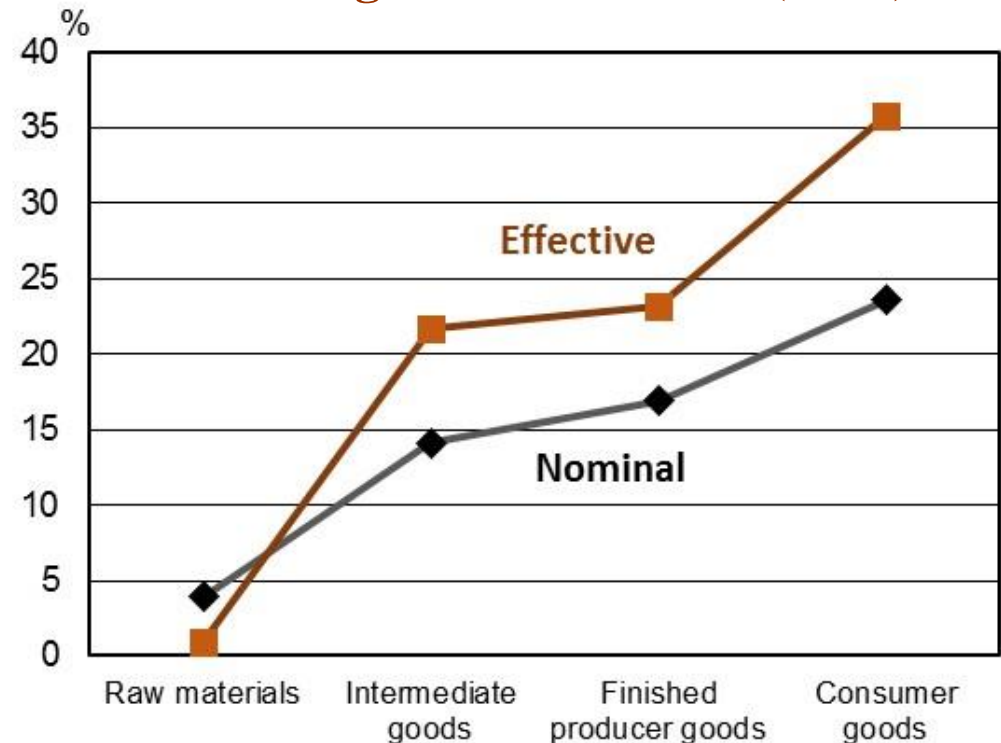
# Reintegration into the World Economy

- ❑ Japan regained independence in 1951 (San Francisco Peace Treaty, effective in 1952).
- ❑ Japan joined the International Monetary Fund and the World Bank in 1952. It soon became the World Bank's second largest borrower after India. World Bank loans covered less than 1% of Japan's large investment need, and were used exclusively for infrastructure.
- ❑ Japan was admitted to the General Agreement on Tariffs and Trade (GATT, the predecessor of WTO) in 1955. However, many members refused to grant full GATT rights to Japan for fear of cheap exports. This situation continued until around 1960 when Japan committed to serious trade liberalization.
- ❑ Japan joined the United Nations in 1956.
- ❑ Japan became a member of the OECD, the club of advanced nations, in 1964. The Tokyo Olympics was also held in 1964.
- ❑ The world economy in the 1950s and 60s experienced high growth, low inflation and strong trade expansion under exchange rate stability. The US provided a large and growing market for Japan. Trade barriers were globally and gradually lowered under GATT trade negotiations.

# Three Policy Points about Trade Liberalization

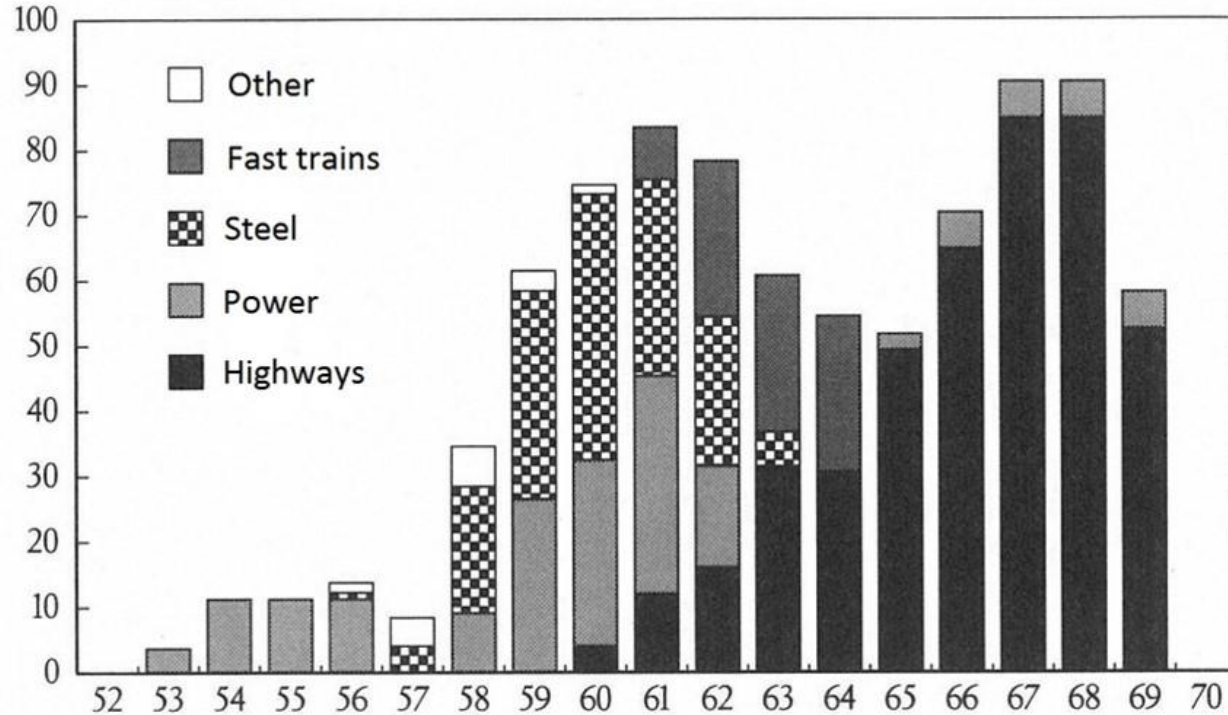
- ❑ As tariffs and non-tariff barriers are removed, producers were **forced to improve competitiveness for survival** instead of lobbying for more protection. International commitment to free trade was non-negotiable.
- ❑ During trade liberalization, policy support was provided to industry **according to export performance and other results**, not political connection.
- ❑ **Cascading tariffs**: tariffs on finished products were higher than those on intermediate inputs, and those on raw materials were near zero. This structure incentivized domestic production of industrial goods and their components.

**Cascading Tariff Structure (1968)**



# Borrowing from the World Bank

(Disbursement in USD million)



## World Bank Loans to Japan

Source: annual disbursement profile estimated by the author from the World Bank's loan contract and settlement tables.

**Japan was the second largest borrower of WB loans after India.**

- ❑ Japan borrowed from the World Bank from 1953 to 1969 (17 years). All WB loans were for building industrial projects and infrastructure.
- ❑ WB loans were relatively small covering at most 0.7% of domestic investment needs in any year. Japan financed high growth almost entirely from domestic savings.
- ❑ Japan completed repayment of all WB loans in 1990 and thereafter emerged as a large aid donor.

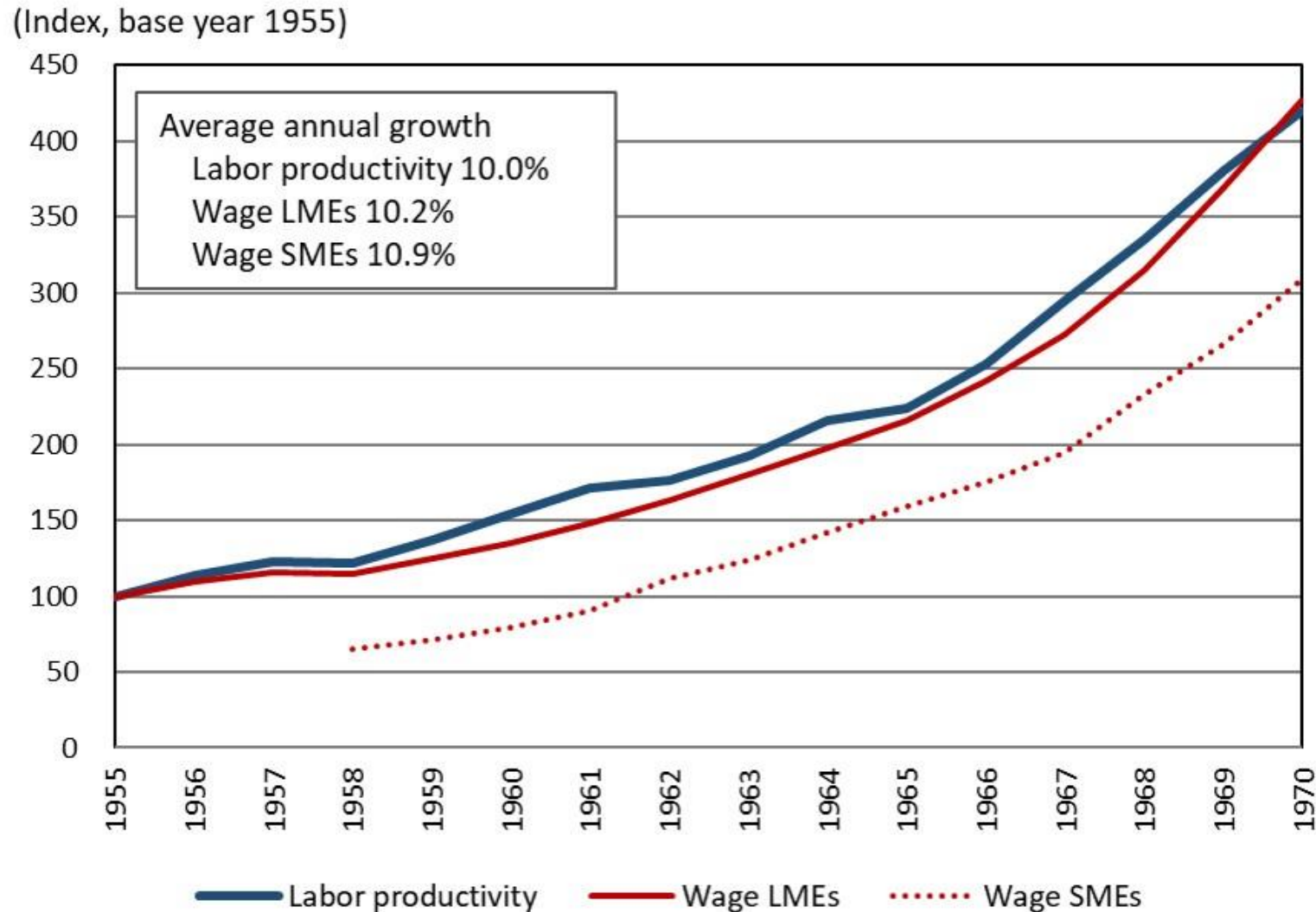
# Labor Market, SMEs and Environment Damage

- ❑ During the high growth era, labor productivity and nominal wage both rose rapidly about 10% per year. This improved people's living standard greatly without any loss in international competitiveness.
- ❑ Thanks to continued high growth, labor demand outstripped labor supply. From around 1960, the labor market tightened, unemployment fell and acute labor shortage emerged.
- ❑ Although Japanese society was relatively "equal," there was a significant gap between large firms and SMEs regarding salary and working conditions. This "dual structure" was somewhat alleviated by high growth but hardly eliminated.
- ❑ High growth also caused serious environmental damage, housing shortage, and traffic congestion and accidents. These negative aspects of growth were coped only toward the end of the high growth era.



# Manufacturing: Labor Productivity and Wage Trends

Labor productivity and wage grew very fast and in parallel at about 10% per year. Workers' living greatly improved and manufacturing remained competitive.



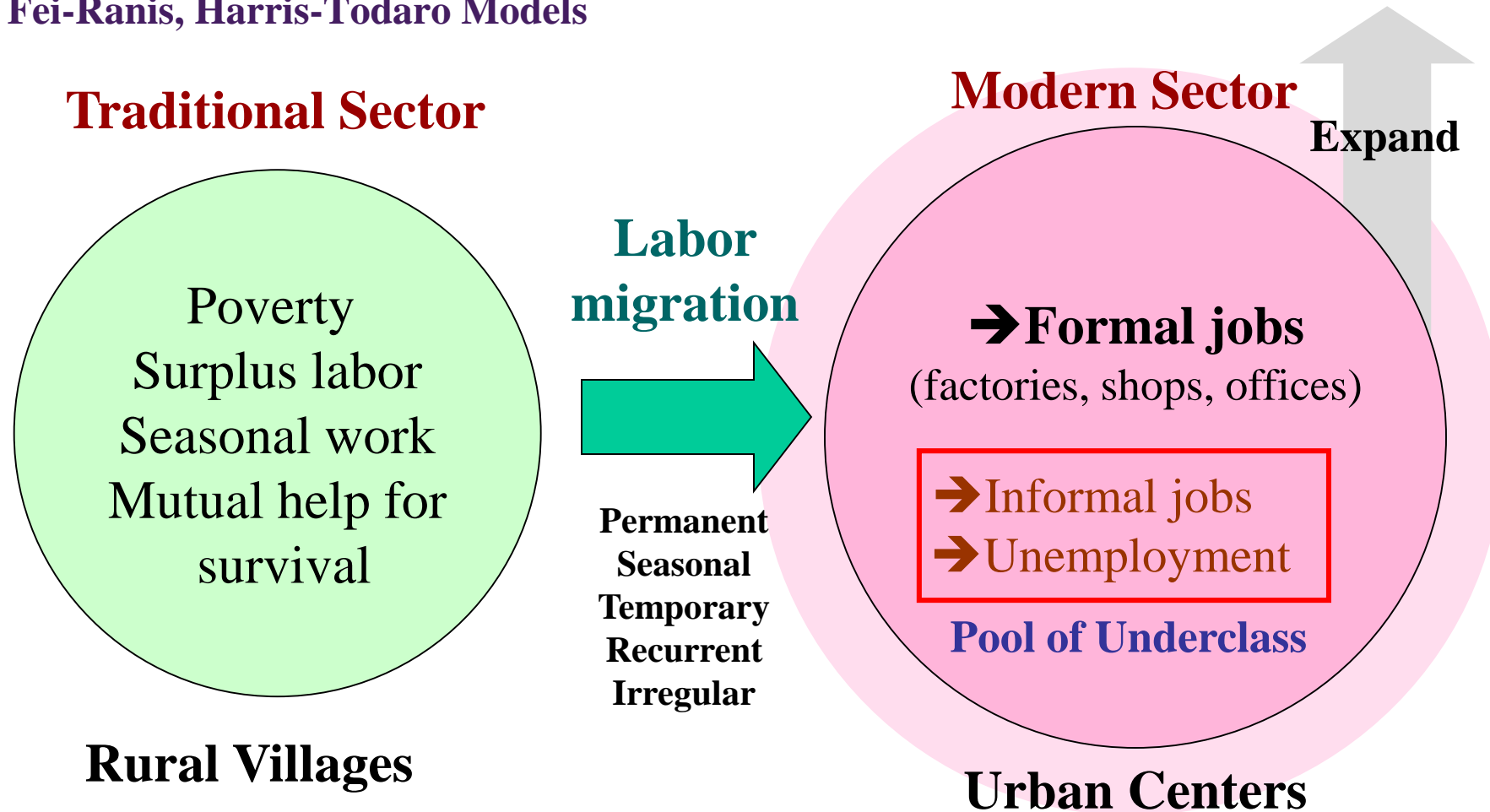
Cf. Ethiopia's economy-wide labor productivity grew 4.94% per year during 2000-2016. However, its level is still low even among latecomers (PSI & GRIPS, *Ethiopia Productivity Report, 2020*).

**SME:** establishment with 5-29 workers  
**LME:** establishment with 30+ workers

Sources: Japan Productivity Center, "Productivity Statistics" and Ministry of Labor, "Monthly Labor Survey," various issues.

# Domestic Labor Migration Model

Summary of Lewis, Fei-Ranis, Harris-Todaro Models

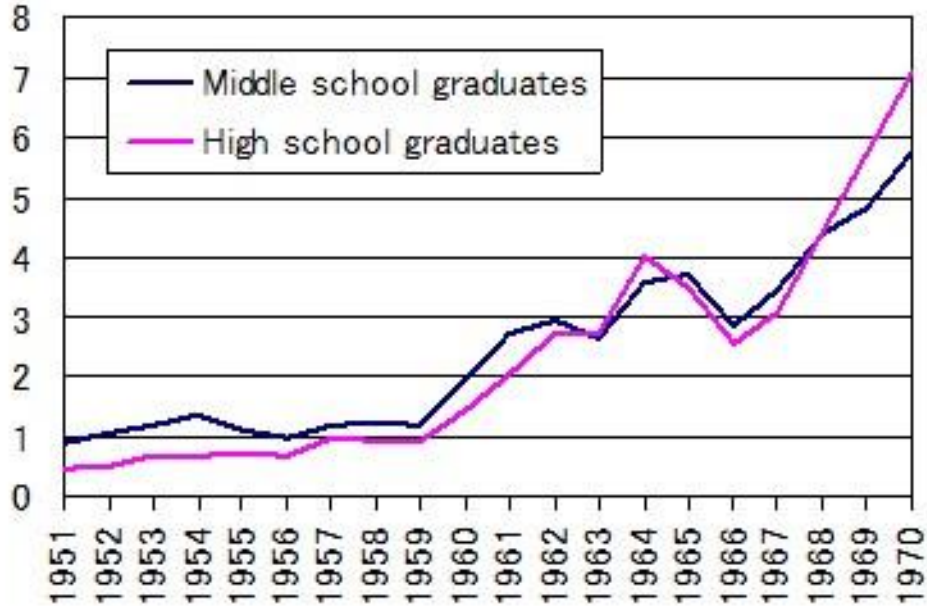


In general, not all urban migrants can find formal jobs. Many of them go to the unstable informal sector or join the pool of the unemployed. In Japan's high growth era, however, labor demand in the urban industrial sector was so strong that most workers could find regular jobs.

# Labor Surplus Ends around 1960

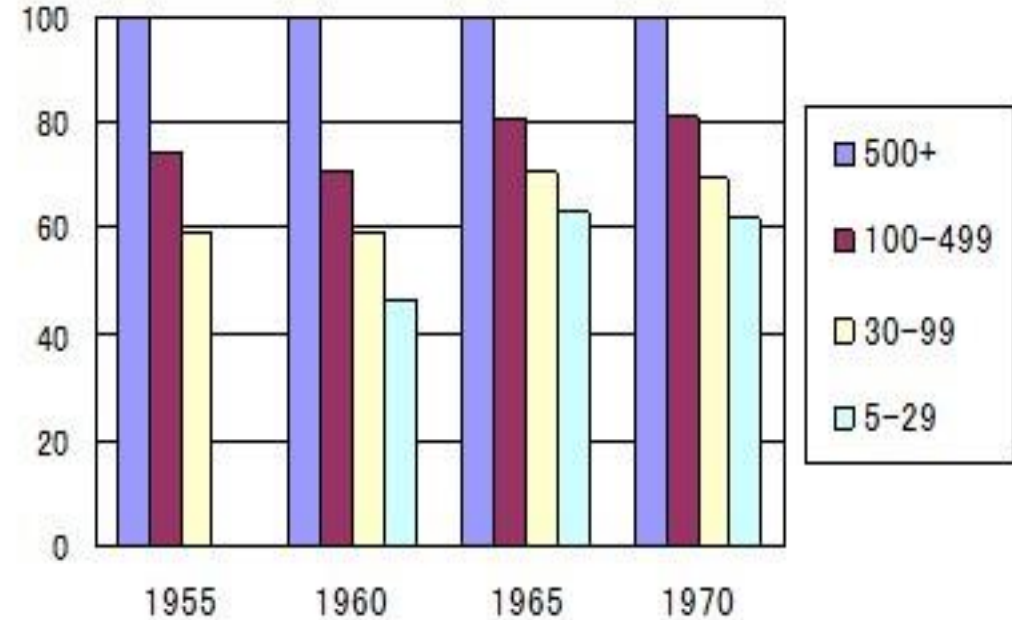
## Job offer/job seeker ratio

(Public job matching service)



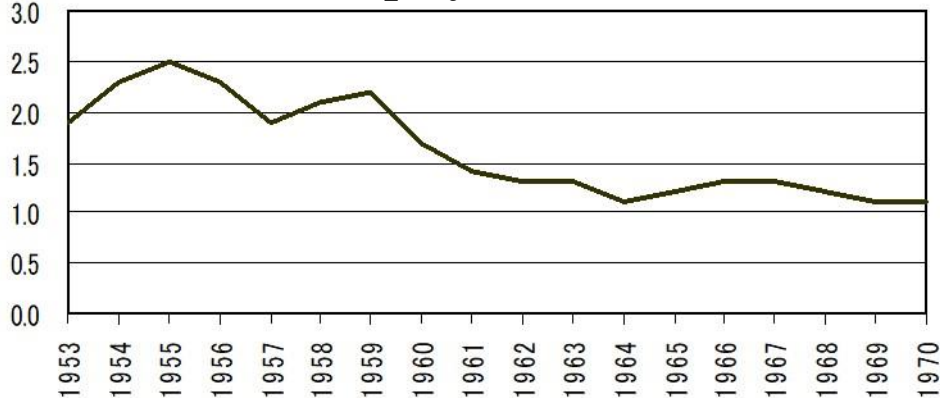
## Wage Gap by Employment Size

(Large firms' wage=100)



## Unemployment Ratio

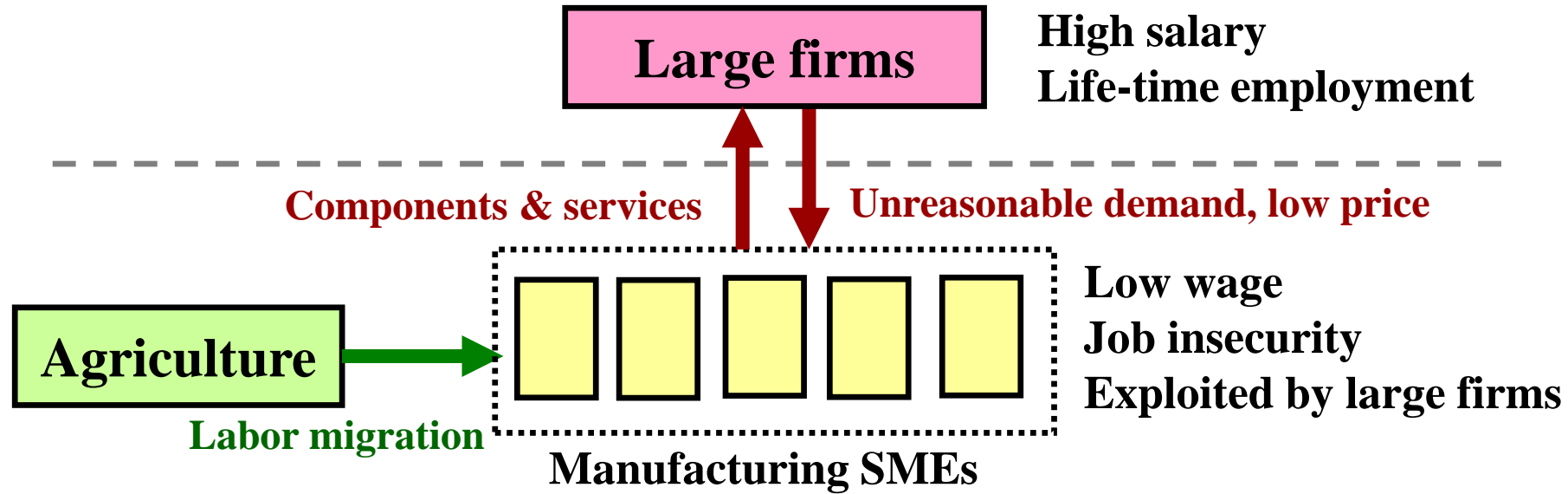
Percent



“Golden Eggs” (highly demanded high school graduates): many migrated to large cities as fresh workers, some stayed home.



# Small & Medium Enterprises (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.
- ❑ More recently, high-tech SMEs were considered as the source of competitiveness. Policy focus shifted to creation of champion SMEs.

# Japanese SME Policy Shifted from Protection to the Creation of 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 to 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.

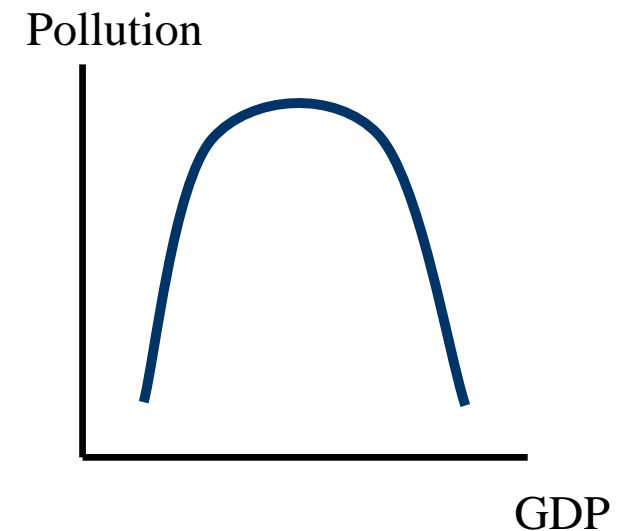


- After the 1990s, policy shifted to supporting high-tech SMEs to **excel and globalize** as a source of national competitiveness.
- SMEs now face slow domestic demand, aging of owners, and the lack of young managers and engineers.
- In 2010, government began to actively promote outward FDI of SMEs.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

# Environmental Policy Shift

- ❑ High growth caused serious environmental problems—especially air and water pollution by factory emissions.
- ❑ Motorization also caused urban air pollution, noise and traffic accidents.
- ❑ Growth orientation was criticized leading to anti-pollution lawsuits and civil movements.
- ❑ The Basic Law on Environment was enacted in 1967.
- ❑ The Environment Protection Agency was established in 1971.
- ❑ Based on its experience, Japan now asserts (to latecomers) that environment should not be sacrificed for growth, and that the cost of preventing pollution is smaller than the cost of cleaning it up later—but developing countries often choose fast growth rather than clean environment.

**The inverted U curve of environment vs. GDP**  
Is pollution really inevitable?



# Four Major Pollution Lawsuits in the Early 1970s

Case	Accused	Ruling
<b>Minamata Disease</b> (organic mercury in sea water)	Chisso Corp.	Plaintiff wins in 1973
<b>Itai-itai Disease</b> (cadmium in river water)	Mitsui Kinzoku	Plaintiff wins in 1972
<b>Niigata Minamata Disease</b> (organic mercury in river water)	Showa Denko	Plaintiff wins in 1971
<b>Yokkaichi Asthma</b> (air pollution by petrochemicals)	Mitsubishi Petrochemicals etc.	Plaintiff wins in 1972

Anti-high growth civil movements arose and won all major lawsuits against polluters. This forced government to introduce serious environment policy.



Yokkaichi in 1961



Yokkaichi today

# Concluding Remark on Policy Learning

- ❑ To learn policy, a comparative perspective is crucial across countries, across time, and across sectors and firms.
- ❑ In any comparison, common and unique features are always present. It is important to clearly distinguish them in deciding what to accept from abroad.
- ❑ The key is to (i) select the right benchmark countries and periods; and (ii) adjust foreign models to suit your local needs.
- ❑ Two attitudes that fail are (i) refusal to learn from others (“our country is unique, and nothing can be learned from others”) and (ii) the copy-and-paste approach (a good model should be adopted regardless of the conditions of the home country).

**Confucius (551-479BC): 「子曰学而不思則罔思而不学則殆」 “Learning without thinking is useless; thinking without learning is precarious.”**

Learning = knowledge collection

Thinking = creating your model by selection, combination and adjustment