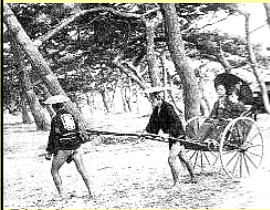


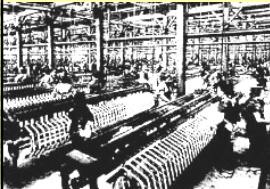
Economic Development of Japan



Farmers



Ricksha



Osaka Spinning Company



Kenichi Ohno (GRIPS)

Topics

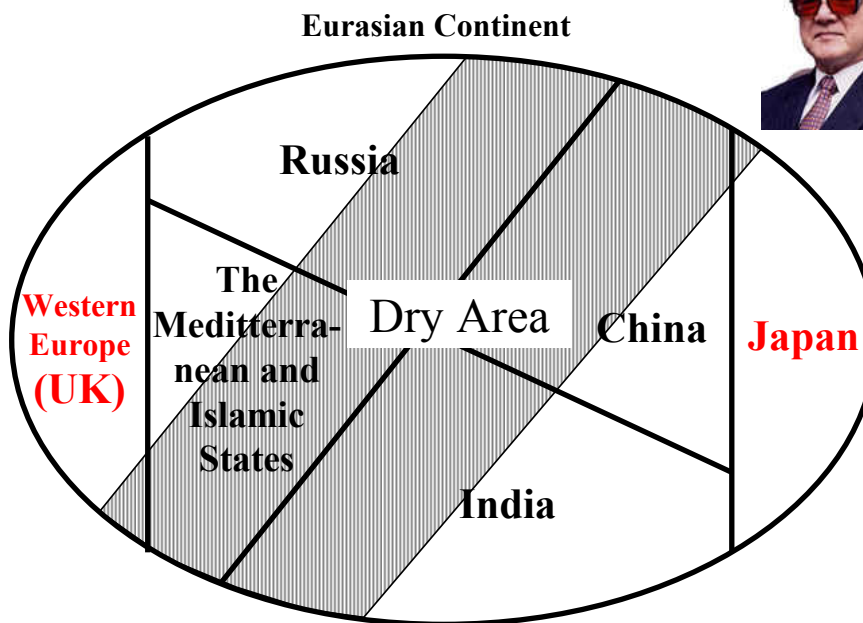
- **Overview**—Japanese history as cumulative evolution
- **Meiji Revolution** (late 19th century)—unique transition from feudal class society to modernization
 - Private dynamism
 - Effective policies
 - Industrial human resource

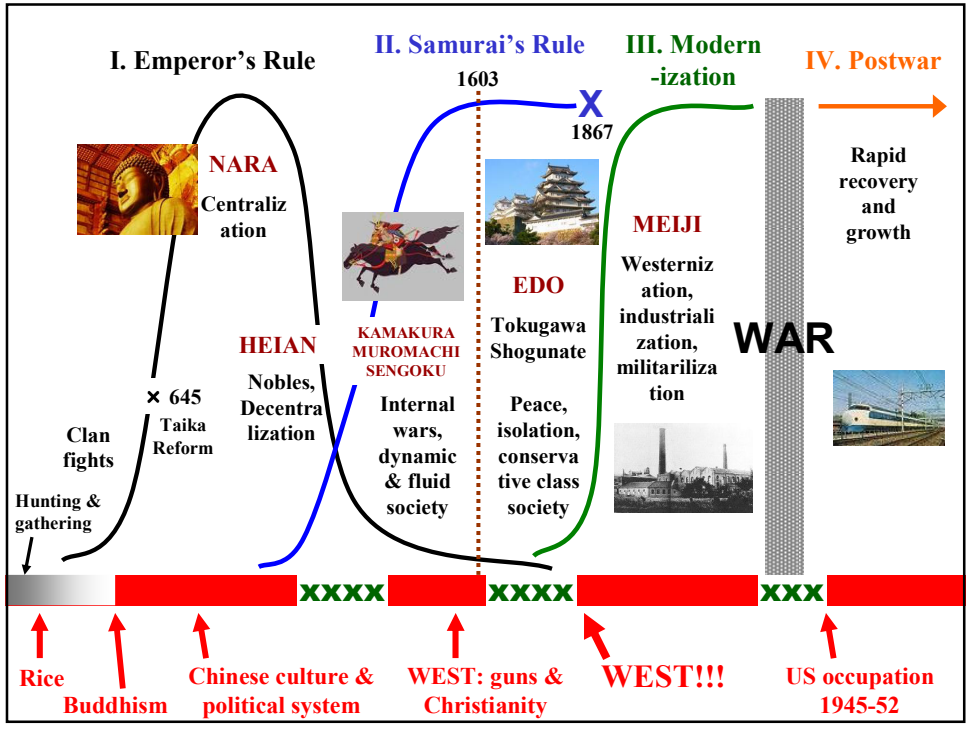
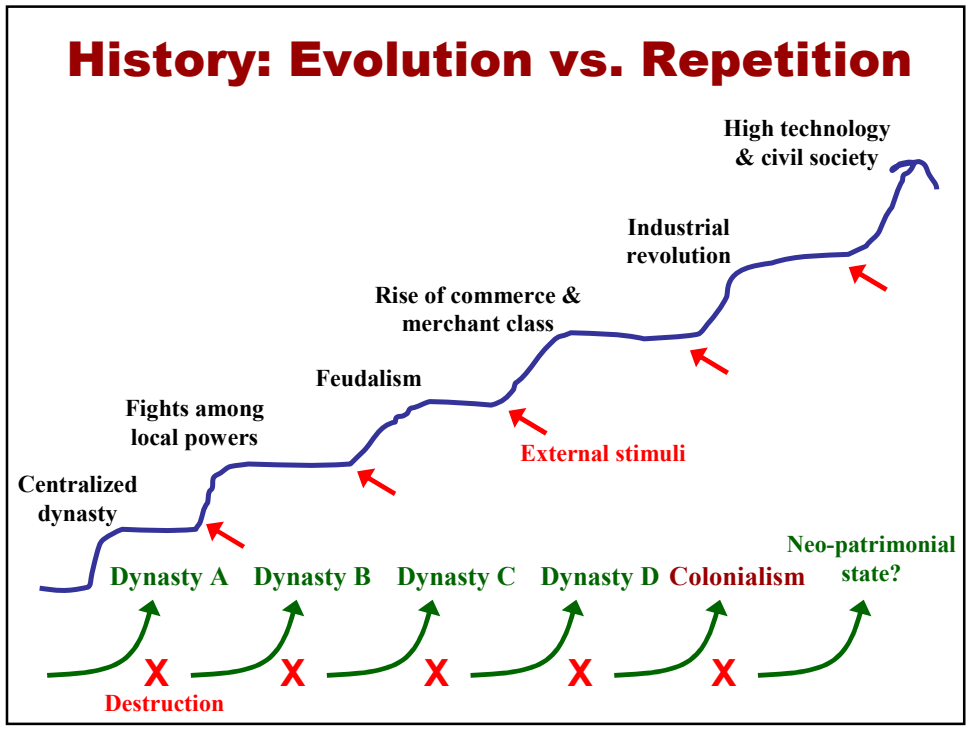


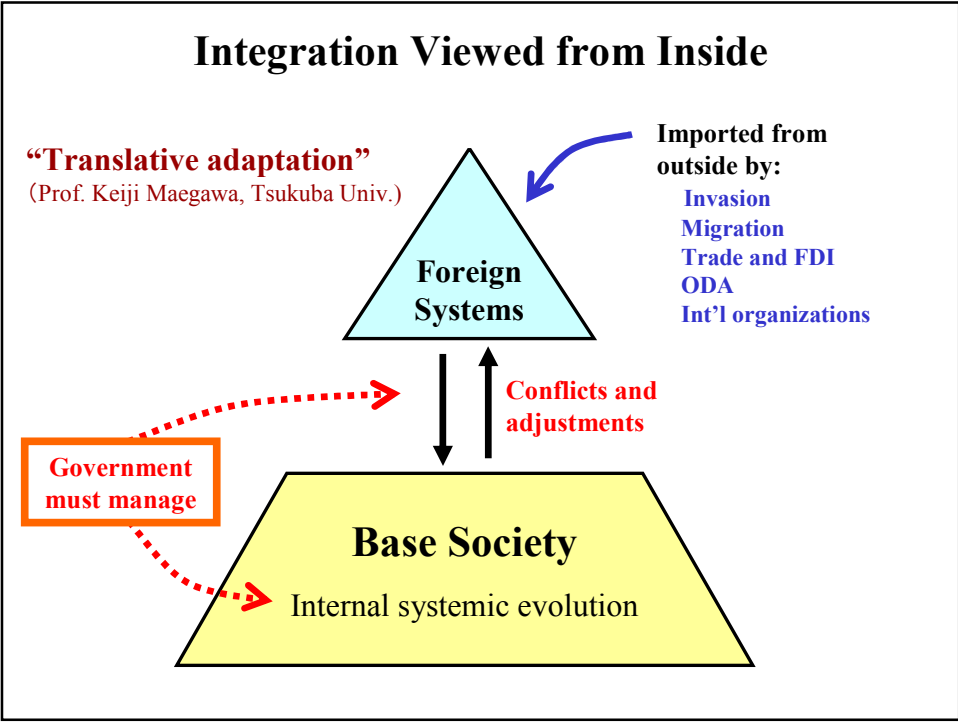
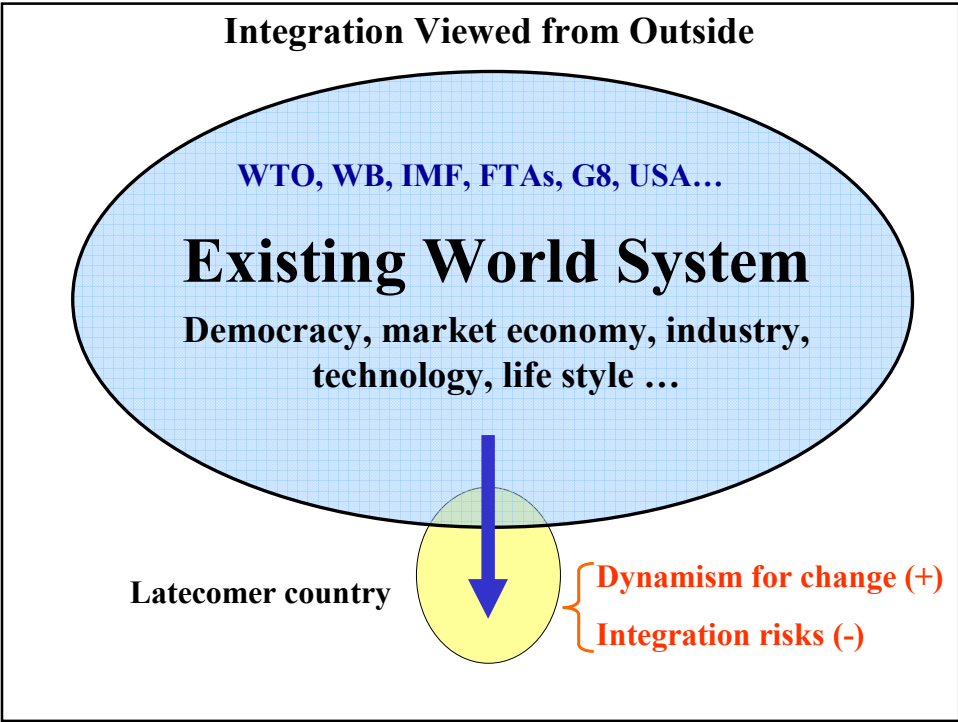
Japanese History as Cumulative Evolution --A Very Unique Latecomer

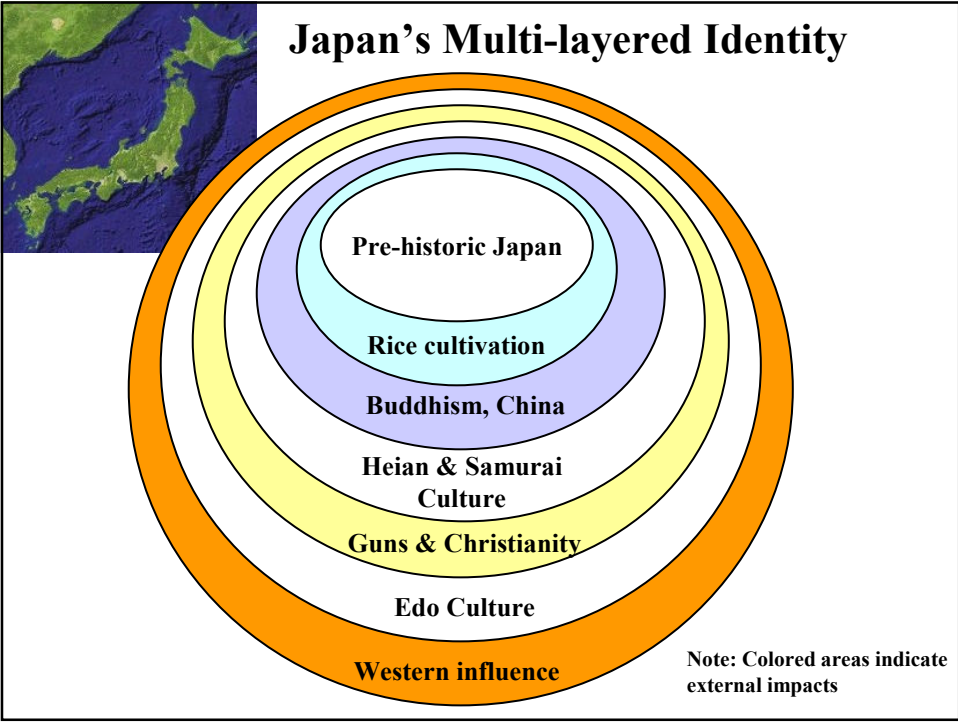
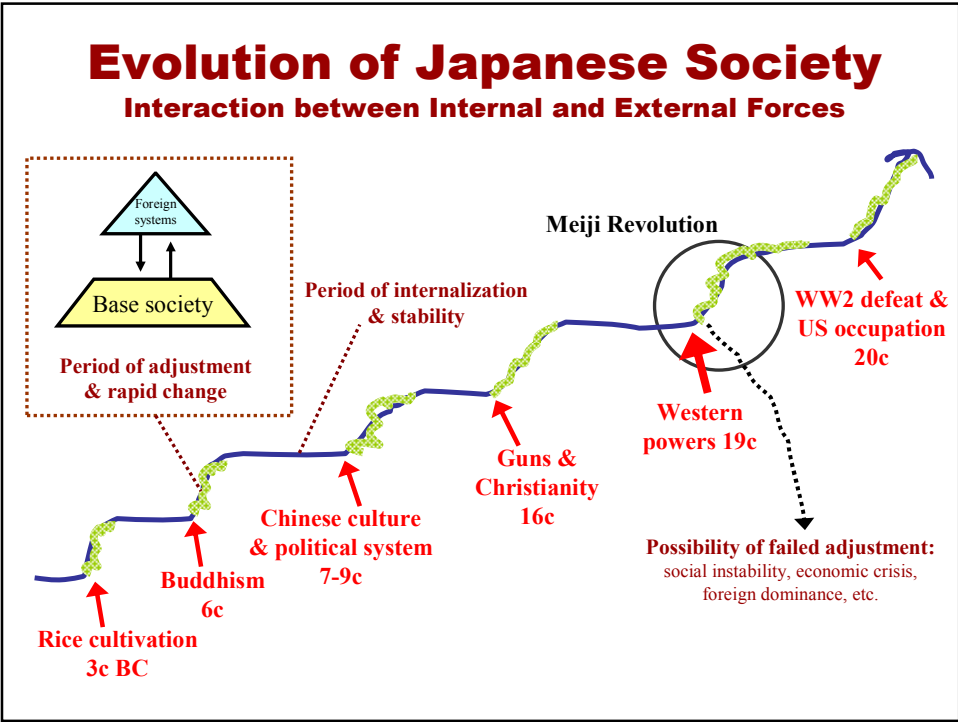
- ❑ History of peripheral society should be analyzed as interaction between internal and external forces.
- ❑ Japan absorbed Western technology and systems selectively and under its own initiative.
- ❑ Japanese society changed greatly but did not lose its own identity.
- ❑ **Umesao Theory**—Japanese history was cumulative and evolutionary thanks to the right distance from dominant civilization (i.e., China).

Dr. Tadao Umesao's View of the World



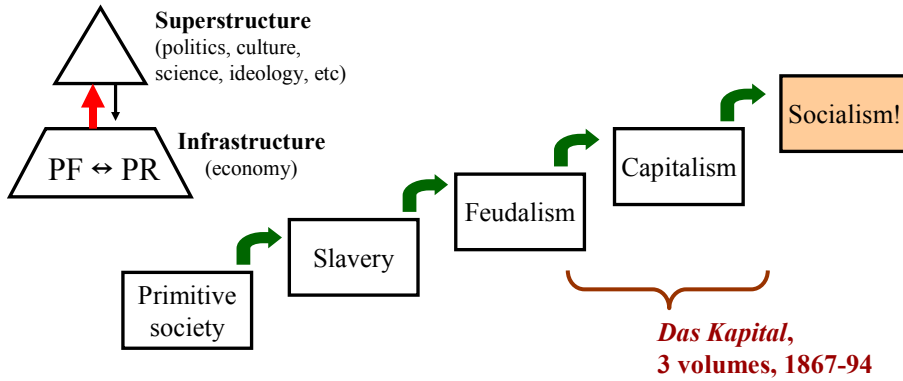






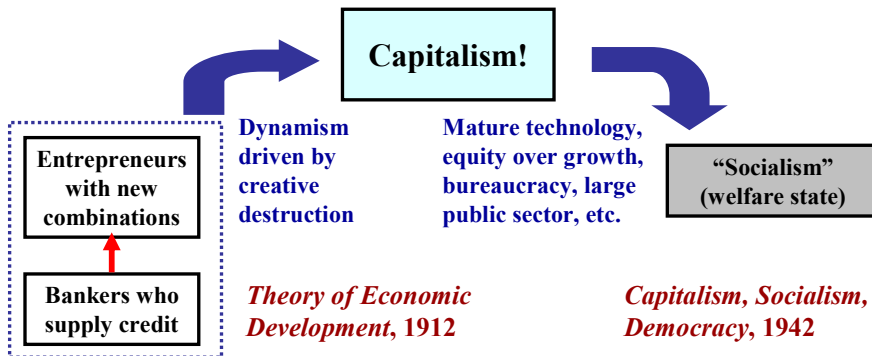
K. Marx: Historical Materialism

- History proceeds inevitably through material conflicts and class struggle
- *Production force* and *production relation*: rise in the former creates friction with the latter, which leads to dialectic solution.



J. Schumpeter: Rise & Fall of Capitalism

- Capitalism is driven by entrepreneurs who perform innovations
- The success of capitalism produces new problems, attitudes and mechanisms that lead to its downfall





Soseki Natsume's Lecture "Development of Modern Japan" (1911)

"Development in the West is endogenous, while Japan's development is exogenous."

"Western societies are evolving naturally but Japan after the Meiji Restoration and foreign contact is quite different... after two centuries of isolation, we opened up and encountered Western civilization. It was a big shock we never experienced before."

"Western tides dominate our development. Since we are not Westerners, every time a new wave arrives from the West we feel uneasy like a person living in someone else's house."

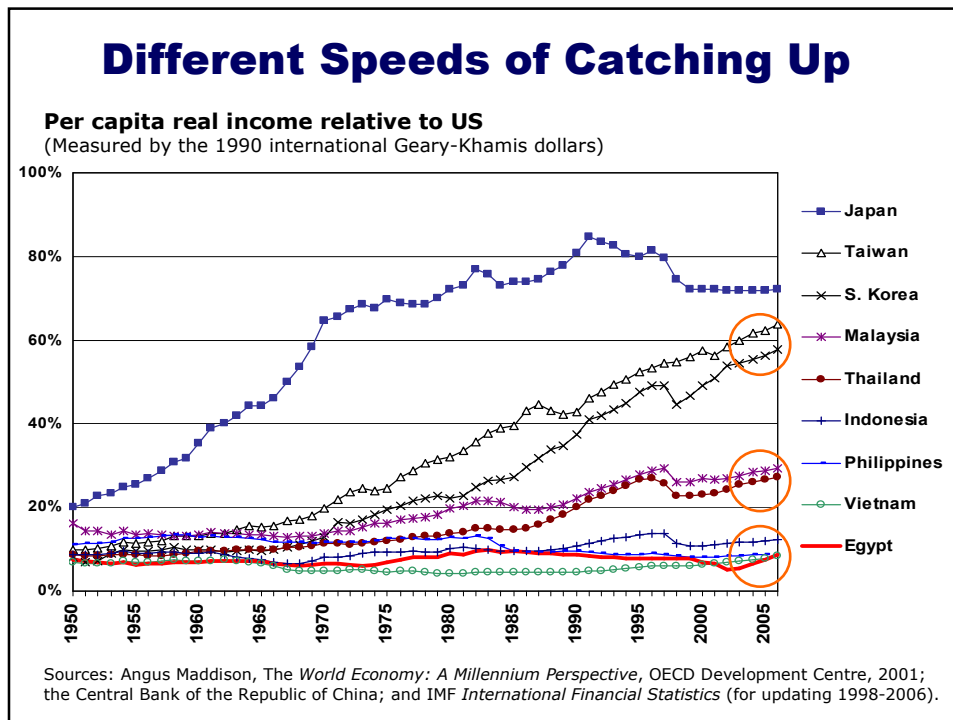
[However, compared with other countries, Japan achieved Westernization more successfully without losing identity.]



How about Egypt?



- ❑ Egypt has a very long history but it suffered repeatedly from invasion and colonialism. Cumulative evolution did not occur.
- ❑ By the standards of East Asia, private dynamism is weak and industrial policies are not very effective.
- ❑ Dependency on aid and locational resources (tourism, oil and gas, Suez Canal).
- ❑ Internal value creation based on skill and knowledge remains relatively low—*Middle Income Trap?*



Meiji Revolution

From Feudalism to Westernization, Modernization, and Industrialization

- ❑ When Japan began integration in the mid 19th century, it already had sufficient adaptive power.
- ❑ Meiji Revolution was achieved by former samurais through continuous policy competition, not top-down decision making.
- ❑ Strong private dynamism was supplemented by appropriate government policies.
- ❑ Meiji society produced many dynamic political and business leaders.

Edo Period (1603-1867)

Pre-conditions for Industrial Take-off

- Political unity and stability
- Agricultural development
- Development of transportation and nationally unified markets
- Rise of commerce, finance and wealthy merchant class
- Rise of pre-modern manufacturing
- Industrial promotion by local governments
- High level of education

City girls



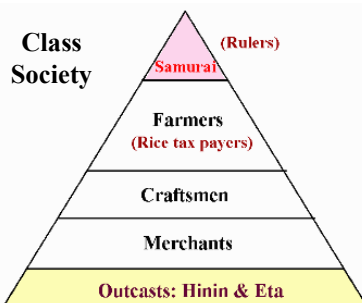
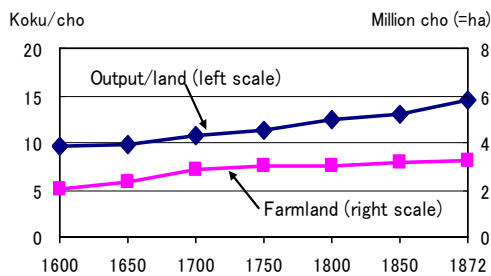
Han lord in his castle



Samurai police and merchants



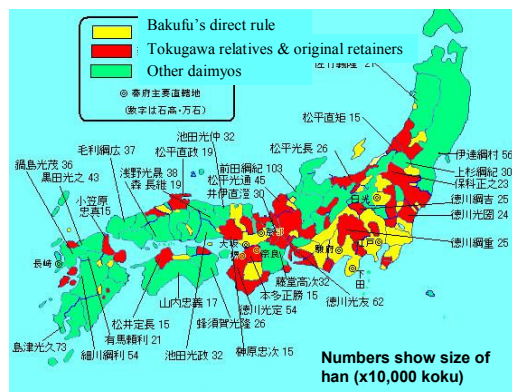
Cultivated Land and Land Productivity



Edo Period

(1603-1867)

Division of Japan into Bakufu and Han Territories



Meiji Revolution



17c- Edo Period (feudalism, class society, international isolation)

1853 Forced opening by US Navy (**Perry's Black Ships**)

1858 Signing of commercial treaties with West

1858-1881 **Transition period**

- Han samurais topple Edo Bakufu (1868)
- Feudal system removed, strong central gov't installed (1871)
- Political fight continues over policy priority—political reform (constitution & parliament), industrialization, military expansion

1881-1890s **Implementation period**

- Industrial Revolution (private companies emerge strongly, cotton industry achieves import substitution)
- Constitution and parliament established (1889-90)
- Victory over China (Japan-China War 1894-95)

Late Edo & Meiji Socio-political Conditions

Cumulative socio-economic evolution
under political stability (Umesao Theory)

Bakufu: loss of
political legitimacy

Military, diplomatic &
economic fiasco under Western
pressure

National unity
& nationalism
▽
Avoidance
of civil war &
colonization

Rise of rich &
intellectuals
▽
Demand for
knowledge &
participation

Socio-economy
vs. old system
▽
Contradiction &
need for new
policy regime

Political
competition
▽
Possibility of
new leader
and social order

Balance between fierce political competition (dynamism)
and ultimate national unity (stability)

Meiji Revolution Leaders

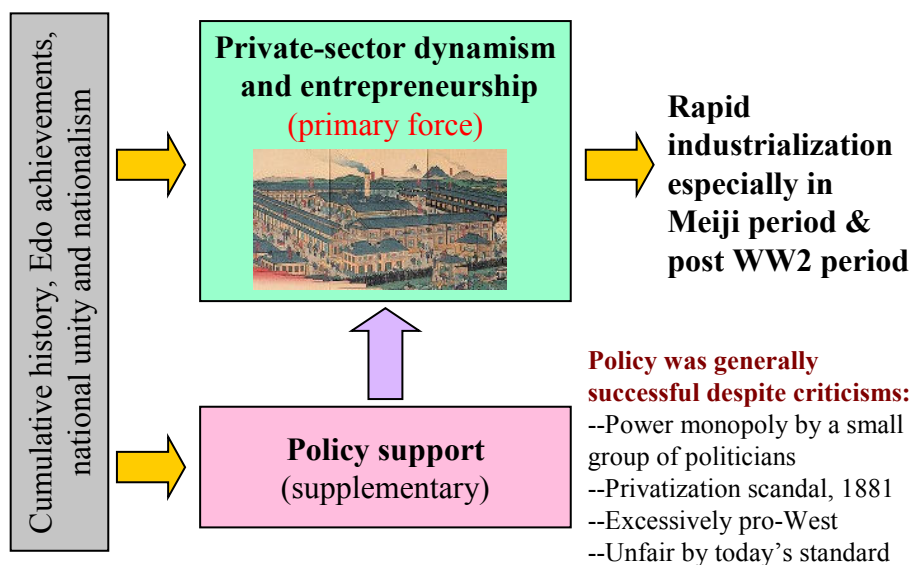
In the field of politics and policy making, in order of birth year

| | | | | | |
|---------------------|----|---------------------|----|----------------|----|
| Nakane Sekko | HS | Eto Shimpei | HS | Furusawa Urou | HS |
| Yokoi Shonan | HS | Inoue Kaoru | HS | Yano Fumio | HS |
| Nabeshima Naomasa | HL | Fukuoka Takachika | HS | Katsuda Magoya | HS |
| Shimazu Hisamitsu | HL | Matsukata Masayoshi | HS | | |
| Okubo Tadahiro | BS | Sakamoto Ryoma | HS | | |
| Katsu Kaishu | BS | Komatsu Tatewaki | HS | | |
| Iwakura Tomomi | N | Godai Tomoatsu | HS | | |
| Yamauchi Yodo | HL | Itagaki Taisuke | HS | | |
| Saigo Takamori | HS | Sanjo Sanetomi | N | | |
| Soejima Taneomi | HS | Okuma Shigenobu | HS | | |
| Matsudaira Shungaku | HL | Yamagata Aritomo | HS | | |
| Yuri Kosei | HS | Goto Shojiro | HS | | |
| Okubo Toshimichi | HS | Komuro Shinobu | M | | |
| Oki Takato | HS | Kuroda Kiyotaka | HS | | |
| Kido Takayoshi | HS | Ito Hirobumi | HS | | |
| Fukuzawa Yukichi | HS | Mutsu Munemitsu | HS | | |

| | |
|----|--------------------|
| HL | Han lord (4) |
| HS | Han samurai (26) |
| BS | Bakufu samurai (2) |
| N | Noble man (2) |
| M | Merchant (1) |

Note: Bakufu is the central military government in Edo period. Han is the local political unit in Edo feudalism.

Japan's economic growth was driven mainly by private dynamism (supported by appropriate policy)



Rich Merchants from Edo Period (*Gosho*)

Mitsui Family

-17c From Matsuzaka
-Kimono trade & money exchange in Edo, Kyoto, Osaka – huge success

<Transition to Meiji>

Manager: Rizaemon Minomura

-Cope with bakufu policy to protect Mitsui business
-Support and work with new government
-Internal reform: from gosho to zaibatsu
-1876 Establish Mitsui Bank & Mitsui Trading Company



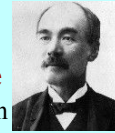
Sumitomo Family

-16c Adopt Western copper refining, copper trade (Kyoto)
-17c Move to Osaka
-Besshi Copper Mine (under Bakufu's commission)

<Transition to Meiji>

Manager: Saihei Hirose

-Avoiding gov't confiscation
-Introducing Western mining technology to renovate Besshi
-Business diversification



Konoike Family

-Sake making, trading, loans to daimyo
-No serious internal reform in Meiji
-Failed to form zaibatsu (Sanwa Bank)

Yataro Iwasaki (1835-85)




- *Seisho* from Tosa, founder of Mitsubishi Zaibatsu
- Shipping company--grew fast with government support (receiving gov't ships, contract for military transport)
- Established Nippon Yusen (NYK Line), fierce battle with Kyodo Unyu (anti-Mitsubishi company), 1883-85
- Expanded business into many areas: trade, banking, mining, coal, shipbuilding (later, more)

Mechanical factory in Nagasaki, ca 1885


Bakufu's Steel Mill in Nagasaki, transferred to Mitsubishi in 1884





← Eiichi Shibusawa (1840-1935)
From Saitama

Tomoatsu Godai (1836-1885) →
From Satsuma



Super business promoters -- but they did not form zaibatsu

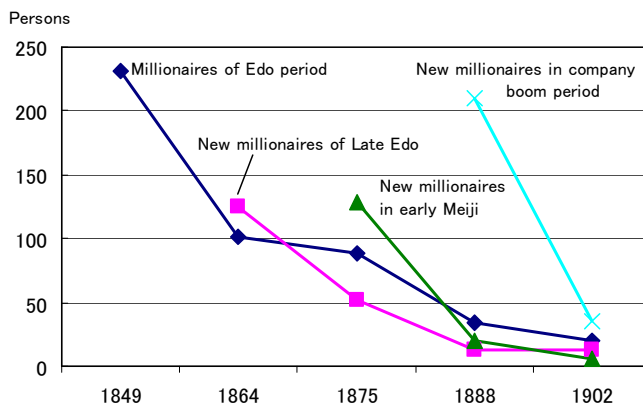
- First, anti-bakufu fighter
- Next, assistant to last shogun
- Works vigorously for MOF (invited by Meiji Government)
- Governor of First “National” Bank”
- Company builder and business coordinator, helping to create 500 new companies
- Social contributions

- Studies and builds human network in Nagasaki
- Visits UK; realizes need to industrialize, writes report
- In Osaka, helps to create copper co., railroad, shipping co., rice & stock exchanges, cham. of commerce, university, test centers, trading center, etc
- SOE privatization scandal

Rise and Fall of Merchants and Enterprises

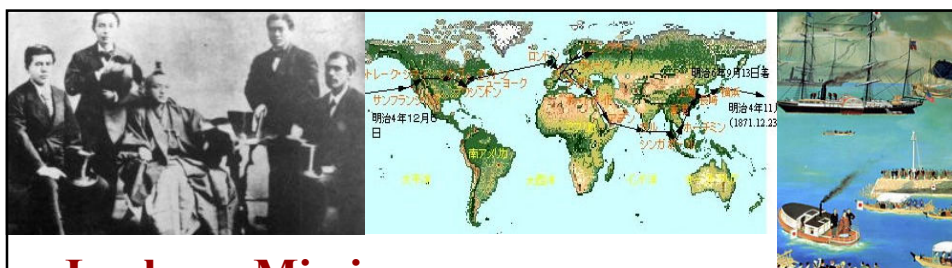
Q: Who were the main drivers of Meiji industrialization?

A: All types of entrepreneurs including Edo *gosho*, Yokohama merchants, Meiji zaibatsu, and company boom millionaires.



Source: Computed from Miyamoto (1999), p.53. Each line shows how many of the new millionaires emerging each period survived in later periods.

- ▶ Survival game was severe: many entries, many exits
- ▶ Japan’s industrial revolution: from 1880s to 1900s
- ▶ Japan-China War, Japan-Russia War also accelerated industrialization



Iwakura Mission (Dec.1871-Sep.1873)

- Hastily organized after abolishing feudal system
- Half the cabinet - Iwakura (leader), Okubo, Ito, Kido, Yamaguchi, and other officials (46); attendants (12), students (49); total 107 members

- { Purpose 1: Start renegotiating unequal treaties (failed)
- { Purpose 2: Inspect Western systems and technology

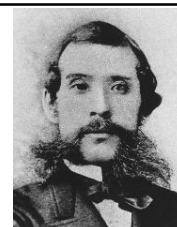
<Lessons>

- (1) Strong state role is crucial for industrialization (Okubo)
- (2) Western style constitution is necessary (Kido)

Toshimichi Okubo (1830-1878)

Top Official Implementing Industrial Policy

- Participated in Iwakura Mission (1871-73) to observe Western technology & systems
- Became top-down promoter of technology import and industrialization
- Minister of Finance; Minister of Internal Affairs
- Policy measures:
 - Supporting businesses (Iwasaki, Godai) to promote industries and import substitution (marine transport, mining, shipbuilding, etc)
 - Establishment of SOEs and research centers
 - Domestic industry exhibitions
 - Establish modern state bureaucracy, police and local governments



Okubo's Back-to-Office Report after Iwakura Mission, 1874

“The strength of a country depends on the prosperity of its people which, in turn, is based on the level of output. To increase output, industrialization is essential. However, no country has ever initiated the process of industrialization without official guidance and promotion.”

Okubo's Statement c.1875

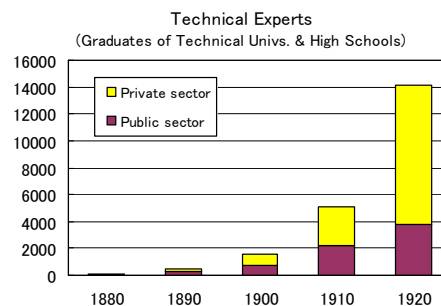
“In overcoming low output and trade deficits, the government must introduce policy measures to establish economic foundations, stimulate private businesses, and promote trade. If this state role is denied, it will take too much time for the general public to expand business and the nation will fall into stagnation. This is the most important policy in our current circumstance, even if it is against the orthodox theory of political economy.”

Technology Transfer

1. Foreign advisors (public and private sector)—salary too high
2. Engineering education (studying abroad, Institute of Technology; technical high schools)
3. Copy production, reverse engineering, technical cooperation agreements (esp. automobiles, electrical machinery); *sogo shosha* (trading companies) often intermediated such cooperation

Private-sector experts, 1910

| | |
|--------------|---------------------|
| Mining | 513 (18.0%) |
| Textile | 300 (10.6%) |
| Shipbuilding | 250 (8.8%) |
| Power & gas | 231 (8.1%) |
| Trading | 186 (6.5%) |
| Railroad | 149 (5.2%) |
| Food | 149 (5.2%) |
| TOTAL | 2,843 (100%) |



Studying Abroad (Early Engineers)

- First students: bakufu sent 7 students to Netherlands in 1862 (naval training)
- By 1880s, 80 Japanese studied engineering abroad (shipbuilding, mechanical, civil engineering, mining & metallurgy, military, chemistry)
- Study destination: UK (28), US (20), France (14), Germany (9), Netherlands (8)
- They received top-class education and could easily replace foreigners after coming back
- They mostly worked in government (no private industries existed at first)—Ministry of Interior, MOF, Army, Navy, Ministry of Industry



Kōbu Daigakko (Institute of Technology)

- 1871 *Koburyo* of Ministry of Industry; 1877 Renamed to *Kōbu Daigakko*; 1886 Merged with Tokyo Imperial University (under Ministry of Education)
- First Principal: Prof. Henry Dyer (UK)
- Theory and practice--preparatory course (2 years), specialized studies (2 years), internship (2 years)
- 8 courses: civil engineering, mechanical engineering, shipbuilding, telecommunication, chemistry, architecture, metallurgy, mining (classes in English)
- Educating top-class engineers (import substitution)

Monozukuri (Manufacturing) Spirit

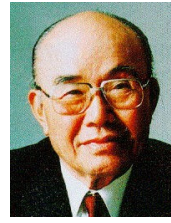
- *Monozukuri* means “making things” in indigenous Japanese.
- It describes sincere attitude toward production with pride, skill and dedication. It is a *way* of pursuing innovation and perfection, disregarding short-term profit.
- Many of Japan’s excellent manufacturing firms were founded by engineers full of monozukuri spirit.



Sakichi Toyota
1867-1930



Konosuke Matsushita
1894-1989



Soichiro Honda
1906-1991



Akio Morita
(Sony’s co-founder)
1921-1999

- Japan’s monozukuri tradition shapes both business attitude and policy orientation (Edo, Meiji, now).
- Long-term relationship and skill & knowledge building within individual companies and among production partners (e.g. assemblers-suppliers).
- Strong demand for 5S, QCD (quality-cost-delivery), *kaizen*, just-in-time system, quality control, and other efforts for constant improvement.



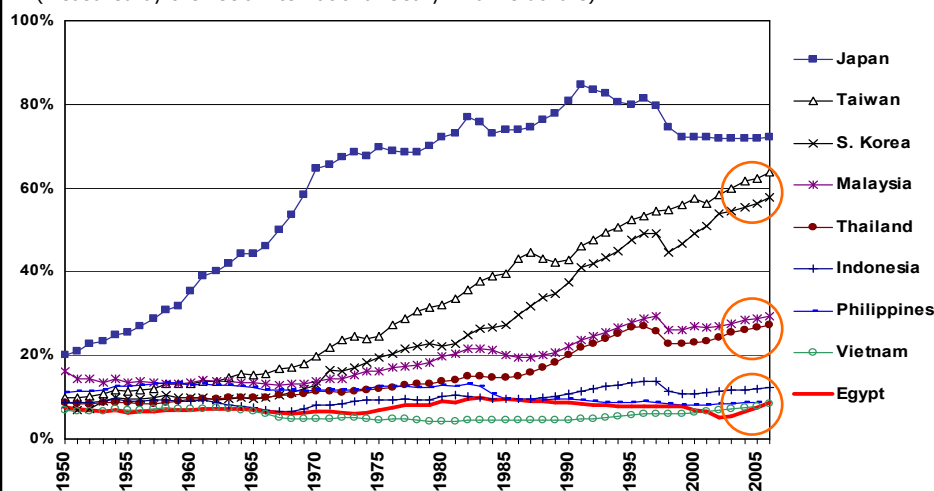
Summary of Meiji Lessons

- Development is a **political process** as well as an economic process. The appropriateness of politics is a key factor for successful development.
- Human factor—**dynamic leaders in government and business** are crucial; adopting laws and institutions are not enough (a new imported car with no driver).
- **Strong and effective state initiative** is needed for latecomer industrialization—whether 19th, 20th, or 21th century. Washington consensus policies (liberalization, privatization, integration, etc) can take a country only up to lower middle income.

Different Speeds of Catching Up

Per capita real income relative to US

(Measured by the 1990 international Geary-Khamis dollars)



Sources: Angus Maddison, *The World Economy: A Millennium Perspective*, OECD Development Centre, 2001; the Central Bank of the Republic of China; and IMF *International Financial Statistics* (for updating 1998-2006).