History of Japanese Industry
(from the Meiji Restoration to the Pacific War)

Confrontation between Bakufu and Son-no

Asia, 1868

Collapse of Tokugawa Feudal government

Break of national Isolation policy

Key persons
- Sakamoto
- katsu
- Saigou

History of Japanese Industry
(from the Meiji Restoration to the Pacific War)
Industrial Policy from 1868 ---- 1945
(from the Meiji Restoration to the Pacific War)

1. 1868 -- 1900 the first half of the Meiji era
(from the Meiji Restoration to the end of 19th century)
2. 1900 -- 1912 the latter half of the Meiji era
(1900 to the end of the Meiji era)
3. 1912 -- 1926 the Taisho era
4. 1926 -- 1945 the first half of the Showa era
(from the beginning of the Showa era to the end of the Pacific War)

Meiji Restoration
1868 Tokugawa gov’t collapsed, transferred reins of government to the Emperor
Meiji government was established.
1868 Promulgation of the five articles of the Imperial Oath
(Encourage wide discussion & follow the public opinion)
1868 freedom of trade
1869 the 4 class system was abolished, freedom of profession
1871 The clans were abolished and the prefectures were established
( ഇൡஔ ൝ ੡ governors were nominated by the government)
1872 freedom of transportation
1872 freedom of farm products
1872 Law of Compulsory draft

Centralization of government was realized
1870 The Ministry of Engineering was established.
1871 Currency was unified
1872 Tomioka silk reeling factory was opened
1873 The land tax system was revised
--- private land ownership was established, and the financial base of the Meiji government was established
1874 The Ministry of Home Affairs was established.
1881 The Ministry of Agriculture and Commercial Affairs was established.

* after 1880s, Japan's modern industries grew centering around the railroads, the cotton spinning industry industry, the silk reeling industry and mining industry .

How to develop Industry in Japan (early days of Meiji)
1. Send observation delegation to Europe and US to learn technology
2. Send students to Europe and US to learn technology.
3. Invite foreign excellent engineers or researchers to transfer technology to Japanese trainees.
4. Establish engineering school to train Japanese students.
5. Set up most modern model factories to show to Japanese entrepreneurs
6. Set up public research laboratories for industry.
7. Establish compulsory education system, all over Japan

Employment of Foreign Advisors
• In the first half of Meiji era, employment of foreign advisors to transfer science and technology was remarkable.
• It’s peak was in 1875 when 527 foreign advisors in all were employed in the Ministry of Engineering and other ministries, in national universities and other organizations.
• The government paid foreign advisors high salaries amounting to 3 -10 times those of high ranking Japanese officials.
• The Meiji government employed advisors selectively from various western nations which the government considered as the most advanced in particular fields, railway technology from England, medical science from Germany and agriculture from America.
• After 1875 foreign advisors were quickly replaced year by year by Japanese who had been sent abroad and to study science and technology in western universities.
Set up model factories using most modern technology.

- Introduced modern technologies from foreign countries and set up model factories
- The factories included those in the textile, machinery, shipbuilding, and mining industries
- Besides that, gov’t placed great importance on fundamental Education

* Tomioka silk reeling factory 1872

- From 1881, the government began to sell modern factories owned by the Ministry of Engineering and Home Affairs to newly risen industrialists or leading merchants
- Factories had to be sold to get rid of the heavy financial burdens caused by their inefficient operation

* In this era, although the majority of the manufacturing industry was still in light industry centering around the textile industry, the heavy industries — steel, shipbuilding, railway vehicle, metal and coal mining — developed remarkably

2. Foundation of the Ministry of Agriculture and Commercial Affairs

- 1882: The Ministry was founded as a body responsible for industrial development, taking over the departments of the Ministries of Engineering, Home Affairs and Finance, which had been in charge of industrial development. The Ministry of Agriculture and Commercial Affairs later became MITI and The Ministry of Agriculture, Forestry and Fisheries

Birth and Development of Modern Industries

1. Railway Enterprise

- 1873: first railway from Shinbashi to Yokohama
- Railways were basically constructed and operated by the state. After the establishment of the first private railway company in 1882, many others were quickly established.
- As of 1892, the state owned 551 miles of railways, while the private sector owned 1,165 miles.

2. Cotton Spinning

- The Ministry of Agriculture and Commercial Affairs bought spinning machines from England in 1878 and 1879, and constructed and operated factories in order to help spread the spinning industries.
- Later those factories were sold to the private sector.
- In 1883, powerful merchants and some nobles established a private firm, Osaka Spinning Co.
- Upon successful operation of Osaka Spinning Co., many modern private spinning companies were established.
- With the establishment of a modern cotton spinning industry, the export of cotton yarn began around 1890.
3. Silk-Reeling Industry

- Modern silk-reeling machines were introduced by the state model factories into the traditional silk industry.
- Silk had been an important export commodity from the beginning of international trade at the end of the Tokugawa era.
- With the introduction of modern reeling machines to the silk reeling industry of Japan, silk became the leading export good.
- (30–40% of all the exports in the year 1880)

4. Mining Industry

- The mining industry developed after it obtained mines sold by the government under favorable conditions.
- The coal mining industry in Chikuho region made great advances, producing 40% of Japan's total production (4,270 thousand tons) in 1894.
- The copper mining industry quickly developed through modernization of facilities, reaching 2,000 tons of copper production in 1897.
- Ashio Copper Mines in particular became the leading mines, and they provided the foundation for Furukawa as a Zaibatsu.

1900 -- 1912 (the latter half of the Meiji era) to the end of the Meiji Era

1896 the gold currency standard was established
1894 -- 1898 Trade Treaties were revised, tariff autonomy was partially restored, and extraterritoriality was abolished.
1897 Fixed Rate Tariff Law was enacted
1897 Export Tax was abolished
1904 -- 1905 The Russo-Japanese War
1911 The Trade Treaties were revised and tariff autonomy was restored

Industry and Trade Policies during 1900 -- 1912 (The Latter Half of Meiji Era=Promotion of export)

   - In preparing budgets, the Ministry did the following.
     (1) Set up a high level council composed of leaders of the private sector and government officials of high rank in order to discuss export promotion policies
     (2) Went overseas to survey trade conditions
     (3) Sent trainees overseas to learn trade practices
     (4) Enacted the Trade Association Law for the Export of Important Commodities (1898) to give a legal basis for trade associations which played the roles of preventing unfair export transactions and preventing export of excessively poor commodities

2. Restoration of Tariff Autonomy

- The trade treaties which the Japanese feudal government concluded with Western nations in 1958 were unequal treaties in which Japan was not allowed to have tariff autonomy.

(1) Revision of Trade Treaties (1894-1898) and agreement upon tariff rates
   Japan succeeded in revising the unequal trade treaties and restored tariff autonomy, but Japan also concluded new treaties which applied agreed tariff rates to important export commodities from England, France and Germany.

Agreed tariff rates for important Western industrial commodities were generally low, and Japan was not able to protect potential industries effectively

(2) Abolition of Export Duties (1889-1899)
   Considering the increase in import duties due to the setting of new tariffs, the government decided to completely abolish export duties by 1899 in order to promote exports

(3) Second Revision of Trade Treaties (1911) and Realization of Complete Tariff Autonomy
   Japan succeeded in abolishing the agreed tariff treaties and finally established tariff autonomy, becoming able to increase revenue from import duties and protect domestic industries with high tariff rates for targeted industrial products
Development of Industries from 1900 — 1912

1. The Steel Industry

- [1] The government decided to establish a state-owned steel making factory in 1891, and began a feasibility study.
- Background for this decision:
  - Civil demand for iron and steel, especially demand for railway construction, as well as demand for military use, increased quickly, but iron and steel manufacturers in the private sector didn't show signs of progress.
  - Most iron and steel demand was satisfied by imports.
- The government decided to rely on German technology and revised the plan: to produce 120 thousand tons of pig iron and 90 thousand tons of steel by 1901.
- Yahata Steel factory, located in Yahata village near Chikuho coal mines in Kyushu, began operation in 1900.
- The government expanded the capacity of Yahata Steel, reaching 160 thousand tons steel by 1910 and 280 thousand tons by 1916.
- Yahata Steel became stable (profitable) from 1909.
- Because of rapid increases in steel demand, Yahata Steel was only able to supply part of the whole domestic demand, but this state-owned factory kept playing the leading role in the Japanese steel manufacturing industry which gradually grew as newly established private steel making companies entered the industry.

2. Steel Manufacturers in the Private Sector

- [1] Kamaishi Mines Tanaka Iron Mill, which had been producing pig iron, began integrated steel manufacturing in 1903.
- [2] Sumitomo, inheriting a village-owned iron mill, established Sumitomo Steel Works; it expanded capacity with the introduction of open hearth furnaces of 15 tons in 1907.
- [5] Imaizumi, a former engineer at Yahata Steel, set up Nippon Kokan in 1912 to produce 10,000 tons of steel pipes a year.

As a whole, development of steel manufacturing in the private sector was deeply connected to the expansion plans of the Navy and National Railways.

2. The Shipbuilding Industry

- The Japanese shipbuilding industry showed remarkable growth after the Sino-Japanese War.
- Enactment of Shipbuilding Promotion Law, which gave subsidies to builders of large scale steel ships.
- The Ship Navigation Promotion law gave subsidies to marine transport companies putting large scale steel ships into commission; preference was given to ships produced in Japan.
- Mitsubishi Nagasaki Shipbuilding, Kawasaki Shipbuilding, Osaka Steel, Ishikawajima Shipbuilding grew quickly.
- In 1901 the number of ships produced in Japan exceeded the number imported.
- Technology of the above 4 companies came close to international levels.

- Mitsubishi completed world-largest class 13,000 ton ocean going vessels in 1908, verifying the technological capability to build international-class large scale ships.
- Mitsubishi and Kawasaki cooperated with the naval factories in building battleships.
- from 1911, all the battleships were built domestically.
The pioneers (Auto mobile)

1901  first showroom in Tokyo
1904  Yamaha manufactured steam engine bus with 10 passenger seat (cf. Russo-Japan War)
1907  Uchiyama produced first gasoline engine car
1911  First Military track in artillery Factory
1914  Hashimoto Masujiro manufactured 7 units of Datto-go (cf. 1st world war)
1914  Mitsubishi manufactured 22 cars
1918  Military Vehicles Subsidy Law
(7 manufacturers)

Kanto great Earthquake (needs for Track)
800 Ford track imported and converted to bus
1923 Kanto great Earthquake (needs for Track) 
800 Ford track imported and converted to bus
1925 Ford Motors Japan began local assembly
1927 GM Japan in Osaka began ass. of Chevrolets
Mass Production started
1931 Standard Model Automobiles is decided
(Annual Production Big 3=19,684 Japan=458)
1935 Datsun was born
1936 Automobile Manufacturing Industries Act(16)
(Ministry of Commerce & Industry, Ministry of War
Motor vehicle industry was classified
to munitions industry)