Economic Development

- Edo grows to be the biggest city in the world with 1.3 million people
- Substantial growth and commercialization
- Merchants organize large scale production of sake, pottery and sugar
- Economies of scale in large urban areas
- Financial markets develop because peasants and samurai need credit
Economic Development

- Education becomes fairly widespread (respected by all classes)
- 40% of men and 15% of women get some formal schooling
- By late Tokugawa they can read and write
The story is set in the 1600s, when the residents of a small Japanese village are seeking protection against repeated attacks by a band of marauding thieves. Offering mere handfuls of rice as payment, they hire seven unemployed "ronin" (masterless samurai), including a boastful swordsman (Toshiro Mifune) who is actually a farmer's son desperately seeking glory and acceptance. The samurai get acquainted with but remain distant from the villagers, knowing that their assignment may prove to be fatal. The climactic battle with the raiding thieves remains one of the most breathtaking sequences ever filmed.
Love-Suicides

• A Bunraku Play: Sonezaki shinju (The Love Suicides at Sonezaki)

• This masterpiece of Chikamatsu Monzaemon (1653-1725) was the first of the new genre of domestic drama (sewa-mono) plays focusing on the conflicts between human emotions and the severe restrictions and obligations of contemporary society. The great success of this play led to many more dramas on the tragic love affairs of merchants and courtesans, and it is also said to have spawned a string of copycat love suicides.
The 47 Ronin is the true story of samurai who plot revenge against the powerful lord who goaded their master into a "crime". Punishment for the crime was the demand that the master commit seppuku. The now-masterless samurai plot their revenge. December 14, 1702
Chushingura

Fictionalized account of the actual 47 ronin story.

A simmering, deliberately paced drama set during the Tokugawa shogunate in 1701, it centers on 47 loyal samurai who seek vengeance against the arrogant elder statesman who caused their master's ritual suicide. The now masterless ronin let seasons pass before executing a climactic raid that is both expertly fierce and lethally efficient.
Values and Beliefs

Traditional Japan was held together by its values and beliefs

West: universal ethic which equates all individuals

East: proper regulation of all social relationships to build the perfect society
Values and Beliefs

- Society vs Individual, Collective vs Person
- “Giri” – a duty of open ended reciprocal obligation
- “On” – benevolence within a relationship between unequal individuals
- Bushido – code of the warrior, absolute loyalty to one’s lord, unswerving filial piety, extends to teacher-student, master-apprentice
Values and Beliefs

• Confucianism – emphasis on family and social harmony, helps to make people easy to govern

• No universal ethic. No religious sanctions.

• Shame enforces ethical code, specific rules of conduct

• Personal shame (disapproval of society) and “we-group” shame (dishonor to group)
Cracks

• Cracks appear in the system by mid 1800s
• Peasants have little incentive to be productive (taxes are high, and prohibited from buying luxury goods)
• Merchants are content with monopoly profits and high interest rates, and did not promote productive investment
• Artisans operated in confines of restrictive guilds
• Many samurai borrowed in times of need and stayed in debt
Cracks

• Daimyo treasuries are depleted by natural disasters, construction of public works (ordered by Shogun), and suppression of increasingly frequent peasant uprisings

• House of Tokugawa is in weak financial condition due to top heavy bureaucracy and poor money management
Cracks

Many samurai critical of Tokugawa

– Shogun’s growing financial weakness
– Efforts to keep Daimyo weak and poor
– Concern that Japan was militarily weak and incapable of resisting the growing strength of Western powers who were carving up Asia
QUESTION?

Was the Tokugawa period good for Japan?

– Did it merely freeze Japanese society in a rigid hierarchical mold?
– Or did it allow Japan to slowly and peacefully reach a base from which it could leap into industrialization?
Meiji Restoration

Japanese Economic History
Historical Periods

- 1600-1868: Tokugawa (Edo) Period
- 1868-1912: Meiji Period
- 1912-1926: Taisho Period
- 1926-1989: Showa Period
- 1989-2019: Heisei Period
- 2019 -
National Seclusion
1639-1854

• Japan is closed
• Missionaries are driven out
• Ex-patriot Japanese can not return
• Big ships can not be constructed
United States

• US wants Japan open
• Japan is on the US trade route to China
  – Need to repair their ships
  – Need to replenish their supplies
  – Need coal for steamships
  – Concern for shipwrecked sailors
• Missionaries want to convert Japanese
Commodore Matthew Perry

- July 8, 1853
- Arrives with 4 black ships (2 steamships)
- First steamships to visit Japan
- Creates dilemma for Shogun

Two prevailing views
- keep Perry out
- make temporary concessions and quickly build up military forces
Outside Japan

- 1842 - China loses “Opium War”
  - Hong Kong ceded to England
  - Shanghai made an open port
- 1851 - England takes Rangoon, colonizes Burma
- 1857 - England and France take Canton
- 1858 - England colonizes India, Russia moves into Manchu China
- 1859 - France occupies Saigon
- 1860 - England and France occupy Beijing
- 1862 - France makes Cambodia a protectorate
Japanese Defenses

- Daimyo build coastal forts with cannons (use Western technology from translated Dutch books)
- 2 bark-style vessels and one paddle wheel vessel from Dutch books
- Mortars and howitzers by traditional methods
- Mock wooden forts were suggested
Commodore Perry Returns

- 1854
- Perry returns with 9 warships with big guns
- Japan signs treaty to meet needs of US ships and sailors
- Perry leaves gifts
  - 1/3 size model railroad and its tracks
  - 1 miles long telegraph system
  - some side arms
Perry in Edo Bay
Unequal Treaties

• By 1858 Shogun signs treaties with U.S., U.K., Russia, France, and Netherlands
  – Right to set up missions
  – Trade in Nagasaki, Kanagawa, & Hakodate
• After 1865 Japan can not have tariffs above 5%
• No parallel concessions, hence “unequal treaties”
Tokugawa Collapse

- “Seii taishogun” means “barbarian subduing generalissimo”
- But Shogun lacks strength to expel “barbarians” from the West
- Shogun is financially weak
- Criticized for signing “unequal treaties”
- Japan has some time because Europe is busy fighting over China and US has Civil War
Yojimbo

The movie takes place in Japan in the 1860s when the Tokugawa shogunate fell and the samurai had been freed from their duty. Yojimbo, the bodyguard comes to a small village by chance of throwing a stick which led him to a town with gambling, brothels, and death which is separated by controlled by two opposing gangs. He decides to stay plotting the gangs against each other, and to end the corruption.
Choshu and Satsuma

• Daimyo from Satsuma (Kagoshima) and Choshu (Yamaguchi) move to restore Emperor to power
• Strong “outside” (Tozama) daimyo, not Fudai daimyo
• Decendants of 17\textsuperscript{th} century vassals who pledged loyalty to Tokugawa only after resistance was crushed
Choshu and Satsuma

• Far west from Tokyo (western Honshu and southern Kyushu)
• Involved with foreign trade and Western knowledge
• In the vanguard of rearming
Meiji Restoration

• Shogun tried to give up formal power, but keep de facto power in an effort to avoid civil war
• 1867 – Emperor Komei dies suddenly. Meiji (16 years old) becomes emperor. Daimyo have a young and malleable person to advise.
• 1868 – Imperial court moves from Kyoto to Tokyo
“Rich country, Strong army”

- New leaders adopt a new motto, decide to keep Japan open, and do not expel barbarians
- Need to achieve military equality with West (or be overrun)
- Weapons are not enough
- Need industrial power, technical knowledge, and administrative efficiency
- Begin broad economic, political, and social reforms
Modern Economic Growth
(Simon Kuznets)

- Application of modern science and technology to industry
- Transformation of the industrial structure
- Sustained and rapid increase in real output per capita
- Expansion of international contacts

Kuznets, Modern Economic Growth: Rate, structure and spread, 1966
Government as Agent of Change

How important is the government as an agent of change?

• Modern economic growth happened spontaneously in Great Britain
• Japanese government appears to have played a larger role
Meiji Restoration

- Emperor and advisors are the single central authority
- Restored Shintoism – divinity of emperor, love of nature (Shintoism is infused with Confucian values)
- Buddhist temples are confiscated
- Eased government revenue problems
Sat-Cho Government

- Emperor is not absolute monarch
- Advisors serve as the Cabinet
- Lords from Satsuma, Choshu, Hizen, Tosa
- “Sat-Cho Government” (Satsuma & Choshu) (Kagoshima & Yamaguchi today)
Central-Local Relationship

- 1868-1871
- Central-local government relationship restructured
- French prefectural system adopted as model (local governments play a relatively minor role)
- Taxing power & other rights → central government
- Yearly allowance from treasury → local daimyo
  - goes to all who formerly lived off rice tax
  - Proportional to former income
- Stipend is heavy drain on treasury
  - From 1872-76, 34% of government expenditures → lords and samurai (6-7% of the population)
Central Government

- Powerful and Entrenched
- No mechanism to change or remove it
- Meiji elite controlled the emperor, his decisions
- Meiji elite gave their supporters government positions and appointments
- No constitution, no elections, no political parties, no democracy
Meiji Reforms

1. Change in the social order
2. Universal military service
3. Introduction of western technology
4. Changing schools and education
5. Improved communications
6. Improved transportation
7. State capitalism
Social Order

- Class structure
  - Major obstacle to growth
  - Froze society in agricultural mode
  - Waste of best educated

- 1873 New social order created
  - Small, open ended nobility
    - Successful businessmen, statesmen, and military leaders could aspire
  - Ex-samurai – courtesy title, no special privileges
  - Everyone else
Social Order

• End restrictions on movement by farmers, craftsmen, city dwellers
• Individuals can buy and sell land
• Ruling class can participate in agriculture, commerce, and industry
• Restrictive guilds abolished
• Long term apprenticeship contracts and other forms of servitude abolished
• Ban on wearing of swords (main status symbol of samurai)
Changes in the Role of Women

- Foreigners strongly criticized the status of women in Japan
- 1872 first public elementary schools for women founded
- Ban on women entering holy places was lifted
- 1873 women allowed to initiate divorce
- Women allowed to legally head households
- Suffragette movement gained prominence
  - No right to vote until 1946
- 1882 secondary schools opened to women
- Arrival of Christianity greatly improved educational opportunities for women
  - Many Christian women’s colleges were opened
Heian Jogakuin University

- Founded in 1875
- Private women’s college
- Campus in Kyoto and Osaka
- St. Agnes University
- Anglican Church
Universal Military Service

- 1872 universal military service established
- Samurai were loyal to their clan, need people loyal to the country
- Recruits drawn from every walk of life
- 1874 – conquers Taiwan, China pays ¥500,000 to get it back
- 1879 – Take Ryukyu Islands from China
Western Technology

- Historically learned from China
- Introduction of Western technology
- 1887 – almost half of imports are a sample list of Western factory goods to learn about the West
- Sent Japanese on study abroad trips
  - Generous subsidies to study abroad
  - 1872 – 380 students study abroad
  - Businessmen made frequent visits to the West
Western Technology

• Meiji government officials went to Europe and the U.S. to study
  – Public finance
  – Insurance
  – Postal service
  – Factories
  – Factory regulation
Iwakura Mission (1871-73)

Objectives

– Gain recognition for imperial dynasty under Emperor Meiji

– Convince West that Japan was unlike the rest of Asia
  • West in western clothes
  • Argues for repeal of “unequal treaties”

– Wanted to study source of Western wealth and power
  • Factory production
  • Science, engineering, economics
  • Mass transportation
  • management

Iwakura Tomomi
Iwakura Mission

Impacts

- Came to believe in the importance of merchants
- Rejected Western idea that religion and individualism were keys to growth
  
  - hard work, planning, organization and management skills are keys to growth
- Translated tons of texts and brought them back to Japan
- Became committed to education for both sexes
Western Technology

• Foreign technical experts and teachers were brought in

• 1870-1885 – Ministry of Industry employs over 500 foreign engineers and technical instructors – 80% British
  – Railways (256)
  – Machine shops (81)
  – Mining (76)
  – Agriculture (34)
Western Technology

Foreigners were expensive

– 1879, 130 instructors and technicians cost $300,000, over half of the budget of the Ministry of Industry

– Hurt government finance

– Made domestic personnel feel inadequate
Western Technology

• Government sponsors local technical training
• From 1871 – 1883, the Meiji government established…
  – 2 new technical schools (university level)
  – Technical training programs
  – Schools of navigation and marine engineering
  – School of banking and finance
  – Business school (American style)
  – 3 agricultural schools
Schools and Education

• Traditionally focused on classic Chinese language and Confucianism which stressed loyalty
• 1872 – commitment to 4 year system of free, compulsory schools
• New curriculum has more practical orientation
• Now focused on medicine, arithmetic, and Western Studies
山根 寅一

本大学規定ノ学科ヲ完修シ
考试ヲ第セリ因テヲ卒業証ス

大正十年七月五日

總長 伯爵 大隈重信

学長 法尊 博高田早苗

增田 恒藏

谷野 基次郎

服部 文四郎

長谷部 信教

田中 三郎

狭野 菊之助

吉田 倫三郎

山田 田三郎

藤野 聖治郎

梅若 信太郎

永井 柳太郎

藤崎 政三郎

川崎 豊二郎

松崎 蕃之上郎

柳川 胜平

伊藤 重次郎

木村 豊之助

田中 達治

吉田 巴之助

中平 瑛次郎

山崎 直三

安部 唯之助

長谷部 哲之助

戸崎 師之助

木村 豊之助

各教授 謹白

Waseda University Diploma 1913
Communication

• Communication to permit rapid military mobilization
• By 1883, 2000 mile national telegraph system
Transportation

• Initially, most coastal traffic is carried by Western ships which are larger and faster
• Needed to develop strong merchant marine for military reasons
  – Not rely on Western ships
  – Transport troops and supplies
Mitsubishi

• 1870 – Yataro Iwasaki starts Mitsubishi Company with government connections and contracts and becomes the dominant shipping firm

• 1874 government buys 13 steamers from Mitsubishi (needed to facilitate transport and supply to invade Taiwan) later returns the ships to Mitsubishi for free
Mitsubishi

- 1877 – government advanced ¥700,000 to Mitsubishi to purchase steamers
- Government also provides Mitsubishi with ¥8 million (half subsidy, half loan with little interest)
- Mitsubishi Company becomes a near monopoly
Mitsubishi

- 1882 – strong public resentment to Mitsubishi
- Government helps found a rival firm, and leads to fierce competition
- Yokohama to Kobe fare drops from ¥5.5 to less than ¥1
- Rival firm almost goes under
- Mitsubishi buys up majority of firm’s stock
Mitsubishi

- Mitsubishi expands
  - Subsidized merchant marine academy
  - Mitsubishi Maritime Insurance Company
  - Shipyards
  - Coal mining

- Yataro Iwasaki
  - “What is good for Mitsubishi is good for Japan”

mitsubishi.com
Railroads

• Not as important as merchant marine
• Most cities are seaports, or near the sea
• Japanese islands are mountainous
• Railroads
  – Capital intensive
  – Require advanced technology
  – Have large start up costs
Railroads

- Government built two railroad stretches
  - Tokyo to Yokohama
  - Kyoto to Osaka
- Railroad building lagged
  - By 1882, only 174 miles of railroad in Japan, all government owned
State Capitalism

• Government inherits some modern enterprises set up by the shogun
  – Several cotton spinning mills
  – Precious metals mines, coal mines
  – Some munitions factories and shipyards
State Capitalism

1. Military
2. Silk Reeling
3. Cotton Spinning
4. Precious metal mines and coal mines
5. Other examples
Military

- 1870 – Yokosuka Navy Shipyards (could repair any naval craft in the country)
- 1875 – Tokyo armaments works (arms plant, foundry, gun powder plant, blacksmith shop, saddle plant, iron puddling plant which makes wrought iron from pig iron)
- 1877 – 2 large arsenals and 2 large shipyards
- 1880 – first Japanese iron warship is launched
- 1881 – first Japanese ship with Japanese engine
- 1886 – every Japanese division has Japanese rifles and artillery
Silk Reeling

• Established 3 large mills (only 1% of mills) to demonstrate advanced techniques and train workers who went on to new private mills as instructors

• Insured quality of reeled silk for export
  – Licensed all silkworm egg raisers
  – Assisted formation of trade associations devoted to improving silk quality
  – Helped establish reliable testing and conditioning facilities in ports
  – Encourage concentration of ownership in egg-raising and silk reeling
Cotton Spinning

• Substitute local production for imports
• Japan’s cotton was of poor quality, and hand spinning was very costly, so they could not compete with British imports
• Industry needed to modernize and become capital intensive
• Government bought equipment, set up 13 small spinning mills with 2,000 spindles each
Cotton Spinning

• Government put these mills in private hands, but they made no headway due to their small size, poor locations, and high labor costs

• British mills had 10,000 spindles each

• 1883 – private sector establishes first competitive cotton spinning plant
Mines

• Re-equipped major precious metal mines
• Provided examples of mechanization and large scale production
• 1881 – 6 out of 2,000 mines were government mines, but produced 90% of silver and gold, 41% of lead, 23% of iron, and 6% of copper
Other examples

• Government built a glass plant, cement plant, brick plant, agricultural development stations, sugar refinery (sugar beets)
• But these ventures lost money and some were discontinued
Importance of Government?

• From 1868-1880, what did the government accomplish, and how important was it?

• Quantitatively, not much.
  – 20 modern factories, few mines, telegraph system, less than 100 miles of railway
  – Most business ventures were unsuccessful
Importance of Government

- Qualitatively
  - Aggressively lead the way to modernization
  - Others could learn from their failures
  - Trained small but growing industrial labor force
  - Developed some managers and engineers
  - Provided employment opportunities for impoverished but capable and often restive samurai

- Creation of institutional environment favorable to economic development was important

- But growth might have come without government enterprise
Major Lessons

• Government policy was not successful in picking techniques
• Very successful in promoting the absorption of technology
  – Subsidized access to foreign technology
  – Improved education
• Japanese firms succeeded by observing foreign technology *and* adapting it to domestic conditions
  – **Both** conditions were critical
  – Innovation and (minor) improvements in foreign technology/techniques played a critical role
Central Bank

Haruhiko Kuroda
Governor, Bank of Japan

Janet Yellen
Chair, Board of Governors, Federal Reserve Bank
Jerome (Jay) Powell
Chair, Board of Governors,
Federal Reserve Bank as of Feb 4, 2018
Two Branches of Government

- **Fiscal Policy**
  - Congress and the President or Diet and Prime Minister
    - $G$ : government spending on goods and services
    - $T$ : taxes minus transfer payments
    - $G - T$ : budget deficit

- **Monetary Policy**
  - Federal Reserve or Bank of Japan and MOF
    - Monetary policy
      - Increase money supply to lower interest rates
      - Decrease money supply to increase interest rates
    - Regulation of banking system
Money

Money - any generally acceptable means of payment in exchange for goods and services and in settling debts

Serves as

- medium of exchange
- unit of value
- store of value
- standard of deferred payment
Central Banks

• Central Bank sets the nation’s nominal money supply
• Federal Reserve is the US Central Bank (created in 1913)
• Bank of Japan (BOJ) is the Japanese Central Bank (created in 1882)
• Fed has some political independence
• BOJ has less political independence