Pre-War Japan

Japanese Economic History
Banking

• Domestic Banking Institutions – shaped in line with Matsukata Plan 1882
• Strategic “specialized banks”
  – Public or quasi-public in terms of ownership and control
  – Bank of Japan (central bank)
  – Yokohama Specie Bank (for financing foreign trade)
  – Bank to mobilize savings of the poor (postal savings system and savings banks)
  – Bank to make long-term loans to industry and agriculture on security of immovable property (hypothecc bank)
  – Bank to make long term loans on security of moveable property
Banking

• “Ordinary Banks”
  – Privately controlled commercial or savings banks
  – Zaibatsu banks were large and strong, others were weak
  – Numerous because legally required capitalization was relatively low
Banking Relationships

- Until equity market develops, saver-lenders and business borrowers must come together through banks
  - Commercial banks acquire high proportion of illiquid assets
  - Risk insolvency in hard times unless government bails them out
- Quasi-public special banks and large zaibatsu banks were extremely susceptible to political influence from government
  - Would extend credit to government when needed
  - Would lend to strategic enterprises which government was interested in
Bank of Japan

• Bank of Japan has surprisingly little influence on ordinary banks
• Central banks usually control money supply with three tools
  – 1) Discount Rate
  – 2) Reserve Requirement
  – 3) Open Market Operations
• All 3 methods fail to develop
Bank of Japan

1. Ordinary banks did not borrow from central bank in ordinary times
   - in emergencies, government compelled BOJ to make advances to banks
   - BOJ did not use discount rate to influence banker’s decisions on credit

2. No minimum reserve requirement before 1957
   - Larger banks held deposits at BOJ, but only for clearing purposes

3. Open market operations dictated by Treasury needs, not credit control considerations
Bank of Japan

- Slender connections between BOJ and ordinary banks
- Large zaibatsu banks had financial resources to remain independent of BOJ and pursue an autonomous policy
- No monetary policy under gold standard
Bank of Japan

• Main activities of BOJ
  – Foreign exchange
    • Problem of international payments of extreme urgency
    • 40-50% of loans made on foreign exchange of which 80% went to Yokohama Specie Bank to finance foreign trade
  – Financial aid to Treasury and official institutions
    • Bought government bonds in times of emergency
    • Provided heavy loans to special banks in emergency at low interest rates
Zaibatsu

Mitsubishi headquarters, pre 1923
Marunouchi, Tokyo
• “Money Cliques”
• Diversified business group in the modern sector exclusively owned by a single family or extended family, particularly if it owns banks and other financial institutions
• “Big Four” are Mitsubishi, Mitsui, Sumitomo and Yasuda
• Like “chaebol” (Hyundai, Samsung, Lotte) in Korea today
Zaibatsu

Key elements

• Financial element
  – Holding company
  – Bank

• Marketing element
  – Trading company

• Representative Firm in Each Industry
  – Not monopolists like US trusts
Zaibatsu Financial Structure

Ave Ownership - 5%

Ave Ownership - 15%

Ave Ownership >50%
Zaibatsu

• Sumitomo and Mitsui date from Tokugawa Period
• Sumitomo (1590) began in the copper business in Kyoto
• Mitsui (1673) began as a dry goods shop in Mie, and then Edo
• Mitsubishi, Yasuda, Furukawa, Okura, Asano and Fujita date from 1880s
• Kuhara and Suzuki date from 1910
Zaibatsu

“Distinctive, controversial, and indestructible”? 

• Not all big business were zaibatsu 
  – Railroad, cotton spinning, electric power were joint stock companies 

• Not all zaibatsu were big 
  – Range from small to enormous in every region of the country 
  – Toyota, Bridgestone, Kikkoman were local zaibatsu
Zaibatsu

• Not all zaibatsu were successful
  – Ono and Shimada failed
  – But important qualitatively and quantitatively
  – In 1928 the top 7 zaibatsus account for 16.5% of total paid-in capital of joint stock companies in Japan

• No zaibatsu in leading sectors of Meiji industrialization
  – Railway and cotton spinning
  – Too capital intensive, left to joint stock companies
  – But zaibatsus owned shares
Zaibatsu Origins

• From 1868-1893 the founders of zaibatsu accumulate wealth
• Since zaibatsu are not joint stock companies, the founders need significant wealth
• Most gain wealth either as political merchants or in mining where they have monopoly power with strong barriers to entry
  – Political merchants – personal ties to gov officials
  – Mining – exclusive rights to mineral resources
1. Political merchants ("seisho")
2. Mining enterprises (copper) ex. Sumitomo, Furukawa
3. Coal market (Asano)
4. Mitsui, Mitsubishi, Fujita gained initial capital as political merchants, and used it to acquire mines and made more profit (used 1 and 2)
Political Merchants ("Seisho")

• Tokugawa period
  – Samurai could not be directly involved in business activities
  – Entrusted purchase and sale of goods and handling of money to merchants

• Meiji period
  – Political leaders come from old samurai class
    • Continue to entrust commercial and financial matters to merchants
  – Before 1873, land tax is paid in kind (rice)
    • Merchants convert rice to money for government
  – After 1873, rice market is well developed only in Tokyo and Osaka
    • Merchants sell rice for farmers and pay taxes
Political Merchants

- These traders and financiers used ties to political figures to obtain government favors
- Gov provided subsidies, grants of monopolies, special privileges, favorable credit arrangements, sale of state enterprises
Political Merchants

• Mitsui, Yasuda – financiers licensed to handle national tax revenue
• Mitsubishi – special subsidies from gov for shipping operations
• Okura, Fujita – merchant enterprises that supplied goods and services required by Meiji government
Political Merchants

• CAVEAT
  – Must pay kickback in return for special privileges
  – If political patron falls from power, zaibatsu could fail
  – Change in views or policies of government could cause business crisis
  – Ono, Shimada, Furukawa, Suzuki all failed

• You need to build a fortune, then abandon reliance on government patronage
  – Switch off political merchant track
  – Then you can develop as a zaibatsu
Zaibatsu

- 1881
  - Matsukata sells off state-owned industrial plants
  - large, complex, unprofitable businesses
  - few entrepreneurs have money and courage to buy

- 1894-1913
  - Zaibatsu diversify and take advantage of growing domestic and world markets

- NOTE
  - Sumitomo, Yasuda did not buy any state enterprises
  - Many firms that did buy did not become zaibatsu
Mitsui Takatoshi

Mitsui Takatoshi established shops for dry goods in Kyoto (the old capital) and Edo (now Tokyo) in 1673 to sell high quality kimonos. Ten years later he and his sons established money changing shops which soon were carrying out exchange operations for the Tokugawa Shogunate. One operation Mitsui performed for the Shogunate was to convert taxes which were paid in rice into money available in Edo. Osaka was the principal commercial center of Japan at the time and Mitsui sold in Osaka the rice collected as taxes. Mitsui handled the transfer of funds from Osaka to Edo.
Mitsui

Chart 1

Size of box indicates capitalization
1 square inch = 200,000,000 yen

Mitsui (1930)

- 15% of total trade (exports, imports)
  - Mitsui Trading
- 14% of total tonnage of coal
  - Mitsui Mining
- 28% of all cash trusts
  - Mitsui Trust
- 100% of artificial indigo (blue dye)
- 20% of raw cotton imports
- 65% of total weight paper
- 29% of total department store floor space
  - Mitsukoshi
Mitsubishi

- 1\textsuperscript{st} shipbuilding, aircraft, sheet glass, shipping, warehousing, non-life insurance
- 2\textsuperscript{nd} coal mining, beer brewing (Kirin)
- 3\textsuperscript{rd} pig iron, electric machinery, life insurance
- 4\textsuperscript{th} trust business
Zaibatsu

- Commercial Code of 1893
  - All major zaibatsu shift to multi-subsidiary system
  - Establish modern corporate system

- WWI boom, post-war depression, slow growth → 1929
  - Fierce struggle to survive
  - Managerial ability is the deciding factor

- Rise of salaried manager
  - Initially ability and leadership of the founder is enough
  - With Meiji restoration
    - Changing business conditions
    - Increasing scale and complexity of operations
    - When founder passes on, need educated, salaried managers
  - Salaried managers eventually take control
    - Some conflict and struggle (Mitsui, Sumitomo)
    - Some adopted as sons, some married into family (Yasuda, Fujita, Furukawa, Okuna)
Zaibatsu

Zaibatsu developed at different speeds using different roads. But successful because….

1. Limited number of entrepreneurs with capital and management skills
   - requires they operate in variety of business fields
2. Access to funds
3. Family recognizes need for educated and talented managers
   - management training
   - promotion in terms of merit rather than kinship
4. Government support
   - subsidies for selected projects
   - close relationship between government bureaucrats and zaibatsu managers
   - absence of legislative constraints

CAVEAT: Zaibatsu had to make investments govt wanted
Zaibatsu

• 1930-1948
  – Depression, War, and Dissolution
  – Zaibatsu march toward their doom
  – US occupation seizes family assets, eliminate holding companies, and interlocking directorships

• Post-war Keiretsu
  – Keiretsu are not owned exclusively by a single family
  – Mutual shareholding among constituent firms
### Zaibatsu

Approximately 20 Zaibatsu are the ancestors of the modern keiretsu

<table>
<thead>
<tr>
<th>Zaibatsu</th>
<th>Associated Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitsui</td>
<td>Mitsui (Sakura) Bank, Toyota</td>
</tr>
<tr>
<td>Mitsubishi</td>
<td>Mitsubishi Bank (Bank of Tokyo-Mitsubishi), Mitsubishi Motors / Honda</td>
</tr>
<tr>
<td>Yasuda</td>
<td>Fuji (Fuyo,Yasuda) Bank, Nissan</td>
</tr>
<tr>
<td>Sumitomo</td>
<td>Sumitomo Bank, Mazda</td>
</tr>
<tr>
<td>Dai-Ichi*</td>
<td>DKB (Ichikan), Isuzu</td>
</tr>
<tr>
<td>IBJ*</td>
<td>IBJ, Fuji Motors (Subaru)</td>
</tr>
</tbody>
</table>

* Existed in prewar period but were not zaibatsu
Pre War Growth
Prewar Growth

![Graph showing prewar growth in real GNP from 1895 to 1939.](image-url)
### 1885-1940
Components of GNP

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private consumption</td>
<td>75% (80% → 57%)</td>
</tr>
<tr>
<td>Government consumption</td>
<td>6-7% (except war years, 14% in 1905, 11% after 1930)</td>
</tr>
<tr>
<td>Capital formation</td>
<td>12% → 20%</td>
</tr>
<tr>
<td></td>
<td>Increasingly government investment in roads, ports &amp; railroads (19% of investment → 45%)</td>
</tr>
<tr>
<td>Exports</td>
<td>6-7% (1885) 15-20% after 1910</td>
</tr>
<tr>
<td>Imports</td>
<td>same</td>
</tr>
</tbody>
</table>
# 1885 – 1940

**Growth rates of GNP**

<table>
<thead>
<tr>
<th></th>
<th>1885-1940</th>
<th>1885-1915</th>
<th>1915-1940</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GNP</strong></td>
<td>3.1%</td>
<td>2.7%</td>
<td>3.7%</td>
</tr>
<tr>
<td><strong>Consumption</strong></td>
<td>2.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gov Consumption</strong></td>
<td>4.3%</td>
<td>3.1%</td>
<td>5.5%</td>
</tr>
<tr>
<td><strong>Investment</strong></td>
<td>4.5% → 1930</td>
<td>10.6% after 1930</td>
<td></td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td>9.5%</td>
<td></td>
<td>5.4%</td>
</tr>
<tr>
<td><strong>Imports</strong></td>
<td>7.6%</td>
<td></td>
<td>5.6%</td>
</tr>
</tbody>
</table>
Prewar Growth

• High and stable growth rates
  – Some fluctuations, but rarely negative growth from 1888-1940

• Growth Periods
  – 1894-1900
  • 1894 – Sino-Japanese War, control Taiwan
  • Matsukata deflation brings monetary situation under control
  • Modern industry becomes fairly well established
  • Makes money on war with China
  • Gold standard adopted (1897)
  • Capitalist economy takes shape
Prewar Growth

• 1904-1910
  – 1904-05 Russo-Japanese War
  – Control of Korea and Manchuria
  – Agricultural employment stops growing
  – Industry growth takes over
  – Eve of heavy industrialization
    • Electric power, chemicals, metals, machinery

• 1910
  – Annex Korea
  – Major colonial power in Asia
Prewar Growth

• Great Kanto earthquake, 1923 Sept 1
  – magnitude 7.9 earthquake
  – devastated Tokyo (home to about 2 million)
  – approx 142,800 deaths

• Tohoku earthquake, 2011 March 11
  – magnitude 9.0 earthquake
  – damaged Fukushima nuclear reactor
  – approx 29,000 deaths
Prewar Growth

• Showa Period (1926-1989)
• 1931-1940
  – Great Depression less severe in Japan relative to US
    • 1929 was not peak of business cycle
    • Strong Keynesian fiscal expansion 1931
    • Devaluation of yen 1931 (abandoned gold standard)
    • Military expenditures rise after 1933
Prewar Growth

- Western powers raise tariffs to secure markets
- Japan increased dependence on Asian countries with military expansion
- 1937 – second China War
- 1939/1940 – Peak of prewar economic development
  - Growth of wartime chemical and heavy industrialization
- 1941 – Pacific War
  - Captures Vietnam from French
  - U.S. imposes oil embargo and economic sanctions
  - Japan wages war on Indonesia for oil supplies
  - Japan bombs Pearl Harbor
Japanese Empire 1943
Labor Markets

• Postwar stereotypes
  – Diligent workers
  – Lifetime jobs
  – Seniority wages (pay based on age)
  – Company family
  – Training carried out by firms
  – Commitment made at end of high school
Labor Market

• Meiji workers
  – Don’t like to take orders
  – Not committed to their jobs
  – “hard drinking, fighting, gambling type with no care for saving for the future”
  – No discipline
  – High mobility
Labor Markets

• Lax attitudes about hours, rules, and holidays
  – Official hours are dawn to dusk, but some workers come and go as they please
  – Call an unofficial holiday, and take day off

• High mobility
  – 80% of workers in one large factory had less than 5 years tenure
  – 50% of workers left every year
  – Some companies withheld apprentice pay, but they still left
Labor Market

• Agriculture
  – Labor was mostly employed by day or season
  – Long-run agricultural relations that had existed died out during this period

• Industrial wage labor was rare
  – Used “putting out system” where work was done at piece rates
  – Also used day rates after a one week testing period
  – Similar system in construction (and this continues today)

• Factories employed workers on a very short term basis
  – In heavy industries over 80% left within five years
  – Sake: workers were employed by season and paid by the day
  – During prewar period Japanese labor market was characterized by a highly elastic supply of unskilled workers
  – Little dedication to company
Training

• During the Tokugawa period there was an apprentice system
• This system eventually became the Oyakata system (subcontracting system)
  – Employers would hire foremen who would hire and pay workers
  – Made hiring decisions and conducted training
  – Companies would employ oyakata through competitive bidding
  – Began to die out in 1900s
Training

After 1900

• Supply of labor skilled in modern production is limited
  – Few trained in government plants → private plants

• Demand for skilled labor
  – Initially just a few firms, but demand grew quickly

• Demand exceeds supply of skilled labor

• Workers leave for higher wages
  – Viewed frequent job switching as necessary for advancement in pay or skill

• Other firms can poach your skilled workers
Training

• Firms need a stable and skilled labor force for modern industry
• Surplus of unskilled workers
• Firms hire young, unskilled workers
  – Train them on the job, and pay seniority wages to keep them
  – Creates long-term relationship with employees
• Ex: Mitsui
  – Handled large sums of public funds
  – Needed people with specific skills, honesty, and discretion
  – Establishes long-term relationship with employees
Trade History

Initial conditions: 1858

1. Close economy for 250 years
   - Trade goes from 0% to 20% of GNP

2. Sign treaties with US, Dutch, Russia, England, and France
   - Lose tariff autonomy
   - Most duties set ≤5% ad valorem until 1899
   - Japan forced to participate in international division of labor
      - → areas of comparative advantage

3. Exchange rate
   - Domestic ratio 1 gold = 5 silver
   - Int’l ratio 1 gold = 15 silver
   - Both gold and silver ryo are in circulation
   - So silver $ = ¾ silver ryo and gold $ = gold ryo
   - Silver flows in, gold flows out
   - 1860 Shogun devalues gold content of gold ryo
      - 1 million gold ryo → out country
Trade History

Before Meiji Restoration: 1859-1867

1. Trade grew 15% a year (imports + exports)
2. Export semi-manufactured goods
   - Silk and tea, 80% of exports
3. Import manufactured goods
   - Cotton and woolen textiles, 70% of imports
4. Trade surplus until 1865 (deficit after 1867)
   - Western consumer goods not so important in Japanese way of life
Trade History

Trade deficits: 1868 – 1881

- Political and economic confusion after Meiji Restoration
- Crop failures 1869, 1870
- Financed with outflow of gold and silver coins
Trade History

Import substitution begins 1880

- Labor abundant economy
- Comparative advantage in cotton and woolen textiles
- Import raw cotton and wool, begin home production in Osaka area
- Still export silk to finance imports
Silk Exports

US Silk Imports From Japan (mil. lbs)
Trade History

• 1881-1884
  – Matsukata Deflation
    • Trade balance improves
    • Currency stabilization

• 1895-1898
  – ¥365 million in reparations from China
  – More than war expenditures, comparable to total import deficits (1894-1903)
  – Enables Japan to go on gold standards 1897
  – Finances postwar investment boom

• 1900
  – Begin industrial exports
    • Silk main export
      – More machine reeled silk yarn, less hand reeled silk yarn
    • Import composition changes
      – More producer goods, less consumer goods
Import Substitution

• Cotton textiles
  – Government establishes 2 model factories with British technology
    • Imported spinning machinery and sold to private firms
    • Made favorable loans to finance imports of spinning machinery

• Woolen textiles
  – Government establishes mill with German technology to make army and navy uniforms

• By 1885, domestic cotton cloth production exceeds imports
Osaka Spinning Factory 1883

Cotton spinning
Trade Strategy

1. Import
2. Import substitute
3. Supply most of domestic demand
4. Continue expanding through exports
Akamatsu Wild-Geese Flying
Akamatsu Wild-Geese Flying

Kaname Akamatsu (1962)
Trade History

• 1885 – cotton cloth production > imports
• 1910 – cotton cloth exports > imports
• Imports move down production chain
• Exports move up production chain
• NOT export-led growth
  – Imports rise with exports here
• But industrialization occurs with Import Substitution and export expansion
Trade History

1910

- Tariff Policy becomes important in promoting domestic manufacturing

1914-1919 Wartime Boom (WWI)

- Exports of goods and services (shipping) boom

- Japan becomes a creditor nation in balance of international indebtedness (debtor nation until WWI)
Trade History

1920

- Exports of cotton textiles and other manufactures overtake silk
  - Silk main export 1860-1920

- Composition of imports changes substantially as I.S. occurs
  - I.S. occurs in all leading sectors (textiles, chemicals, metals, machinery)
Trade History

1920-1937

• Export led growth
  – Exports lead economic growth
• World output expands → 1929, contracts
  1929 → 1932, expands 1932 →
• But Japanese export volume expands through the entire period
• Import volume is trendless until 1932, then rises
Industrial Policy

A. Meiji Militarism

“rich nation, strong army”
Meiji governments sustained effort to build a strong army
- waged war with China in 1895
- waged war with Russia in 1904
Helped to build technological foundation for industrialization
Meiji Militarism

1. Created and expanded arsenals, shipyards, and modern factories
   - 1877  4 major arsenals (made and stored weapon) and 3 shipyards (technology from England)
   - These aided private, nonmilitary shipyards and factories
     • Produced machines for private firms (steam engines for textile mills)
     • Repaired private ships
   - 1907  100,000 workers in army and navy arsenals
     • Familiar with machines (lathes), factories
   - Became centers for absorption and dissemination of western technology and skills
Meiji Militarism

2. Provides demand to assure survival of often struggling private firms in shipbuilding, machinery, and machine tools industry
   - during wars, arsenals go to 24 hour production
   - but can’t supply all army needs (private sector steps in)
   - private machine and machine tool makers receive military orders and technical assistance
   - trains more workers
Meiji Militarism

3. Establishes technological and productive foundation for growth
   - thus Japan could profit from opportunities in WWI
Industrial Policy

B. Trade Policy
Import substitution and Export expansion

*** Import tariff is an export tax ***

*You may want to protect infant industries, but you eventually want to kick them out of the nest to compete
*Need to be selective in imposing tariffs because too much protection decreases competition and removes incentives to reduce costs
*Firms must export and face foreign competition
## Trade Policy

<table>
<thead>
<tr>
<th>Tariffs</th>
<th>1910</th>
<th>1930</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td>0-5%</td>
<td>0-5%</td>
</tr>
<tr>
<td>Semi-manufactures</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Finished Manufactures</td>
<td>15-20%</td>
<td>30-40%</td>
</tr>
<tr>
<td>Luxury Goods</td>
<td>25%</td>
<td>50-60%</td>
</tr>
</tbody>
</table>
Trade Policy

- Import substitution occurs in all leading sectors
  - Textiles, chemicals, metals, and machinery
- Overall growth 1880-1920 comparable to U.S.
- Striking fact is growth of manufacturing continues through 1920s and Depression (through I.S.)

~~~

1. Domestic demand for manufactures was large enough and grew rapidly enough to induce the development of domestic manufacturing production

2. Output expansion was accompanied by cost reductions thru economics of scale, learning effects, and technical progress to allow export expansion
1929 to 1936

- US Depression of 1930s
  - US economic downturn of 1929 becomes a Depression
  - Smoot Hawley tariffs
    - Raised tariff barriers 20% points
    - Opposed by over 1000 economists
    - Lead to movement toward autarky
  - Overall Japanese tariffs were not that high until trade wars of 1930s
1929-1936

• Inoue Junnosuke (Ministry of Finance) did not believe the tariffs would affect Japan
  – Tightened money supply
  – Put yen back on gold standard
  – Cut government expenditures

• Results
  – Smoot Hawley tariffs cut silk exports in half
  – Over one-third of farm families were engaged in sericulture
  – Aggregate demand fall by 18% between 1929 and 1931
  – Prices fell
  – Unemployment soared

• Inoue assassinated in the League of Blood incident (1932)
1929-1936

• 1931 Takahashi Korekiyo (Ministry of Finance) adopts Keynesian policies
  – Took yen off gold standard
    • Value of ¥ vs $ fell from 0.49 to 0.19 between 1931 and 1932
    • Surge of exports
  – Massive deficit spending
    • Government spending rose 50% between 1931 and 1935
    • Lowered interest rates
  – GNP grew at over 10% per year over this period

## Economic Performance in 1930s

Millions of 1934-36 Yen

<table>
<thead>
<tr>
<th>Year</th>
<th>Gov Exp</th>
<th>Non-Mil Gov Exp</th>
<th>Real GNP</th>
<th>Exports</th>
<th>Inflation</th>
<th>Interest Rates</th>
<th>Real Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>1532</td>
<td>646</td>
<td>13735</td>
<td>2100</td>
<td>20.0</td>
<td>8.84</td>
<td>-11.1</td>
</tr>
<tr>
<td>1930</td>
<td>1476</td>
<td>575</td>
<td>13882</td>
<td>2126</td>
<td>-18.1</td>
<td>9.24</td>
<td>27.3</td>
</tr>
<tr>
<td>1931</td>
<td>1843</td>
<td>776</td>
<td>13941</td>
<td>2240</td>
<td>-11.5</td>
<td>9.27</td>
<td>20.8</td>
</tr>
<tr>
<td>1932</td>
<td>1982</td>
<td>903</td>
<td>14557</td>
<td>2675</td>
<td>2.7</td>
<td>8.96</td>
<td>6.2</td>
</tr>
<tr>
<td>1933</td>
<td>2175</td>
<td>965</td>
<td>16025</td>
<td>2831</td>
<td>8.8</td>
<td>8.42</td>
<td>-.03</td>
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<tr>
<td>1934</td>
<td>2062</td>
<td>781</td>
<td>17422</td>
<td>3642</td>
<td>10.6</td>
<td>7.83</td>
<td>-2.8</td>
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<tr>
<td>1935</td>
<td>2103</td>
<td>798</td>
<td>18355</td>
<td>4273</td>
<td>-1.8</td>
<td>7.65</td>
<td>9.5</td>
</tr>
<tr>
<td>1936</td>
<td>2135</td>
<td>578</td>
<td>18763</td>
<td>4387</td>
<td>2.4</td>
<td>6.94</td>
<td>4.5</td>
</tr>
</tbody>
</table>
Takahashi Assassination

• Takahashi cuts government spending 1935
  – Reduction in military expenditures
• Military assassinates Takahashi (Feb 1936)
  – “February 26 Incident”
  – Attempted coup by young military officers
• Successors reluctant to cut funding to the government
• Inflation increases
## Prewar Inflation

<table>
<thead>
<tr>
<th>Year</th>
<th>Inflation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>20.0%</td>
</tr>
<tr>
<td>1930</td>
<td>-18.1</td>
</tr>
<tr>
<td>1931</td>
<td>-11.5</td>
</tr>
<tr>
<td>1932</td>
<td>2.7</td>
</tr>
<tr>
<td>1933</td>
<td>8.8</td>
</tr>
<tr>
<td>1934</td>
<td>10.6</td>
</tr>
<tr>
<td>1935</td>
<td>-1.8</td>
</tr>
<tr>
<td>1936</td>
<td>2.4</td>
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<tr>
<td>1937</td>
<td>5.8</td>
</tr>
<tr>
<td>1938</td>
<td>10.9</td>
</tr>
<tr>
<td>1939</td>
<td>23.0</td>
</tr>
<tr>
<td>1940</td>
<td>26.7</td>
</tr>
<tr>
<td>1941</td>
<td>13.2</td>
</tr>
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<td>1942</td>
<td>21.4</td>
</tr>
<tr>
<td>1943</td>
<td>16.1</td>
</tr>
<tr>
<td>1944</td>
<td>22.1</td>
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</table>
Takahashi Assassination 1936

• Marks a shift from free market principles to state control
  – Militarists were emulating Soviet Gosplan
    • Saw the rise of Soviet Union after the revolution
    • Decides a command control economy is better for Japan
    • Created Kikakuin (Planning Agency) to guide industry
  – Didn’t care much about consumption or welfare
  – Problem with central planning is finding a suitable rationing mechanism to use instead of prices
Government by Assassination

- Political situation in Japan in 1930s
- Inoue Junnosuke (1932) (League of Blood)
- Inukai Tsuyoshi (May 15 Incident of 1932)
- Saitō Makoto and Takahashi Korekiyo (February 26 Incident of 1936)
- Rise of Japanese militarism leading to World War II
Government by Assassination

An ideal form of government is democracy tempered with assassination.

(Voltaire)
Wartime Economy

- Overall Performance
- Labor markets
- Price Controls
- Financial Markets
### Japanese Economic Performance During WWII

<table>
<thead>
<tr>
<th>¥mill</th>
<th>Real GNE</th>
<th>Growth</th>
<th>Private Cons</th>
<th>Growth</th>
<th>Govt Cons</th>
<th>Growth</th>
<th>Imports</th>
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<tbody>
<tr>
<td>1936</td>
<td>17157</td>
<td></td>
<td>11003</td>
<td></td>
<td>2618</td>
<td></td>
<td>4296</td>
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<tr>
<td>1937</td>
<td>21220</td>
<td>0.24</td>
<td>11540</td>
<td>0.05</td>
<td>4247</td>
<td>0.62</td>
<td>4518</td>
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<tr>
<td>1938</td>
<td>21935</td>
<td>0.03</td>
<td>11382</td>
<td>-0.01</td>
<td>5491</td>
<td>0.029</td>
<td>4658</td>
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<tr>
<td>1939</td>
<td>22117</td>
<td>0.01</td>
<td>10839</td>
<td>-0.05</td>
<td>4688</td>
<td>-0.15</td>
<td>4752</td>
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<tr>
<td>1940</td>
<td>20796</td>
<td>-0.06</td>
<td>9723</td>
<td>-0.10</td>
<td>7896</td>
<td>0.68</td>
<td>5180</td>
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<tr>
<td>1941</td>
<td>21130</td>
<td>0.02</td>
<td>9410</td>
<td>-0.03</td>
<td>6134</td>
<td>-0.22</td>
<td>4985</td>
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<tr>
<td>1942</td>
<td>21405</td>
<td>0.01</td>
<td>8956</td>
<td>-0.05</td>
<td>6460</td>
<td>0.05</td>
<td>3823</td>
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<tr>
<td>1943</td>
<td>21351</td>
<td>0.00</td>
<td>8469</td>
<td>-0.05</td>
<td>7445</td>
<td>0.15</td>
<td>3380</td>
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<tr>
<td>1944</td>
<td>20634</td>
<td>-0.03</td>
<td>7006</td>
<td>-0.17</td>
<td>7301</td>
<td>-0.02</td>
<td>2470</td>
</tr>
</tbody>
</table>
Labor Market Legacies

• Three pillars of Japanese labor markets (enterprise unions, bonuses, lifetime employment)
• Many of these features date back to wartime policies
• Unions
  – Unions were initially banned in 1931
  – Initially low levels of unionization and mostly industrial unions
  – 1938 law created Patriotic Industrial Associations: “an organic organization in which employers and employees are bound together by their respective functions”
  – Workers and managers were to talk over production problems
• Wage controls and seniority wage system
  – Government established pay scales, starting salaries, wage increases
  – Established seniority system based on government pay scales
## Unionization in Japan

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Union Members (%)</strong></td>
<td>354,312 (100)</td>
<td>6,268,432 (100)</td>
<td>9,652,350 (100)</td>
<td>12,472,974 (100)</td>
<td>12,157,134 (100)</td>
</tr>
<tr>
<td><strong>Enterprise Union Members</strong></td>
<td>127,463 (36)</td>
<td>5,119,690 (82)</td>
<td>8,819,041 (91)</td>
<td>11,361,378 (91)</td>
<td>11,155,771 (91)</td>
</tr>
<tr>
<td><strong>Industrial Union Members</strong></td>
<td>164,547 (46)</td>
<td>403,120 (6)</td>
<td>476,008 (5)</td>
<td>682,728 (5)</td>
<td>468,490 (4)</td>
</tr>
<tr>
<td><strong>Craft Union Members</strong></td>
<td>24,974 (7)</td>
<td>610,882 (10)</td>
<td>65,607 (1)</td>
<td>169,569 (1)</td>
<td>370,297 (3)</td>
</tr>
<tr>
<td><strong>Other Union Members</strong></td>
<td>37,328 (10)</td>
<td>134,740 (2)</td>
<td>291,694 (3)</td>
<td>259,299 (2)</td>
<td>162,576 (1)</td>
</tr>
</tbody>
</table>
Price Controls

• Government begins to implement direct controls on economy in 1937
  – Almost 400,000 bankruptcies in August 1938

• What is wrong with price controls?
  – Established a ration system with low prices in 1939
  – Led to hoarding
  – By 1943, aircraft industry had a shortage of aluminum because army and navy were hoarding it
  – Commodities disappeared from official markets

• Government countered with more controls
  – Enormous rise in black market
  – Government established an economic police force
  – Ultimately decided to take control over all prices and wages
Impacts

• Eliminated last traces of realism of Japanese price structure
• Rivalry developed between different sectors
• British embargo on imports exacerbated problems
• Quality of life began to fall
• Solutions? Government tries to force firms to stress production
  – Businesses would be converted from profit seeking ventures to public ventures
  – Required new inflows of capital to perform transformation
  – But how do you finance investments when they are not profitable?
Impacts

• By 1942, war situation began to look worse and Japan switched to full control over industries
• Converted textile mills to aircraft factories
  – Spindleage fell 82% from 1937 to 1946
  – Ordered all textile mills, metals firms, and chemical firms converted to armaments firms in 1943
  – Vastly increased concentration in Japan
• Japanese consumers suffered far more than those in most warring countries
• These problems in large measure lead to the fall of the Tojo government in July 1944
Financial Markets (Background)

• Concentration in Japanese banking had been rising in the late 1920s due to financial crises
  – Number of banks declined from 1799 in 1923 to 1031 by 1928
• Much of the movement occurred after the financial panic of 1927
  – Government responded by specifying a minimum amount of capital (¥1 mill for most banks, ¥2 mill for city banks)
  – Banks who could not meet this requirement had to merge
• Objective was to eliminate small “organ banks”
  – “organ banks” were small banks that supplied loans to a very small number of firms
  – Had no possibilities to diversify risk
  – Sharp contrast to zaibatsu
• Banking concentration rose sharply between 1928 and 1932
• Number of banks declined to 538 in 1932
Beginning of Financial Repression

• Temporary Funds Adjustment Law divides firms into three categories
  – Firms in war related industries which received almost automatic approval of loans
  – Firms that sometimes got approval
  – Firms that would not usually get approval

• Total National Mobilization Law of 1938 gives government control over major aspects of the economy
  – Labor, materials, facilities, prices, credit…
  – IBJ became central agent in allocation of credit
Financial Repression Continues

• Corporate Profits Distribution and Fund Raising Order passed in 1939
  – Allowed the government to direct IBJ in making specific loans
  – Limited stock returns
    • Tied dividend payouts to par value of shares, not performance
    • Reduced dividends and made stocks more like bonds
    • Initial policy motivated by sense that stock dividends stole funds from firms
      • Japanese share prices fell by 30%
  – But what do you do when “unpatriotic capitalists” respond to your “good” policies by causing a market crash