Macroeconomic Stability (Cont)
Endogenous Sunk Costs

• Sutton (1991) shows how endogenous sunk costs (expenditures on advertising and promotional activities) have created major barriers to entry in US markets.

• Advertising differentiates products, insulates sellers from competitors actions, entrenches incumbent firms, and inhibits new entry.
Train Advertising
Endogenous Sunk Costs

- Advertising/Sales ratios much higher in US
  - Advertising expenditures account for 2.3% of US GDP in 1990 ($128 billion)
  - Advertising expenditures account for 1.1% of Japan GDP in 1985
About 35% more per dollar of GDP in the US than Japan.
Government Policy

• Before 1970s Japan was not significantly more stable than the US
• Changes in government policy since 1970s
  1. MITI Industrial Policy
  2. Revised Anti-monopoly Law of 1977
  3. Trade and Capital Liberalization
MITI Industrial Policy

• Change in goals, issues and instruments of industrial policy on the part of MITI in 1971
• Policy shift to “maximum use of market mechanism”
• No longer seeks to use tariffs and subsidies to promote and protect particular industries
• No longer seeks to use “administrative guidance” to encourage collusive or cartel like behavior
Revised Anti-Monopoly Law of 1977

- Stronger weapon against anti-competitive behavior
- Surcharge on unfair profits by cartels
- JFTC can investigate price setting behavior, break up firms in highly concentrated industries
- Has been effective in reducing tacit methods of coordination like price leadership and parallel price setting
- Partly responsible for declining seller concentration in Japan
Trade and Capital Liberalization

• Liberalization of trade and capital flows while ¥ appreciated from ¥360 → ¥106 (→ ¥76)
• Substantially reduced tariffs, decreased import quotas, relaxed non-tariff barriers
• Appreciation of ¥ increased actual and potential foreign competition
• Import ratios rising in manufacturing
  – Food and textiles, wood and leather products, petroleum and coal products, precision machines
• More foreign companies in Japan
  – Manufacturing and commerce
Market Outcomes

• Under perfect competition, capital flows to equalize rates of return across industries and firms

• Odagiri and Yamawaki (1990) examine firm profits form 1964-82 in the US and Japan
  – Find the standard deviation in firm profits to be lower in Japan in each year (except 1975)
Market Outcomes

• Does not appear to be due to idiosyncratic firm shocks in US.

• Mueller (1977) and Odagiri and Yamawaki (1986) show firm profits are quite persistent over time
Market Outcomes

• Rates of profit should approach zero under perfect competition
• Holland (1984) finds profits significantly lower in Japan than US in each year (1966-1981)
• Profit rates are less dispersed and lower in Japan
Market Outcomes

• If US firms have more market power, there should be more social welfare loss.

• Cowling and Mueller (1978) examine US firm data from 1963-66
  – Social welfare loss from monopoly power is 4-13% of Gross Corporate Product (GCP).

• Shinjo and Doi (1989) examine Japan firm data using same methodology
  – Social welfare loss from monopoly power
  – 0.7% - 3% of GCP (1966-1970)
  – 0.7% - 2.8% of GCP (1976-1980)
Market Outcomes

Goods prices seem more flexible in Japan

<table>
<thead>
<tr>
<th></th>
<th>Trend</th>
<th>Log(-1)</th>
<th>ΔLog(-1)</th>
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<tr>
<td></td>
<td>Japan</td>
<td>US</td>
<td>Japan</td>
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<tr>
<td>GNP Defl</td>
<td>4.496</td>
<td>2.232</td>
<td>0.837</td>
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<tr>
<td>CPI</td>
<td>4.89</td>
<td>3.40</td>
<td>1.05</td>
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<tr>
<td>WPI</td>
<td>7.57</td>
<td>4.96</td>
<td>2.22</td>
</tr>
</tbody>
</table>

The standard deviation of the detrended GNP deflator is 94% larger in Japan than in the US
Market Outcomes

- Japan has the greater price flexibility and the smaller output fluctuations.
- The US has the less price flexibility and the larger output fluctuations.
- When there are shocks to the economy, much more of the adjustment takes the form of price changes than real output changes in Japan relative to the US.
FIGURE 2  EFFECT OF OUTPUT SHOCK ON INFLATION

--- US  --- JAPAN

[Graph showing the effect of output shock on inflation for the US and Japan over time.]
FIGURE 3   EFFECT OF INFLATION SHOCK ON OUTPUT

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure3}
\caption{EFFECT OF INFLATION SHOCK ON OUTPUT}
\end{figure}
Market Outcomes

• US
  – 53% of the adjustment is in output, and 47% in prices

• Japan
  – 25% of the adjustment is in output, and 75% in prices

• Since prices are more flexible, output is more stable in Japan
Advantage of goods market story over the labor market story

1. Goods market prices are not installment prices
   a. Okay if real wage ≠ MP all the time
   b. But if P ≠ MC, we have real inefficiencies

2. Rigid goods prices imply nothing about the cyclicality of the real wage
   - Real wage may be acyclic or procyclic

3. Theory of price rigidity is well grounded in microeconomic principles
   - theory shows by profit maximizing firms have little incentive to change price in response to demand or cost changes
   - can’t say the same about rigid wage contracts

4. Can explain the increase in stability after the 1970s by looking at government policy changes (liberalization, deregulation) which have increased competition in Japan
Beer Industry
Keiretsu and Beer

- Mitsubishi – Kirin
- Fuyo (Mizuho) – Sapporo
- Sanwa – Suntory
- Sumitomo – Asahi
Types of Beer

• Lager beer
  – Traditional, richer tasting, heat pasteurized in the end, cold fermented, aged 20 - 70 days, Pilsner

• Draft beer
  – Lighter tasting, not heat pasteurized in end

• Dry beer
  – Draft beer fermented to a greater extent, less sugar, more alcohol, sharper taste
History

• Tokugawa Period: 1600s
  – Dutch on Dejima Island (Nagasaki)

• Meiji Restoration: beer industry begins
  – Very fragmented industry
  – Kirin (Spring Valley) brewery, Yokohama, 1869
  – Syozabura Shibutani, Osaka, 1872
  – Hokkaido Kaitakushi brewery, Sapporo, 1876
  – Yebisu (Nippon Brewery), Ebisu (Tokyo), 1877
  – Asahi (Osaka Beer Brewing) brewery, Osaka, 1889
History

• 1906 Dai-Nippon formed from Osaka Brewery, Sapporo Brewery, and Nippon Brewing

• Beer is novel and expensive in pre-war Japan

• Pre-war market shares
  – Dai-Nippon has 75% market share
    • Group of companies, localized brands, common ownership
  – Kirin has 25% market share

• 1940s
  – Beer is supplied to soldiers during WWII
  – Masses of Japanese exposed to beer for the first time
  – Like richer, heavier and more bitter taste than today’s public
Post War History

• After WWII the occupation forces split up concentrated industries.
• In 1949 Dai-Nippon is split into Nippon and Asahi, and Nippon becomes Sapporo.
• Market shares
  – Sapporo 38.6%
  – Asahi 36.1%
  – Kirin 25.3%
Beer History

• 1963 Suntory, Japan’s oldest and largest distiller, enters beer market

• Over time Kirin builds formidable empire
  – 1949 market share 25.3%
  – 1954 Kirin is number one
  – 1976 market share 63.8%

• Kirin is the only national player after WWII
  – Dai-Nippon split geographically
    • Asahi – Western Japan, Osaka but not Tokyo
    • Sapporo – Eastern Japan, Tokyo but not Osaka
  – Businessmen who travel between Tokyo-Osaka want to drink the same beer
Beer History

• Kirin focuses on home market (only 25% of market)
  – Develops extensive distribution market
  – Grows with home refrigerators
  – Sapporo and Asahi focus on commercial market

• Kirin develops image as top quality
  – “the beer of beer lovers”
  – Top 10% of beer drinkers consume 50%
  – To 20% consume 75%
Beer

• 1958 canned beer is introduced by Asahi
• Late 1970s and early 1980s
  – Product differentiation thru packaging and product image
  – Numerous sizes of beer cans and bottles
• 1977 “mini barrel” introduced by Asahi for home parties
• 1980s Suntory provides beer in unique packages like animal shapes
Beer History

- Sapporo, Asahi, and Suntory push draft beer
  - Quality control of draft beer is difficult
  - Only served fresh at beer halls in summer
  - No bottled or canned draft beer until 1960s
  - Kirin does not sell draft beer for home consumption until 1985
  - Draft beer is 41% of the market
Beer History

• Sapporo and Asahi experience slow decline in market share
  – Asahi allows Suntory to use its distribution channels
  – Suntory draws even with Asahi by 1985
  – Looks like Suntory will eventually take over Asahi
  – Tsutomu Murai (Sumitomo Bank) leads Asahi after 1982
Beer History

• 1986 Market Shares
  – Kirin 60%
  – Sapporo 21%
  – Asahi 10%
  – Suntory 9%
  – Imports 0.15%
  – Orion Brewery (Okinawa)
Beer History

• Japanese beer drinkers said to be loyal
• Asahi is in trouble, lets Suntory use its distribution channels
• New Asahi Draft is introduced in 1986
  – Extremely risky for Asahi to change taste of its core product
• Asahi “Super Dry” introduced in 1987
  – Big blockbuster hit, rich with no after taste
Beer History

• 1988 Market share
  – Kirin 56.2% lager beer
  – Asahi 20.5% dry beer
  – Sapporo 18.2% “black label draft”
  – Suntory 4.7% 100% malt beer
  – Orion
Kirin and Asahi
Beer History

• 1988 “Dry Wars” (ドライ戦争)
  – Kirin Dry
  – Sapporo Dry
  – Suntory Dry

• 1992 beer consumption peaks

• 1997 Asahi Super Dry becomes #1 beer

• 2001 Asahi overtakes Kirin market leader

• 2002 Asahi buys 10% share of Orion

• 2003 Market Shares
  – Asahi 39.3%
  – Kirin 33%
Beer History

• Microbrew (regional beer) (ji-biru) (craft beer)
• 1994 Government regulations liberalized
  – Easier to open up small brewery (min 60K liters)
• By 1996 about 50 small independent small brewers, grows to 300, drops to 200
• Less than 1% market
• Beer consumption is dropping
  – 4.89 million kiloliters in 2001
  – 2.72 million kiloliters in 2015
  – Aging population, young drink less beer, more wine and whiskey
Beer History

• Regular beer is 50% of the market now
  – ie. Asahi Super Dry, ¥200

• Happoshu, low malt, lighter taste, lower calorie, lower tax
  – 22% market share by 2000
  – ie. Suntory Hop’s Draft, ¥140

• New genre (third beer, daisan) (happosei), no malt, peas or corn or soy, even lower tax
  – ie. Sapporo Draft One, ¥120
Beer Market Shares 2014

- Asahi 35.5%
- Kirin 30.3%
- Suntory 15.3%
- Sapporo 10.2%
- Orion 0.8%
Market Beer Shelf
Salariman
<table>
<thead>
<tr>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salariman</td>
<td>Ridashippu</td>
</tr>
<tr>
<td>Mein Banku</td>
<td>Kosuto Daun</td>
</tr>
<tr>
<td>Autobi</td>
<td>Esukeepu</td>
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<tr>
<td>Pasucon</td>
<td>Seku Hara</td>
</tr>
<tr>
<td>Telebi</td>
<td>Raifu Rain</td>
</tr>
<tr>
<td>Mazakon</td>
<td>Poke Beru</td>
</tr>
<tr>
<td>Wapuro</td>
<td>Kyubu</td>
</tr>
<tr>
<td></td>
<td>Hotchkiss</td>
</tr>
</tbody>
</table>
Salariman and Their Companies

- Driving force behind the rise of postwar Japan
- Means “salaried worker”
- Male, white collar worker in the government, medium or large company
- Not small firm, education, medicine or religion
Education

- Most salarimen are college graduates
- Going to the right college determines the rest of your life
- Primary school kids attend after school classes (jukus)
- By junior high, 80% enrolled in jukus
- 90% students graduate from high school
- 900,000 students compete for 700,000 spaces at universities
Education

• If you fail to be accepted to college, you study another year as “ronin”
• Over 50% of 25-34 year olds have a college degree
• Less than South Korea or Canada, more than Germany or France or US
• College years fairly relaxed and fun
## College Educated Workers as a Percent of the Labor Force

*(Barro and Lee)*

<table>
<thead>
<tr>
<th>Country</th>
<th>60-65</th>
<th>65-70</th>
<th>70-75</th>
<th>75-80</th>
<th>80-85</th>
<th>85-90</th>
</tr>
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<tbody>
<tr>
<td>Austria</td>
<td>1.25</td>
<td>1.59</td>
<td>1.47</td>
<td>2.05</td>
<td>1.87</td>
<td>3.23</td>
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<tr>
<td>Canada</td>
<td>3.5</td>
<td>4.5</td>
<td>4.1</td>
<td>8.3</td>
<td>10.1</td>
<td>10.3</td>
</tr>
<tr>
<td>Denmark</td>
<td>8.6</td>
<td>8.3</td>
<td>8.3</td>
<td>8.5</td>
<td>9.5</td>
<td>10.2</td>
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<tr>
<td>France</td>
<td>1.1</td>
<td>1.4</td>
<td>1.4</td>
<td>2.6</td>
<td>4.4</td>
<td>5.4</td>
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<tr>
<td>Germany – West</td>
<td>1.0</td>
<td>1.4</td>
<td>1.8</td>
<td>3.1</td>
<td>3.9</td>
<td>4.4</td>
</tr>
<tr>
<td>Italy</td>
<td>1.2</td>
<td>1.4</td>
<td>1.5</td>
<td>2.4</td>
<td>2.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Japan</td>
<td>3.9</td>
<td>3.9</td>
<td>3.4</td>
<td>4.6</td>
<td>9.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.7</td>
<td>1.6</td>
<td>4.1</td>
<td>5.1</td>
<td>6.4</td>
<td>7.8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1.0</td>
<td>1.4</td>
<td>2.0</td>
<td>6.2</td>
<td>6.7</td>
<td>7.2</td>
</tr>
<tr>
<td>United States</td>
<td>10.0</td>
<td>11.6</td>
<td>13.5</td>
<td>15.6</td>
<td>17.0</td>
<td>19.5</td>
</tr>
</tbody>
</table>
Younger generations are more likely to go to college than was the case several decades ago.
Population with Tertiary Education 2016
College

- Most prestigious universities are Tokyo University (Todai), Kyoto University, and Osaka University
- Some private universities like Waseda, Keio, and Jōchi (Sophia) are well known
- 1/3 of Todai students “ronin”
- 9 postwar prime ministers Todai grads
- 1/3 steel industry presidents
University of Tokyo

- **Established** 1877
- **Public University**
- **Enrollment** 15,000 undergraduate, 15,000 graduate
- **Faculty** 2,500
After Tokyo University

- Most prestigious jobs are in the government bureaucracy
  - Ministry of Foreign Affairs
    - Masako Owada
  - Ministry of Finance
    - Former Prime Ministers Noda, Aso, Kan, Miyazawa
  - Ministry of Economy, Trade and Industry
    - 80% from Tokyo University
Government Bureaucrats

• Set policy for the country
• Bureaucrats are there for life
  – Policy is consistent over time
  – Less significant political cycles
• Politicians used to be figureheads
  – Kept in line by bureaucrats
• Politicians are often former bureaucrats
  – Strong ties
  – Miyazawa came through Ministry of Finance
• Bureaucrats retire to advise industry they used to regulate (amakudari) (technically illegal now)
  – Strong government - industry ties
Japan Development Bank
Nihon Kaihatsu Ginko

- Government financial institution
- Established April 1951
- Promote industrial development, economic and social progress
- Supplies long-term loans to various industries, implements government policy, and supplements private financing
- Reputation for being able to evaluate financial health of firms and feasibility of loan projects
- Became “Development Bank of Japan” in 1999

日本政策投資銀行  Nihon-seisaku-tōshi-ginkō
Japan Development Bank

• “even monkeys fall from trees”
• Denied funding for Tokyo Disneyland (1976)
• Tokyo Disneyland opened 1983
• Phenomenal success
Research Institute of Capital Formation (RICF)

- Established July 1964
- Make better use of the data and information accumulated by the JDB
- Conduct theoretical and empirical economic studies
- Offer advice and opinions on appropriate economic policy for Japan
Japan Development Bank

• Hires about 25 college graduates each year
• What do they look for?
  – Top universities
  – Appropriate major
  – Normal
  – Good grades
College Grades

- Percent of firms who believe that college grades are an important screening device for new entrants (1986)

<table>
<thead>
<tr>
<th></th>
<th>Clerical</th>
<th>Engineer</th>
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</thead>
<tbody>
<tr>
<td>Large firms</td>
<td>19.0</td>
<td>20.7</td>
</tr>
<tr>
<td>Small firms</td>
<td>16.7</td>
<td>16.5</td>
</tr>
</tbody>
</table>

- Ariga, Brunello, and Okusa
Japan Development Bank

• Hired 23 new graduates in 1993
  – 21 men and 2 women
  – 1/3 from Tokyo University
  – Only 6 or 7 career women at JDB

• Graduated in March, begin work in April

• Salaries are average
  – More than government ministries
  – Less than large private sector firms
Japan Development Bank

- Fringe benefits are a large part of the compensation package
  - Company housing (shataku)
    - Dormitory style housing for single employees
    - Apartments for married employees
    - Subsidized ($100 for $3,500 apartment)
  - Commuter pass to cover commuting costs
  - Subsidized lunches in JDB cafeteria
    - ¥200
      - Choice of meat, fish, noodles
      - Vegetables, soup, rice and tea
  - Free medical care at JDB
  - Subsidized barber, snack and book stores
  - Retreat lodges in resort locations
    - Cost $50 for two people including meals (dinner and breakfast)
Japan Development Bank

Non-pecuniary benefits

• More interesting and varied rotations at larger firms than small

• All employees are rotated every 2-3 years for the first 15 years, less frequently after that

• Rotations to
  – Other departments
  – Other parts of government (MOF, BOJ)
  – Other domestic offices in Japan
  – Graduate School (2 years with pay)
  – Visiting scholar at university or research institute
Japan Development Bank

• Personnel Department (Human Resources)
  – All powerful personnel department is in charge
  – Visited them twice (first and last day of work)
  – Rotations all happen on one day (April 10\textsuperscript{th})

• Retire from JDB in your 50s
  – Can get a good job in your “second life”
  – Senior advisor to firms which depend on JDB loans
  – People from RICF become university professors (much higher retirement age)
Typical Day

- 7am    wake up
- 7:30am leave shataku
- 8:30am arrive work
- Most people commute an hour or two
- Commuting is very tiring
- 10 million people commute to the same business district in Tokyo each morning
- Trains run at 200% capacity
- Crowded, but safe and on time
On the Train

• Salarimen read, sleep or both
  – High school students read comics
  – Salarimen read newspapers
  – 566 newspapers/1000 people (259 newspapers/1000 people in the US)
  – Many more bookstores in Japan

• In winter, crowded trains spread colds
  – People work even if they are sick
  – Everyone has a cold during rush hour
At work

• 8:30am arrive at work
• Office lady serves tea at your desk
• Turn on the computer, start working
  – Seemed behind on email, but ahead on fax
• Lunch is served in the cafeteria from 11:30-1pm
  – Cafeteria is on the top floor (8th floor)
  – Executive office are on the 3rd floor
• Economists left for lunch at 11:45am
  – Group oriented society
  – Leave together, sit together, eat together
  – Eat lunch in 15 minutes
  – Never sat with the office ladies
  – Sometimes shared table with women, but never talked to them
• Once went to East Garden of Imperial Palace to have bento lunch with 3 office ladies and 3 salarimen when irises were in bloom
Socialization

- Less socialization at RICF
- Men and women were older and married
- Younger men and women socialize more after work
- Karaoke bars – easy way to socialize, no pressure for conversation
- Young and single ladies placed in departments with young and single men
Socialization

- Office Ladies (OLs) hired to make good wives for JDB men
- 25% men will marry JDB women
- Most women work 3-5 years until marriage
- Increasing number of households with two working couples
- Most married women work today
Afternoon

- 3pm tea is served at your desk with sweets
- On business trips, you bring gifts for your boss
- When transferred out of the department, you give gifts
- These gifts are often served to everyone
Evening

• 5:10pm
  – Official day is over
  – OLs go home
  – Initial rush hour

• 6:00pm
  – Dinner is served in the cafeteria
  – Cheap, though apparently not subsidized
  – ¥400 noodle dishes, ¥600 meat & fish dishes
  – Eat more slowly
Evening

• 9pm go home
  – Work 9am-9pm, 12 hour days

• Late night once a week
  – 10:30-11pm or so
  – But not much longer because trains stop running 12 midnight to 1am
  – Many people have 2 hour commute

• People in other offices work much later
  – Take taxi home, or sleep on a couch at the office
Prof. Hirofumi Uzawa (1928-2014)

- Unofficial advisor to RICF
- Came to work and to advise
- Ordered a dinner spread of sushi and meat when he visited
- 5:30-10:30pm
  - we would eat, drink, and listen
  - he would give the institute direction, gossip about wives, try to set up OLs
Parties

- December
  - Bo nen kai (forget the year party)
- January
  - Shin nen kai (happy new year party)
- March
  - People retiring parties
- April
  - New arrivals parties

- Mountains of delicious food paid for by the JDB
Work Hours

- Government wants workers to work less (ie Premium Friday program)
- All government offices officially closed on weekends and holidays
- But most come in for ½ day on Saturday
- If not at work, they are with co-workers (nakama)
  - Golf with superiors or clients
  - Wedding of co-worker
  - Company sports tournament
  - Company trip
Company/Family

- Company is the main family for salarimen
- Spend two sundays a month with family
  - “Kazoku sabisu”
- Salariman had little family life
  - Treated with respect, but feels alienated
  - Husband has formal power in family
  - Wife has real power in family
  - Paychecks go to the wife
  - Allowance goes to the husband (¥30,000/month)
  - Wife makes decisions on savings, kids education
Hard Work

• Window gazers (madogiwasoku)
• Are not really working all the time
• Anyone who works hard can succeed
• Work is not supposed to be fun
• Work because it is your duty, your obligation to society
• Karōshi (過労死) "overwork death" (heart attack and stroke due to stress)
Doing Research

• Group oriented society
  – Need to show commitment to group
  – Watched for respect for smooth group dynamics
    • Put in long hours at office
    • Clean up dishes after party
    • Help everyone with their English
  – Groups will do everything to help their members
Doing Research

• Meeting professors
  – Boss traveled with me to introduce me to professors

• Getting data from the Ministry of Labor

• Japanese scholars are very polite
  – Never criticize each other in public
  – People can be quiet for long time

• Interesting people are social outcasts
Japanese Labor
Japanese Labor Markets

1. Lifetime Employment (Shusho Koyo)
   • Until 55 – 62
   • Workers commit to firms, firms to workers
   • Japanese absenteeism rates are extremely low
     • 1% in textiles vs 20% before WWII

2. Firm Specific Training (paid for by firm)
   • Rotation through different jobs
   • See how entire company functions
   • If you need a skill, you train an employee
Japanese Labor Markets

3. Seniority Wages and Promotion (Nenko Joretsu Seido)
   • Wages and promotion depend on length of service to firm, less on merit
   • Generally do not hire from the outside
   • Dates from WWI

4. Enterprise Unions (Hito Kigyo Kumiai)
   • Postwar phenomenon
   • Firm level (not national)
   • Across occupations (blue and white collar)
Lifetime Employment

- Generally thought to have the following characteristics
  - Regular workers are guaranteed employment throughout their careers
    - Regular workers are distinct from temporary or part-time workers that make up 10% of the labor force and may work up to 35 hours per week
  - No or low labor turnover because workers don’t quit
  - System is held together by paternalism from past history
  - NOTE: none of these are strictly true, but they all contain elements of truth
Lifetime Employment

- Most Japanese are not permanently employed, but they do have longer job tenure rates than US workers
  - Typical male, regular employees at large companies work until 55, then retire to another job
    - Called “amakudari” (descent from heaven)
  - Permanent employment applies to very few female workers and less than 1/3 of all male workers
  - Important to distinguish between large and small companies
  - High tenure rates are a postwar phenomenon
    - Probably not the result of culture
Lifetime Employment 1960s

![Graph showing lifetime employment in the 1960s for the US and Japan.](image-url)

- **US (1966)**
- **Japan (1962)**

**Axes:**
- **Y-axis:** Percent
- **X-axis:** Years of Tenure

**Legend:**
- Solid line: US (1966)
- Dotted line: Japan (1962)
Lifetime Employment 1970s
# US Japan Comparison

<table>
<thead>
<tr>
<th>Age</th>
<th>Japan %&lt;10 years</th>
<th>US %&lt;10 years</th>
<th>Japan %&gt;20 years</th>
<th>US %&gt;20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-34</td>
<td>40</td>
<td>76</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>35-39</td>
<td>25</td>
<td>63</td>
<td>9.4</td>
<td>1.5</td>
</tr>
<tr>
<td>40-49</td>
<td>19</td>
<td>48</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td>50-54</td>
<td>16</td>
<td>34</td>
<td>38</td>
<td>30</td>
</tr>
<tr>
<td>60-64</td>
<td>22</td>
<td></td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>
Lifetime Employment

• Key differences between US and Japan
  – Japanese overall tenure rates are longer
  – More people stay on the job longer in Japan
    • Differences are of degree
  – Differences are more pronounced at younger ages than at older
  – Most job switching occurs at early ages
    • US – 7.4 jobs by age 34
    • JP – 3.1 jobs
  – But by age 64 (ages 34-64)
    • US – changes job 3 more times
    • JP – changes job 2 more times
# High Frequency Quitting

Number of jobs held by average worker that lasted more than 2 years by age

<table>
<thead>
<tr>
<th>AGE</th>
<th>20-24</th>
<th>25-29</th>
<th>30-34</th>
<th>35-39</th>
<th>40-44</th>
<th>45-49</th>
<th>50-54</th>
<th>55-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP</td>
<td>0.8</td>
<td>1.2</td>
<td>1.4</td>
<td>1.6</td>
<td>1.7</td>
<td>1.9</td>
<td>2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>US</td>
<td>0.6</td>
<td>1.0</td>
<td>1.4</td>
<td>1.7</td>
<td>2.0</td>
<td>2.3</td>
<td>2.5</td>
<td>2.8</td>
</tr>
</tbody>
</table>
Lifetime Employment

• If you eliminate high frequency job switchers, US and JP workers look more similar.
• Americans hold a lot of very short jobs (less than 2 years).
• If you exclude those data, we look fairly similar.
Separation Pay

- Separation pay is a major factor in holding onto workers and forcing companies not to fire workers
  - Severance pay is usually 3-4 years pay
  - Depends on reason for leaving
    - Layoffs: 3-4 years pay
    - Personal: 5-16 months for 10-20 years service
  - Union serves as a defender of worker rights