Do you wonder why…

• $1 only gets you ¥111 today, but used to get you ¥360?
• Japan runs a trade surplus with the U.S. but a trade deficit with Australia?
• Japan was the first non-Western country to become a first world country?
• All the land in Japan was worth more than all the land in the U.S. 25 years ago?
Japan

Honshu

Hokkaido

Shikoku

Kyushu

(97% of land)

6,852 islands
Japan

**Population:** 127 million (11th largest)

**Location:**
Eastern Asia, island chain between the North Pacific Ocean and the Sea of Japan, east of the Korean Peninsula

**GDP and GDP/PC:** PPP
- $5.4 trillion (4th largest) and $41,275 (28th largest)

**GDP and GDP/PC:** nominal
- $4.9 trillion (3rd largest) and $38,917 (20th largest)

**Administrative areas:**
47 prefectures in 8 regions

**Area - comparative:**
slightly smaller than California

**Gini Coefficient:**
32.1 (35th)

**Population Density:**
873/sq mi
Why Study the Japanese Economy?

• Leading creditor nation in the world
• Third largest economy in Asia, fourth largest economy in the world
• First major non-Western country to achieve high standards of living
• Important case study in economic development
• Fourth largest share of world trade behind China, US, and Germany
• One of thirteen countries with more than 100 million people
• Per capita income was higher than the US in 1990
• Very close trade, investment, political, and security ties to the U.S.
• Long and fascinating history and tradition
Why Study the Japanese Economy?

Provides insights into how economies function

- Macroeconomic performance has been exceptionally good and exceptionally bad
- What are the implications of Japan’s financial system and system of corporate governance for other countries?
- What are the implications of Japan’s employment practices?
  - Are they better or worse?
  - Will they survive?
- What lessons can we draw from Japan’s government policies?
- Do the laws of Western economics apply in Japan?
# Biggest Population

<table>
<thead>
<tr>
<th>2017</th>
<th>Population (millions)</th>
<th>Life Expectancy (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1,409.5</td>
<td>76.1</td>
</tr>
<tr>
<td>India</td>
<td>1,339.2</td>
<td>68.3</td>
</tr>
<tr>
<td>USA</td>
<td>324.5</td>
<td>78.6</td>
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<tr>
<td>Indonesia</td>
<td>264.0</td>
<td>69.1</td>
</tr>
<tr>
<td>Brazil</td>
<td>209.3</td>
<td>75.0</td>
</tr>
<tr>
<td>Pakistan</td>
<td>197.0</td>
<td>66.4</td>
</tr>
<tr>
<td>Nigeria</td>
<td>190.9</td>
<td>54.5</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>164.7</td>
<td>71.8</td>
</tr>
<tr>
<td>Russia</td>
<td>144.0</td>
<td>70.5</td>
</tr>
<tr>
<td>Mexico</td>
<td>129.1</td>
<td>76.7</td>
</tr>
<tr>
<td>Japan</td>
<td>127.5</td>
<td>85.3</td>
</tr>
</tbody>
</table>
MISAO OKAWA
Born in Osaka in 1898, she recently passed away at the age of 117.
## Biggest Economy

<table>
<thead>
<tr>
<th>Country GDP</th>
<th>Nominal Bill $</th>
<th>Country</th>
<th>PPP Bill $</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>$18,561</td>
<td>China</td>
<td>$21,269</td>
</tr>
<tr>
<td>China</td>
<td>11,391</td>
<td>USA</td>
<td>18,561</td>
</tr>
<tr>
<td><strong>Japan</strong></td>
<td><strong>4,730</strong></td>
<td>India</td>
<td>8,720</td>
</tr>
<tr>
<td>Germany</td>
<td>3,494</td>
<td><strong>Japan</strong></td>
<td><strong>4,932</strong></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2,649</td>
<td>Germany</td>
<td>3,979</td>
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<tr>
<td>France</td>
<td>2,488</td>
<td>Russia</td>
<td>3,745</td>
</tr>
<tr>
<td>India</td>
<td>2,250</td>
<td>Brazil</td>
<td>3,134</td>
</tr>
<tr>
<td>Italy</td>
<td>1,852</td>
<td>Indonesia</td>
<td>3,027</td>
</tr>
<tr>
<td>Brazil</td>
<td>1,769</td>
<td>United Kingdom</td>
<td>2,787</td>
</tr>
<tr>
<td>Canada</td>
<td>1,532</td>
<td>France</td>
<td>2,736</td>
</tr>
</tbody>
</table>
## Standard of Living

<table>
<thead>
<tr>
<th>Country</th>
<th>Per Capita GDP ($)</th>
<th>PPP</th>
<th>Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>$57,436</td>
<td>$57,436</td>
<td>$57,436</td>
</tr>
<tr>
<td>Japan</td>
<td>$41,275</td>
<td>$38,917</td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td>$26,490</td>
<td>$8,929</td>
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</tr>
<tr>
<td>Mexico</td>
<td>$18,938</td>
<td>$8,555</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>$15,399</td>
<td>$8,113</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>$15,242</td>
<td>$8,727</td>
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<tr>
<td>Indonesia</td>
<td>$11,729</td>
<td>$3,604</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>$6,616</td>
<td>$1,852</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>$5,942</td>
<td>$2,211</td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>$5,106</td>
<td>$1,468</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>$3,891</td>
<td>$1,411</td>
<td></td>
</tr>
</tbody>
</table>
Images of Japan

- Japan was closed 1639-1853
  - Only superficial contacts with Europe
    - Jesuit missionaries
- West knew very little about Japan
  - No need to learn about Japan
    - Japan was not colonized
    - Japan was not converted
    - Japan was not viewed as a major market like India or China
Figure 1.4 Umesao’s view of the world
Images of Japan

• *Encyclopedia Britannica* (1771)
  – Only one sentence on Japan (latitude and longitude)
  – Eight double column pages on China

• *Encyclopedia Britannica* articles get longer by 1780 and 1842
  – Simplistic stereotypes of Japan
  – an isolated, impenetrable world
  – Earthquakes, volcanoes, Mt. Fuji
  – Suicides
  – Clean, hard-working, nervous people anxious to learn
  – Characterized by extreme virtues and vices
  – Tantalizing market for manufactured goods
Images of Japan

• West “discovers” Japan
  – Opening to West 1868-1887
  – Simplistic cluster of images are enlarged in late 1800s
    • Artistic Refinement
    • Geisha Girl
    • Little Yellow Monkey
Artistic Refinement

• Western boom in Japanese art
  – “Japonaiserie”
  – Japanese prints, woodblock prints, decorative arts, and fabrics exported to the West
  – By 1900 African art is the rage
Geisha Girl

• Many traders in Nagasaki
  – Prostitutes readily available
• Pierre Lot (Julien Viaud) publishes *Madam Chrysanthemum* (1887)
  – Popularizes Western fascination with Japanese women as small, fragile, feminine, obedient, and sexy
  – Story becomes Puccini’s *Madame Butterfly*
• West is Christian and moral
  – East is heathen and immoral
  – Place for passionate and guiltless romance
Little Yellow Monkey

- Negative image of Japanese men from Western businessmen
  - Inferior yellow people
  - Decadent, dangerous, & contradictory
- Japanese adopt western clothing, western buildings, western dance in late 1800s
  - Viewed as ridiculous and unaesthetic
  - Untrustworthy imitators of the West
Images of Japan

• West was more powerful than Japan
• Businessmen, missionaries, officials and scholars felt superior
• Held romantic images of an Oriental fantasy land
• These images are slow to change
Image and Reality

- **Sino-Japanese War**
  - Japan defeats China in 1895

- **Russo-Japanese War**
  - Japan defeats Russia in 1904-07

- **West is taken by surprise**
  - Feels cheated, given false impressions
“Yellow Peril”

• Negative image of Japan as “yellow peril”
  – Fear Japan would lead Chinese in a massive war against the West
  – “Racial war” of “yellows” against “whites”

• Japan does drive Europe and US from Asian colonies
  – But alienates most Asians in the process
  – After WWI, Japan and China are at war continuously
  – Anxiety of “racial war” is not revived
Depression 1929-1932

• Image of Japanese economic peril
  – Japan expands markets and increases exports
  – Fear competition based on cheap labor
  – “Made in Japan” on toys, bicycles, textiles means “cheap and unreliable”

• West underestimates Japanese strength, overestimates their own

• View Japanese as comical, soldiers who can’t shoot straight or pilot a plane
Image and Reality

• Japan bombs Pearl Harbor 1941
• West is caught by surprise, and feels cheated again
• Japan quickly brings Far East under their control
Images of Japan

• Brutal and cruel Japanese at war
  – Fanatical, inhuman, kamikaze, savage, childish, cruel, ape-like, mentally deficient
  – *The Bridge over the River Kwai*
Images of Japan

• Begins “conspiracy theory” of Japanese
  – “The Three Bamboos” (1942) Robert Standish
    Plans of a great zaibatsu family to rebuild power and make Japan the greatest nation

• Becomes modern image of “Japan, Inc”
  – Monolithic nation (corporation) where top leaders (gov bureaucrats and industry) work together
Image and Reality

- Postwar Japanese “economic miracle”
  - 1955-1973 (GDP growth of 10%/year)
- 1956: World’s largest ship producer
- 1957: World’s top steel producer
- 1960s: overtakes U.K., Italy, France, and Germany
Images of Japan

• West is again caught by surprise
• Feelings of alarm
  – Revives feeling of “yellow peril” and hordes of cheap labor
  – Plus images of Japan at war, “business warrior”
  – Japan lost military war, but is waging an economic war
Image and Reality

• By 1980 more sympathetic views emerge, and some admiration
• “learn from Japan” boom
• Japan embodies good old fashioned qualities lost in the U.S.
  – Self-reliance, perseverance, thrift, hard work, politeness, discipline, self-control, and obedience
Image and Reality

• “Art of Japanese Management” is in vogue in 1980s

• Japanese keys to improving management
  – On the job training, lifetime employment, seniority based wage systems, total quality control (QC circles), enterprise unions, just-in-time inventories, long-term planning

• Calls for U.S. industrial policy like Japan
Image and Reality

• Around 1990 there is fear that Japan (keiretsu) will take over the world
  – *Rising Sun* (1992)
  – G.H.W. Bush vomits on Miyazawa

• But Japan goes through Lost Decade (1991-2000)
• This turns into Lost Score or Lost 20 Years
Image and Reality

• By 2000 there is more interest in Japanese anime than Japanese business
Japan leads the World

- World’s largest creditor nation
- Aging more rapidly than any other OECD country
- Government debt is more than twice GDP
  - Limits fiscal policy options
- Interest rates are at zero
  - Limits monetary policy options
- Corporate and labor sector challenges
  - Increase corporate profitability
  - Increase female labor force participation
Image and Reality

• Our images of Japan are confused
  – Cherry blossoms and commuter trains
  – Geisha girls and electronics salesmen
  – Model managers and business warriors
• West does not know enough about Japan
  – 50% of California high school students can not locate Japan on a world map
• West needs to have a much, much better understanding of Japan
Major Themes

• Economic Growth and Development
• Integration with the World Economy
• Government Policies and Outcomes
• Japanese Institutions and Practices
Economic Growth and Development

- Tokugawa period (Shogun and daimyo)
- Meiji Restoration (rich country, strong army)
- World I and 1920s (Great Kanto earthquake)
- Great Depression and World War II
- Postwar recovery and growth
- Economic slowdown
Integration with the World Economy

• Opens to world in 1858
• Moves into areas of comparative advantage
• Little intra-industry trade
• Trade surplus and creditor nation
Government Policies and Outcomes

• Public sector size
• Government regulations
• Fiscal policy and Monetary policy
• Trade policy and Industrial policy
Japanese Institutions and Practices

- Japanese employment system
  - Lifetime employment
  - Seniority based wages
- Enterprise unions
- Keiretsu and main bank system
- Distribution (marketing) system
Gapminder World

• Look at GDP/PC and life expectancy by country and over time
The Japanese Economy

• This course is a broad introduction to the Japanese economy. We will begin by considering the process of economic growth since the Meiji Restoration. Most of the course will be a discussion of the contemporary Japanese economy. Topics will include macroeconomic growth, monetary and fiscal policies, industrial policy, labor markets, savings and investment. Current policy options will also be discussed.

• Prerequisites include Principles of Macroeconomics and Principles of Microeconomics (ECON 51 and ECON 52) or equivalent. We will learn to apply basic economic concepts and analytical techniques to the study of the Japanese economy.

• Requirements for the course include class attendance and participation (10%), several problem sets (30%), a midterm exam (30%), and a final paper & presentation (30%).


• Some additional readings will be posted on the course webpage.
Linus Yamane

• Students are encouraged to come talk with me about the course, economics in general or anything for that matter. Please come to my office hours. If those times are inconvenient, let's arrange another time to meet. You are also welcome to email me anytime.

• Office: Fletcher 216
• Office Hours: Mon 11:05-12:05, Tues 4:00-5:00, Fri 1:00-2:00pm, and by appointment
• Email: lyamane@pitzer.edu
• Please join me for lunch on Fridays from 12noon-1pm in McConnell Dining Hall (East wing)
Early Japanese Economic History

Before 1868
Cosmic History

- Universe: 13.77 billion years
- Earth: 4.54 billion years
- Ancestors: 6 million years
- Homo Sapiens: 200 thousand years
- Civilization: 9 thousand years
- Industrialization: 2 hundred years

If the earth is a year old, humans have been around for 23 minutes.
Figure 2.6. Promised lands: seven regions around the world where domestication of plants or animals may have begun independently between 11,000 and 5000 BCE.
Figure 2.4. Going forth and multiplying, version one: the westward spread of domesticated plants from the Hilly Flanks to the Atlantic, 9000–4000 BCE

Figure 2.8. Going forth and multiplying, version two: the expansion of agriculture from the Yellow-Yangzi valleys, 6000–1500 BCE
Chinese Characters

中国

日本

Chūgoku
Zhōngguó
China

Nihon
Rìběn
Japan
20,000 Years Ago

- Proto-Caucasoid Stock
  - Ainu of Hokkaido, Northern Japan
  - Bushmen of Australia
  - Ezu of Northeast Honshu
10,000 – 7,000 Years Ago

- Jomon Pottery Culture
- Hunting and fishing society

660 BC

- Accession of Jimmu (first emperor) great-great grandson of the sun-goddess Amaterasu
250 BC

- People migrate from China to Japan
- Yayoi culture is introduced (Mongoloid)
- Chinese influence
- Rice is introduced
- Primitive tribal society
300 AD

- Large scale irrigation
- Labor intensive technology
- Family farming on 2-3 acres
- More calories/acre with rice than wheat
650-1150 AD

- Imperial structure thru history, but power came and went
- Centralization of power
- Aristocratic bureaucrats
- Institutionalization of privilege to newly emerging aristocrats
- Gradual spread of iron tools
1150-1600 AD

- Feudal Period
- Many petty daimyo
- Land of contending feudal powers
- Samurai – Warrior – Aristocrat
- Peasant population supports upper 10%
- Patriarchal
- Primogeniture (but often want to pass on estate to most able son)
Mongol Empire 1279
Largest contiguous land empire in world history
Black Death (1346-1353)

- Kills a third of Europe’s population
- Reduces world population from 450 million to 350-375 million
- Originates in Central Asia, travels along Silk Road to Crimea 1343
- Reaches Italy (1347), France, Spain, Portugal, England (1348), Germany and Scandinavia (1348-1350), Russia (1351)
The Ming Voyages (1405-1433)

- Admiral Zheng He (1371-1433)
- Seven expeditions
  - 1405 First expedition with 317 ships and crew of 28,000
  - Ships are huge, twice as large as European ships, nine masts, four decks
  - Travels to India, Persian Gulf, East Africa
- Brings back zebras and giraffes, went to show the flag
- Greatest navy in human history (3,500 ships)
- Expeditions end in 1433
- 1525 China destroys all ocean going ships
  - New ships can only have two masts
Home of the Emperor

Kyoto is Capital of Japan from 794-1868

• Heian Period (794-1185)
  – Height of Buddhism, Taoism, other Chinese influences

• Kamakura Period (1185-1333)
  – Minamoto no Yoritomo rules as Shogun from Kamakura

• Muromachi Period (1333-1568)

• Azuchi-Momoyama Period (1568-1600)

• Tokugawa Period (1600-1868)
  – Tokugawa rules as Shogun from Edo (Tokyo)
Set in the late 16th century, Kagemusha centers on the Takeda clan, one of three warlord clans battling for control of Japan at the end of the feudal period. When Lord Shingen (Tatsuya Nakadai), head of the Takeda clan, is mortally wounded in battle and near death, he orders that his death be kept secret and that his "kagemusha"--or "shadow warrior"--take his place for a period of three years to prevent clan disruption and enemy takeover. The identical double is a petty thief (also played by Nakadai) spared from execution due to his uncanny resemblance to Lord Shingen--but his true identity cannot prevent the tides of fate from rising over the Takeda clan in a climactic scene of battlefield devastation.
Oda Nobunaga
1534-1582
Oda Nobunaga

- 1568 – Occupies Kyoto
- 1576 – Launches campaign to unify nation
- Welcomed Christianity
- Crushed Buddhist temple forces
- Eliminated guilds which monopolized commerce
- 1582 – Assassinated by vassal
Toyotomi Hideyoshi 1536-1598
Toyotomi Hideyoshi

• Follower of Nobunaga
• Kills vassal who assassinated Nobunaga
• 1590 – Unifies Japan
• Conducts nationwide cadastral survey (public record of land ownership for taxation)
• Used a uniform unit of measure
Toyotomi Hideyoshi

- Koku $\approx 5$ bushels
- Bushel = 32 quarts
- 1 koku feeds one person for 1 year

- Launches 2 reckless attacks on Korea
- Dies in 1598
- Son Hideyori is too young to rule
- Council of Regents
Ieyasu Tokugawa
1543-1616
Ieyasu Tokugawa

• 1600 - Defeats Ishida (main rival) in Battle of Sekigahara
• 1603 – Designated Shogun by Imperial Court
• Establishes headquarters (bakufu) in Edo
• Makes Shogunate hereditary
• 1606 – Appoints son Hidetada Shogun (but runs affairs from the background)
Tokugawa

• 1611 – First son Iemitsu made Shogun (established primogeniture)
• Shogun put Daimyo under his absolute authority
• Daimyo would pass to first son. If there was no first son, the Bakufu would take over
• Lead to many ronin (masterless samurai)
Tokugawa

- “Shinpan” daimyo: family daimyo
- “Fudai” daimyo: inside daimyo
- “Tozama” daimyo: outside daimyo

- Fudai (Amherst, Carlton, Colby, Connecticut, Mt Holyoke, Oberlin, Smith, Wesleyan, Williams)
- Tozama (Bates, Bucknell, Pomona, Whitman)
Shogun
Miyamoto Musashi defeated his first opponent at the age of 13. After 1600 Musashi drifted to Kyoto and became involved in a well-known battle with the Yoshioka School of swordsmanship, emerging victorious. He wrote that he engaged in sixty duels without suffering defeat once, and was noted in this regard for his skill at handling two swords at once. He was also remembered for employing a simple bamboo sword, which he used to deadly effect. In 1640 Musashi accepted service with the Hosokawa clan, and three years later, in Higo Province, began work on his great book, *Gorin no shō* (*The Book of Five Rings*). He finished this influential work on swordsmanship in May 1645 - the same year he died.
Major Tokugawa Policies

1) Sakoku (National Seclusion)
2) Sankin – Kotai (System of Alternate Residence)
3) Shi-no-ko-sho (Caste System)
4) Honbyakusho system (original farmers)
Sakoku – National Seclusion

• 1639-1854
• Foreign trade restricted to single port of Nagasaki under Bakufu control
• Prohibits construction of large ships
• Only Dutch and Chinese can trade
• Bakufu monopolizes foreign trade
• Dutch provide annual report on significant world developments
Sakoku – National Seclusion

• Efforts to weaken Christianity and Christian forces
• Prevent Daimyo from getting foreign aid
• Fear direct threat from foreign countries
Sankin-Kotai

- 1635 – System of alternate residence
- Daimyo alternate residence (Edo and home territory) every 6m to 2yrs
- Family stays in Edo as hostage
- Daimyo spent money for transportation
- Nationwide road system developed
Shi-no-ko-sho

Population

- 1300 – 10 million
- 1600 – 16-18 million
- 1750 – 30 million (?)
- 1872 – 32-34 million
- Every family registered with local Buddhist temple (koseki)
Shi-no-ko-sho

Caste System

Samurai – literate, educated, materially poor, 6-7%

Peasants – freeholders and landless, grew rice, 70-80%

Artisans & Merchants – accumulate capital, use wealth to educated children

Untouchables – work with leather
Samurai

- May have land holdings of their own
- Paid allowance (in rice) by their master
- Many sink into poverty, become heavily in debt to merchants
- Military moved to castle towns
Samurai

• May have land holdings of their own
• Paid allowance (in rice) by their master
• Many sink into poverty, become heavily in debt to merchants
• Military moved to castle towns
Peasants

• 24 million
• Owe allegiance to their lord
• Paid taxes in kind, 30-50% of rice crop, but increasingly in cash
• Frequent peasant uprisings (after bad harvest)
• Not an easy life
• Famine, infanticide, & abortion keep population steady
Peasants

- Were not serfs
- Had property rights to their land (though they could mortgage their land, and sink into tenant farmer status)
- Also produced sake, tea, and silk (not just crops)
- Merchants organized them to produce umbrellas, paper lanterns, and cotton yarn
Peasants

• Peasants received cash for these goods, and bought fish, salt, clothing on the market
• But many restrictions
• Can not move, change professions, sell arable land, partition holdings into parcels smaller than a certain minimum, or change crops at will
Peasants

• Ordered not to each much rice, never use silk, never purchase tea or sake, never live in a luxurious house
Merchants

- Gradually become wealthy through finance and trade
- Act as middlemen between peasants and samurai
- Sell goods produced by peasants to samurai
- Market excess rice collected as taxes
- Finance peasant purchases of seeds, samurai purchases of luxury goods with high interest rates
Honbyakusho system

• System of “independent peasants”
• Peasants who cultivated enough land to pay taxes in rice and continue their existence
• Ruling class tries to increase land reclamation, create more honbyakusho
• Prohibit sale and subdivision of land
• Five members responsible for paying taxes from cadastral survey 1582-98
• Test plots and unannounced inspections to test land productivity
Other Tokugawa Policies

• Seized all precious metal mines
• Reserved right to coin specie
• Forbid construction of bridges across major rivers
• Kept roads too narrow for armies
• Established checkpoints at all major crossroads, towns, and mountain passes
Other Tokugawa Policies

• Surprise inspections by Tokugawa officials
• Tokugawa spies everywhere
Economic Development

- Despite restrictions and tolls on trade, national markets developed in indigo, sugar, paper, and rice
- Rice futures market established
- National road system is very extensive and well traveled
- Daimyo and retainers forced to live in castle towns, so there is rapid urbanization