Japan’s Economy
– Dynamism, Deflation, and Demographics –

Michael Smitka
msmitka@wlu.edu
Professor of Economics
Washington and Lee University
http://newjapanforum.wordpress.com

National Association of Japan-America Societies Conference
August 27, 2013
3 themes

• **Dynamism:** widespread change
  – despite “lost 15 years”

• **Deflation:** Abenomics won’t bring growth
  – deflation continues amidst fiscal reversal

• **Demographics:** genteel population decline
  – Japan is going where no one has gone before
DYNAMISM

Real GDP
— through 2013 Q2 —

Real GDP is up 18% over 20 years
Stagnant economy?

• Growth has been low (0.8% pa)
  – and unsteady, multiple recessions
• But 0.8% per annum nevertheless adds up
  – 18% rise in incomes over the last 20 years
  – much more if include the 1980s
• Add deregulation & new technology
• \( \Sigma \): lifestyles, even the rhythm of daily life, has evolved markedly
The Decline of Rice

• As incomes rose, the importance of rice fell
  – in 1953 some 14% of ALL expenditures
    • that is, one out of every seven yen
  – in 1973 at 3%, in 1993 at 1.6%
  – 0.8% in 2012

• However (go to the Ministry of Agriculture website for data) absolute quantities also fell by more than half
Variety

• Since 1990 the price of rice fell 30%
  – you no longer have to go to a rice store to buy
    • the once-pervasive local rice miller has simply vanished

• Yet quantities have fallen
  – even though the cost of bread & noodles did not fall nearly as much

• Japanese now spend more on bread than rice
  – and urbanites under age 40 buy more noodles
Share in Expenditures

- Rice
- Bread
- Noodles
Share in Expenditures

- Rice
- Bread
- Noodles
- Booze
- Eating Out

Years: 1963 to 2009
Two other changes

• Japanese now spend far more on eating out than on staple grains
  – that mark of prosperity dates to the mid-1970s

• They also spend more on alcoholic beverages

• Life is more enjoyable!
Σ: change in consumption patterns

– here current goods (food)
  • note also variety, not just rice and more rice

– also durables (see below)
  • could add air conditioners
  • new goods such as TVs and cell phones

– but other goods and services could be added
  • clothing: prices far lower, wardrobes larger
  • housing: more floor space
    – which also permits beds and chairs
Car Ownership is Recent
Cars

• Until the 1980s car ownership in urban and suburban areas was low
  – housing was often built with no provision for parking
  – it also wasn’t very useful
    • few stores and restaurants had parking

• That changed only from the mid-1990s
Retail Revolution

• Deregulation allowed new formats (1992, 1998)
  – small stores could no longer prevent entry
• Deflation lowered land costs
  – factories and warehouses engulfed in the new suburbs closed, freeing up blocks of land
• Shopping malls, roadside restaurants and discount stores abound
  – all accessible by car
  – and in many cases, inaccessible by train
Tearing down a suburban steel mill

Google Earth showing part of Kawasaki Steel [now JFE] in Chiba ca. 2004
Now a big mall
—
Ario Chiba opened 2005
—
2 stories, rooftop and ground-level parking,
≈100 stores
23 acres
Though most malls are further out
– cf. Walmart’s initial rural-only US strategy —
Familiar formats

• Home centers
• Food-only supermarkets
  - with large frozen-food sections
• Men’s clothing (inexpensive suits)
• Walmart-like superstores
• Some segments missing
  - no Japanese retailers doing Ikea-style furnishings
Because Ikea fills that segment!
Shopping by car as a sales point!

Getting your furniture home couldn’t be easier.
Flat-packs are easy to transport.
So you can bring your purchases home today and save money too.
If you don’t have suitable transport we can arrange home delivery.
New retail

• Cars are now useful!
• Visitors to Japan often know the big electronics stores next to major train stations
  – Bic Camera, Yodobashi Camera, LLAOX
• However the market is dominated by Yamada Denki, which is far larger than all the above stores combined
  – until 2010 they had NO stores adjacent to train stations
  – their entire strategy assumed their customers shopped by car

- **25～29**
- **30～34**
Women

• Other aspects of life also evolved
• Women now don’t marry by age 24 and stop working
  – instead they’ve just finished schooling
  – 75% of women pursue post-secondary education
    • including 4-year colleges & trade schools
    • junior colleges rapidly vanishing
• participation age 25-29 up by 35 percentage points!
  – young women are pursuing serious jobs
  – and increasingly these women stay in the labor market
    • age 30-34 participation up during the last 15 years
DEFLATION

• 実感なき「景気拡大37カ月」
  “The economy has been growing how long?
  37 months?
  ... we never noticed”
  Asahi 22 Aug 2013

• Deflation continues
• Non-regular employment is at a historic peak
• Youth unemployment remains high
• Policy continues to do nothing
Real GDP
— through 2013 Q2 —

Real GDP is up 18% over 20 years
Slow growth, recessions

• Irregular growth has weakened labor demand
  – reinforcing a shift to contingent labor seen in many economies
    • part-time work, contract work ...
  – because labor is the largest cost in an economy, you don’t get sustained price increases unless wages rise
Underlying structure is for slow growth

• Demographics – the next topic – exerts drag
  – productivity growth slowed too
    • catch-up with the US
    • end of urbanization wave

• Ignoring volatility in the economy, long-run slowdown
  – inevitable
  – *not bad because Japan is a middle-class society*
Monetary Policy

• Unprecedented easing
  – but that was true by 2001
    • an even larger increase in underlying money in 2004-5
  – And it did nothing

• Much more aggressive today
  – But it will still do nothing
Monetary Base Relative to GDP
— Abenomics was tried before, and didn't work! —
Why ineffective?

• Why? – “zero lower bound”
• Interest rates a key channel
• If you won’t invest at 1%,
  – then lowering interest rates to 0.8% doesn’t help
• Demand for goods and services is key!
  – a deep recession can only be helped by fiscal measures
Fiscal = more debt

• Isn’t Japan’s economy suffering from too much debt?

• Look at government bond rates
  – no one’s worried
    • average maturity: higher rates won’t affect budget immediately = no debt meltdown
  – corporations are profitable and continue to accumulate cash
  – if the economy improves, there will be less cash
    • but more tax receipts
Government Bond Yields

10-year and 5-year yields
Lengthening average maturity: Average repayment maturity (years) and weighted average JGB yield (%)
Devaluate the yen!

• Foreign exchange markets are huge
  – even government pockets aren’t that deep

• Interest rate differentials matter
  – it’s US monetary policy (slightly higher rates) that are driving the change
  – not Japanese policy!
Weaker yen → ?

• Trade modest share economy
  – imports such as energy not very price sensitive
    • Japan is currently running a trade deficit!!
  – exports such as semiconductors not very price sensitive, driven rather by foreign demand
    • and the EU and China are very weak markets
    • Toyota and peers are adding capacity in NAFTA
      – not in Japan

• Some help, but not much
  – and ultimately not under government’s control
Yen / US$

bilateral, not adjusted for relative inflation
Customs Clearance Trade Balance (July)

Custom Cleared Trade Balance (¥bn, SA)

<table>
<thead>
<tr>
<th>Jul 2012</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan 2013</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1,200</td>
<td>-800</td>
<td>-600</td>
<td>-500</td>
<td>-400</td>
<td>-300</td>
<td>-200</td>
<td>-100</td>
<td>-800</td>
<td>-600</td>
<td>-500</td>
<td>-400</td>
<td>-200</td>
</tr>
</tbody>
</table>

The graph shows the customs cleared trade balance (in billions of yen, seasonally adjusted) from July 2012 to July 2013.
Real effective exchange rate

• Bank for International Settlements data
• Step 1: weight exchanges rates by trade
  – don’t focus just on ¥/$ because China and Europe are major partners
• Step 2: adjust for relative inflation
  – deflation in Japan means a stronger nominal value of yen is offset by lower costs in Japan
• Yen has not been strong
  – but is now REALLY weak
Consumer Deflation

y/y % chg.

CPI (10 percent trimmed mean)

CPI (less fresh food)

2010 base CPI
Trade-weighted Value of Yen

—the yen has not been strong, given deflation—

20-YR AVERAGE: lower = weaker
Demand is issue

• Weak income growth
  – bonuses up
    • but only helps employees in large exporters
  – base pay not up
    • which is what matters: you can’t budget around bonuses

• Employment growth weak
  – most growth is for part-time jobs
    • not just young: rehired “baby boomer” retirees
  – potentially unstable and poor pay
Earnings

- Scheduled cash earnings
- Non-scheduled cash earnings
- Special cash earnings (bonuses, etc.)
- Total cash earnings

y/y % chg.
GPD Growth

• Despite weak labor markets, some help recently from consumption
• Exports help a bit
  – government kicking in
• Net is slow growth
  – but need a few years of faster growth to soak up slack in labor market
Abenomics

• Monetary policy doesn’t work
• Fiscal policy about to be reversed
  – end of specific stimulus measures
  – 3/11 reconstruction past its peak
  – consumption tax 消費税 increase pending
• Net impact large
  – will offset consumption, exports
  – while won’t push investment in positive direction
Public Investment Outlook
Long-run need to balance budgets

• no crisis but not sustainable
• problem of when
  – 15 years of kicking can down the road
• restraining expenditures hard
  – social security not generous
    • healthcare already low in cost
• lots of room to raise taxes
  – talk of cutting corporate rates bizarre?!
## Taxes as a Share of GDP

<table>
<thead>
<tr>
<th></th>
<th>Japan</th>
<th>OECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct taxes on households</td>
<td>5.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Direct taxes on firms</td>
<td>3.7</td>
<td>3.4</td>
</tr>
<tr>
<td>Social security and payroll</td>
<td>9.4</td>
<td>9.3</td>
</tr>
<tr>
<td>Goods and services</td>
<td>5.1</td>
<td>11.3</td>
</tr>
<tr>
<td>Property</td>
<td>2.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Holding taxes</td>
<td>2.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Taxes on property transactions</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Estate, inheritance and gift taxes</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Other</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26.6</strong></td>
<td><strong>35.2</strong></td>
</tr>
</tbody>
</table>
Macro summation

• interest rates have long been low
  – Abenomics won’t change much
• flows in search of higher yields are transitory
  – you can’t keep a good yen down
• the domestic market, domestic costs, and domestic capabilities dominate
• government fiscal policy will hamper
  • no short-run need to trim deficits
DEMOGRAPHICS
Women are central

• Younger women are choosing to work
  – while all too many young men lack stable jobs

• labor markets continue to discriminate against families
  – career-oriented employers
    • inflexible in (extra, and generally unpaid) work hours
    • arbitrary in geographic transfers
  – daycare still limited
    • can’t find 14-hour nursery programs
      – but that’s perhaps not good for children
      – it’s the employer side that needs to change
Women want to work

• Rise in employment by younger women
• Diminution of “M” participation by age
• but with inflexible employers
  – husbands aren’t free to / don’t pitch in
• Low fertility

- **25~29**
- **30~34**
Female Participation "M" for Japan
Total Fertility Rate

2.1 is replacement level

1973
Population pyramid

• Past normal “pyramid”

• future inverted pyramid
  – fertility doesn’t change quickly
  – number of potential 25 year old mothers known with high certainty ... 25 years in advance
    • projections through 2040 uncertain on mortality end
    • more accurate for young end

• lots of issues!
1950年

男性

1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
1960年

男性

女性

人口（万人）

資料：1920〜2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
1970年

男性

女性

人口（万人）

資料: 1920〜2010年: 国勢調査、推計人口、2011年以降: 「日本の将来推計人口（平成24年1月推計）」。
1980年

男 性

女 性

人口（万人）

資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年１月推計）」。
資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
2000年

男性

女性

見本拡大図

人口（万人）

資料：1920〜2010年：国勢調査、推計人口。2011年以降：「日本の将来推計人口（平成24年1月推計）」。
2005年

男性

人口（万人）

130 120 110 100 90 80 70 60 50 40 30 20 10 0

女性

資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
2015年

男性

女性

人口（万人）

資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
2025年

男性

女性

人口（万人）

出生低位推計
出生中位推計
出生高位推計

資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
2035年

男性

女性

人口（万人）

資料：1920〜2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
資料：1920〜2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
2050年

男性

人口（万人）

出 生 低 位 推 計
出 生 中 位 推 計
出 生 高 位 推 計

資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
2055年

男性

女性

人口（万人）

資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
2060年

資料：1920～2010年：国勢調査、推計人口、2011年以降：「日本の将来推計人口（平成24年1月推計）」。
Productivity

– my expectation

• low investment means slow introduction of better equipment
  – and better buildings and workers with more appropriate skills

• low demand means harder for new firms
  – much productivity from good displacing mediocre

• so potential growth below what demographics alone imply
Aging

• Shrinking labor force will result in low growth of output
• falling demand will impede investment in many industries
  – decline in number of potential licensed drivers
  – understates impact as high-car-ownership rural areas aging fastest
  – central Tokyo is younger but no need for cars there
• agriculture another example
  – falling rice demand, but farm sector already dying out
Won’t more women working help?

• Indeed sharply rising rate of young women working
  • 35 percentage point rise for women age 25-29
• but it’s too late!
  • absolute numbers falling
  • low birthrates = few young women

• immigration a similar story
  – not a booming market, need huge numbers
    • some help, many local governments receptive
  – but again, too late!
Japanese Potential Driving Population
Ages 20-75 (Middle Projections, 2012)

89.3 million in 2013
75.8 million in 2032
-13.5 million = -15%

89.3 million in 2013
83.8 million in 2022
-5.5 million = -6%

91.7 in 2000 = -9%

Age 20-64 falls faster
The age distribution of rice farmers in 2010

- Under 29: 3%
- 30-39: 2%
- 40-49: 3%
- 50-59: 9.0%
- 60-69: 27.0%
- Over 70: 56.0%
Number of Women in LF by Age

 participación is up, but due to demographics

 *the total number of women is down*

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-24</td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td></td>
</tr>
<tr>
<td>30-34</td>
<td></td>
</tr>
</tbody>
</table>

Number of Women in LF by Age

 partcipaion is up, but due to demographics

 the total number of women is down

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-24</td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td></td>
</tr>
<tr>
<td>30-34</td>
<td></td>
</tr>
</tbody>
</table>
Urban shopping streets remain

• first storefront on right is the local Communist Party
  – traditional defender of small business
  – co-opted by LDP over 1970s and 1980s
• old mom-and-pop retailers now fewer in number
  – McDonald’s, and convenience stores
• but this is densely settled Tokyo proper
  – Higashi Mukojima in Sumida-ku
Gone in smaller cities

- Narita City
  - on opposite side of the station from big mall
- シャッター街 “Shatta Gai”
  - shuttered shopping streets
- inhabited only by the old
  - caring for the elderly
IS THIS JAPAN’S FUTURE??

• NO!!
• Low growth is NOT no growth
  • with a falling population, incomes will continue to rise
• Innovative policies for aging
  • home health (介護) covered by retirement system
• but naturally declining population is unprecedented in human history
  • not famine, war and pestilence
• so Japan remains fascinating
Shuttered storefronts
商店街なのに誰もいなくて婆ちゃんに寂しい将来...