China’s Challenges
— Lessons from Japan —
日本からの教訓

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Key Issues: today’s topics

• Agriculture
  • Political Economy of Subsidies
    » The Burden of Incomplete Land Reform
  • Japan’s policies should *not* be followed

• Growth slowdown
  • Burden of soaking up high private and business savings
    » macroeconomic management!
  • Japan’s experience: slower growth results in significant macroeconomic imbalances
    » Too late? China already has a housing bubble...
other issues: *for Q&A?*

- **Financial Deepening**
  - The Burden of Financial Repression
    - Shadow Banking
  - Japan transformed “shadow” institutions into formal, regulated ones

- **Public Goods Provision**
  - Who funds ≠ who provides
    - Who bears the burden under fragmented governance
  - Japan’s experience includes areas that work well (public insurance) and ones that don’t (infrastructure)
More Issues

• Pollution
  – Japan’s experience is that it can be lowered
    • but it requires national policy to trump local interests

• Aging can be managed
  – at a macro level ALL systems are PayGo
    • private systems however share risk poorly
  – start adjusting now
    • raise “model” retirement ages
    • extending coverage quickly enhances credibility
    • enhanced coverage lessens excess savings and creates a stake for all in good government
Agriculture

• headline issue is land grabs
  • definition fuzzy, but 100,000+ “mass incidents” a year
  • 2011 Wukan 烏坎 protests an extreme case: violent

• long-run issue is unfavorable elasticities
  • agricultural output increases quickly
  • demand doesn’t
  • hence farm incomes lag growth
Japan’s solution

• **Subsidize**
  – ditto the EU

• **Lesson for China:**
  – **DON’T!!**
Elasticity Dilemma

• output per unit of land is high and elastic
  – availability of
    • commercial seeds, fertilizer, herbicides, and pesticides
    • trucking/wholesale/storage services
  – output responds strongly to price
Figure 7a Land Productivity (Cereal yield (kg per hectare))
Elasticity Dilemma

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    • commercial seeds, fertilizer, herbicides, and pesticides
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Elasticity Dilemma

- demand is income & price inelastic
  - consumers eat better, not more
- farm incomes thus lag urban incomes
Japan
Rice Supply vs Apparent Consumption

Consumption kg/person

1,000 Metric Tons


supply  demand
Chinese Urban Rice Consumption
Already ½ Peak!
Rural Consumption Now Also Dropping

Figure 12b. Average Annual Consumption of Food: Rural Residents, 1978-2011 (kg)

Source: World Bank staff calculation based on DRC data
Agriculture: solution?!

• Labor outflow from the agrarian sector
  • in 2010 Census “floating” population 210 million
    – current US population is 320 million
  • now more than half of Chinese live off the farm
  • formal economics: move left along output curve, leading to higher income per labor input

• Japan went through a similar transition
  • despite labor outflow
  • rural incomes under constant pressure
Production Function: Farm Output vs Labor Input

labor income is slope of curve
Fewer farmers, larger farms?

- lack of clean ownership rights
  - affects **ALL** farmers
- 1950 land to the tiller policy
  - plus additional redistribution
  - previous Qing 请 system of muddy rights to land
    - complicated layers of title and tax obligations
    - current situation similar: land is not “free & clear”
- Japan’s 1948-9 land reform never reversed
  - farm consolidation still challenging 70 years later!
Fewer farmers, larger farms?

• Today about 20% of farmers rent in land
  – no other developing country has anything like that!
  – the normal land tenure issues exist
    • those renting land invest less in maintenance
      – offset by less expensive fertilizer and other inputs
Fewer farmers, larger farms?

• Eventually rural incomes and urban incomes **will** even out
  – Eventually is not an answer farmers want to hear!
Fewer farmers, larger farms?

• Government response
  – rural taxation has been totally abolished
  – almost 80% of farmers receive cash subsidies
    – ≈ US$35 per acre so while small at household level, not trivial

• Costly!!
  – long-run price distortions
    • unreasonable focus on grain
    • drives up urban wages, while keeping food prices high
  – fiscal implications: expensive!
Key Puzzle

• Why subsidize agriculture in an authoritarian system?

• Possible answer: China in fact has a representative government
  – but one that is not subject to general elections, only internal Party ones
Micro-macro Balances

• High personal savings reflect
  (i) demographics
  (ii) financial repression / shallow financial sector
  (iii) underprovision of public goods
    • lack of social insurance: healthcare, pensions
    • private markets don’t exist or (as in US) don’t work well
    • Chinese who grew up in the 1960s were taxed for this while young
      – but receive nothing now: morally noxious!!
Savings-Investment Balances

• at present high household savings & high corporate retained earnings
  – SOEs don’t pay dividends to the State
    • lots of wasteful activities and “wealth transfers”
  – government spending a lot, but deficit small
  – so translates into trade surplus / intl capital flows
    – from which Chinese citizens do not benefit
  • $Y = C + I + G + X − M and C = Y − T − S$ gives
    • $(S − I) + (T − G) = (X − M)$
Growth

• Inevitable growth slowdown
  – Investment “I” will fall
  – but demographics move slowly
  – “S” will remain high
    • the Paradox of Thrift
      – trade surpluses must increase
      – not feasible since China is large in the global economy
  – hence government as borrower of last resort
    – to soak up private savings
  – Japan as example of chronic excess savings
Private Net Savings Deficits & Surpluses

Net **HOUSEHOLD** and **CORPORATE** Savings

**Notes:**
- Calendar years, SNA68 1955 through 1979, SNA93 for 1980-1994, SNA98 for 1994-2013
- Net lending = (savings / retained earnings + net transfers) less (net investment + land + inventory acquisition)
- Household sector includes unincorporate enterprises and non-profits. Corporate sector includes both financial and non-financial firms.
Private Net Savings Deficits & Surpluses

Net Household and Corporate Savings

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Private Net Savings Deficits & Surpluses
Net Household and Corporate Savings

Private Savings Surplus
Corporate Sector Savings > Investing Since 1994

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**Bubble**

**Private Savings Surplus**
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(S – I) + (T – G) = (X – M):
(private savings) + (government savings) = Net Trade = ROW Net Lending
*that shows up as a trade surplus – feasible given China’s size???
China’s Future??

• Demographic transition puts bulk of population in high savings portion of life cycle
  – consumption vs age
  – age structure
Chinese Consumption and Labor Income by Age

- Consumption
- Labor Income
China’s Future

• Number of women of reproductive age vs fertility
  – currently experiencing an “echo” as children of the large post-Cultural Revolution cohort become mothers
  – but fertility is declining *(Comparison Not Shown)*
  – after 2015 births will fall rapidly

• population will both decline and age

• how finance?
China 2013: Population of Childbearing Age vs Fertility

- Blue line: # Women by Age
- Red line: Fertility by Age

The graph shows the comparison between the number of women by age and their fertility rates from 15 to 49 years old. The peak of fertility coincides with the peak of the number of women, indicating a direct correlation between the two.
Chinese Population Projection
Women of Childbearing Age
2010 Census age structure and fertility
Demographic Dividend

*boost from growth of share of population of working age is over*

- Aged 0-14
- Aged 15-64
- Aged 65 and Over
- % Working Age Population
Scenario for An Old China

• Growth will slow
  – Labor Force won’t increase
    • working age population already shrinking
    • migration slowing / surplus rural labor largely gone
  – Investment slowing
    • reflecting slowing growth and built-up (overbuilt?) infrastructure
  – Productivity will rise slowly
    • from catch-up to caught-up
How to pay for aging?

• Retirement at the macro level
  – must be pay as you go in any economy
    • consumption of retirees must come from current production
  – Chinese government as insurance company
    • shift from providing public goods
    • to the providing old age security
      – public tax-and-transfer inevitable
  – Chinese system not (yet) centralized
    • decentralized to cities – not a national system
    • but local governments lack fiscal resources
    • *hukou 户口* reform is really about money!
Thank you!
Sources of graphs

• **Graphs on urban and rural food consumption:**
  • Data on Japan from calculations by author of data drawn from Japan’s Household Consumption Survey (家計調査).

• **Graph on income-consumption profile:**
  • Data drawn from National Transfer Accounts Project, [http://www.ntaccounts.org/](http://www.ntaccounts.org/)

• **Japan data on GDP and savings-investment:**
  • Data drawn from Japanese national accounts [http://www.esri.cao.go.jp/](http://www.esri.cao.go.jp/) with data manipulation and graphs by author. methodology available upon request.

• **Chinese demographic data:**
  • China Statistical Yearbook [http://www.stats.gov.cn/tjsj/ndsjs](http://www.stats.gov.cn/tjsj/ndsjs/) with graphs and projections by author


