I. China’s Social Transition

• High economic growth rate
  – 9.8% annual GDP growth rate during 1978-2008
  – Second largest economy in the world since 2010 (only because of population size: >1.3 billion)

• Emerging and long-term challenges for China’s development
  – Economic sustainability: Aging, Human capital investment
  – Social stability: public order disturbance
  – Other challenges: Urbanization, Globalization......
• China’s Third Development Transition
  – 1st (1949-1952): Socialist transformation
  – 2nd (Since 1978): Market reform
  – 3rd (Since 2003; especially with the current “twelfth five-year plan”)
    • Balance economic development and social development
    • Improve people’s lives and happiness

Largest Population, with Rapid Aging

Sources: NBS, China (projected from Census 2000, assuming TFR=1.65)
China’s Lifecycle Deficit (LCD)

Life Cycle Deficit = Consumption – Labor Income
Normalized to average labor income of 30-49 year olds

- Increasing higher education
- Shorter working life with higher peak income
- Increasing support for the elderly

Age
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91

- 1995 LCD
- 2002 LCD

Lifecycle Deficit Changing in China and Some Asian Countries

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Lifecycle Deficit</td>
<td>21 23 21 23 23 23</td>
<td>60 60 60 60 60 60</td>
<td>39 39 39 39 39 39</td>
<td>37 37 37 37 37 37</td>
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<tr>
<td>Public Transfer</td>
<td>23 23 23 23 23 23</td>
<td>59 59 59 59 59 59</td>
<td>36 36 36 36 36 36</td>
<td>33 33 33 33 33 33</td>
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<tr>
<td>Family Transfer</td>
<td>26 26 26 26 26 26</td>
<td>67 67 67 67 67 67</td>
<td>41 41 41 41 41 41</td>
<td>37 37 37 37 37 37</td>
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<tr>
<td>- Intra Household</td>
<td>26 26 26 26 26 26</td>
<td>70 70 70 70 70 70</td>
<td>44 44 44 44 44 44</td>
<td>41 41 41 41 41 41</td>
</tr>
</tbody>
</table>

The working life was getting shorter as in some other Asian NTA countries, but it was still longer than in these other countries.

<table>
<thead>
<tr>
<th>Lifecycle Deficit</th>
<th>Cutting ages</th>
<th>Working Life</th>
<th>Lifecycle Deficit</th>
<th>Cutting ages</th>
<th>Working Life</th>
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<tr>
<td>Japan 2004</td>
<td>26 26 26 26 26 26</td>
<td>60 60 60 60 60 60</td>
<td>34 34 34 34 34 34</td>
<td>25 25 25 25 25 25</td>
<td>59 59 59 59 59 59</td>
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<tr>
<td>U.S. 2003</td>
<td>26 26 26 26 26 26</td>
<td>59 59 59 59 59 59</td>
<td>33 33 33 33 33 33</td>
<td>27 27 27 27 27 27</td>
<td>60 60 60 60 60 60</td>
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<tr>
<td>India 1999</td>
<td>27 27 27 27 27 27</td>
<td>63 63 63 63 63 63</td>
<td>36 36 36 36 36 36</td>
<td>28 28 28 28 28 28</td>
<td>59 59 59 59 59 59</td>
</tr>
<tr>
<td>India 2004</td>
<td>27 27 27 27 27 27</td>
<td>59 59 59 59 59 59</td>
<td>32 32 32 32 32 32</td>
<td>29 29 29 29 29 29</td>
<td>58 58 58 58 58 58</td>
</tr>
</tbody>
</table>

Source: Data from NTA website
Selected Recent Social Reforms and Policies

2011 Pilot project for Pension Insurance for Urban Residents
2010 National education reform and development of long-term planning programs
2009 Health Care Reform Plan
2009 New Rural Pension Insurance System
2008 Housing Security Project for Low Income
2007 Pilot project for Medical Insurance for Urban Residents
2007 “Two exemptions and one supplement” in rural compulsory education
2003 New Rural Cooperative Medicare System

1994-1998 Basic Pension Insurance for Urban Employees
Basic Medical Insurance System for Urban Employees
1986 Compulsory Education

Old-Age Support Systems in China and Some Other Asian Economies

• Family support is still a main living source of the elderly.
• But China is moving quickly to a so called modern market economy with increasing public transfers (with broader social welfare).

Source: data from NTA website
II. China’s Healthcare Reform

• 1st Transition: During the period from 1950 to 1978, China had many achievements in health sector to be proud of
  – rapid and large reductions in mortality rate, despite China’s low income per capita at that time
  – create a low cost, wide coverage primary health care system

• 2nd Transition: After 30 years of economic reform, China’s healthcare system has not improved as well as its economy did. Instead, it has deteriorated in many aspects
  – Accessibility and affordability are both decreased
  – Patients, providers and government are all unsatisfied

“Kan Bing Gui, Kan Bing Nan” (看病贵、看病难)
Health Care System Transition

- 3rd Transition: Increasing government role in health sector: universal basic healthcare insurance. But
  - Hot debate: subsidize supply side or demand side? Bismarck or Beveridge?
  - Big challenge: Rising health care expenditure/cost.

Health Care Reform Goals

Basic Health Security for All
Five Priorities of Health Reform Action Plan in 2009-2011

1. Expend basic medical insurance system
2. Establish National Essential Medicine system
3. Strengthen the healthcare delivery system at grassroots
4. Promote equitable access to essential package of public healthcare services
5. Public hospital reform pilot

Challenges: Cost Control

Structure of Total Health Expenditure: 1978-2010

- The GHE decreased since the late 1980s and has returned to increase since the early 2000s (SARS in 2003).

Source: Abstract of China Total Health Expenditure 2011
III. Health Care Under Demographic Change

Consumption increase with economic development is mainly due to health consumption increase.

Rich: US, Japan, Sweden, Finland
Poor: India, Indonesia, Philippines, Kenya

Developed Countries

Developing Countries

Source: Andrew Mason (2008)

Increasing Health Expenditure for the Elderly (Japan, 2004)

Source: Ogawa 2010
Increasing Health Expenditure for the Elderly (U.S., 2003)

Source: NTA database

Increasing Health Expenditure for the Elderly, China

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>60+</td>
<td>65+</td>
<td>75+</td>
<td>60+</td>
<td>65+</td>
<td>75+</td>
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<tr>
<td>Health (Public)</td>
<td>2.29</td>
<td>3.15</td>
<td>4.01</td>
<td>8.81</td>
<td>11.4</td>
<td>13.7</td>
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<tr>
<td>Pension Benefits</td>
<td>18.3</td>
<td>17.1</td>
<td>17.8</td>
<td>30</td>
<td>31.2</td>
<td>24.6</td>
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<tr>
<td>Other Public Transfers</td>
<td>-2.32</td>
<td>-0.31</td>
<td>3.52</td>
<td>-2.46</td>
<td>0.19</td>
<td>3.43</td>
</tr>
<tr>
<td>Private Transfers</td>
<td>11.5</td>
<td>23.1</td>
<td>51.5</td>
<td>8.98</td>
<td>13.5</td>
<td>33.3</td>
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<tr>
<td>Asset</td>
<td>8.08</td>
<td>5.1</td>
<td>-9.66</td>
<td>16.1</td>
<td>18.4</td>
<td>5.23</td>
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<tr>
<td>Labor Income</td>
<td>62.2</td>
<td>51.8</td>
<td>42.7</td>
<td>38.5</td>
<td>25.3</td>
<td>19.8</td>
</tr>
</tbody>
</table>
Increasing Health Expenditure for the Elderly
(China, 1995-2002-2009)

Per Capita Health Expenditure in 2000 constant prices

Note: 1995 and 2002 data was estimated from China Household Income Project Survey CHIPs 1995 and 2002. 2009 data was estimated from Chinese Family Panel Studies, CFPS 2010.

Demographic Effect and Transition Effect in Developing Countries

- Demographic effect (DE)
  - How much will demographic change affect the burdens on families and public support systems, such as pensions and health care financing, assuming the current level of transfers for each age group?

- Transition effect (TE)
  - How will social transitions such as disease pattern, reform of social security systems, such as pensions and health care change the level of transfers for each age group? The case of health care reform

- In developed countries with a mature society, the effects of demographic change may be dominant. How about developing countries?
“Demographic Effect” and “Transition Effect” on Health Expenditure from 1995 to 2002

Projected Demographic Effect and Transition Effect on Total Health Expenditure (THE)
Projected Demographic Effect and Transition Effect on Total Health Expenditure (THE)

1995-2020

- Projected HE since 2002 only with DE
- Projected HE since 2002 with linear TE growth and DE
- Projected HE since 1995 with linear TE growth and DE
- Real THE (2000 constant prices)

The projection shows good agreement with the real THE from 1995 to 2009.

Projected TE (annual TE growth: 11.9%)
Projected DE (base year: 2002)

Projected Demographic Effect and Transition Effect on Total Health Expenditure (THE)

1995-2020

- Projected HE since 2002 only with DE
- Projected HE since 2002 with linear TE growth and DE
- Projected HE since 1995 with linear TE growth and DE
- Real THE

It seems the TE is much bigger! Will it actually happen?

12.1% of projected GDP done by CASS

2020
Health Care System and Health Expenditure

- What will induce the fast growth of health expenditures?
  - 1. Disease pattern transition
  - 2. Health care system transition
    - What has happened to other countries and regions with Bismarckian social health insurance systems?

Health Demand Under Demographic Change

Source: National Service Survey
### Social Health Insurance Coverage in China

(Million people)

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2001</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
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<tbody>
<tr>
<td>Basic Medical Insurance System for Urban Employees</td>
<td>20.653</td>
<td>72.859</td>
<td>109.017</td>
<td>124.036</td>
<td>137.829</td>
<td>157.318</td>
<td>180.203</td>
<td>199.956</td>
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<tr>
<td>Medical Insurance for Urban Residents</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>42.911</td>
<td>118.26</td>
<td></td>
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<tr>
<td>Rural Cooperative Medicare System</td>
<td></td>
<td></td>
<td>80</td>
<td>179</td>
<td>410</td>
<td>726</td>
<td>815</td>
<td></td>
</tr>
</tbody>
</table>

By the end of 2010, **1.260 billion** people in China have been covered by at least one social health insurance program.


### Per Capita Health Expenditure in NHI system, Japan 1984-2004

- **Faster increase for the elderly since 1984 to 1999**

Note: Long-term care introduced in early 2000s included in 2004a.

Source: Cited from Andrew Mason’s presentation
Per Capita Health Expenditure in NHI system, Taiwan Province 1995-2003

Health Expenditure relative to Age Group 50-64 in OECD Countries

Source: data from NTA website

Note: NHS system: Norway, Spain, Sweden, United Kingdom; NHI system: Austria, Germany, Japan, Australia, Canada; Business Insurance: United State.
Conclusions

- Increasing higher education, with no increase in retirement age, so shorter working life; increasing support for elderly; resulting in increasing total Life cycle deficit.
- China is moving quickly to a so called modern market economy with Increasing public transfers (with broader social welfare.
- China is carrying on a comprehensive health reform with the goal of universal primary health care for all.
- Fast health expenditure increasing is a big challenge facing China.
- As in a developing country, demographic effect and transition effect are both important for the social security systems such as health care system.

Thanks!