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“China’s Demographic Change and Implications for Rest of the World"

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http://www.rieti.go.jp/jp/index.html
China's Demographic Change and Implications for Rest of the World

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Prologue

• Mainly talk about population trend & implications to China. For rest of the world, you may think of how to deal with the following trends

1. Labor-intensive industry moves to inland
2. labor cost hike reduces trade surplus
3. Catching up in technology & skills
4. Changing from producer to consumer
Demographic Transition in China
China Demographic Transition
Comparison of Total Fertility Rates

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Fertility Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>2.6</td>
</tr>
<tr>
<td>Developing</td>
<td>2.5</td>
</tr>
<tr>
<td>Developed</td>
<td>1.6</td>
</tr>
<tr>
<td>China</td>
<td>1.4</td>
</tr>
<tr>
<td>Japan</td>
<td>1.4</td>
</tr>
</tbody>
</table>
New Prediction on Total Population

2035: 1437
Prediction of Working Age Population

Increase of WAP (mil.)

Urban
Rural

Labor Shortage & Wage Increase
Rapid Growth of Labor Demand

![Graph showing urban employment (mil.) from 2002 to 2010, with separate bars for urban migrant workers and urban resident workers. The bars show an increasing trend in employment over the years.]
Demand Grows Faster than Supply

Employment growth rates (%)

- 8%: Secondary 3.7, Tertiary 6.1
- 9%: Secondary 4.2, Tertiary 6.8
- 10%: Secondary 4.7, Tertiary 7.6
- 11%: Secondary 5.2, Tertiary 8.3

Annual growth scenarios
Widespread Shortage of Migrant Workers
Wages Increases in All Sectors

Agricultural wages (yuan/day)

Non-agricultural wages (yuan/month)

Grain
Pig farm
Coton
Manuf.
Construction
Migrants
Supportive Policies for Wage Increase

- Efforts on income distribution
- Widening social security coverage
- Increasing minimum wages (13% annual growth for 12th Five-year Plan period)
- Labor market institutions (collective bargaining; workers’ biased judge in labor disputes)
Profit Drop Caused by 20% Increase in Labor Cost (SWS, 2010)
Impact on Trade Surplus

• According to economist at Deutsche Bank, increase in labor costs in labor-intensive manufacture will generate similar effect as RMB appreciation. It is estimated that demographic factor will contribute half of the trade surplus reduction. In 2016, there will be no more surplus but deficit
Whither Labor-intensive Industries?
Neighboring Countries as Destinations

- China
- Vietnam
- India
Most Likely, Regional Flying Geese
Wages Differentials Will Exist
Age Structure of Agricultural Labor

- 40 over: 50%
- 31-40: 31%
- 26-30: 9%
- 21-25: 1%
- 16-20: 9%
- 16-20: 9%
It Takes Time for Newcomers to Pick Up

- **China** 40%
- **India** 30%
- **Indonesia** 6%
- **Vietnam** 2%
- **Pakistan** 4%
- **Egypt** 2%
- **Bangladesh** 4%
- **Nigeria** 3%
- **Mexico** 3%
- **Iran** 2%
- **Turkey** 2%
- **Philippines** 2%
Industrial Transfer Has Happened

Distribution of Labor-intensive Manufacturing

- East
- Central
- West
Upgrading and Catching up
TFP: Sustainable Source of Growth
Gap in Innovation: R&D Expenditure

R&D as percent of GDP

China
High income
Middle income
Low income
World average
Gap in Innovation: R&D Personnel

R&D staff per 1000 people

China
High income
Middle income
Low income
World average
Huge Gap in Human Capital

Years of schooling vs Age for China, USA, and Japan.
Advantage of Backwardness

• Two definitions for globalization: (1) global expansion of trade, (2) globe-wide flows of knowledge/ideas

• China ends the former and begins to utilize the latter

• Implication for advanced countries is how technology can be bound with FDI
Migrants: Next Giant Consumer
Size and Composition of Migrants

• Migrant workers left home township for 6 months increase to 160 million in first half of 2011 and 2/3 are new generation (born after 1980s), who are better educated, earn more and consume more
Incomplete Urbanization

Population share (%)

Non-agr share  Urban share

Year: 1990 to 2007

Graph showing the trend of urban and non-agricultural population shares from 1990 to 2007.
Low Coverage of Social Security

Coverage rates (%)

- Unemployment
  - Urban workers: 40.9
  - Migrant workers: 3.7

- Basic medical care
  - Urban workers: 52.7
  - Migrant workers: 13.1

- Work injury
  - Urban workers: 47.9
  - Migrant workers: 24.1

- Maternity
  - Urban workers: 34.9
  - Migrant workers: 2.0

- Basic pension
  - Urban workers: 57.0
  - Migrant workers: 9.8

Legend:
- Urban workers
- Migrant workers
Institutional Potential of Consumption

Yearly consumption (PPP$)

- The poor
- Off poverty
- Farmers
- Migrants
- Urbanites
- The rich

- The poor: 0
- Off poverty: 500
- Farmers: 1000
- Migrants: 1500
- Urbanites: 2070.4
- The rich: 4500

The poor, off poverty, farmers, and migrants have lower yearly consumption compared to urbanites and the rich.
Thank you!