Views on China’s Food Security and Trade

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China has 1.34 billion population, but its growth has been declining.

Economic growth will be a key driver of food demand.
Food consumption: fall in food grain but rise in other food consumption since mid-1990s; Overall annual growth: +4%

Per capita food consumption (kg/person)
4.5% of annual growth rate of agri GDP in past 30 years

Annual growth rate of agri GDP in 1978-2010

About 4 times of population growth rate
Agricultural and food Trade: export and import (billion US$)

China has been a net agri exporter in the past decades except in recent years. Food self-sufficiency in 2010: 98%
China’s agricultural import and export in 2010 (million US$)

Source: Calculated based on UNCOMTRADE data
China’s agricultural import and export by destinations in 2010

**Import**
- Brazil 21%
- USA 31%
- Argentina 12%
- Thailand 6%
- Canada 5%
- Malaysia 4%
- Indonesia 4%
- Australia 3%
- India 2%
- Vietnam 2%
- ROW 10%

**Export**
- Japan 18%
- United States 12%
- Hong Kong, China 9%
- Korea, Rep. 7%
- Germany 4%
- Malaysia 3%
- Indonesia 3%
- Vietnam 3%
- Russia, Federation 3%
- Thailand 3%
- ROW 35%

Calculated based on WTO agri. Classification
CCAP’s projection: China’s net export of cereals (1000 tons) under baseline in 2010-2020

Source: Simulation by CAPSiM model based on policy until 2008

Import maize: about 20 million tons
China’s net export of agricultural commodities (1000 tons) under baseline in 2001-2020

Source: Simulation by CAPSiM model based on policy until 2008
China’s net export of agriculture and food (billion USD) under baseline in 2001-2020

Self-sufficiency in 2020: Grain 87%; Food 96%
National goals and policies

• **Grain**: 95% self-sufficiency

• **Increase agri productivity** (given constraints of land and water):
  – Invest in land/water
  – Invest in technology
  – ...

Policy responses: Invest in water

• China’s #1 policy document in 2011: Water Conservancy Reform and Development
  - Double investment in water conservancy: invest 4000 billion yuan (630 billion US$) in next 10 years
  - Enhance water saving technology
  - ...

National Policy: “Promoting Agriculture by Applying Scientific and Technological Advances”

- **Annual growth rate in agri. R&D (public):**
  - 2000-2009: 16% in real term
  - 2010-2011: 20%

- **In 2008, China also initiated new agri GMO program with 3.8 billion US$.**

- **China’s #1 policy document in 2012:**
  - New political commitment to invest in R&D, including agribiotech
Scenario: Impacts of biotech maize
Maize self-sufficiency (%) in 2009 and 2025

Huang et al., 2011
Major goals and policies

• Grain: 95% self-sufficiency
• Increase agri productivity:
  – Invest in water/land
  – Invest in R&D
  – **Subsidy** (income transfer, 4% agri GDP)
  – **Price stability:**
    • Reserve/stock and minimal price
  – **Trade and FDI/Tech** (e.g., in Africa)
    • Export: vegetable; fruits; processed foods
    • Import: soybean; maize; cotton; milk
China’s import in 2010-2020

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<tr>
<th></th>
<th>2010</th>
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<tr>
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<tr>
<td>Total</td>
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Source: Simulation by CAPSiM model based on policy until 2008
Implications for China’s free trade in agriculture: in APEC and other regions

- **Major gainers:** USA, Canada, South America, and Australia/New Zealand
- **Other gainers:** ASEAN countries, India, and African countries
- **Likely major loser:** East-Asia (e.g., Japan and Korea)
**Views on TPP**

- **Official views:**
  - Support multilateral FTA (WTO), and also any effort toward FTAs, including TPP
  - Examining pros and cons of TPP; no clear statement so far

- **Personal views:**
  - Could gains significantly from TPP in the long run
  - Depend on path of domestic reforms (e.g., STEs, investment policy in sensitive sector – biotech…)}