Impact of WTO Accession on China's Agriculture, Rural Development and on Farmers

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Outline

I. Agricultural Trade Status after China’s WTO Accession

II. Impact of WTO Accession on China's Agriculture, Rural Development and on Farmers
   * Agricultural Production
   * Farmers’ Income
   * Rural Employment
   * Agricultural Trade
   * Rural Poverty

III. Recent Policy Reforms

IV. Experiences and Lessons
China Began the negotiation for its WTO accession in 1986, after 15 years, China entered into the WTO in Nov. 2001.

China’s economic reform started from the agriculture and the countryside; agriculture benefits from high national GDP growth rate, averaging 9.5% for the period 1979-2004 (OECD, 2005).
I. Agricultural Trade Status after China’s WTO Accession

• China’s position in the International agricultural trade

• China’s agricultural trade status

• China’s agricultural trade: main partners

• China’s agricultural trade: major commodity categories

• China’s agricultural trade policy reforms
Important player in the international agricultural trade

Export side

China accounts for 3.1% of world’s agricultural export in 2004, ranking the fifth place after EU, USA, Canada and Brazil (WTO data).

Import side

China accounts for 5.4% of world’s agricultural import in 2004, ranking the fourth place after USA, EU and Japan.
...China’s agricultural trade status

**Trade value:** export from 13 billion US$ in 1994 to 27.2 billion US$ in 2005, import from 6.1 billion US$ to 28.7 billion US$ (China Customs Statistics).

**Growth:** Higher growth of import than export, import increased by 143% from 2001 to 2005, while export increase by 70%.

**Trading status:** Fundamental change, from net exporter (averaged at 4.5 billion US$ for the period 1990-2003) to **net importer** (4.9 billion US$ of deficit in 2004, the first time in history, 1.5 billion US$ of deficit in 2005) (Figure 1).
Figure 1: China’s Agricultural Trade, 1994-2005

- Import
- Export
- Balance
China’s Agricultural trade in 2005

**Import:**
Soybean 26.59 million tons (7.8 billion US$), wheat 3.54 million tons (7 million tons in 2004), vegetable oils 6.21 million tons, Cotton 2.57 million tons (3.2 billion US$), sugar 1.39 million tons, livestock products 4.2 billion US$, wool 1.1 billion US$.

**soybean, cotton and wool: China’s import of each of those products accounts for one third of world’s total import **

**By Region: East China= 93.5%, Centre=4.8%, West=1.7%**

**Export:**
Fishery products 7.9 billion US$, vegetables 6.8 million tons (+9%), fruits 3.65 million tons (+17%), corn 8.61 million tons, livestock products 3.6 billion US$.

**By Region: East China= 81%, Centre=12%, West=7%**
Main export destinations: Japan 29.2%, South Korea 10.5%, USA 10.4%, Hong Kong 9.7%, Germany 3.4%, Russia 2.7%. Asia is the biggest export market, accounting for 66% of China total agricultural export.

Main import sources: USA 23.5%, Brazil 10.5%, Argentine 10.4%, Australia 8.4%, Malaysia 4.7%, Russia 4.0% (Table 1 and 2).
Table 1: China’s major export destinations, 2005

<table>
<thead>
<tr>
<th></th>
<th>Export amount (Billion US$)</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>7.93</td>
<td>29.2</td>
</tr>
<tr>
<td>Korea</td>
<td>2.85</td>
<td>10.5</td>
</tr>
<tr>
<td>USA</td>
<td>2.84</td>
<td>10.4</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>2.64</td>
<td>9.7</td>
</tr>
<tr>
<td>Germany</td>
<td>0.93</td>
<td>3.4</td>
</tr>
<tr>
<td>Russia</td>
<td>0.73</td>
<td>2.7</td>
</tr>
<tr>
<td>Others</td>
<td>9.26</td>
<td>34.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>27.18</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td></td>
<td>Import amount (Billion US$)</td>
<td>Share (%)</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>USA</td>
<td>6.72</td>
<td>23.5</td>
</tr>
<tr>
<td>Brazil</td>
<td>3.01</td>
<td>10.5</td>
</tr>
<tr>
<td>Argentine</td>
<td>2.99</td>
<td>10.4</td>
</tr>
<tr>
<td>Australia</td>
<td>2.41</td>
<td>8.4</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.34</td>
<td>4.7</td>
</tr>
<tr>
<td>Russia</td>
<td>1.15</td>
<td>4.0</td>
</tr>
<tr>
<td>Others</td>
<td>11.03</td>
<td>38.5</td>
</tr>
<tr>
<td>Total</td>
<td>28.65</td>
<td>100.0</td>
</tr>
</tbody>
</table>
China’s agricultural trade: major commodity categories

**Major export commodity groups**: fishery products, vegetables and fruits, both labor-intensive agricultural products account for 55% of China’s total agricultural export. Other products include grain and oilseeds, livestock products.

**Major import commodity groups**: grain and oilseeds (land-intensive products) alone accounts for 46.4% of China’s total agricultural import. The shares of import for fishery products and vegetables & fruits are quite low.

The commodity structures for import and export differ remarkably (Table 3).
<table>
<thead>
<tr>
<th></th>
<th>Export share in total(%)</th>
<th>Import share in total(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains and oilseeds</td>
<td>14.9</td>
<td>46.4</td>
</tr>
<tr>
<td>Fishery products</td>
<td>27.7</td>
<td>10.1</td>
</tr>
<tr>
<td>Horticultural products</td>
<td>27.4</td>
<td>5.4</td>
</tr>
<tr>
<td>of which: vegetable and fruits</td>
<td>26.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Livestock products</td>
<td>12.9</td>
<td>4.8</td>
</tr>
<tr>
<td>Others</td>
<td>17.1</td>
<td>33.3</td>
</tr>
</tbody>
</table>
China’s agricultural trade policy reforms

• Development of legal framework and amendment of laws and regulations; Removal of quantitative controls on imports and exports; extension of foreign trade right: from approval system to registration system, etc…

• Trade regulation: TRQ applied only for strategic agricultural products such as rice, wheat, corn, cotton. Other products are regulated by single tariff.

• Other commitments of WTO Accession: No export subsidy; Elimination of non-tariff measures; Amber box AMS=8.5%

• Reduction of import tariffs, from 45% in 1992 to 15% in 2005 (Figure 2).
Figure 2. China’s Simple average MFN tariffs on agricultural products

Per cent
II. Impact of WTO Accession on China's Agriculture, Rural Development and on Farmers

* On Agricultural Production
* On Farmers’ Income
* On Rural Employment
* On Agricultural Trade
* On Rural Poverty
…General situation after WTO accession

The general situation is good. Chinese government has taken lots of policy measures for promoting agricultural and rural development after WTO accession (especially in 2004, 2005).

Results:

--Readjustment of agricultural structure
--Growth rate of farmer income resumed
--No big shock on China’s agriculture as expected before WTO accession
General impact

- The impact will differ markedly between crops and between regions... China will likely see increased imports of land-intensive crops such as grains and oilseeds (mainly in coastal region, weaker in central and western regions because of relative comparative advantages, poor transportation and imperfect market integration)... Producers in the coastal regions will increase opportunity to shift into labor-intensive crops such as fruits and vegetables...(OECD, 2002)

- Strong impact on Import than on export

- Impacts differentiate greatly across different products.
  - Large impact: on soybean, edible oils, cotton and wool
  - Little impact: on rice

- Impacts vary significantly among different regions in China.
  - Gainers: Coastal regions
  - Losers: Inland regions (Central and western parts)
...on agricultural production

Adjustment of agricultural production structure, crops’ (especially cereals) share ↓:

* Gross value composition (Figure 3)
* Output of major agro-products (Figure 4).

Reduction of grain production and sharp rise of grain price in the fall of 2003 made the grain security issue again high in Chinese government agenda.
Figure 3: Sector composition in Agriculture Gross Value

- Crops
- Forestry
- Livestock
- Fishery
Figure 4: Output of major agricultural products, 1990-2005

- Rice
- Wheat
- Maize
- Vegetables
- Fruits
...grains

From 1996 to 1999, China experienced consecutive years of bumper harvest of grains, averaging yearly over 500 million tons. But grain output declined in the following years: 462 million tons in 2000, 450 million tons in 2001, 457 million tons in 2002, only 430 million tons in 2003, while the annual grain consumption is much higher, with 495 million tons in 2005.

Government policies changed the grain situation: 469 million tons in 2004 (increase by 9%), 486 million tons in 2005.

**Dilemma:** grain production is highly constrained by the resources, especially water and land. China’s fertilizer application is more than two times higher than world’s average; water pollution, land erosion, etc.

**Comparative advantage principle** → agricultural structure adjustment
...on farmer income

**Growth rate** averaged at 6% from 1981 to 2005 in real terms, but slowed down in the second half of 1990s, only at 2% in 2000 (Figure 5). Farmer’s income becomes the most important policy objective in recent years. Growth rate resumed: more than 6% in 2004 and 2005.

**Farmers’ income sources** changed greatly. Agricultural activities provided less than half of farmer’s income (46% in 2003 and 48% in 2004). Non-agricultural activities (especially rural migrants employed in urban sectors) play more and more important role (Figure 6).
Figure 5: Per capita farmer income, 1981-2005 (source: OECD 2005, updated)
Figure 6: Farmer income by source, 1985-2004
...major challenge: widening urban-rural income gap

- **Urban-rural income ratio**: 2.6 in 1978, 2.2 in 1990, but increased to 3.2 in 2004 and 2005. If the in-kind income and other welfare benefited by urban residents are included, the income gap would be as high as 5-6 to 1 (Figure 7).

- **Increase of farmer income** becomes the core task for Chinese government in recent years. Actually the title of year 2004 “No.1 document” of Chinese government is on this very issue.
Figure 7: Urban-rural income gap in China, 1978-2005

Urban-Rural Income ratio

Graph showing the urban-rural income gap in China from 1978 to 2005.
The impact on rural incomes will be closely tied to whether surplus farm labor is able to move to the urban areas…(OECD, 2002)

About 40% of labors employed in agriculture, but created only 12.4% of national GDP (year 2005 data, see Figure 8). Which implies:

-- extremely low labor productivity in agriculture
-- massive transfer of rural labors is needed (1/3 labor is surplus). Currently rural migrants amount at 120 million (Research office of State Council, 2006)

**Government action:** relaxation of household registration system, encouragement of out-migration (provide training, information, etc.), reforming the labor use system in urban sectors and in cities.
Figure 8: Evolution of employment in Chinese agriculture (OECD, 2002, updated)

Employment in agriculture, million

Share of agriculture in rural employment

Share of agriculture in total employment

Source: China Statistical Yearbook.
...Impact on trade (cotton)

- **TRQ** for cotton (in-quota tariff 1%, above-quota tariff 40-54% for the transition period).
- China **imported** 2.65 million tons of cotton in 2005, *three times of TRQ*, equal to *47% of domestic production* (Table 4). Cotton alone accounts for 11% of China total agricultural import.
- **Causes**: high subsidy from USA, etc.
- **Impact**: high dependence of Chinese milling plants on international market, large price (also production) fluctuation makes the cotton milling plant in difficulty, harmful for cotton growers.
Table 4: Impact on cotton sector

<table>
<thead>
<tr>
<th>Year</th>
<th>Import (1000t)</th>
<th>TRQ (1000t)</th>
<th>Fill rate</th>
<th>Production (1000t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>113</td>
<td></td>
<td></td>
<td>5320</td>
</tr>
<tr>
<td>2002</td>
<td>208</td>
<td>820</td>
<td>25%</td>
<td>4920</td>
</tr>
<tr>
<td>2003</td>
<td>954</td>
<td>860</td>
<td>111%</td>
<td>4860</td>
</tr>
<tr>
<td>2004</td>
<td>1983</td>
<td>890</td>
<td>223%</td>
<td>6320</td>
</tr>
<tr>
<td>2005</td>
<td>2654</td>
<td>890</td>
<td>298%</td>
<td>5700</td>
</tr>
</tbody>
</table>
...Impact on soybean

• **Only 3% of tariff, no other border measure in place.**

• China imported 26.6 million tons of soybean in 2005, valued at 7.8 billion US$, accounting for 27% of China’s total agricultural import (30% in 2004). Import is much high than domestic production (Table 5).

• Soybean sector concerns about 50 million farm households, or 16% of rural population in China (located mainly in Northeast region).

• **Impact:**
  - --Sale difficulty for soybean farmers in Northeast region.
  - --Farmers face fierce competition from import soybean (with much high domestic production cost).
  - --On farmer income in Heilongjiang: cost increased by 750 Yuan/ha, benefit reduced by 954 Yuan/ha in 2005.
Table 5: Impact on soybean sector

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (million Ton)</th>
<th>Import (million Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>14.25</td>
<td>4.32</td>
</tr>
<tr>
<td>2000</td>
<td>15.41</td>
<td>10.42</td>
</tr>
<tr>
<td>2001</td>
<td>15.41</td>
<td>13.94</td>
</tr>
<tr>
<td>2002</td>
<td>16.51</td>
<td>11.32</td>
</tr>
<tr>
<td>2003</td>
<td>15.39</td>
<td>20.74</td>
</tr>
<tr>
<td>2004</td>
<td>17.40</td>
<td>20.18</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td>26.59</td>
</tr>
</tbody>
</table>
...Impact on export of vegetables and fruits

Anti-dumping; SSGs against China

TBT and SPS measures expand in areas and coverage, technical standards become more and more stricter (EU New standard on pesticide residue in tea set a level only 1/100 to 1/200 of previous one, similar in Japan)…

After WTO accession, China experienced trade disputes: Sino-EU on animal origin products (export dropped by 46% in 2002), garlic with Korea, onion with Japan (Japan will implement Positive List system in May 2006: 0.01ppm for pesticide residue…), honey and apple with USA.

TBT and SPS affect mainly the products in which China has comparative advantages (such as vegetables and fruits).
…on rural poverty

• According to the Chinese official poverty line, the rural poverty reduced from 250 millions in 1978 to 24 millions in 2005; the rural poverty incidence dropped from 30.7% to less than 3%.

• Number of rural poor is stable after WTO accession.

• But if the poverty is measured by the World Bank standard (1$/day of income--PPP), the rural poverty incidence declined from 31.3% in 1990 to 11.2% in 2002 (Table 6). There is still 88 million rural poor in China (World Bank, 2003).
Table 6: Poverty reduction in rural China, 1978-2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Chinese Poverty line (Current Yuan)</th>
<th>Poverty incidence (%)</th>
<th>Numbers (Millions)</th>
<th>WB 1$/day Poverty Incidence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>100</td>
<td>30.7</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>300</td>
<td>9.4</td>
<td>85</td>
<td>31.3</td>
</tr>
<tr>
<td>2000</td>
<td>625</td>
<td>3.4</td>
<td>32</td>
<td>13.5</td>
</tr>
<tr>
<td>2001</td>
<td>630</td>
<td>3.2</td>
<td>29</td>
<td>11.5</td>
</tr>
<tr>
<td>2002</td>
<td>627</td>
<td>3.0</td>
<td>28</td>
<td>11.2</td>
</tr>
<tr>
<td>2003</td>
<td>637</td>
<td>3.1</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>&lt;3</td>
<td></td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>
III. Recent policy reforms

- Introduction of direct payment
- Agricultural taxation reform
- Grain marketing reform
- “Grain for Green” project
- Investment policies
Direct payment for grain farmers

- Introduced in 2004
- To grain growers in 13 major producing provinces
- 11.6 billion Yuan of payment (or 1.4 billion US$)
- Subsidies to the purchase of improved seeds (2.8 billion Yuan) and machinery (0.5 billion Yuan).
- More payment allocated in 2005 and 2006
- Important policy change
Agricultural taxation reform

- In 2000, Chinese farmers shouldered about 200 billion Yuan of various taxes and fees (Aubert and Li, 2002).

- Reform
  - Pilot reform experiment: 2000 in Anhui province
  - Implemented in 2003 nationwide with single tax rate of 8.4%
...Grain marketing reform

• Minimum Price Policy for Rice Performed in 2004
• … for early rice (1.4 Yuan/kg) and japonica rice (1.5 Yuan/kg).

• Grain marketing liberalization in May 2004
• …full liberalization of marketing channels and prices
• New regulation issued by State Council in 2006: perfection of direct payment and Minimum Price Policy
...Grain for Green Policy

- The Chinese government strengthens environmental protection in the late 1990s (oversupply situation of grain in that period).
- ... large scale forestation projects; control of non-point pollution associated with agricultural activities.
- ...“grain for green project” (Returning Farmland to Forests Programme):
- ....Initiated in 1999. By 2003, central government provided nearly 20 billion Yuan of grain subsidy. 7 million hectares of land retreated from farming.
- Continuation of this policy in the 11th Five-Year plan.
...investment policies

• **Current status: low**

• PSE% in China is 6%, while PSE% is more than 30% in OECD countries (Japan 58%, Korea 64%, USA 20%, EU 34%, see Figure 9).

• **Increase of investment from Government**

• Chinese central finance invested 297.5 billion Yuan in 2005 for “Three Nongs”, increased by 13.3% compared to 2004. China will invest 339.7 billion Yuan in 2006 (+14%).
Figure 9: PSE% for China and selected countries, average 2000-2003 (source: OECD, 2005)
...investment policies

• Increase the investments in basic rural infrastructure (water, road, school, irrigation…) to better link farmers with markets, to improve farmers’ living conditions

• Rural Reconstruction Campaign (*Xin nongcun jianshe*) in 2006 in China
IV. Experiences and Lessons

• Experiences
  • Comprehensive approaches for addressing agricultural and rural development (No. 1 Documents)
  • Macro-economic wide policies (financial, credit, labor, education, etc.)
  • Targeted policies (poor, grain producers, etc.)

• Lessons
  • To use alternative policy instruments (such as SSG?) to protect certain sectors and farmers (soybean, cotton, etc.)
  • To develop professional associations (sector self-regulation, price-setting, information, negotiation, etc.)
  • To develop farmers’ organization (participation in development, defense of their economic interest, etc.)
Thank you

• for your attention