China’s Evolving Agricultural Policy

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China’s challenge

• Transform the economic growth model in the midst of macroeconomic uncertainty
• Ensure “food security”
• Narrow rural-urban income gap
• Insulate the farm sector from global price fluctuations
Overview of China’s agriculture

• The largest producer of most agricultural commodities
• Also the largest importer of agricultural commodities
  – More than 60% of world soybean imports
• Farmland is collectively owned and was distributed to rural households after 1978 reform
  – Farming operations are small, averaging 0.5 hectares
• The rural share of population declined from 80% in 1980s to under 50% in 2014
• Agricultural output is growing 4% annually
  – But agriculture’s share of GDP has fallen to 5%
  – There is relatively little investment in agricultural fixed assets
  – Excessive use of fertilizer, pesticide, few environmental controls until now
• This year officials have launched a campaign to change the agricultural growth model
China’s policy has evolved over time

*Gradual* transition from planning to market-oriented economy

Influenced by:
- Threats to food security (grain self-sufficiency)
- Threats to social stability (rural income lags behind; regional unrest)
Ministry of Agriculture lists 50 kinds of agricultural programs, including:

- “Three subsidies”
  - Direct payment, improved seed varieties, agricultural machinery
- Subsidized insurance for crops and livestock
- Subsidies for soil testing and restoring organic matter to soil
- Building high-yielding grain, cotton, oilseed, sugar fields
- Standardized horticultural production areas
- Grassland ecological protection system
- Standardized livestock farm construction
- Alfalfa-planting subsidy to revitalize dairy industry
Subsidy payments increased to over $35 billion in ten years

The “general input subsidy” is the largest payment to farmers, but it did not grow as fast as off-farm wages.

County transfer payments help financially weak agricultural counties and fund services and subsidies to farmers.

Other subsidies are relatively small in total.

Chinese officials describe the subsidies as “sprinkled like salt” because they function as a general income transfer with weak incentives.

Source: China Ministry of Finance.

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**China’s major agricultural subsidies: expenditures 2004-14**

- **General input subsidy**
- **Insurance subsidies**
- **Agricultural machinery**
- **Improved seeds/breeds**
- **Direct payment to grain producers**
- **County transfer payments**

Growth has stopped.
<table>
<thead>
<tr>
<th>Crop</th>
<th>Province</th>
<th>Per acre</th>
<th>Per metric ton</th>
<th>As share of value of crop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double-cropped rice</td>
<td>Hunan</td>
<td>141</td>
<td>29</td>
<td>7</td>
</tr>
<tr>
<td>Single-crop rice</td>
<td>Hunan</td>
<td>105</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>Single-crop rice</td>
<td>Jiangsu</td>
<td>112</td>
<td>37</td>
<td>9</td>
</tr>
<tr>
<td>Single-crop rice</td>
<td>Hubei</td>
<td>89</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Wheat</td>
<td>Shandong</td>
<td>125</td>
<td>47</td>
<td>15</td>
</tr>
<tr>
<td>Wheat</td>
<td>Shanxi</td>
<td>92</td>
<td>53</td>
<td>14</td>
</tr>
<tr>
<td>Wheat</td>
<td>Hubei</td>
<td>79</td>
<td>43</td>
<td>13</td>
</tr>
<tr>
<td>Wheat</td>
<td>Henan</td>
<td>130</td>
<td>48</td>
<td>15</td>
</tr>
<tr>
<td>Corn</td>
<td>Heilongjiang</td>
<td>68</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>Corn</td>
<td>Hebei</td>
<td>106</td>
<td>36</td>
<td>10</td>
</tr>
<tr>
<td>Corn</td>
<td>Shanxi</td>
<td>67</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>Cotton</td>
<td>Shandong</td>
<td>14</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>Rapeseed</td>
<td>Hubei</td>
<td>10</td>
<td>11</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Includes direct payment, general input, and seed subsidies.
Source: ERS calculations based on subsidy rates announced by local governments, price supports and average yields.
China increased minimum prices for rice and wheat as production costs increased during 2009-2013

2008-2013
92% increase in rice price
57% increase in wheat price
Grain production:
Rose from 528.7 to 589.6 mmt

“Temporary reserve” programs also supported prices for corn (maize), soybeans, rapeseed, cotton. A stockpiling program to stabilize Hog prices began in 2009.

Source: China National Development and Reform Commission.
China officials struggle to insulate markets from volatility

• China raised support prices during 2009-12

• The Chinese currency gradually appreciated

• When global prices fell beginning in 2013, Chinese authorities tried to insulate their farmers from declining prices by purchasing large volumes of commodities at support prices.

• China is now debating how to reform its subsidies and reduce price interventions.
Most Chinese agricultural commodity prices now exceed the price of imports

China domestic and import prices, May 2015

Imports increased at the same time domestic support for agriculture increased

Grain production increased
Grain inventories increased to about 70% of production
Imports increased
Government expenditure increased

China imports of major commodities

- Soybeans
- Grains
- Rapeseed
- Alfalfa
- Sugar cane
- Cassava
- Cotton

Graph shows:
- WTO accession in 2001
- Subsidies began raising support prices
- Government expenditure increased
- Grain production increased
- Grain inventories increased to about 70% of production
- Imports increased
## New China agricultural policy reforms in 2014-15

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton</td>
<td>“temporary reserve” price support policy ended; “target price” subsidy $250 per acre in Xinjiang region, lower elsewhere</td>
</tr>
<tr>
<td>Soybeans</td>
<td>“temporary reserve” price support policy ended; “target price” subsidy $60 per acre in Heilongjiang Province</td>
</tr>
<tr>
<td>Corn</td>
<td>“temporary reserve” policy expected to continue at a lower price in 2015/16</td>
</tr>
<tr>
<td>Rapeseed</td>
<td>“temporary reserve” policy ended 2015/16; Small subsidies to producers, about $10-$20 per acre</td>
</tr>
<tr>
<td>Rice, wheat</td>
<td>Minimum price policy continues; price might be reduced</td>
</tr>
<tr>
<td>Grain subsidy pilot reform</td>
<td>No subsidies given for land-holdings where grain is not planted 20% of input subsidy funds set aside for “large farm” subsidies For other farmers subsidies used to encourage environmentally-friendly practices</td>
</tr>
</tbody>
</table>
Policy reforms

- Increase farm productivity through structural adjustment
  - Enlarge the scale of operations; promote transfer of collectively owned land
  - Government grants and loans to upgrade fields, irrigation, complementary infrastructure
  - Provide services to farmers—advice, training, marketing
  - (Domestic) science and technology

- Finance working capital
  - Loan guarantees, subsidized interest rates
Challenge: Manage risk without market distortion

• Minimum price and “temporary reserve” programs were viewed by Chinese officials as measures to reduce risk from price volatility
  – But these programs ultimately distorted markets

• Manage production risk
  – Disaster prevention programs
  – Subsidized insurance against losses

• New ways to manage market risk
  – Eliminate market-distorting price supports
  – Pilot “target price” subsidies for soybeans and cotton
  – Pilot programs: Index insurance for hogs and vegetables
Remediate environmental impacts

• Reduce excessive fertilizer and pesticide use
  – Grain subsidies will be used for environmentally friendly practices
  – Soil fertility testing subsidies increased
  – Demonstration of “green increases” in crop production
  – 13% VAT on chemical fertilizer restored in 2015

• Reduce pollution from livestock farms
  – Ban on hog farms near cities, waterways, roads
  – Adopt manure treatment and biogas facilities on-farm
  – Subsidize safe disposal of diseased animal carcasses

• Remediate soil contaminated with heavy metals from mining and industry
WTO accession shaped China’s policy strategy

• Increase support to protect small (weak) farmers from import competition
• Focus support on “green box” measures that are not limited by WTO
• Continue “modernization” efforts via seed and mechanization subsidies
• Forced rural authorities to eliminate taxes on farmers
• WTO pressure facilitated reform of inefficient grain marketing bureaucracy
  – Subsidies for grain marketing shifted to decoupled payment to farmers
  – Administered prices replaced by market prices; authorities only buy grain for food reserves or to support prices when they fall to a specified minimum.
• Structural adjustment:
  • strategic plans concentrated production of commodities (e.g. apples, beef, export-oriented aquaculture, citrus) in their most competitive regions
For more information on China’s agricultural policies...

**Growth and Evolution in China’s Agricultural Support Policies** by Fred Gale

**China’s Demand for Agricultural Imports** by Fred Gale, James Hansen, Michael Jewison
Economic Information Bulletin 136

**China's Ongoing Agricultural Modernization: Challenges Remain After 30 Years of Reform**
by B. Lohmar, F. Gale, F. Tuan, J. Hansen
Economic Information Bulletin No. 51, April 2009