Economic Reform and the Agricultural Marketing System in the People's Republic of China

Bingrong Jiang
Iowa State University

Marvin L. Hayenga
Iowa State University

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Economic Reform and the Agricultural Marketing System in the People's Republic of China

Abstract
China's economy has experienced great changes since economic reform began in the late 1970s, and was followed by the "open door" policy in early 1980s. The economy grew rapidly in the past decade, as GNP grew more than 10 percent per year, far outstripping any other country in the world (Reynolds, 1988), China's economic performance made the covers of The Economist ((Nov. 28, 1992) and Business Week (May 17, 1993). "With the economy booming at a 12% annual clip and hitting 14% for the first quarter of 1993, China's emergence is already shaking the world." (Business Week, special report, May 17, 1993).

Disciplines
Agribusiness | Agricultural Economics | International Business | International Economics

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Economic Reform and the Agricultural Marketing System in the People's Republic of China

Bingrong Jiang
Marvin L. Hayenga

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*The authors are Research Assistant and Professor of Economics, Iowa State University
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Economic Reform and the Agricultural Marketing System in the People's Republic of China

Introduction

China's economy has experienced great changes since economic reform began in the late 1970s, and was followed by the "open door" policy in early 1980s. The economy grew rapidly in the past decade, as GNP grew more than 10 percent per year, far outstripping any other country in the world (Reynolds, 1988). China's economic performance made the covers of The Economist (Nov. 28, 1992) and Business Week (May 17, 1993). "With the economy booming at a 12% annual clip and hitting 14% for the first quarter of 1993, China's emergence is already shaking the world." (Business Week, special report, May 17, 1993).

This new age of economic reform was initiated in agriculture. The most significant event in more than two decades for Chinese agriculture was the introduction of the household contract responsibility system in late 1970s. Giving individual farmers responsibility for the management of land was a significant change from the collective system, and presented new challenges for the agricultural marketing system.

The objective of this paper is to describe the framework of China's economic reform in the general economy and agriculture since 1978, and to analyze the agricultural marketing system—its reforms, current situation and issues, and possible alternatives. Hopefully, this paper will help those interested in the Chinese socialist system to understand the system better, especially the agricultural marketing system, and provide a case study of the market transition in this socialist system.
China's economy--an overview

China is an extremely large developing country. She accounts for approximately 22% of the world population. In terms of area, China ranks second in size behind Canada (not counting CIS). Although China has abundant natural resources, the average per capita resources are limited. Although it is popularly believed that China is a poor country, she ranks second to the United States in world grain production, and fourth in total energy production.

After the communists came to power in 1949, the semi-capitalistic (or more correctly, semi-feudalistic) system of economic management was ended. A process of nationalization was effected. Gradually, the private industrial enterprises were taken over by the state. In the rural area, land which was mostly owned by large land owners (landlord) was distributed to individual peasants. The landlord as a class was eliminated. This individually owned land was collectivized later (discussed in more detail later). Then a highly centralized planned economy was gradually established.

The development of the economy can be divided into several stages (see table below). Comparatively, only the first Five-Year Plan and the Readjustment period succeeded in achieving their economic objectives before 1977.

Table 1: China's economic stages of development

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Economic Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1949-1952</td>
<td>Recovery or Rehabilitation period</td>
</tr>
<tr>
<td>1953-1957</td>
<td>1st 5-Year Plan</td>
</tr>
<tr>
<td>1958-1960</td>
<td>The Great-Leap-Forward period</td>
</tr>
<tr>
<td>1961-1965</td>
<td>Readjustment period</td>
</tr>
<tr>
<td>1966-1976</td>
<td>Cultural Revolution period</td>
</tr>
<tr>
<td>1977-</td>
<td>The Economic Reform period</td>
</tr>
</tbody>
</table>

"Great Leap Forward" characterized the second 5-year plan. The intent of the "Great Leap Forward" was to bring about massive increases in industrial and agricultural production. Unrealistic goals were set for grain, steel and other major commodities. By
1961, the lack of success of the "Great-Leap-Forward" resulted in a period of readjustment where goals were made more realistic and ambitious projects were curtailed. The 3rd and 4th Five-Year Plans (1966-1976) were in the time period of "cultural revolution". Though it has a more fundamentally political rather than economic policy focus, the political disorder did cause damage to the economy. At least, it shifted the national focus away from economic development.

After the death of Mao Zetong in 1976, the political structure was changed, and the new party leaders recognized the existing problems of the economy. The complete centralization of economic activity was not only grossly inefficient but also virtually impossible to coordinate and manage. This problem was perceived in Poland and Hungary as early as the 1950s. The third plenary session of the 11th central committee of the Chinese Communist Party held at the end of 1978 determined that China should begin to shift the focus of national work to economic development. This plenum is the turning point in China's contemporary history. It marked the beginning of a new era for China's economy, which is known by the economic reform and open-door policy.

The basic features of the economic reform since 1978 (or the new economy system as it was sometimes called) are as follows:

- Economic decision-making power was shifted away from over-centralized, unified state control to a multi-layered decision structure. The microeconomic decision-making was handed over to enterprises, families and individuals, while the local governments (province, county and commune) were given more control or economic autonomy than before.

- The indirect regulation exercised chiefly by economic, legal and necessary administrative means has replaced the direct economic regulation with emphasis on administrative means and mandatory plan or orders. Some market mechanisms such as pricing and private marketing channels were adopted. The market rather than the State determined the prices for more and more products. The state was no longer the sole distributor for some products.

---

1 The commune was renamed as Xiang in 1984, in which the administrative function is separated from the Party function. Xiang is the same as the commune in terms of geographical area, and it is the government body at the lowest level (under county).
In terms of income distribution, the "big rice bowl" (in which one's income did not depend on one's effort) was perceived as unfair, and it did not provide incentives for individuals to produce more. The "big rice bowl" policy was replaced gradually in the rural area by the household contract responsibility system. In the urban area, the policy determining income distribution was summarized as "three irons": (a) "iron rice bowl" (a job for life), (b) "iron salary" (wage parity) and (c) "iron chair" (perks of power). These three "irons" are far from being broken. However, progress has been made to connect one's returns to one's efforts.

China wanted to get rid of the self-sufficient and self-reliance policy, and become more open to the outside world (which will be discussed later in more detail).

Along with a series of economic reform policies and the "open door" policy, there were several periods of economic rectification or readjustments (1981-1983, 1986 and 1988-1991) due to overheating in the economy, when the growth of consumption and investment far exceeded that of national income, or there was high inflation. Despite these setbacks, in the decade of 1980s, China achieved the fastest economic growth since 1949, with the average annual GNP growth rate of 9 percent (Qian). The real per-capita income of farmers increased 8.4 percent, compared to a 5.3 percent increase for urban dwellers.

There was a new campaign to speed up reform and open the doors wider in 1992. This reform campaign focuses on the revitalization of large and medium-size state-owned enterprises. These state enterprises have long been inefficient and required subsidies. It was estimated that subsidies to unprofitable state industries cost government 50.6 billion yuan (about $9.36 billion) in 1991 and that subsidies for food, housing etc.--which mostly go to the workers in these state dinosaurs came to another 37 billion yuan (The Economist: Mar. 28-April 4, 1992). So changes must be made in these inefficient enterprises to orient them to the market, so they can gradually become independent business entities which assume sole responsibility for their own profits and losses. Current policy changes include the changes in operating and management mechanism, fund raising by selling company shares, the implementation of bankruptcy law, and so on. Another big step is the implementation of new accounting rules on July 1, this year. The new regulation is in line with internationally recognized standards. It is an effort to
replace outdated methods of state planning and to enable the firms to enter the international financial market.

Macro-Economy Structure

Table 2: The composition of China’s national income (percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Construction</th>
<th>Transportation</th>
<th>Commerce</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>67.4</td>
<td>14.1</td>
<td>1.1</td>
<td>3.3</td>
<td>14.1</td>
</tr>
<tr>
<td>55</td>
<td>52.9</td>
<td>22.7</td>
<td>3.8</td>
<td>4.2</td>
<td>16.4</td>
</tr>
<tr>
<td>60</td>
<td>27.2</td>
<td>46.3</td>
<td>6.5</td>
<td>6.9</td>
<td>13.1</td>
</tr>
<tr>
<td>65</td>
<td>46.2</td>
<td>36.4</td>
<td>3.8</td>
<td>4.2</td>
<td>9.4</td>
</tr>
<tr>
<td>70</td>
<td>41.3</td>
<td>40.1</td>
<td>4.1</td>
<td>3.8</td>
<td>10.7</td>
</tr>
<tr>
<td>75</td>
<td>39.4</td>
<td>44.5</td>
<td>4.5</td>
<td>3.8</td>
<td>7.8</td>
</tr>
<tr>
<td>76</td>
<td>41.0</td>
<td>43.3</td>
<td>4.9</td>
<td>3.8</td>
<td>7.0</td>
</tr>
<tr>
<td>77</td>
<td>37.1</td>
<td>45.2</td>
<td>4.7</td>
<td>4.0</td>
<td>9.0</td>
</tr>
<tr>
<td>78</td>
<td>35.4</td>
<td>46.8</td>
<td>4.1</td>
<td>3.9</td>
<td>9.8</td>
</tr>
<tr>
<td>79</td>
<td>39.3</td>
<td>45.9</td>
<td>3.9</td>
<td>3.6</td>
<td>7.3</td>
</tr>
<tr>
<td>80</td>
<td>39.1</td>
<td>45.8</td>
<td>5.0</td>
<td>3.4</td>
<td>6.7</td>
</tr>
<tr>
<td>81</td>
<td>41.6</td>
<td>43.4</td>
<td>4.9</td>
<td>3.3</td>
<td>6.8</td>
</tr>
<tr>
<td>82</td>
<td>43.9</td>
<td>42.3</td>
<td>4.9</td>
<td>3.5</td>
<td>5.4</td>
</tr>
<tr>
<td>83</td>
<td>44.3</td>
<td>41.4</td>
<td>5.5</td>
<td>3.4</td>
<td>5.4</td>
</tr>
<tr>
<td>84</td>
<td>44.1</td>
<td>40.6</td>
<td>5.4</td>
<td>3.6</td>
<td>6.3</td>
</tr>
<tr>
<td>85</td>
<td>41.4</td>
<td>41.5</td>
<td>5.5</td>
<td>3.5</td>
<td>8.1</td>
</tr>
<tr>
<td>86</td>
<td>34.6</td>
<td>45.5</td>
<td>6.5</td>
<td>4.1</td>
<td>9.3</td>
</tr>
<tr>
<td>87</td>
<td>33.9</td>
<td>45.8</td>
<td>6.8</td>
<td>4.1</td>
<td>9.4</td>
</tr>
<tr>
<td>88</td>
<td>32.5</td>
<td>46.1</td>
<td>6.8</td>
<td>3.9</td>
<td>10.7</td>
</tr>
<tr>
<td>89</td>
<td>32.5</td>
<td>47.6</td>
<td>5.4</td>
<td>3.9</td>
<td>10.6</td>
</tr>
</tbody>
</table>

Notes:

1. China decomposes the national income into these categories: Agriculture, Industry, Construction, Transportation and Commerce.
2. Figures in this table are calculated from values in nominal prices.
3. The official figures undervalue the importance of agriculture because of the low price of agriculture products set by state.

Sources: Statistical Yearbook of China (1986), State Statistical Bureau, P. R. China, and P.R.C. Year Book '80.
China has long been recognized as an agricultural nation; around 80 percent of its population was in the rural area and engaged in agriculture before the economic reform.

From Table 2 above, it is clear that agriculture is not so important that China still should be considered as an agricultural nation. Its importance in the nation's economy decreased significantly in the 1950s, but stabilized thereafter (see Table 3).

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>56.9</td>
<td>43.1</td>
</tr>
<tr>
<td>1957</td>
<td>43.3</td>
<td>56.7</td>
</tr>
<tr>
<td>1962</td>
<td>38.8</td>
<td>61.2</td>
</tr>
<tr>
<td>1965</td>
<td>37.3</td>
<td>62.7</td>
</tr>
<tr>
<td>1970</td>
<td>33.7</td>
<td>66.3</td>
</tr>
<tr>
<td>1975</td>
<td>28.8</td>
<td>71.2</td>
</tr>
<tr>
<td>1976</td>
<td>27.7</td>
<td>72.3</td>
</tr>
<tr>
<td>1977</td>
<td>25.2</td>
<td>74.8</td>
</tr>
<tr>
<td>1978</td>
<td>24.8</td>
<td>75.2</td>
</tr>
<tr>
<td>1979</td>
<td>26.6</td>
<td>73.4</td>
</tr>
<tr>
<td>1980</td>
<td>27.2</td>
<td>72.8</td>
</tr>
<tr>
<td>1981</td>
<td>28.8</td>
<td>71.2</td>
</tr>
<tr>
<td>1982</td>
<td>29.9</td>
<td>70.1</td>
</tr>
<tr>
<td>1983</td>
<td>29.9</td>
<td>70.1</td>
</tr>
<tr>
<td>1984</td>
<td>29.7</td>
<td>70.3</td>
</tr>
<tr>
<td>1985</td>
<td>27.1</td>
<td>72.9</td>
</tr>
<tr>
<td>1986</td>
<td>25.4</td>
<td>73.6</td>
</tr>
<tr>
<td>1987</td>
<td>25.3</td>
<td>74.7</td>
</tr>
<tr>
<td>1988</td>
<td>24.3</td>
<td>75.7</td>
</tr>
<tr>
<td>1989</td>
<td>22.9</td>
<td>77.1</td>
</tr>
</tbody>
</table>

Notes: 1) The data are calculated based on nominal price.
2) Industry includes that at the village and below level (the industries owned by village, former production team or individuals).

Source: P.R.C. Year Book '80
Table 4: Average Annual Increase Rate in Value of Output (percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953-57</td>
<td>4.5</td>
<td>18.0</td>
<td>10.9</td>
</tr>
<tr>
<td>1958-62</td>
<td>-4.3</td>
<td>3.8</td>
<td>0.6</td>
</tr>
<tr>
<td>1963-65</td>
<td>11.1</td>
<td>17.9</td>
<td>15.7</td>
</tr>
<tr>
<td>1966-70</td>
<td>3.9</td>
<td>11.7</td>
<td>9.6</td>
</tr>
<tr>
<td>1971-75</td>
<td>4.0</td>
<td>9.1</td>
<td>7.8</td>
</tr>
<tr>
<td>1976-80</td>
<td>5.1</td>
<td>9.2</td>
<td>8.1</td>
</tr>
<tr>
<td>1980-84</td>
<td>11.0</td>
<td>9.0</td>
<td>9.6</td>
</tr>
</tbody>
</table>


The table below roughly illustrates the changes in China's economic structure. A high proportion in service (tertiary industry) is perceived as a healthy economic structure for an industrialized nation. From the data below, the service industry did increase in the 1980s.

Table 5: Composition of Chinese Economy, 1978 and 1989 (percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>1978</th>
<th>1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>38</td>
<td>45</td>
</tr>
<tr>
<td>Service</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>


International Trade

Since China opened its door to the outside world in 1979, the average annual pace of trade expansion between 1978 and 1990 was in excess of 15 percent, over three times the rate of growth of the world trade. As Nicholas K. Lardy (1992) puts it: "in the decade of the 1980s China emerged as one of the most dynamic trading countries in the world." In 1990, China ranks as the 14th largest exporting country in the world, up from 32nd place in 1978. It captured 11th place among the world's trading powers in 1992.
Table 6: China's Foreign Trade and National Income Annual Growth Rates (percent)

<table>
<thead>
<tr>
<th></th>
<th>National Income</th>
<th>Foreign Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952-1977</td>
<td>5.7</td>
<td>8.5</td>
</tr>
<tr>
<td>1978-1989</td>
<td>8.7</td>
<td>13.3</td>
</tr>
</tbody>
</table>

Note: National income is measured according to the net material product concept, which omits portions of service sector.


The structure of foreign trade has been improving since the 1950s. As the following table shows, the raw material export (mainly agricultural products) has decreased while the proportion of industrial goods increased.

Table 7: Composition of China's export products, 1955-1985 (percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>Agricultural</th>
<th>Textiles</th>
<th>Light</th>
<th>Heavy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>and Sideline Products</td>
<td>Industrial</td>
<td>Industrial</td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>46.1</td>
<td>11.7</td>
<td>19.5</td>
<td>22.7</td>
</tr>
<tr>
<td>1960</td>
<td>31.0</td>
<td>29.1</td>
<td>17.1</td>
<td>22.8</td>
</tr>
<tr>
<td>1965</td>
<td>33.1</td>
<td>20.1</td>
<td>23.4</td>
<td>23.4</td>
</tr>
<tr>
<td>1970</td>
<td>36.4</td>
<td>21.4</td>
<td>26.2</td>
<td>15.7</td>
</tr>
<tr>
<td>1975</td>
<td>29.6</td>
<td>17.9</td>
<td>23.9</td>
<td>28.6</td>
</tr>
<tr>
<td>1980</td>
<td>18.7</td>
<td>17.9</td>
<td>24.0</td>
<td>39.4</td>
</tr>
<tr>
<td>1985</td>
<td>17.5</td>
<td>19.7</td>
<td>20.0</td>
<td>42.8</td>
</tr>
</tbody>
</table>

Note: 1. Sideline products refer to minor products produced in farmer household such as bamboo products.
2. Later data is not directly available.

Source: China Facts and Figures Annual 14 (1991)

The Chinese "open door" policy involves these major elements:

1) More contact has been established with international organizations. China joined both World Bank and International Monetary Fund in the early 1980s,
and became a member of Asian Development Bank in the mid-1980s.
Recently China petitioned for the restoration of membership in the GATT.

(2) Several Special Economic Zones (SEZ) and "Coastal Open Cities" were set up to encourage foreign investment and international trade. Five SEZs have been established, four (Shenzhen, Zhuhai, Shantou and Xiamen) in 1980 along the coastal areas of south China near Hong Kong and Macao boarders, and Hainan Island (the newest province) in 1988. These SEZs offer investors a variety of special privileges and conditions in terms of tax exemption (for the first three years or so), ownership, profits remitted to home country, quota on foreign exchange holdings for individual firms and local governments, and so on. These conditions are not available in other parts of China.

The five SEZs solidified their roles as leaders in China's international trade. During 1990, their total foreign trade increased by 14% while the national trade grew only by 3.4%. They account for 13.5% of China's trade volume.
Table 8: China's Annual Trade Balance, 1979-1991 (Billion U.S. Dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports</th>
<th>Imports</th>
<th>Trade Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>13.66</td>
<td>15.67</td>
<td>-2.01</td>
</tr>
<tr>
<td>1980</td>
<td>18.27</td>
<td>19.55</td>
<td>-1.28</td>
</tr>
<tr>
<td>1981</td>
<td>22.01</td>
<td>22.01</td>
<td>0.00</td>
</tr>
<tr>
<td>1982</td>
<td>22.32</td>
<td>19.28</td>
<td>3.04</td>
</tr>
<tr>
<td>1983</td>
<td>22.23</td>
<td>21.39</td>
<td>0.84</td>
</tr>
<tr>
<td>1984</td>
<td>26.14</td>
<td>27.41</td>
<td>-1.27</td>
</tr>
<tr>
<td>1985</td>
<td>27.35</td>
<td>42.25</td>
<td>-14.90</td>
</tr>
<tr>
<td>1986</td>
<td>30.94</td>
<td>42.91</td>
<td>-11.97</td>
</tr>
<tr>
<td>1987</td>
<td>39.44</td>
<td>43.21</td>
<td>-3.77</td>
</tr>
<tr>
<td>1988</td>
<td>47.54</td>
<td>55.25</td>
<td>-7.71</td>
</tr>
<tr>
<td>1989</td>
<td>52.50</td>
<td>59.10</td>
<td>-6.60</td>
</tr>
<tr>
<td>1990</td>
<td>60.06</td>
<td>53.35</td>
<td>8.71</td>
</tr>
<tr>
<td>1991</td>
<td>71.90</td>
<td>63.80</td>
<td>8.10</td>
</tr>
</tbody>
</table>

Source: China Facts and Figures Annual 14 (1991) and other government publications.

Besides SEZs, a selected number of coastal cities were designated as "open cities." Some of the same advantages to foreign investors were offered in these cities. It was estimated that the 14 cities selected in 1984 attracted more foreign capital in the first six months after designation than had been invested in the same 14 cities during the preceding 5 years.

(3) Institutional reforms were made in the foreign trade system to provide the incentive to export at the provincial and local level. The number of channels by which products are exchanged with the outside world was expanded. Some enterprises were granted permission to export or import directly. The number of State trading agencies was greatly increased. The authority in foreign trade was decentralized, and more exchange earnings were allowed to be retained at
the local State and exporting enterprises. The factories that produce export goods had priority in accessing credit, raw material, and energy. A contract responsibility system in foreign trade enterprises was introduced in 1988 (under this system, enterprises assumed responsibility for their profits and losses). Furthermore, China devalued its currency roughly 80% in real terms over the past decade, including devaluation of 21.1% against the US dollar in December 1989, and 9.6% in November 1990.

All those policies have greatly enhanced China's foreign trade, and efforts continue to reform China's foreign trade system.
Agriculture—the changing structure

Policy Framework

The agricultural structure of China has experienced a dramatic change since 1978. The well-established operating system characterized by "three-tiers' ownership with team as basis" dominated China's agriculture for more than 20 years prior to 1978. The three tiers of Chinese agricultural organization were: the commune, the brigade, and the production team, where the production team was the basic unit of production and management. The land, major facilities, and most productive resources were owned by these three levels of organization.

This system was developed in the 1950s. According to China's first 5-year plan, it would take 15 years to get peasants into high stage cooperatives. The process would be a step by step gradual transition of peasants in mutual aid production teams or individual households into lower stage cooperatives, then to middle stage cooperatives, and finally to higher stage cooperatives.

The mutual aid production team was based on individually owned land with labor exchange, sharing draft animals and other means of production. The lower stage cooperative involved pooling of land as well as collective labor. Output distribution to cooperative members was based on relative contributions of labor and land and other means of production. In the more advanced cooperatives, the link between the inputs (land and other means of production) and return was broken. Instead income was derived solely according to the labor performed. The land was no longer privately owned. This type of cooperative was a fully socialist cooperative, while the lower stage cooperative was defined as half socialist since the income was also based partially on land ownership, not solely on the labor input.

Peasants were supposed to move to higher stage cooperatives gradually and voluntarily. This pattern was broken in 1956 after Chairman Mao Zetong's call for an
acceleration of the agricultural cooperativization. Because of Mao’s unbelievable impact on China at that time, the process, originally planned to take fifteen years, was accomplished in little more than a year. By March 1956 over 90 percent of the peasants were in the cooperatives, and by 1957 virtually all were in the 680,000 higher stage cooperatives (see table below). This was known as "socialist cooperative movement" or the "socialist High Tide".

Table 9: Collectivization in agriculture, 1952-1957 (percent of peasant households)

<table>
<thead>
<tr>
<th>year</th>
<th>independent peasant household</th>
<th>mutual aid teams</th>
<th>agricultural production cooperatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>total</td>
<td>seasonal</td>
<td>annual</td>
</tr>
<tr>
<td>52</td>
<td>60.0</td>
<td>39.9</td>
<td>29.8</td>
</tr>
<tr>
<td>53</td>
<td>60.5</td>
<td>39.3</td>
<td>27.8</td>
</tr>
<tr>
<td>54</td>
<td>39.7</td>
<td>58.3</td>
<td>32.2</td>
</tr>
<tr>
<td>55</td>
<td>35.1</td>
<td>50.7</td>
<td>23.1</td>
</tr>
<tr>
<td>56</td>
<td>3.7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>57</td>
<td>2.0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>


A further push came from the mass movement (in 1958) of taking a "great leap forward" into the communist millennium. In a matter of months cooperatives were merged to become brigades and much larger people’s communes. Collective property was transferred between brigades and from brigade to commune level without compensation. In a massive campaign to increase China’s output of steel, peasants built hundreds of thousands of furnaces. Even cooking pots were sacrificed to be melted down, and one production team or several teams cooked together for all the households of the production teams (later this was called the "free meal" policy). Millions of trees
were felled for fuel to produce low quality iron and steel. As a result, agricultural production dropped greatly (see Table 4). The "Great Leap Forward" was a disaster to the economy, and a primary contributor to the "three hard years" (1959, 1960 and 1961) during which there were 30 million famine-related deaths. As a famous Chinese economist (Xue) wrote: "Because of excessive in-kind tax, compulsory purchase and "free meal," there was a famine in the rural area in 1959." The excessive tax and commodity purchases by the state resulted from the "exaggeration fever" (which overstated output substantially) of local rural government political officials trying to look good to their superiors.

In the early sixties, the readjustment period, the size of people's communes were generally reduced from four or five thousand households to fewer than two thousand per commune. The ownership and self-management rights were assigned to the production team, the lowest level of collective ownership within the people's commune. Brigades were introduced to protect and guarantee teams' labor power, land, animals, and equipment. Thus, the three-tier system was established and remained unchanged until the economic reform began in 1978.

This agricultural structure has been abolished gradually since 1978 because of the "big rice bowl" problem, which did not provide enough incentives for agricultural production. To replace that policy, the household contract responsibility system was introduced and became the fundamental framework of agricultural production throughout China by 1983. Unlike the process of collectivization in the 50s, this decollectivization was actually voluntary and accomplished without a campaign or mass movement.

The production contract system was initiated by peasants in relatively poor rural areas such as Anwui and Suchun provinces in 1977 and 1978, in the form of contracting to groups by the production team. Each group got a certain amount of land or a particular task, and was responsible for its output. Although varied in name, the basic idea of the contracting system was to tie the payment more closely to the quantity and
quality of individual's labor input (link income to output achieved by the labor). The practice received considerable debate both academically and politically in 1978 and following years.

The debates focused on: (1) the nature of the contracting system, whether it was socialist or capitalist; (2) how widely this system should be allowed; and (3) whether contracts should be with groups or households. It was generally approved at the Third Plenary Session (at the end of 1978) that assigning responsibility to groups was allowed, but not to households. It was not until the Fourth Plenary session in September 1979 that the total prohibition against household contracting was removed. But the applicability was generally considered to be primarily appropriate for the backward rural area where productivity levels were low and the production team was poorly managed. This was finally changed in 1983 when household contracting was approved officially for any collectives as long as the peasants requested it. The government document addressed the rationale for the change:

"The rapid development of output-related responsibility system is not at all accidental. With peasant households or task groups becoming contractors, this responsibility system expands peasants decision-making powers and realizes the advantages of small-scale operation. It overcomes the disadvantages of over-centralized management, the inefficiency of large work groups, and egalitarianism. It also preserves the system of public ownership of basic means of production, such as land, retains certain unified operations, and brings into play the role of newly added productive forces that were developed through many years of effort. The combination of decentralized operations and unified operations has wide applicability. It suits the present situation in which manual labor predominates. It also provides the prerequisites for the development of the productive forces in the course of agricultural modernization. In the context of this system, the contracted family operation is a new type of family economy functioning at one of the operational levels of the collective economy. We should not confuse it with the former small-scale individual economy based on private ownership because there are essential differences between them. Therefore, we should energetically support the masses' demand for adoption of this
practice wherever it exists. Of course, we should not force people to implement it if they haven't asked for it. We should always permit simultaneous existence of various responsibility systems." (Government document #1 1983)

Along with the household contract responsibility system, another major event in Chinese agriculture was the increased price offered for most agricultural products in 1979. These two events are the first-stage rural reform that greatly stimulated peasants' enthusiasm in farming. These policies have been a great success. Agricultural production has increased at a rapid rate since then. The long-existing problem of product shortages was eased, but a new problem of marketing was generated. This prompted the second-stage rural reform which focused on a more open market for agricultural products. Basically the reform tried to remove most administrative control over procurement of agricultural products (compulsory procurement or unified purchase) and a contract purchasing system was adopted. Although this second-stage reform was not a great success, a much more open market has been established and farmers have more control over agricultural products than before.

Production Pattern

After these series of reforms for agriculture, substantial changes have occurred in China's vast rural area. The introduction of the household contract responsibility system changed peasants' economic behavior. Individual households become the basic unit of production and management, and the scene of groups of people working together on a same piece of land is hard to find in the countryside now. Individuals work for their own profit, and the increased productive efficiency released a substantial amount of spare rural labor. Some of the released labor moved mainly to township or village enterprises. The township and village enterprises enjoyed a rapid growth in the 1980s. This is due to the fact that, in comparison with state-owned enterprises, they have complete authority in

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2 Because of the relatively low profit of grain production, farmers tended to produce less under this less compulsory procurement system. This, together with less favorable weather, resulted in the State failing to purchase enough products in 1985. Because of the historically large crop in 1984, there was no food shortage in 1985.
planning, production, management, etc. They can set the price and choose the marketing channels for their products. Some even argue that their success is due to their readiness to use bribery in marketing their goods and obtaining the supply of raw materials.

The rapid development of township and village enterprises changed the rural economic structure (see Table 10). The total output value of these township and village enterprises and other non-agricultural sectors exceeded that of agriculture in recent years. Due to small-scale farms, manual labor predominating in farming, and relative low prices for agricultural products, agriculture generally is inefficient and less profitable than other industries. It is not surprising to find the richest rural areas in China usually have a high proportion of non-agricultural business sectors, and these richer rural areas also have high agricultural productivity\(^3\). A high positive correlation could be found between the wealth of the area and the development of non-agricultural sectors.

\(^3\) One reason is that the areas with higher agricultural productivity have more revenues necessary for the investment in non-agricultural businesses, and the profits generated by these businesses, in return, provide more investment for the agricultural sector.
Table 10: Composition of Gross Product Value of Rural Areas (percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture</th>
<th>Rural Industry</th>
<th>Rural Construction</th>
<th>Rural Transportation</th>
<th>Rural Commerce</th>
<th>Rural Agriculture</th>
<th>Non Agriculture Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>68.6</td>
<td>19.4</td>
<td>6.6</td>
<td>1.7</td>
<td>3.7</td>
<td>31.4</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>68.9</td>
<td>19.5</td>
<td>6.4</td>
<td>1.7</td>
<td>3.5</td>
<td>31.1</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>66.7</td>
<td>20.0</td>
<td>7.8</td>
<td>2.0</td>
<td>3.5</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>63.5</td>
<td>22.9</td>
<td>7.3</td>
<td>2.6</td>
<td>3.7</td>
<td>36.5</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>57.1</td>
<td>27.6</td>
<td>8.1</td>
<td>3.0</td>
<td>4.2</td>
<td>42.9</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>53.1</td>
<td>31.5</td>
<td>7.8</td>
<td>3.3</td>
<td>4.3</td>
<td>46.9</td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td>49.6</td>
<td>34.8</td>
<td>7.7</td>
<td>3.5</td>
<td>4.4</td>
<td>50.4</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>46.8</td>
<td>38.1</td>
<td>7.1</td>
<td>3.5</td>
<td>4.5</td>
<td>53.2</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>45.1</td>
<td>40.7</td>
<td>6.3</td>
<td>3.6</td>
<td>4.3</td>
<td>54.9</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>46.1</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>53.9</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>42.3</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>57.7</td>
<td></td>
</tr>
</tbody>
</table>

Note: The four categories of non-agricultural sectors are official categories in China. Industry is equivalent to manufacturing, and commerce includes retailing, wholesaling and food services.

Source: 1). State Statistical Bureau of P. R. China.

The composition within the agricultural sector has also changed since 1978 when the rural reform began. Crops have declined in their contribution to the total output value of agricultural sector. This is because forest production, animal husbandry, fishery and subsidiary activities (sideline products) have grown in importance (see Table 11). With increased animal and fish production, consumers' diets could be improved. The development of these other enterprises in agricultural areas could absorb some more released rural labor, which was another reason for increasing the production in forestry, animal husbandry, fishery and subsidiary activities (sideline production). This has been recognized as an improvement of China's agricultural structure, and a success of agricultural policy by China.

Grain production was always emphasized in China, because of the large population to feed. It always was the primary focus of agricultural policy. In recent years, the diversification in crop planting was intended to increase peasants' incomes, even though
this led to added expense of importing some grain. The table below lists the major agricultural products and their sown areas for the last decade. It shows the proportion of cash crops has been increasing while the grain proportion decreased after the reform policies began in 1978.

**Table 11: Composition of China's Gross Agricultural Output Value (percent)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Crop Planting</th>
<th>Forestry</th>
<th>Animal Husbandry</th>
<th>Fishery</th>
<th>Sideline Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>76.7</td>
<td>3.4</td>
<td>15.0</td>
<td>3.3</td>
<td>1.6</td>
</tr>
<tr>
<td>1979</td>
<td>74.7</td>
<td>3.6</td>
<td>16.8</td>
<td>3.4</td>
<td>1.5</td>
</tr>
<tr>
<td>1980</td>
<td>71.7</td>
<td>4.2</td>
<td>18.4</td>
<td>4.0</td>
<td>1.7</td>
</tr>
<tr>
<td>1981</td>
<td>70.5</td>
<td>4.5</td>
<td>18.5</td>
<td>4.5</td>
<td>2.0</td>
</tr>
<tr>
<td>1982</td>
<td>70.5</td>
<td>4.4</td>
<td>18.3</td>
<td>4.7</td>
<td>2.1</td>
</tr>
<tr>
<td>1983</td>
<td>70.6</td>
<td>4.6</td>
<td>17.8</td>
<td>4.9</td>
<td>2.3</td>
</tr>
<tr>
<td>1984</td>
<td>68.3</td>
<td>5.0</td>
<td>18.2</td>
<td>5.8</td>
<td>2.7</td>
</tr>
<tr>
<td>1985</td>
<td>63.0</td>
<td>5.2</td>
<td>22.0</td>
<td>6.3</td>
<td>3.5</td>
</tr>
<tr>
<td>1986</td>
<td>62.2</td>
<td>5.0</td>
<td>21.8</td>
<td>6.9</td>
<td>4.1</td>
</tr>
<tr>
<td>1987</td>
<td>60.7</td>
<td>4.7</td>
<td>22.8</td>
<td>7.0</td>
<td>4.8</td>
</tr>
<tr>
<td>1988</td>
<td>55.9</td>
<td>4.7</td>
<td>27.2</td>
<td>6.7</td>
<td>5.5</td>
</tr>
<tr>
<td>1989</td>
<td>56.2</td>
<td>4.4</td>
<td>27.5</td>
<td>6.6</td>
<td>5.3</td>
</tr>
</tbody>
</table>

Note: 1. Figures in this table are calculated at nominal prices.
2. Figures in this table exclude industry at village level and below.

Source: PRC Year Book '90.

Another characteristic of China's agriculture worth mention is the extremely small farm size, which averages less than a half an acre per household. The ability of non-agricultural sectors such as sideline enterprises to absorb labor released from farming has been quite important in allaying social pressure. More township and village enterprises and more diversified agriculture could keep them in the countryside since China's policy does not allow farmers to move to any cities.
Table 12: Composition of Total Sown (Planted) Area of Farm crops (percent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grain crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice</td>
<td>20.1</td>
<td>20.5</td>
<td>19.2</td>
<td>20.8</td>
<td>22.9</td>
<td>23.0</td>
<td>23.0</td>
<td>22.2</td>
</tr>
<tr>
<td>Wheat</td>
<td>17.5</td>
<td>17.5</td>
<td>17.2</td>
<td>17.2</td>
<td>19.4</td>
<td>20.2</td>
<td>20.5</td>
<td>19.9</td>
</tr>
<tr>
<td>Corn</td>
<td>8.9</td>
<td>9.5</td>
<td>NA</td>
<td>10.9</td>
<td>13.3</td>
<td>13.1</td>
<td>12.9</td>
<td>13.9</td>
</tr>
<tr>
<td>Soybeans</td>
<td>8.3</td>
<td>8.1</td>
<td>6.8</td>
<td>6.0</td>
<td>4.8</td>
<td>5.3</td>
<td>5.1</td>
<td>5.8</td>
</tr>
<tr>
<td>Tubers</td>
<td>6.2</td>
<td>6.7</td>
<td>8.7</td>
<td>7.8</td>
<td>7.9</td>
<td>6.5</td>
<td>6.2</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>Cash (Industrial) crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>3.9</td>
<td>3.7</td>
<td>2.5</td>
<td>3.5</td>
<td>3.2</td>
<td>4.2</td>
<td>4.8</td>
<td>3.3</td>
</tr>
<tr>
<td>Oil-bearing crops</td>
<td>4.0</td>
<td>4.4</td>
<td>3.0</td>
<td>3.6</td>
<td>4.1</td>
<td>5.8</td>
<td>6.0</td>
<td>7.7</td>
</tr>
<tr>
<td>Peanuts</td>
<td>1.3</td>
<td>1.6</td>
<td>0.9</td>
<td>1.3</td>
<td>1.2</td>
<td>1.5</td>
<td>1.7</td>
<td>2.1</td>
</tr>
<tr>
<td>Rapeseed</td>
<td>1.3</td>
<td>1.5</td>
<td>1.0</td>
<td>1.3</td>
<td>1.7</td>
<td>2.5</td>
<td>2.4</td>
<td>3.6</td>
</tr>
<tr>
<td>Sesame</td>
<td>0.7</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Hemp crops</td>
<td>0.4</td>
<td>0.4</td>
<td>0.3</td>
<td>NA</td>
<td>0.5</td>
<td>0.3</td>
<td>0.3</td>
<td>0.7</td>
</tr>
<tr>
<td>of which: Jute, kenaf</td>
<td>0.1</td>
<td>0.1</td>
<td>NA</td>
<td>0.1</td>
<td>0.3</td>
<td>0.2</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Sugar crops</td>
<td>0.1</td>
<td>0.3</td>
<td>0.2</td>
<td>0.4</td>
<td>0.6</td>
<td>0.8</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Sugar cane</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.3</td>
<td>0.4</td>
<td>0.5</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Beetroot</td>
<td>NA</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.4</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>Tobacco</td>
<td>0.3</td>
<td>0.3</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Cured tobacco</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Other industrial crops</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0.5</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Other farm crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>3.4</td>
<td>5.8</td>
<td>7.0</td>
<td>8.0</td>
<td>10.1</td>
<td>8.5</td>
<td>8.3</td>
<td>8.9</td>
</tr>
<tr>
<td>Melons</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>3.8</td>
</tr>
<tr>
<td>Green manure</td>
<td>1.6</td>
<td>2.2</td>
<td>2.5</td>
<td>3.8</td>
<td>6.1</td>
<td>3.9</td>
<td>NA</td>
<td>2.9</td>
</tr>
</tbody>
</table>

**Note:** Including multiple cropping area.

**Source:** State Statistical Bureau.
Agricultural Marketing System

Marketing reforms.

The unified purchase (tonggou) and marketing of agricultural products was introduced by the government in late 1953. This system involved a state monopsony in the purchase of grain, cotton, oil-bearing crops and timber and fixed quota purchases of more than 100 farm products, such as pork, beef, mutton, eggs, poultry and tea. Under this system, private trade of these agricultural products was prohibited; farmers were required to sell all surplus products to the state granary at the price specified by the state.

For grain and oil-bearing products, the function of purchasing is carried out by the state grain department which had local grain stations (granary) at the commune level. The grain purchased by the state then was processed and distributed to the urban consumers and light industry, some was redistributed to the rural areas where there was a grain shortage or grain was not produced (as in pasture or forest areas). The remainder was stockpiled. The allocation channel in urban areas was the state-owned grain shops which were usually located in or near residential neighborhoods. A ration system was adopted because of the short supply of agricultural products, which is due to China's large population and relatively limited arable land. The food ration was primarily based on age and occupation.

Because of the low wages earned by city employees, the selling price set by the State was low. There was a decades-long grain price reversal between the price paid to producers and price charged to the consumers, with the state selling price lower than the purchase price paid to farmers. The difference and processing cost were an indirect state subsidy to consumers. This phenomena existed since the establishment of unified

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4 The rations are low for children and increase as they grow up. People in work positions which require more physical strength (usually blue collar) get higher rations that those in position where less physical strength is needed (white collar). Only persons officially classed as urban residents have the right to a state ration, and the remaining population (farmers) have to rely on their own production (left over after state procurement).
purchase systems. At the same time, the purchasing prices of agricultural products were also set low in comparison with prices of industrial goods. Because of the weak industrial foundation in China, relative low prices paid for agricultural products enable China to save a certain amount of funds (accumulation) for industrial development. This approach followed the former Russian model which put industrial development as its priority task.

Another important role in the rural marketing system is played by the supply and marketing cooperatives scattered throughout rural China, even in small villages. They are part of the All-China supply and marketing general cooperative, which is assigned to manage rural commerce (the Ministry of Commerce is responsible for the urban commerce).

The cooperative was set up in 1950s. As a kind of farmers' cooperative with state support, it is responsible for the supply of industrial consumer goods and means of production to rural residents, and also for purchasing some farm and sideline products needed in the cities. The ownership of the cooperative has shifted back and forth between state-owned and collective-owned several times, and has been collective-owned since 1982. Because of the uncertainty about its ownership throughout these years, the corresponding objectives of the cooperative and whether it was a "real" farmers' cooperative were under debate for a while. The current cooperative differs from cooperatives in Western countries, in terms of its nature, membership, return to members, etc. In this cooperative, farmers do not have anything to do with the management of the cooperative; there is no membership and no returns to farmers. It acts just like an independent commercial entity, though with the name cooperative attached to it.

Since the rural economic reform in 1978, several major changes have been adopted to improve the agricultural marketing system. Though these changes are highly integrated in nature, they are presented separately for clarity.
The development of free markets. With the production contract responsibility system introduced in 1978, farmers' enthusiasm for agricultural production increased. Agricultural output increased greatly, and farmers' had more surplus in their hands. This was the direct stimulus for the development of free markets in both rural and urban areas and gradual removal of the restriction on farmers' market exchange and long-distance trading by private traders.

After 1978, rural farmers markets ("fairs" is the term used most often in China) were allowed to resume activities and farmers began to enter the field of market exchange. But they could only sell some products which the state did not purchase at the nearby rural free markets. In 1981, the long-distance trading by private traders was accepted as legal, but not large-scale private trading using trucks, boats and other means of transport. Since that time, further expansion of private trading has been encouraged, as more products were allowed to go to the market, and the restrictions on private long-distance trading and use of large-scale transport were liberalized. Some farmers began to quit production to take up transportation of farm products, and became specialized in long-distance transport and marketing of goods. The number of such people soared after 1985 when the mandatory purchase of farm produce by the state was abolished.

The supply and marketing cooperatives are more active in marketing agricultural products since the rural reform began in 1978. The cooperatives play an important role in the rapid growth of free markets. By 1987, the supply and marketing cooperatives throughout the country had 1,700 farm and sideline products trading centers and wholesale stations in urban areas. This helped to improve the variety of food consumed by urban residents. The following table shows the rapidly increasing importance of free markets in urban areas after mandatory state trading was abolished.
Table 13: Food Bought in Free Market in Urban Area (percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>1984</th>
<th>1985</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable</td>
<td>41.7</td>
<td>71.1</td>
<td>73.5</td>
</tr>
<tr>
<td>Pork</td>
<td>13.3</td>
<td>43.9</td>
<td>51.6</td>
</tr>
<tr>
<td>Mutton &amp; Beef</td>
<td>31.0</td>
<td>50.0</td>
<td>52.2</td>
</tr>
<tr>
<td>Poultry</td>
<td>55.6</td>
<td>70.4</td>
<td>68.8</td>
</tr>
<tr>
<td>Eggs</td>
<td>30.2</td>
<td>54.4</td>
<td>59.3</td>
</tr>
<tr>
<td>Fish &amp; Shrimp</td>
<td>35.0</td>
<td>57.6</td>
<td>57.4</td>
</tr>
<tr>
<td>Total</td>
<td>16.8</td>
<td>33.7</td>
<td>36.4</td>
</tr>
</tbody>
</table>


The rural farmers markets usually open daily. They are similar to the urban farmers markets. The numbers of rural farmers markets enjoyed a 66% increase from 1978 to 1985, reaching 53,324 in 1985. The participants are mainly farmers and individual peddlers, and also urban commercial departments (stores) and supply and marketing cooperatives in some large markets. The total value of transactions in rural and urban open (free) markets rose from 12.5 billion yuan in 1978 to 216.8 billion in 1990, an average annual growth of nearly 28 percent (Webb and Colby). The growth of both rural and urban free markets increased farmers' income and facilitated the diversification of agricultural production. These markets are usually local. Some larger regional markets have been established by various government agencies and the supply and marketing cooperatives involved in marketing agricultural commodities.

Price adjustments. The purchasing prices have long been low for commodities purchased by government. Realizing that low prices hurt farmers and discourage production, the state raised the purchasing price for the first time since 1950s in 1979 (20 percent increase for grain, 25 percent for fats and oils, 15 percent for cotton, 26 percent for pigs, and 20-50 percent for fourteen other products). Bonuses for deliveries in excess of procurement quotas were also provided: grain--50 percent; fats and oils--25 percent; and cotton--30 percent. The average price increased by 150% during 1978 to 1990, and increased again in 1992. Besides price increases for major agricultural and sideline

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5 Without free markets, farmers either produce less or sell all products to the state. State price is usually low as discussed early, while free market prices are relatively higher.
products, grain quotas were reduced by 2.5 million tons in the summer of 1979, leaving more grain at the farmers' disposal to be marketed at the free markets.

As previously discussed, there was a price subsidy for primary consumer products. The increased purchase prices meant that keeping selling prices unchanged increased the state's budget burden. In order to reduce that burden, the state selling price of grain was raised twice. In May, 1991 the government initiated the first price adjustment since the mid-1960s, and followed that with a second increase in April, 1992. After these two price adjustments, the average price for grain, the staple food for Chinese, was 2.4 times the previous level. These price adjustments were aimed to move prices closer to free market prices. Where there were consumer grain price increases, the government usually increased the monthly income of each government employee, worker, retiree and pensioner in order to prevent the people's living standard from falling. In recent years, China also began to abolish the urban ration coupon. Urban residents in some provinces (Guangdong, Hainan, Shenzhen SEZ and Beijing) have to buy grain and edible oil at the market prices. The rationing system is still in place for most of China.

The table below shows the growing portion of farm products which were traded at the free-market price.

Table 14: Share (%) of total transaction volume by types of pricing system

<table>
<thead>
<tr>
<th></th>
<th>at state price</th>
<th>at &quot;guidance price&quot;</th>
<th>at free-market price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peasants' sales of farm products,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>92.4</td>
<td>2.0</td>
<td>5.6</td>
</tr>
<tr>
<td>1986</td>
<td>37.0</td>
<td>23.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Farm and Subsidiary products;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>35.0</td>
<td></td>
<td>65.0</td>
</tr>
</tbody>
</table>

Note: The "guidance price" is the state suggested price to purchase surplus products.


Free market prices are usually higher, otherwise rationing would not be necessary. If the free market price was lower, residents could buy what they want in the free market, and not use the ration.
Contract purchasing (hetong dinggou). The most serious disadvantage of the government monopoly and fixed-quota purchase system was that it isolated producers from the market. There was no competition, no corresponding changes in price and production incentives to changes in consumers' demand, so producers did not adjust their production according to market needs. All these problems, together with a historic high grain output in 1984, resulted in the so-called second stage rural reform in 1985, which aimed to abolish the state monopoly on the purchase and marketing of major farm products. As the Chinese government stated on January 1, 1985, "Beginning this year, except for individual varieties (products), such as tobacco, the state will no longer assign fixed quotas of farm products to be purchased from farmers. A system of purchasing under contracts and on the markets will be introduced." (Government document #1, 1985)

Purchase contracts are signed before planting season. For the contracted amount of grain, 70 percent was purchased at the higher, above-quota purchase price and 30 percent was bought under the original, lower, state purchase price (the term "dao sanqi, literally, "reversal of three and seven" is commonly used in China). For cotton, the purchase prices were at a 70-30 ratio in the North China, but the ratio changed to 40-60 in the South. Farmers may sell their surplus on the market after fulfilling their contracts. The state can buy more produce at the state purchase price to support the market price if it gets too low to provide the desired incentives to farmers.

The fixed-quota system for pigs, aquatic products, beef, mutton, poultry, eggs, vegetable, and other non-staple foods was abolished. Selling prices were decontrolled, and farmers sell their products on free markets at prices negotiated between buyers and sellers. The commodities that are still under strict control are several Chinese medicinal herbs, tobacco, cotton and silkworm cocoons.
Marketing Channels

This section analyzes the market channels of different agricultural subsectors. The subsectors are chosen mainly according to consumption categories: meat, grain, vegetables and poultry products. The marketing channels are approximately the same for these subsectors with minor differences. The emphasis here is in the product flow from producers to consumers. The graph shows the basic marketing structure for agricultural products in China.

Meat Subsector

There are several kinds of producers in the meat subsector, individual households, and collective and state animal husbandry farms. For individual households, the young feeder pigs are purchased from other households which have female breeding stock, and/or from state animal husbandry farms. These farms also provide boars for breeding to individual households. Animal husbandry farms usually have their own breeding stock or purchase from other farms that specialized in breeding stock.

In the marketing stage, taking pork for example, individual household producers may sell the market hogs to a state hog purchasing station. They may sell their market hogs to individual slaughterers or hire someone to slaughter and sell to consumers by themselves in the free farmers markets. Individual slaughterers sell fresh pork in the free farmers markets. They (slaughteries and individual farmers) usually do not have freezer facilities, so fresh pork has to be sold within days. The collective and state producers
(farms) usually sell all market hogs to a state purchasing station with some slaughtered for their own employees' consumption.

The state purchasing stations are a nationwide network. Their function is to purchase market hogs from producers, to slaughter and store them, and to distribute among users (enterprises of further processing and retailers). Some of the pigs are slaughtered and sold locally and others are shipped to other regions according to the state plan. Slaughtered hogs are frozen and stored, and are distributed to state meat shops, meat processing industry, hotels and restaurants and institutions (HRI) in carcass form, or exported. The state meat shops defrost the carcasses and sell them as fresh pork. Consumers request a particular amount of fresh pork from a particular part of the carcass, the butcher cuts approximately the amount specified by consumers. Sometimes the approximation of the weight cut is amazingly accurate. Unsold meat will go back to freezer.

Not much meat is further processed in China. Consumers consume mostly fresh meat, with few canned and other processed meat products. These processed meat products are marketed through grocery stores. The average consumption of meat in China is low; in 1989, the per capita consumption of pork for urban residents is 17.53 kg (11.00 kg for rural residents), and 2.73 kg of beef and mutton. Though the per capita consumption is low, the market volume is large due to the huge population of China.

Grain Subsector

The grain producers include individual farmers and state and collective farms. Most producers use some of their last years' harvest as the seed for this year. Some of the seed, especially hybrid seed, is produced by specialized farms. Other producers have to purchase from them each year.

Producers dry their grain mostly under the sun before going to the markets. Individual farmers sell a certain (contracted) amount of grain to state granary stations (usually in unhusked form). For the remaining production which exceeds their own
consumption needs, individual farmers have two options: sell to state granary station at
the negotiated price, and/or sell to consumers in the free farmers markets. Individual
peddlers (some of whom are farmers themselves and some are professional peddlers) sell
husked grain (mostly rice) door to door, or in the free farmers markets. Currently, there
are lots of grain markets, especially in major grain production areas, where farmers and
individual traders sell grain. Collective and state farms usually sell all their grain
products to state granary stations. The Ministry of Commerce administers the
nationwide network of state granary stations, obtaining grain from producers and
allocating it among regions and uses (further processing or directly to consumers). In
general China imports more grain than it exports. Most of the grain is stored by state
granary stations; farmers only store enough grain for their own consumption needs and
seed for next season. The grain transportation is managed by state granary stations.

Most of the grain, especially rice, goes to the state grain shops after some basic
processing. The usual products available in state grain shops are rice, flour, noodles etc.
City residents buy certain amount of grain from grain shops within the quota of their
grain ration. The prices are much lower for the ration grain than for the grain in free
markets. But usually a higher quality grain is available in the free markets.

Grain processing includes food processing and feed manufacturing. Both food
processing and feed manufacturing enterprises obtain most of the grain from the state
granary according to the state plan. Recently the numbers of products in the state plan
have been reduced in every industry. These enterprises buy some or all of their grain
from the grain markets or directly from producers through contracts.

**Vegetable Subsector**

Vegetable producers are individual farmers, state and collective farms. Commercial
vegetable producers are usually located near cities and towns where there are non-
farmer residents. Farmers have a small plot of their own to grow the vegetables they
want to consume and may sell the surplus in the farmers markets. Most of the players in
free farmers market are farmers themselves; they go to work in the field after selling
their products. Some farmers have someone, usually women, selling products while others of the household work in the field where a higher physical strength is required. Some of the sellers in the free farmers markets are specialized in selling—they purchase vegetables from other farmers and/or from other regions and sell to consumers every day. The vegetables are mostly sold as fresh, so some of the participants are seasonal. Others are engaged in long distance trade to take advantage of regional price differences. Besides fresh vegetables, some farmers sell products which have been processed by household (such as salted or dried vegetables) in the farmers markets. State and collective vegetable farms sell all their products to state vegetable shops.

**Poultry Product Subsector**

This subsector organization is similar to meat subsector. Production involves individual, collective and state farms. Egg production is usually integrated with broiler production in chicken farms.

Individual producers, mostly farmers, produce both broilers and eggs for their own consumption. They sell the surplus in the free farmers market in the form of live chicken and fresh eggs. Larger producers and poultry farms (both state and collective) sell their broiler and fresh eggs to state purchasing stations which are not as well organized as the purchasing stations for meat and grain. Most of the fresh eggs go to the state vegetable shops, though some are allocated to processing enterprises. The major egg processing is to produce one-thousand-year eggs from chicken eggs and salt eggs from duck eggs. Chickens are sold live in vegetable shops. Since they are sold live, there is no year around supply of chicken in the vegetable shops. Various Chinese style fried chickens are sold whole. Consumers buy the whole fried chicken or half of it and bring it back home to eat.

The per capita consumption of poultry and eggs is even lower than meat (3.65 kg poultry and 7.05 kg fresh eggs in 1989 per urban household). The share of large factory production of poultry has increased greatly in the recent years. Some processing enterprises and HRIs may purchase directly from producers by contracts or spot purchases.
Marketing Problem and Potential Improvement.

As the reform in marketing system proceeded, more and more farmers' products were sold in the market. After decades of collectivization, farmers were accustomed to the old pattern in which they produced what the state requested and sold all their products to the state. The state was the intermediary connecting producers and consumers under such system. When the state reduced its role as the intermediary for some products and even ceased to be the intermediary for some other products, farmers themselves had to go to the market to sell their products. With little or no knowledge of marketing, together with the undeveloped free market system, it was not uncommon that farmers could not find a market for some products.

With more and more freedom newly obtained in production decisions, farmers adjusted production according to relative product market prices in previous years. Recently there have been numerous incidents of a cobweb price phenomenon in China. After a high price for a particular crop, the production the following year will surge as many farmers shift to that crop. Then, they have a marketing problem because of the larger output. The price will be driven down, and a certain amount of products will be unharvested or wasted. In some cases, breeding animals are slaughtered for their meat. This situation discourages the production next year, and higher prices result. This problem is aggravated by the limited storage facilities and transportation available which does not allow much arbitrage among geographic markets, or much storage from one year to the next.

Processing industries have grown rapidly for some agricultural products, especially for cash (industrial) crops. This is partly attributable to the new autonomy for investment at the local government level and the potential high profits (the low price for raw materials with a high demand for finished products). Wool, tea and silkworm cocoons are within this category.
This rapid increase in processing capacity, both inside and outside the state plan caused a relative shortage of those unprocessed (raw) agricultural products. This often resulted in a purchasing "war or battle". Various processing enterprises (planned and outside the plan), local government purchasing departments and various kinds of merchants went out to purchase the raw agricultural products and bid the price up. The "wool war" in 1985, "tea war" in 1988 and "silkworm cocoons war" in 1987 are among the well-known ones.

The "war" (or "battle") also occurs because of the economic interest conflicts among regions. Here is an example from The Economist (June 26, 1993). In 1990, the prosperous Guangdong province, just over the boarder of Hong Kong, having decided that there was more profit in cash crops and industry than in stable crops, such as rice, wanted to buy rice from neighboring Hunan province. Guangdong did not like the premium demanded by Hunan officials for their rice, and approached producers directly, offering a price lower than the demanded premium and higher than Hunan paid to its farmers. At the end, Hunan put troops on its borders to stop the rice shipment. This kind of economic warlordism also exists for other crops.

The various purchasing "wars" and the difficulty in selling when surpluses occur are the two major problems in recent Chinese agriculture. With the State purchasing system (unified procurement and later contracting) and the State-set price, the loss is either borne by the government (when the "war" occurs) or by producers (when they can't sell the products).

There are several factors contributing to these problems. Some factors are transitional problems, such as insufficient knowledge of market dynamics in a free market system. Market participants used to the planned system will get more familiar with the free marketing system as time passes and react differently. For example, fewer farmers will shift to a particular crop given a higher price in a previous year, or a new processing plant may not be established without a careful long term feasibility study.
Other reasons for the problems in production and marketing system are more fundamental, such as the immature free market system and unstable production-marketing relations. Most free markets are not well staffed and managed, and few personnel have the necessary skills and training in market management. Though the free markets (including rural and urban farmers, markets, and wholesale markets) have been developed greatly in recent years, the production available to market has grown more rapidly than the numbers of free markets, their transaction volume, and trading volume among regions. The State granary shifts between the unified purchase (compulsory procurement) and contract purchase (forward contract) for grain. The local supply and marketing cooperative purchases some products for one year but not in another. All these add uncertainty in farmers' production planning.

The lack of infrastructure in the agricultural-marketing system also plays an important role in the uneasy flow of the agricultural products. The market information reaching farmers is scarce. For most farmers, the price expectation for this year's crop is solely based on prices in previous years. Even some of the uses of the products are unknown to farmers due to their decades-long isolation from the market. In addition, farmers don't have any market information of other regions. The absence of telephones for the majority of farm families in China is also a serious communication problem in marketing agricultural products. So arbitraging regional markets is very difficult.

Storage facilities for farm products are not adequate. It is widely believed that the farmers' selling difficulty in 1984 when historical high output of grain was achieved was mainly due to the lack of grain storage facilities. Some grain was stored outside in temporary facilities. The facilities to store other minor agricultural products are even more limited.

Transportation for both passengers and goods is sometimes referred to as a bottleneck for China's economy. Even knowing of a big price difference between two regions, you could hardly make use of this information to profit because of the lack of transportation. It is common to have waste products in one area and inadequate supply
in other areas. The poor transportation to remote rural areas keeps farmers there isolated from the outside world. Farmers have to carry the pig on their back to the market (or to the state station) for sale.

For a better agricultural marketing system, a continued effort to develop free markets—free rural and urban farmers markets and free wholesale markets—is necessary. More importantly, a reasonable market infrastructure (transportation, communication, storage, and processing) and market information service should be developed to facilitate an efficient market system. Various forms of marketing cooperatives and futures markets may be useful innovations to improve the flow of agricultural products across the regions and to stabilize the supplies and prices over time.

**Market Infrastructure.** The development of transportation and communication is essential for the commercialization of agricultural products, and also vital for the whole economy. The specialization in production based on regional climatic and resource differences and comparative advantage is limited without an efficient transportation and communication system. Providing adequate storage and processing facilities could ease some pressure on transportation demands at harvest.

The investment in transportation and communication should be made by government at all levels. Since the State purchases most of the grain, and the State's policy is to purchase any excess grain from farmers when market price is lower than state price, the grain storage should be expanded by the government by either government investment, subsidies or incentives to market participants. Marketing cooperatives could provide storage and transportation service for farmers, especially for goods other than grain (which is mostly handled by the state). The existing processing facilities are mostly in urban areas. It might be a good investment to process some products locally near the production area, especially bulky products for which the transportation cost is lower when processed.
Feed processing has great potential, partly because it could transfer some grain to feed to ease the problem of selling grain at harvest time and reduce the pressure on storage. More importantly, it serves the goal of China’s long-term policy—that the Chinese agricultural structure and the consumption pattern should shift in favor of animal products. Marketing cooperatives and the State make most of the investments in feed processing right now. It should be a promising industry for individual investors or even for outside investors. Some significant percentage of meat production (especially pork and chicken) commonly is from individual households where several pigs and dozens of chickens are produced each year, and very little processed feed is used. For a great production increase, large and more efficient feed, animal and poultry production operations should be promoted. As the production size increases, more processed feed would be used. This trend is in its infancy now, and will continue as personal income increases, increasing the demand for meat.

Market information services. Market information serves as a "software" to the market system. It integrates the "hardware"—the marketplace, transportation, products, market participants, etc.—together to function as a system, and it facilitates their functioning. Usually farmers have little access to any market information. Under the household contract responsibility system, it is more difficult for agricultural extension station (it is called agricultural technology extension station in every Xiang—younger People’s Commune—in China) and other government bodies to contact individual farmers than it was to contact the production team before 1978. There are almost no publications or other information available to individual farmers. To better orient producers to the market, more information should be provided to them. The marketing cooperative should supply information about prices, consumption patterns, the quantity demanded in other regions, and marketing channels. The cooperatives could publish some brochures of market information periodically, as well as could government agencies, such as the Rural (or Agricultural) Committee and Statistic Bureau, especially on the planting intentions and crop yield estimates.
Marketing cooperatives. China has a huge population with around 80% in rural areas, and very small-scale farming. Since each family usually has around 0.1 hectare of land, output of any particular product is small. The individual farm is either unable to market the products alone, or it is not worth the effort to market very small surpluses, or both.

The existing supply and marketing cooperatives could take a bigger role in organizing the marketing of farm products. Since the cooperatives are still collectively owned, it is actually not a farmers' cooperative. Because of the frequent changes of the cooperatives between state owned and collectively owned during 1950s to 1970s, farmers don’t have faith in the cooperative. Their enthusiasm in participation would be limited if this situation is not changed. A new structure for the cooperatives—farmers’ cooperatives—is needed. For example, the profit generated by the cooperative should go back to its members in one way or another. The cooperative manager could be chosen by a selected board of its members (farmers). Its management should not be influenced by government at any level. It should be responsible for the marketing of all farm products for its members.

As the level of specialization in production gets higher or the need occurs for some reason, marketing cooperatives specialized in specific products could be established in conjunction with or separate from existing supply and marketing cooperative.

Futures market. Futures markets have been developed in other countries for decades. They can play a role in stabilizing supply of agricultural products and easing price fluctuations, though not always or completely. With futures markets, farmers and purchasers of farm products can lock in the approximate price for their products prior to planting. That is, a farmer can hedge his products at the current futures price for delivery after harvest if the price is high enough to generate some profit compared to other possible competing crops. When the futures contract matures, he/she can choose

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7 The dividend could be based on the volume or production value of the products delivered by farmers. Some of the profits could also return to its member farmers.
either to make the physical delivery or just take the off-setting position in the futures market and sell his/her products in the local cash market. Regardless of the actual price in the harvest season and the choices chosen, farmer will receive approximately the price hedged. Besides futures markets, option markets can also be developed to reduce the price risk faced by farmers and purchasers of farm products. Options can also eliminate most downside movement of prices and allow for more potential profit if prices change favorably. There are several futures markets for agricultural products (grain, fruits, etc.) at the experimental stage in China. Most of them are mainly dealing in spot trading and forward contracts right now. As they become more mature later, the futures market or options market could be a good alternative to improve China’s agricultural marketing system.

Summary

In summary, China’s economic system has been gradually moved away from a highly planned socialist system since the late 1970s. Several special economic zones have been set up, in an attempt to practice the competitive mechanism of a capitalist-style economy, and to encourage foreign investment and international trade. Local governments (provinces, counties and xiangs), enterprises and individuals have more decision-making powers than before. State enterprises are being pushed to the market. A share-holding system and stock market which were once considered as undesirable capitalist elements have been introduced. As restrictions on private business are being eliminated gradually, the share of private business in GNP has been growing each year. In agriculture, the production contract responsibility system changed the basic structure of agriculture. Instead of the production team as the basic unit of production, it is now the individual farmers’ household that conducts agricultural production. The shift away from the collective system generates some marketing problems in agriculture, such as the purchasing wars among various purchasing agents and among different regions. In order to improve the product flow from individual producers to various purchasers, some new measures have been adapted to the marketing channel, pricing system and institutional structure. However, despite the efforts in recent years, there is insufficient infrastructure,
an inefficient spot market and no futures market. As the agricultural market reform continues in China, and reasonable progress is made in providing better market infrastructure and more available market information, a more efficient agricultural marketing system can be established.

References


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