

Chapter 2

Policy Trends

China has implemented substantial economic policy reforms since 1978. A fundamental element has been reform of the raft of agricultural and agriculture-related policies contained in China's governance framework. While the general direction of reforms has been consistent, there have also been numerous small policy shifts and changes in the detail of policies. In this chapter, trends in agricultural and related policies during the period 1990-2005 are highlighted, followed by an evaluation of the support provided to producers.

In Section 2.1, the framework of agricultural policy will be provided. This framework is examined with regard to key policy objectives, the national and sub-national institutional arrangements for administering agricultural policy, and the major instruments employed to implement policy.

Section 2.2 contains an overview of domestic agriculture-related policies. This section is arranged in seven sub-sections devoted to: price and income support measures; reduction of input costs; agricultural taxation; rural public services infrastructure; consumer measures; environmental measures; and overall budgetary outlays on agro-food policies.

Trade policies related to the agro-food sector are examined in Section 2.3. This section contains six sub-sections: overall reforms of the trade system; the objectives of Chinese trade policy in the agro-food sector; agro-food import and export policy measures applied by China; trade relations; trade policy measures applied by partners; and agro-food trade flows.

Finally, Section 2.4 quantifies the extent of support provided to agriculture and the burden that this imposes on Chinese consumers and taxpayers.

2.1. Agricultural policy framework

China has carried out fundamental reforms of its economic policies since 1978, resulting in a gradual transition from a centrally planned economy towards a socialist market economy. In line with this transition, the agricultural policy framework has also been evolving. While the principal economic objective of creating a market-based economy appears to have consistently under-pinned agricultural policy trends, it is clear that the reform process has not been completely smooth – occasionally, reforms appear to have been set aside in order to allow measures dealing with unforeseen events to be implemented. Like all national governments, the Chinese leadership has a multi-faceted set of objectives and is faced with the task of developing policies to be applied in an uncertain future. Policies sometimes have unintended consequences as a result of changing circumstances, leading policy makers to adjust policies to better accommodate the environment in which they are applied.

China's policy-implementation process has been relatively flexible, in the sense that broadly-defined central government policies have been implemented in a variety of ways, according to the capacity and needs of the sub-national government bodies responsible for policy implementation. Given this reality, it is difficult to describe trends in agricultural policies with complete accuracy. This chapter focuses on major developments in agricultural policies during the period 1990-2005. Policies from earlier periods may be described when it is necessary in order to properly present the evolutionary process of policies.

Agricultural policy objectives

The basic set of central government policy objectives has been stable for the period 1990-2005, although the government has varied its priorities according to changing socioeconomic conditions. A wide range of government reports, statements and planning documents make it clear that the agricultural sector is viewed as very important in terms of the Chinese economy in general, and has a high profile in policy making. In broad terms, agricultural policy has addressed the provision of adequate supplies of food at stable prices, as well as maintenance and improvement of rural incomes (Tuan and Ke, 1999). In 2004 the central government confirmed that food security remained at the forefront of policy considerations, along with the objective of increasing incomes in rural areas (NDRC, 2004). The main objectives of agricultural policy have been:

- Food security.
- Farm household income.
- Food safety.
- Environmental protection.
- Agricultural competitiveness.

Food security

Ensuring an adequate supply of affordable food is a top priority of China's policy makers. China is the most populous country in the world but its land and water resources are relatively limited. Traditionally, grain self-sufficiency has been regarded as the key to achieving food security. Although food self-sufficiency may not have been clearly defined in government policy statements, it is widely interpreted to mean that China should produce 95% of its own grain requirements (Fang, Tuan and Zhong, 2002; Felloni et al., 2003). A Chinese government White Paper issued in 1996 also proposes that China achieve 95% self-sufficiency in grains (State Council, 1996).¹ This self-sufficiency objective is a key factor in understanding how agricultural policies have evolved.

There are two different elements to food self-sufficiency in China. One element is the market supply of food (grains especially), and the other is the non-market supply – farm produce which is consumed directly by the farm household. Given the fact that most farmers derive their grain supply from their own production, food security for the agricultural population has generally been considered in terms of mitigating the grain shortage effects of natural disasters such as floods and droughts. The perceived balance in the non-agricultural market (essentially the urban market) has had a primary influence on agricultural policies. The availability of grains for supplying the commercial market, including grain reserves controlled by the State Grain Authority often triggers changes to policies related to grain production, procurement and trade.

In order to prevent widespread hunger, it is not sufficient to ensure that enough food is available in a country or region, the food must also be accessible to the population (Sen, 1981). A major element of entitlement to food is a consumer's capacity to afford the food at the prices it is being sold. Thus, not only did policy makers seek to ensure that sufficient food was supplied, but also sought to ensure that marketed supplies were available at affordable prices. This policy focus was particularly evident in the earlier part of the 1990s.

Farm income

During the latter part of the 1990s and early in the 2000s, the growing income gap between urban and rural populations, and between developed and underdeveloped rural areas, became important policy issues. Policy makers began to address the integration of urban and rural development and devised regional development programmes to accelerate economic growth in less developed regions. Policies aimed at raising agricultural incomes nationwide were also adopted, with agriculture-related taxation policy reform embodying a fundamental shift from taxing agriculture to supporting agriculture. These agricultural-income supporting policies were strengthened in 2004 through the adoption of "The Suggestions of the Central Committee of the Communist Party of China and the State Council on Policies for Boosting Growth in Farmers' Income", the "No. 1 Document" of the Chinese central authorities for 2004 (State Council, 2004a).²

Food safety

In an environment in which urban food shortages are not of immediate concern to consumers, and coincide with their increasing affluence, urban consumers have become increasingly concerned with food safety issues. Especially since 1997, governments at various levels in China have implemented a range of measures to improve food safety.

Environmental protection

Government policy responses to the impact of human activity on the environment have been perceived as increasingly important. Agriculture has the potential to impact negatively on the environment in a number of ways: through land clearing, land use techniques, agro-chemical applications and run-off, and water usage. Sustainable use of land and water resources has been given a high profile, especially since the late 1990s, with significant levels of funding being made available to projects such as the so called “grain for green” project.

Agricultural competitiveness

Starting from the early 1990s, the process of transition towards a market economy was accelerated. The negotiations for WTO accession introduced external pressures to carry out policy and institutional reforms. In order to be well prepared for the increased competition after the opening of its domestic markets, the government placed a strong emphasis on improving the efficiency of agricultural production. Along with education programmes targeted at improving farmers’ take-up of technology, measures to help raise the competitiveness of Chinese products in both the domestic and international markets were put into practice. These measures were implemented in response to the impact of cheaper imports on domestic prices.

Evolution of policy objectives

In general, the reforms of agricultural policies and institutions were directed towards increasing the role of markets. However, changes in domestic circumstances and in world market conditions led to reprioritising of measures to achieve the broad reform objectives. Moreover, the interventions that still exist and weak market institutions, such as enforceable contracts, transparent information and open bargaining among several buyers and sellers, indicate that China has a long way to go. Generally the 1990-2005 period can be divided into two sub-stages in terms of the major policy initiatives and measures implemented.

1990 to 1997. In this period, the principal agricultural policy objective was to increase agricultural production, especially that of food grains. In line with the general economic policy initiative towards a market-oriented economy, this period was also characterised by substantial deregulation of agricultural marketing and a significant lessening of controls on the prices of agricultural products and on marketing channels.

Food security was a leading government priority throughout this period. Initially, the central government was responsible for food security, but some responsibility was devolved to provincial governments. The Governor’s Grain-Bag Responsibility System (GGBRS) was introduced in 1995. Under the GGBRS, provincial governments were to ensure the availability of adequate supplies of food grains within provincial boundaries.

Macroeconomic influences, as outlined in Chapter 1, resulted in fluctuations in the level of regulation of agricultural product prices. Following the liberalisation of price controls in the early 1990s, inflation and rising food prices in 1994 and 1995 resulted in a strengthening of government controls on prices and marketing channels, followed by a more gradual easing of regulation as prices stabilised. While affordable food and stable prices were a policy objective throughout this period, the objective became a higher priority in times of rising prices.

China was engaged in WTO accession negotiations prior to 1990. Until accession in 2001, China undertook incremental adjustments to agriculture and agricultural trade policies with a view to becoming more competitive in international markets.

1998 to 2005. This period was characterised by the adoption of policies supporting rural income, representing a fundamental shift in the government’s agricultural policy agenda. The new policy direction was clearly spelt out in the document issued in 1998 by the Central Committee of the Communist Party of China (CCCPC) “The decision of the CPC Central Committee on several major issues in agriculture and rural work”. The decision firmly made the reduction of taxation of farmers and the improvement of their incomes as the guiding principles of government policy until 2010.

Agriculture began to be supported with the aim of maintaining and improving the incomes of those dependent on agriculture. Food security remained an important policy objective, while policies addressing food safety achieved a higher profile in this period. As a result of growing urban affluence and a lack of strong growth in food prices, food marketing and price controls became less important.

The competitiveness of China’s agricultural production also became a higher priority than previously as accession became imminent. Since WTO accession in December 2001, the competitiveness of China’s agricultural sector has continued to be an important policy objective.

Major floods in the southern parts of China in 1998 gave renewed impetus to agro-environmental policies. The floods highlighted land clearing and land usage practices which contributed to the severity of the floods, prompting the “grain for green” policy response. At the same time, continuing pressure on the main northern river systems was increasing concerns over falling water tables and increasing desertification. These concerns underpin the continuation of the Comprehensive Agricultural Development Programme which provides funding for soil and water conservancy projects throughout China.

Currently, improving farmers’ incomes and narrowing the urban–rural income gap are top priorities for the Chinese government, while food security, or food-grain self-sufficiency, remains a principal policy focus. High level policy documents, including the “No. 1 Documents” from 2004 and 2005, clearly outline these policy objectives, while proposing policy measures that include reduced taxation of farmers, direct subsidies to grain farmers, measures to maintain farm land in agricultural production, and measures to improve the up-take of technology in the agricultural sector.

Institutional arrangements for administering agricultural policy³

General framework

China has a multi-layered policy development and implementation environment. Many government bodies and statutory institutions at both national and local levels (province, prefecture, county, and township/village levels) are involved in various ways in the policy process. Normally, sub-national institutions have their own array of objectives, some of which may deviate from national government policy priorities. Based on observed trends over the past twenty years, the institutional framework for administering agricultural policy can be characterised in the following way:

- Broad policy direction is provided by the CCCPC (Chapter 1).

- Nominally, the policy framework is formulated by the National People's Congress (NPC) and the Standing Committee of the NPC. The NPC has the power to create laws.
- The state administration is governed by the State Council. Policy is operationalised by the ministries and other elements of the national bureaucracy or state administration.
- National policy operationalisation often involves inter-departmental liaison and negotiation through the “leading groups” mechanism. Leading groups oversee policy activation which involves the area of responsibility of more than one ministry or commission. The leading groups typically deal with a single broad area of policy, and draw their membership from the senior levels of relevant ministries and commissions and of the CPC.
- Responsibility for implementing regulations in the agricultural sector is generally devolved to sub-national bureaucracies (at the province, prefecture, and county levels), and to the administrators of townships and villages.
- Policy is often implemented in a variety of ways across the country, and is not always implemented effectively. This is partly due to the responsibility to implement policy being devolved to sub-national levels of government, partly to inadequate monitoring of policy implementation, and partly due to policy initiatives not being fully funded.

The CPC occupies the dominant position in Chinese political life. In providing core leadership for China, the CCCPC sets the broad policy directions for the country. Then, the CCCPC and administrative elements of the national government work jointly to develop the policy framework and specific instruments within that framework. Sub-national levels of government have some influence in policy development, but are mainly involved in implementing national policy and have no specific rights to develop their own policies.

Typically, the CCCPC and the State Council develop a number of policy suggestions for the NPC, such as those in the “No. 1 Document”. The senior leadership is advised in their policy development and decision-making by CPC “Leading Groups”. These groups are normally headed by the premier, a vice premier or state councillor, with members consisting of ministers or their deputies from relevant ministries, plus other relevant personnel. These groups draw input from a range of specialist sources, including government think-tanks, academia, and specialists within the public service. Upon acceptance of the suggestions, the NPC requests the State Council to determine how to implement the policy suggestions and to develop a budget for the proposals. When the budget is approved, the relevant Ministries put appropriate regulations in place and responsibility for implementing the regulations is passed on to the appropriate elements of sub-national governments.

Nominally, the NPC is the peak legislative body. The CCCPC exercises political power and the NPC wields legislative power on behalf of the Chinese people. The Congress plays a key role in setting up the framework for governance, enacting legislation, electing top government officials, and examining and approving fiscal budgets. In practice, as the full NPC is in session for a limited time each year, the Standing Committee of the NPC exercises power on behalf of the Congress. Within the NPC there are nine special committees which take major responsibility for certain important sectors of the work of the NPC. The Agricultural Sub-Committee is one of the nine special committees, taking responsibility for agricultural and rural affairs. The Financial and Economic Sub-Committee and Environment and Resources Protection Sub-Committee also have an interest in agricultural and rural issues as they have an impact on their specific activities.

National government

The State Council is the top administrative body, exercising overall management and administration of government business on behalf of the NPC in accordance with the Constitution and existing laws. Important policy and administrative decisions, which have a general impact on the agricultural sector, can be made by the State Council. In the policy making process, each ministry or national bureau can make policy suggestions to the State Council on issues for which it has responsibility and can make comments on proposals of other government bodies from its own perspective. Inter-ministerial discussions are held whenever necessary to discuss issues for which there are shared responsibilities. The so-called “leading groups” play an important role under such circumstances. The decisions made by the State Council are then implemented by relevant ministries and bureaus. Clearly, processes are in place to enable extensive consultation, discussion and negotiation on key policy decisions.

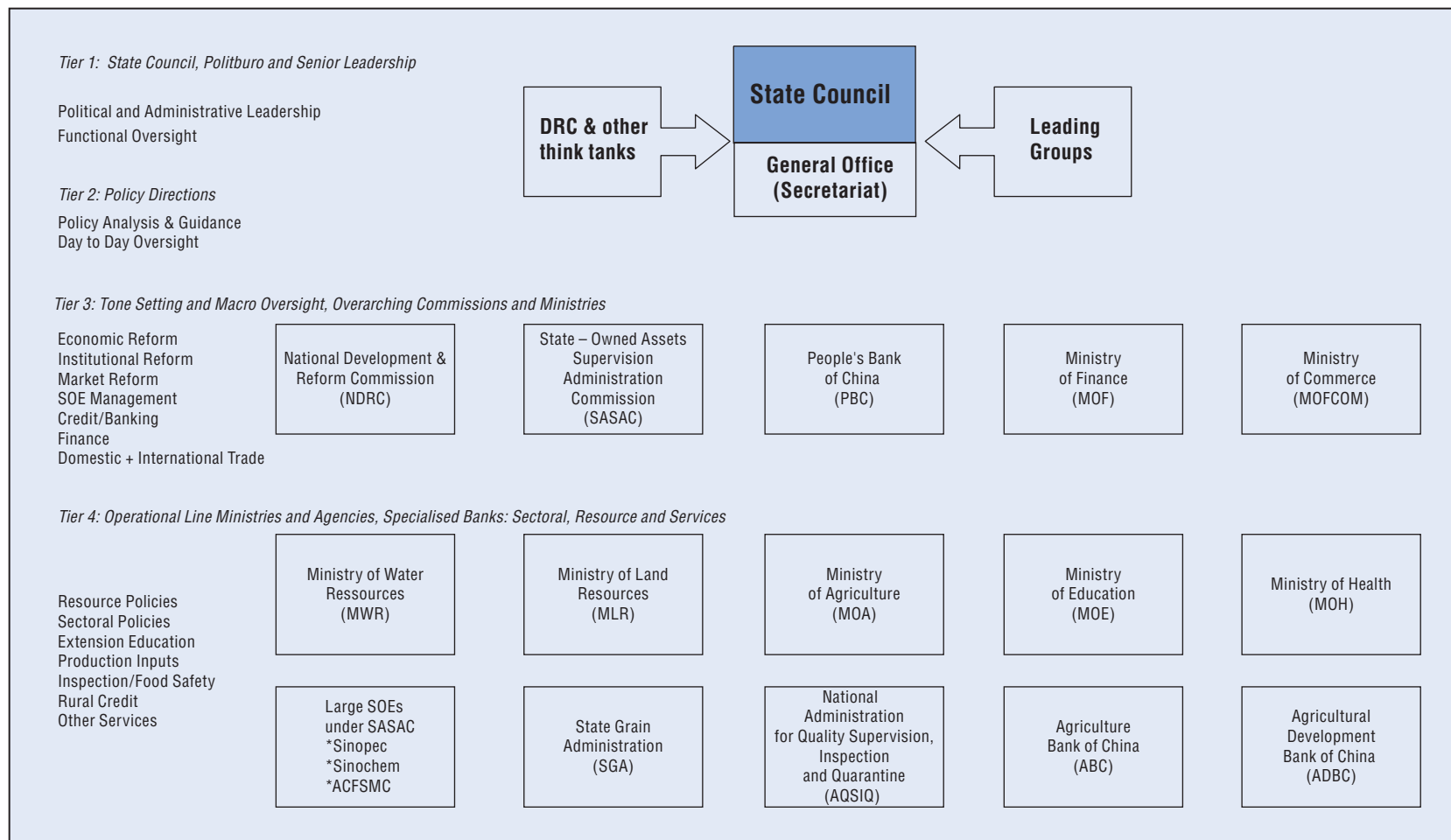
Under the State Council, the Ministry of Agriculture (MOA) takes primary responsibility for issues directly involving agriculture. The MOA is authorised to manage mainly agricultural production, while pre- and post-production activities and a wide range of supportive services are under the authority of other ministries. For instance, the purchase and marketing of major cereals is the duty of the State Grain Administration.⁴ Similarly, supply of manufactured farm inputs (such as chemical fertilisers and pesticides) is also largely beyond the direct authority of the MOA. International agricultural trade was once monopolised by state trading enterprises⁵ (STEs) under what is now the Ministry of Commerce (MOFCOM);⁶ most state owned enterprises, including those engaged in agricultural activities, are now under the supervision of the State-owned Assets Supervision Administration Commission (SASAC). Given that different ministries often have divergent priorities and interests, such an administrative separation of authority has increased the time required to develop policy. However, this framework ensures the agricultural policy is not developed in isolation, but reflects the policy framework of the whole of the Chinese government. An outline of the major central institutions involved in agriculture policy making and implementation, is provided in Figure 2.1.

Sub-national government

During the past twenty years, government power has been gradually decentralised. During this period, sub-national governments have become increasingly more influential in the policy making process, especially with respect to those policies which have major impacts on regional and local economies or on local government budgets. Sub-national governments have also often had the freedom to decide how to implement national government policies, resulting in some variation in the way national policies have been implemented.

The reforms of the fiscal system in 1994 installed a revenue sharing arrangement between central and sub-national governments. Sub-national governments have since been required to fund certain elements of policy-related costs from their own budgets. The economically prosperous provinces have reportedly been able to increase expenditures on government investments that either contribute to the growth of local economies or improve the image of the local region – this includes supporting the agricultural sector and maintaining stable prices for staple foods in urban markets. The poorer provinces often lack the fiscal resources to support agriculture to the same extent as the more affluent provinces. As a result of the vast diversity of conditions in the agricultural sector, and the differences in

Figure 2.1. Central institutions with oversight over China's agro-food sector



Source: OECD (2005a).

financial capacity of sub-national governments across China, the implementation of some national policy programmes is tailored by local governments to suit local conditions. Although they have no specific policy creation role, sub-national governments have significant control over how policy is implemented within their jurisdiction.

Sub-national governments also have an important role in providing feedback to higher levels of government. This feedback contributes to the information set on which policy and government budgets are based. The feedback received has been misleading in some instances. It is reported that officials of some sub-national governments have purposefully created a perception of their locality as being less prosperous than in reality in order to obtain additional funding from higher levels of government.⁷

Basic policy instruments

In line with the multi-layered policy development and implementation environment, policy and policy instruments also consist of multiple layers, often differentiated in terms of timeframes. As in most countries, in China, laws embody policy directions which generally have no perceived end-point. Within the legal framework, medium-term policy direction is provided in plans which are in place for a set number of years – such as the plans developed under the five year plan system. Annual policy direction, consistent with the broad goals of the five year plans, is provided by the annual plans and relevant regulations or decisions issued by the CCCPC and the State Council, such as the “No. 1 Document”. In 2004 and 2005, these documents focused on agricultural and rural issues, in particular on increasing farmers’ incomes.

The notable changes in central government policy and apparent shifts in policy priorities led to frequent adjustments of policy instruments and measures during 1990-2005. Both indirect interventions and direct administrative controls over certain economic activities were used in a variety of combinations, depending on the issue being addressed and the environment in which the measures were to be implemented.

Under the traditional central planning system, the government managed the economy primarily through quantitative control over all economic activities, including production, domestic marketing and pricing, processing, foreign trade, supply of inputs and allocation of primary resources. This situation has been gradually changing since the economic policy reforms of 1978. The introduction of market mechanisms has required that government move towards a greater reliance on indirect measures to achieve policy objectives. There has also been an increased imperative to exercise effective governance through more transparent legislation and regulations.

China has a number of laws and regulations which have a significant impact on the agricultural sector. These include general laws and regulations having an economic impact, such as taxation rules; and laws and regulations which are specifically intended to govern economic activities in the agricultural sector. The latter group of laws and regulations are summarised in Table 2.1. Most of these regulatory instruments have been enacted or amended since 1990, establishing a legal framework for the governance of agriculture-related activities. The principal piece of legislation in this framework is the Agricultural Law. The Agricultural Law establishes the broad direction of policy for agriculture as an economic sector (Box 2.1); other laws, such as the Grassland Law, deal with specific aspects of the agricultural sector. In general, these laws outline government statements of intent and provide guiding principles, rather than committing the government to specific actions and binding obligations.

Box 2.1. **The Agricultural Law of China**

First introduced in 1993, and then amended in 2003, the Agricultural Law highlights the major role played by agriculture in the Chinese economy and contains the primary principles for development of agriculture and the rural economy.

The Agricultural Law emphasises that the government places agricultural development at the top of the national economic development agenda. It also declares that the government will adhere, in the long term, to the existing arrangement of the HPRS (Chapter 1) and collective management of communal resources. It commits the government to provide necessary assistance and protection to agricultural production and producers' incomes, and also commits the government to take appropriate measures to ensure food security.

The Agricultural Law also outlines government commitments to structural adjustment of the rural economy, industrialisation of farm businesses, food safety, improving farm input supply, development of agricultural sciences and technologies, and improvement of agricultural sector training and education. It also reflects the necessity for institutional reforms, in order to comply with WTO membership requirements. Trade of agricultural products, rural labour issues, farmer's rights, and agricultural taxation are also addressed in this law.

In terms of policy, the Agricultural Law contains both objectives and policy measures. The issue of protecting agricultural production and producer's incomes, for example, is addressed both in terms of the objective of producing sufficient food and broadly defined measures, including maintaining farmland in agricultural production, establishing grain risk funds (budgetary allocations used to ensure grain market stability), and establishing national and local grain reserves or buffer stocks.

More specific guidance and instruction for policy implementation is generally contained in regulations issued by the State Council and various administrative elements of the central government. The regulations operationalise the higher level policy statements, generally detailing explicit measures and commitments to be implemented by the operational elements of government.

In the past, China's system of governance contained significant scope for sub-national elements of government to implement government policy according to local conditions. The policy framework was developed and promulgated to provide broad direction within which policy measures could be adjusted by provincial authorities and township and village administrators. Additionally, there are many constraints to the enforcement of regulations. These include lack of technical, financial and administrative capacity in local government institutions, goal conflict in the implementing institution(s), under-development of the legal system, and lack of knowledge of the legal system by both farmers and administrators.

The main domestic policy measures employed by the national government, discussed in greater detail in the following sections, cover producer support measures, general services and consumer support measures. In turn, producer support measures cover both domestic and trade policy measures.

Domestic policy measures include:

- *State pricing*: in place for major agricultural commodities for much of the period 1990-2004. From 2004, centrally set state pricing only applies to tobacco (under a state

Table 2.1. Major laws and regulations in the agro-food sector

Title	Passed/amended	Implemented
Laws		
Grassland law	June 1985/Dec. 2002	Oct. 1985/March 2003
Law of land management	June 1986/Aug. 1998	Jan. 1987/Jan. 1999
Fishery law	Jan. 1986/Oct. 2000	July 1986/Dec. 2000
Forestry law	Sept. 1984/April 1998	Jan. 1985/April 1998
Water law	Jan. 1988/Aug. 2002	July 1988/Oct. 2002
Water and soil conservation law	June 1991	June 1991
Quarantine law	Oct. 1991	April 1992
Law of monopolised sale of tobacco and products	June 1991	Jan. 1992
Agricultural law	June 1991/Dec. 2002	July 1993/March 2003
Agricultural technical extension law	July 1993	July 1993
Food hygiene law	Oct. 1995	Oct. 1995
Law of township and village enterprises	Oct. 1996	Jan. 1997
Animal diseases prevention law	July 1997	Jan. 1998
Flood prevention law	Aug. 1997	Jan. 1998
Law for organisation of village committee	Nov. 1998	Nov. 1998
Seed law	July 2000	Dec. 2000
Rural land contract law	Aug. 2002	March 2003
Law for promoting agricultural mechanisation	June 2004	Nov. 2004
Regulations		
Regulation on plant quarantine	Jan. 1983/May 1992	Jan. 1983/May 1992
Regulation on preventing animal diseases	Feb. 1985	July 1985
Regulation on animal medicines	May 1987	Jan. 1988
Regulation on management of farmers' burden and labour service	Dec. 1991	Dec. 1991
Regulation on breeding animals	April 1994	July 1994
Regulation on management of pesticides	May 1997	May 1997
Regulation on protecting new plant varieties	March 1997	Oct. 1997
Regulation on pig slaughtering	Dec. 1997	Jan. 1998
Regulation on grain procurement (abolished in June 2004)	June 1998	June 1998
Regulation on protecting basic farmland	Dec. 1998	Jan. 1999
Agricultural GMO safety regulation	May 2001	May 2001
Regulation on retirement of land for forest	Dec. 2002	Jan. 2003
Regulation on management of national grain reserves	Aug. 2003	Aug. 2003
Regulation on grain marketing	May 2004	June 2004

Source: Various Chinese government sources.

monopoly). For most of the period 1990–2004, state pricing was accompanied by state procurement.

- *Input subsidies*: charges for water, electricity and transport tend to be lower for farmers, but the level of subsidy is difficult to assess as the cost of provision is different across various users. To lower prices of fertilisers, fertiliser producers have been given access to lower priced inputs, such as electricity. Since 2002, farmers have been subsidised for the cost of purchasing improved quality soy seed. In 2004, this scheme was extended to include subsidies for purchasing improved seed for production of wheat, corn and rice, as well as soybeans.
- *Credit subsidies*: until the end of the 1990s, preferential loans were provided mostly to state marketing organisations to fund purchase and storage of key agricultural products. In the 2000s, most of these programmes were discontinued, but are still applied for grains.

- *Direct payments*: initiated as a trial in 2002 and implemented nationally in 2004. Farmers engaged in growing grains have received a direct subsidy based on the area of land they sow to rice, wheat or corn.
- *Payments for returning farmland to forests*: also known as the “grain for green” programme, commenced in 1999. Farmers cultivating ecologically vulnerable land received a cash subsidy and a grain allocation for each *mu* (1/15 hectare) they retired from agricultural production. Subsidised seedlings were also available for afforestation. In 2004, the grain allocation was converted to a cash equivalent.
- *Agricultural taxes*: between 1990-2004, farmers were required to pay agricultural taxes either in cash or in kind. In addition, they also paid various fees to local governments and collectives and provided “labour accumulation” for the construction of communal facilities. Agricultural tax reform was initiated as a trial in 2000 and is being phased in across rural China from 2004.

Trade policy measures include:

- *Tariffs*: the simple average tariff for agricultural products fell from 45.4% in 1992 to 15.3% in 2005, remaining at that level under the agreed terms of China’s accession to the WTO.
- *Tariff rate quotas*: under the terms of its WTO accession, China can apply TRQs to wheat, rice, corn, sugar, cotton, wool and some vegetable oils. China’s TRQ system includes criteria for allocating the import quotas to state trading enterprises (STEs) and non-STEs.
- *State trading*: dominating until the mid-1990s. Its role has been diminishing since then, but still important for key commodities.
- *Export subsidies*: prior to joining the WTO, China provided export subsidies for corn and rice. In line with its WTO accession commitments, China is not allowed to apply export subsidies.

General services provided to the agricultural sector as a whole include:

- *Research and development*: government funding for this element of agricultural support is relatively small and tended to decrease.
- *Agricultural schools*: government funding for agricultural schools is also a small expenditure item, but unlike research funding, agricultural school funding has been increasing.
- *Inspection services*: while China has funded food inspection services through-out the period 1990-2005, in the latter part of that period, food safety has become a higher priority concern of policy-makers. Not only has expenditure on inspection services increased, China has also undertaken significant work to upgrade food safety standards.
- *Public stockholding*: China mainly engages in public stockholding of food grains. In line with China’s food security policies, the government at national and sub-national levels is active in maintaining buffer stocks of food grains.
- *Agricultural infrastructure*: investment in agriculture-related projects is a major tool for the government to achieve development targets and is by far the largest component in government’s budgetary support for agriculture. Government has continued to accept primary responsibility for such projects as: pollution control, land rehabilitation, transport and irrigation infrastructure maintenance and development. Large-scale state-owned farms have been one avenue of state investment. However, state farms are only a small part of the Chinese agricultural sector.

Consumer support measures include:

- *Food price subsidies*: since 1992, China has paid subsidies to urban consumers to offset the price increases of staple food products. Although some of the subsidies are still paid, there has been a significant decline in the level of budgetary expenditure on them.

2.2. Domestic policies⁸

China's domestic agricultural policies have undergone significant changes in the period 1990-2005, as previously mentioned. In this section, the trends in those policies are discussed in more detail.

Price and income support measures

Price and income support measures can be discussed in terms of several periods, according to major changes in the measures applied.

1990-1996

In the early 1990s, rice, wheat, corn, soybeans and cotton were subject to state pricing and state procurement measures. The state purchased a set quantity at a state set price under a contract procurement system, farmers could sell any extra production (above their contracted quota amount) at negotiated prices⁹ to the state or, with the exception of cotton, at free market prices to other buyers (Figure 2.2); supply marketing co-operatives (SMCs) retained a monopoly on purchasing cotton from producers throughout this period.

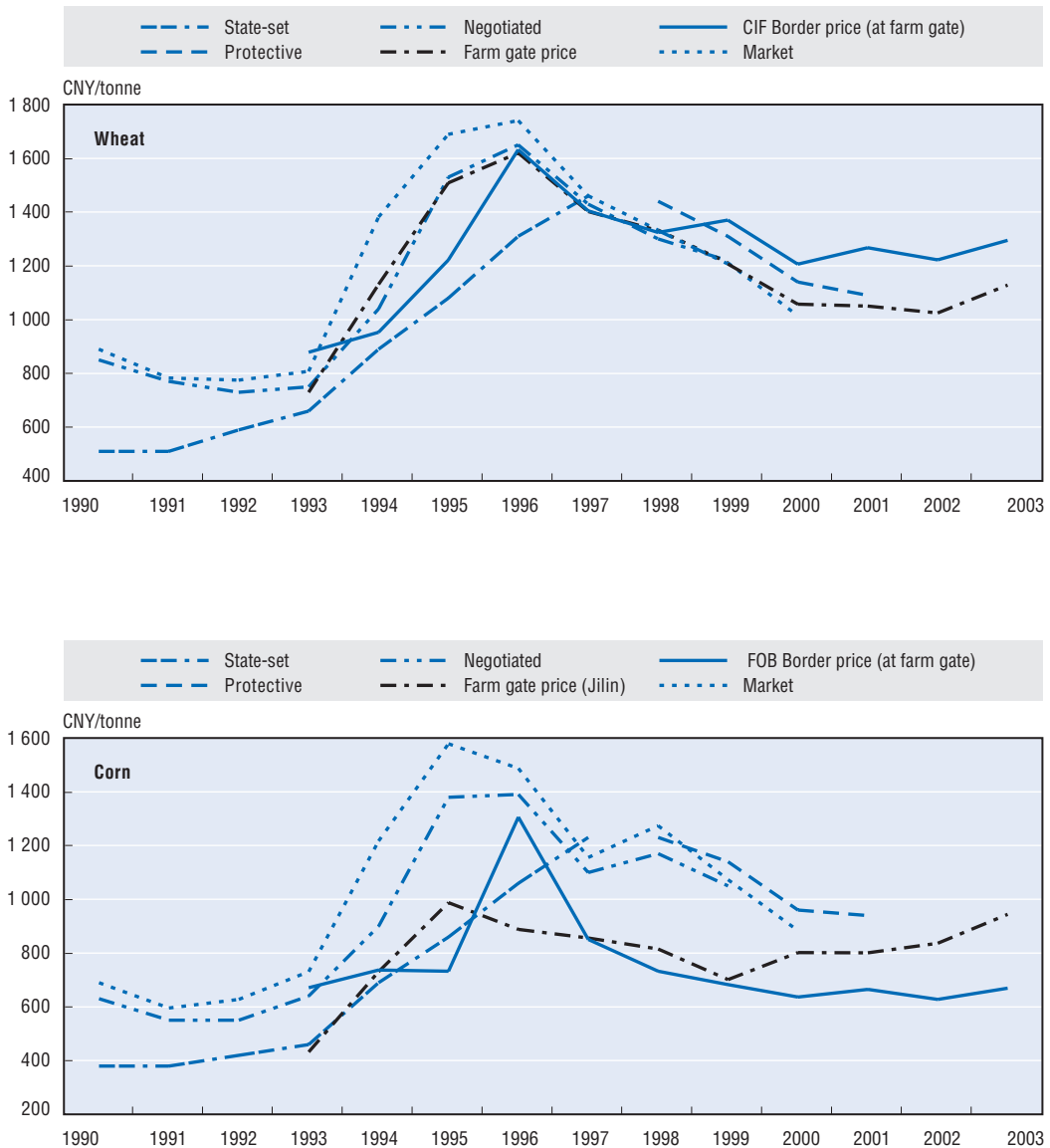
This state procurement arrangement was not initially intended to support rural incomes, but to secure food supply to urban residents at reasonable prices and to ensure an adequate supply of raw cotton to the state textile industry. For most of the period preceding 1997, the state prices of cereals and soybeans were significantly lower than Chinese free market prices (Figure 2.2). The largest gaps were observed in 1995 when the rate of inflation increased. During this period, the price gaps between producing and consuming regions were also relatively large due to inter-provincial controls on grain movements. Many grain-producing regions instituted controls on grain movements under the GGBRS in an attempt to ensure adequate supplies within provincial borders. Negotiated prices were in all cases much higher than the state-set prices, but lower than the free market prices.

Domestic market prices often deviated from border prices during the period 1990-1996, partly due to centrally planned import and export arrangements reducing domestic responsiveness to world prices. However, domestic price developments were surprisingly much in parallel (though not identical) with the development of the respective border prices (Figure 2.2; see also section 2.4 and Annex B).

Funding for state procurement was provided through China's central bank. The People's Bank of China (PBC) was the main source of funds to the Agricultural Development Bank of China, which in turn provided "soft" loans¹⁰ to the State Grain Enterprises (SGEs) charged with making procurement purchases. This system was still in place in 2005.

Tobacco and sugar are important cash crops, subject to government control throughout the 1990-2003 period. Tobacco was, and remains, subject to a state monopoly under which the state purchases all raw tobacco grown in China, at prices determined by the National Tobacco Bureau. Similarly, sugar cane and sugar beets were subject to state pricing, with these crops being purchased by a state owned sugar processing sector.

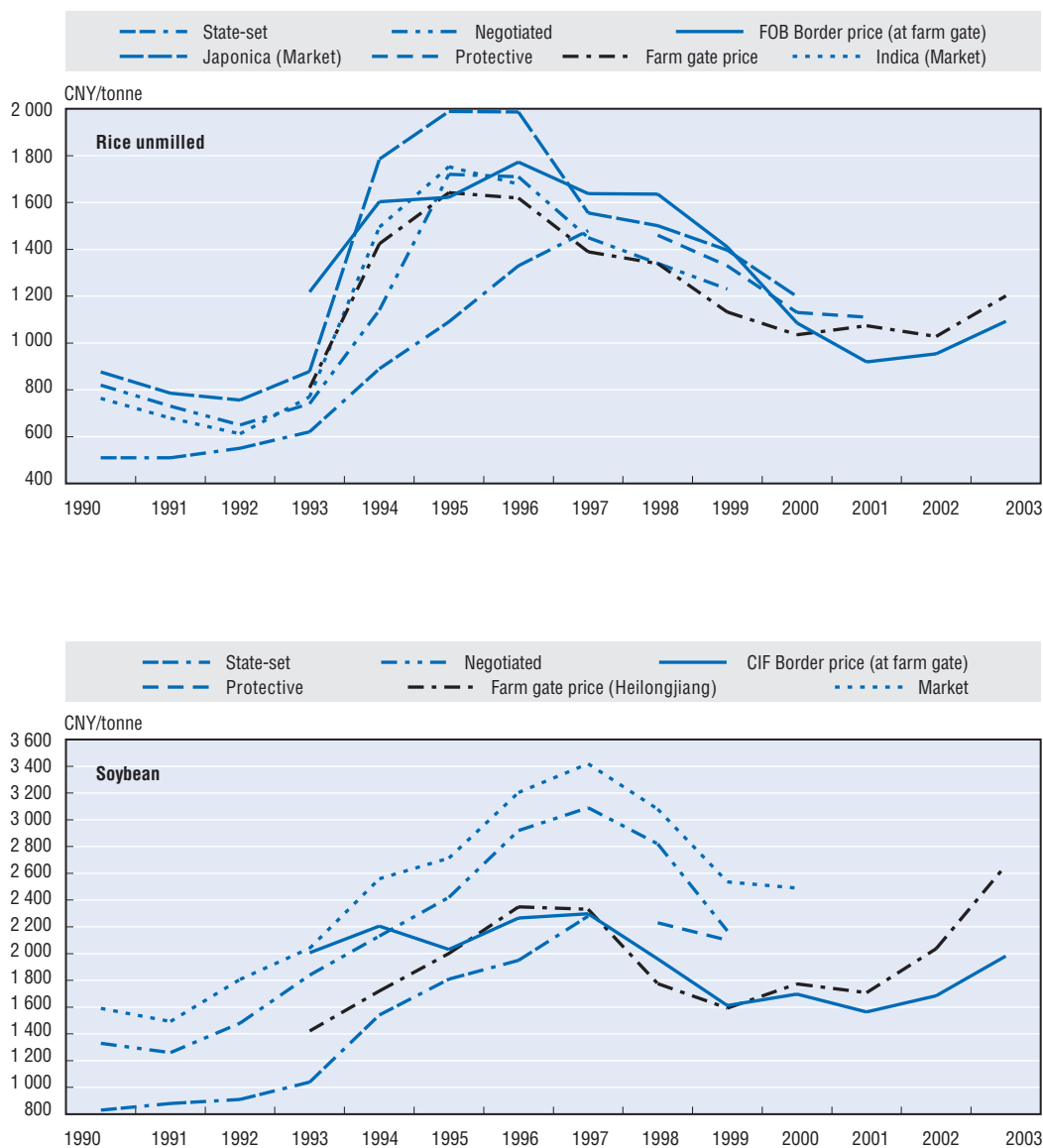
Figure 2.2. Comparison of different types of grain and soybean prices in China



1997-2003

In late 1997, the national government reinstalled a scheme of so-called protective prices for grains in order to protect grain producers. Protective prices were prices set by the government, at which the state guaranteed to purchase all output of specific commodities offered for sale to the state. The protective prices were generally above the market price (except for soybean; Figure 2.2). There were two major problems with the implementation of this measure. First, the SGEs were expected to undertake state procurement at protective prices and to operate as a commercial enterprise marketing grains at a profit. It is reported that many SGEs sought to depress prices paid to producers or even rejected purchases of grains they believed could not be easily on-sold – profit-seeking behaviour not in accordance with the income supporting aims of state procurement at guaranteed prices. Second, budgetary constraints for many sub-national

Figure 2.2. **Comparison of different types of grain and soybean prices in China**
(cont.)



Notes: State-set, negotiated and protective prices are marked for periods during which they were actually applied and are quoted after *China Agricultural Development Report*, various editions; market prices are from the Ministry of Agriculture; border prices adjusted to the farm gate level and farm gate prices are from the OECD PSE/CSE databases 2005.

governments in major grain producing regions resulted in the policy being underfunded; payment for state purchased grains could not always be made in a timely manner.

Following the initial implementation problems with the protective price system, the national government decided to reduce the protective prices as well as coverage of this scheme. In 2000, indica rice in the whole of China, spring wheat in northern China, wheat in southern China, and corn south from the Yangtze River were removed from the scheme and protective prices for cereals that were still covered were reduced.

Between 1997 and 2003, corn, soybean and, in the 2000s, rice prices were generally above the relevant border prices. This suggests that Chinese farmers were protected by trade policies and were receiving transfers from consumers and/or taxpayers. Conversely, for wheat, domestic prices were lower than the international indicator price, suggesting that domestic and trade policies prevented farmers from receiving as good a return on their wheat crop as was possible on world markets.

In this sub-period, cotton was initially regulated under a system essentially the same as that in-place for cereals and soybeans. In the cotton marketing year commencing in late 1999, price setting was liberalised; the state issued a guidance price as a signal for future production, but the actual price received by producers was set by the market.

In an effort to improve the oil yield of Chinese produced soybeans, improved quality soya seeds were subsidised in 2002 and 2003.

Tobacco and sugar production remained dominated by state regulation between 1997 and 2003. The situation for tobacco producers remained essentially the same as in previous years. Sugar crop growers remained subject to state guidance pricing, but in reality, this set a floor price which was generally significantly less than the actual price growers received from sugar mills.

2004-2005

In 2004, a number of new price and income support policy measures were implemented and then extended to 2005. In response to a general decline in cereal production since 1998 and sharp rises in grain price in late 2003, the government introduced new incentives to encourage farmers to produce greater volumes of grains. Grain producer subsidies based on planted area were introduced nationally in 2004. Provision of improved varieties of seed for major cereal crops and soybeans is also subsidised, the minimum price scheme is being emphasised as an incentive for increasing production of rice. The minimum prices in 2004 for early rice and japonica rice were announced at CNY 1.4 and CNY 1.5 per kilo respectively.

According to the new regulation on grain marketing issued in May 2004 (State Council, 2004b), grain marketing channels and prices are fully liberalised, in as much as market mechanisms are permitted to govern market activity within certain bounds. The minimum price mechanism remains at the disposal of the government.

While this reform ends the monopolistic position of SGEs in purchasing grains, the new regulations do set some conditions on enterprises wishing to operate on grain markets. Only companies which meet certain criteria are permitted to engage in trading grains. The specific criteria are set by provincial governments. In Anhui, for example, corporations must have registered capital of at least CNY 500 000, user rights for a storage facility with a minimum capacity of 1 000 tonnes, employees qualified to test and manage the stored grain, and adequate equipment for testing and weighing grain. Household businesses must have registered capital of at least CNY 30 000 and user rights to a storage facility with a minimum capacity of at least 50 tonnes.

The government planned in 2004 to appropriate CNY 10 billion from its grain risk fund to directly subsidise producers. By mid-2004, actual payments had reached CNY 11.6 billion and had contributed to the livelihoods of about 600 million rural people (Jing, 2004). Thirteen provinces were provided with special subsidies for purchasing improved seeds of rice, wheat, corn and soybean with a total of CNY 1.2 billion expended.

Meanwhile, the government also provided subsidies for the purchase of farm machinery. This subsidy will mainly assist a small number of large farms which are of sufficient scale to warrant mechanisation. Benefits from this subsidy may accrue indirectly to the majority of farmers through reduced costs faced by farm service providers, such as harvesting companies.

The new grain subsidies are not expected to have a major financial impact on farmers. While the direct subsidies are an important symbolic change from the traditional taxing of agriculture, initial analysis indicates that the new subsidies have contributed only modestly (in the order of 5%) to increases in grain farmer's incomes in 2003-04 (Gale et al. 2005). A more detailed presentation of the most recent changes in grain policies is provided in Annex B.

For tobacco, sugar and cotton producers, the price and income support measures since 2004 are unchanged from the immediately preceding period.

Reduction of input costs

Throughout the period 1990-2005, China has sought to reduce the input costs faced by agricultural producers. Measures have included tax relief for input manufacturers and service providers, inputs wholesale price controls, and price regulation of essential services.

Manufactured inputs supply

At the beginning of the 1980s, manufactured farm inputs were channelled predominantly through the Supply and Marketing Co-operatives (SMCs) which were quasi-statutory bodies at that time. During the 1990s, the government gradually relaxed restrictions on marketing channels, maintaining a reduced range of interventions (Chapter 1).

Until the late 1990s, supply of manufactured agricultural inputs was generally insufficient to meet the level of demand at the state-set prices. The government used controlled supply of high quality farm inputs at state prices as an instrument to induce farmers to deliver more grains, oilseeds and cotton to the State.

In 1987, the "three links scheme" (*san gua gou*), a scheme of linking farmers' deliveries of cereals, soybean and cotton with advanced payment and supplying chemical fertilisers and diesel oil at state-set prices, was introduced. The advanced payment was made before planting at a rate of 20% of the state procurement purchase from the expected crop. Supply of fertilisers and diesel oil varied depending on the crop, region and availability of inputs in that year. However, given the reality that individual households delivered only small amounts of products, the application of the scheme was administratively burdensome and largely ineffective.

In February 1993, the State Council declared a series of measures to reform the grain marketing system, one of which was replacement of the in-kind supply of fertilisers and diesel oil by input price subsidies in cash. The government set reference standards for subsidies paid by both national and provincial governments from their budgets respectively. Provincial governments were allowed to supplement the rate of subsidies. This arrangement was intended to induce farmers to sell more grains to the State. In 1994, the central government implemented increased procurement prices for grains, and ceased paying cash input subsidies – however, provincial governments retained the option of

paying subsidies for manufactured agricultural inputs. Between 1994 and 1998-99, this scheme was phased out, being wound-up in different provinces at different times.

Fertilisers

The Chinese government devoted substantial resources to the establishment of modern farm input industries and distribution system during the 1970s and 1980s. As a result, supply and application of chemical fertilisers increased steadily and rapidly from the mid-1970s. Under the central planning regime, production, sale and distribution of chemical fertilisers were subject to strict state planning and pricing.

Beginning in 1985, large state-owned chemical fertiliser factories were permitted to sell outputs in excess of government planned requirements at market prices as an incentive measure. Meanwhile, the government continued to impose a ceiling on factory sales prices in order to control the price level. Development of small fertiliser factories using local resources was strongly encouraged during the mid-1980s. Fertiliser factories were also exempted from paying value-added tax (VAT).

In 1993, the regime for importing farm inputs changed from a strict STE monopoly to the agent system, in which the STEs could act as import/export agents for private individuals or companies. Along with this measure, the delivery prices of imported products under state plans were charged as CIF prices plus handling costs.¹¹ The agent fee for importing was set by the national government, initially as a proportion of the CIF price, being replaced by a set absolute fee in late 1994. These pricing changes ensured that Chinese agriculture was exposed to international input prices. A governor responsibility system was also installed for chemical fertilisers in 1995. A system of state reserves of chemical fertilisers and farm chemicals at national and provincial levels was subsequently established.

The policies towards small factories changed in the late 1990s. Recognising the inefficient resource utilisation and high pollution levels of many of the small fertiliser factories, government regulations were adopted which forced many of them to close.

In 1998, the State Council decided to broaden the reforms of the fertiliser supply system. Commencing in January 1999, the factory prices of fertilisers produced by large factories (with an annual turnover larger than 300 000 tonnes) changed from being a state-set price, to a state-guidance price. This reform permitted large factories to adjust fertiliser prices within a range of 10% either side of the state reference price, allowing some adjustment for fluctuations in production costs and market demand. The reference prices and price ranges of fertilisers produced by medium and small factories are determined by sub-national price bureaux, with reference to the guidance prices applied to large factories' output. State production and procurement plans were abolished, and wholesale and retail firms were permitted to buy, sell and set retail prices for domestically produced fertilisers. However, provincial price bureaux retained the right to set price ceilings for certain types of fertilisers. The intent is that state intervention would protect both producers and consumers of fertilisers from excessive price fluctuations.

Under the 1998 reforms, the State retained control of chemical fertiliser imports, with prices still determined on a full cost recovery basis – being the CIF price of goods plus VAT of 13% plus the operational costs of the importer plus the importer's commission fee. The rates for operational costs and commission fees for planned imports by the designated STEs remained subject to state regulations.

In 2004, the government continued to use administrative measures to retard the increase of farm input prices. For instance, at the time of the fertiliser price increases in early 2004, the NDRC despatched supervision teams to several provinces to check whether fertiliser manufacturing businesses were adhering to the permitted wholesale pricing regime. The government also adopted a provisional one-year measure in 2004 to offer subsidies to diammonium orthophosphate producers and importers at a rate of CNY 100 per tonne (*People's Daily*, 6 April 2004). In addition, fertiliser producers pay lower rates for electricity supplies (Table 2.2) and are exempt from contributing to the so-called agricultural power grid loan-payback fund, a fund to pay for rural electricity transmission grid improvements.

Pesticides and herbicides

During the past two decades, the government has not applied stringent planning controls to production and marketing of pesticides and herbicides. In this environment, the farm chemical industry has developed rapidly. High returns induced large capital inflows to the industry. Foreign firms have a significant involvement in this industry; developing joint ventures, transferring knowledge, and selling their branded products in the Chinese market.

Electricity

Throughout the period 1990–2004, the wholesale prices of electricity within provinces were determined by provincial governments. In general, preferential treatment is given to agricultural production and farm input industries (Table 2.2). However, the transmission systems in rural areas tends to be of a poor standard, leading to significant “leakage” of electricity – as a result, the cost per unit of electricity actually consumed by rural users has frequently been higher than for urban users.¹²

The State Council made the decision to unify domestic rural and urban electricity prices from 1998, and the government invested CNY 288.5 billion for renovation of its rural grids. Special attention was given to western China. By April 2004, all provinces had implemented the measure. It is estimated by NDRC that unifying the rural and urban electricity prices may help rural people save CNY 42 billion every year (Xinhuanet, 22 April 2004). However, it has been reported that this programme is troubled by revenue failing to cover the operational costs of supplying electricity to rural areas.

While the State Council decided to implement unified electricity prices for urban and rural domestic consumption in 1998, this measure was already incorporated in the Electric Power Law of the People's Republic of China (promulgated in 1995, effective from April 1996). Article 50 provides the legal basis for unification of urban and rural supply charges, and also stipulates that fees for electricity for use in agriculture should be set to reflect the cost of electricity supply, plus a reasonable marginal profit.

This suggests that, while rural domestic electricity consumption may have transmission costs subsidised by urban users, use of electricity in agricultural production receives no preferential treatment in national law. This does, however, leave the possibility that provincial governments may subsidise electricity use in rural areas for specific purposes. According to the data in Table 2.2 below, this appears to be the case – irrigation and drainage activities in poor counties appear to receive subsidised electricity.

Chemical fertiliser production also receives subsidised electricity, in an attempt to suppress agricultural input prices. The subsidy is received by the fertiliser producer, who

Table 2.2. **Prices of electricity by different users in selected provinces in 2002**

Unit: Yuan/kilowatt hour

Type of user	Hubei	Ningxia	Sichuan	Fujian
Urban residence	0.498	0.447	0.453	0.417
Commercial businesses	0.912	0.736	0.742	0.773
Ordinary industrial and business firm	0.564	0.494	0.549	0.592
Chemical fertiliser factory	0.393	0.420	0.402	..
Large industrial firm	0.399	0.319	0.442	0.484
Chemical fertiliser factory	0.283	0.287	0.312	0.230
Agricultural production	0.445	0.362	0.472	0.195
Irrigation and drainage in poor counties	0.215	0.215	0.157	..

Source: NDRC Web site.

then delivers product to the marketing and distribution network. As mentioned before, the fertiliser retail market has had no explicit price controls since 1998, with increasing levels of commercial competition in supply to end-users, and prices determined by market forces. Consequently, it is difficult to determine the benefit flowing to farmers from the electricity subsidy.

Transport

During the 1990s, the government regulated the prices of rail and water transportation. The charges for shipment were determined according to the type of goods being transported, and preferential rates were given to state planned shipments of agricultural products and inputs. Since May 2001, water transport rates have been deregulated, but rail freight is still subject to state-set rates.

In July 2000, agricultural products were reclassified to different categories for rail transport, generally resulting in rail freight charges for agricultural products increasing, with the exception of the rate for fresh fruit, which declined marginally. Freight rates applied since July 2000 are listed in Table 2.3. In reality, the state-set rates are not always binding given the excess demand for rail transport services and the monopolistic position of the railway authority. The scarcity of freight capacity creates a situation in which market forces are likely to bid up freight rates, especially in the absence of a viable competitor to the state railway. The government has also provided preferential treatment to shipment of certain agricultural products and inputs with respect to the railway construction fee. In April 2002, the government exempted grains and cotton from this fee, in order to assist shipment of these products. Early in 2002, the fee was CNY 0.033 per tonne-kilometre. The exemption ceased in May 2004.

Table 2.3. **Rates of railway shipment for selected goods (since July 2000)**

Commodity	Freight charges	
	Fixed (CNY/tonne)	Variable (CNY/tonne/km)
Grains, cotton, live animals, chemical fertilisers, pesticides.	7.0	0.0319
Fresh vegetables, fresh fruits.	7.9	0.0360
Frozen meats and fishery products; tobacco, vegetable oils.	8.5	0.0390

Source: Ministry of Railway.

Water

While agriculture has a special position in the Chinese economy, and water is a key input in agriculture, the water market is not well developed. Under the central planning regime, the national government managed water utilisation by issuing water allocation plans to major river-basin authorities and organising large water conservation and management projects. Local governments managed water utilisation in their localities in a similar manner. Water has been used largely as a free resource, with water prices mainly reflecting the financial costs of distributing the resource. The productive value of water is not considered in formulating water prices.

Nominally, water for agriculture has been available at a low price in order to assist agricultural production (Table 2.4). However, in practice, the water fee has often been collected on the basis of land area farmed, rather than on actual water usage, and some local leaders roll other charges into the water fee. These problems not only result in inefficient use of water in agricultural production, but also increase production costs in some areas. The central government has begun to consider reforms to water supply management and pricing, but there is currently no firm indication regarding what those reforms will comprise.

While farmers pay much lower prices for water than other users, there is no data which would provide a basis for assessing the degree of support for farmers. The price differentials evident in Table 2.4 may reflect a quality differential as well as differences in delivery costs. Moreover, many northern farmers access ground-water at their own expense and supplement it with surface water provided by irrigation authorities. In addition, different costs are likely to be encountered in producing and supplying treated urban drinking water, water for industrial use, and agricultural irrigation water.

Table 2.4. **Comparison of water prices among different usages**

Unit: CNY/m³

Year	Agriculture	Industry	Living
1994	0.0163	0.0826	0.0868
1995	0.0221	0.0847	0.1007
1996	0.0273	0.0964	0.1211
1997	0.0295	0.1476	0.1373
1998	0.0323	0.1519	0.1509
1999	0.0332	0.1676	0.1935
2000	0.0349	0.1917	0.2037
2001	0.0361	0.2284	0.2395

Source: Survey in 2002 by the National Development and Reform Commission.

Rural credit

China established the Rural Credit Co-operatives (RCCs) during the socialist transformation of agriculture in the mid-1950s. However, during the 1960s and 1970s, the RCCs were largely converted to branches of the Agricultural Bank of China (ABC), with all major activities of the RCCs being controlled by the ABC. The programme of reform of rural financing in the early 1980s focused on turning the RCCs back into genuine co-operative financial institutions, under the guidance and supervision of the ABC.

The reforms of the early 1990s transformed the ABC into a state-owned commercial bank and its policy operations were taken over by Agricultural Development Bank of

China (ADBC). The policy-based operations of the ABC, and then the ADBC, have mainly been to provide loans to state marketing organisations to fund the purchase and storage of agricultural and side-line products. These loans may also be provided to fund forestry construction projects and water conservancy developments. As a result of the ADBC policy-based loans being made to marketing and distribution firms, rather than to farm production enterprises, it is difficult to determine to what extent the loans provided a benefit to agricultural producers.

In 1996, the responsibility for supervising RCCs was transferred to the People's Bank of China (PBC), China's central bank. Thus, the ABC ceased to be the monopoly provider of rural banking services. With these reforms, a new rural financial system consisting of the central bank, commercial banks and co-operative financial institutions has emerged.

Given the predominance of smallholdings in China's agricultural sector, banking institutions in rural areas have a large number of business clients who are limited in their production scales and are asset-poor. Farmers are often behind schedule in making mortgage payments and their incomes are uncertain as they are reliant on local weather conditions. These characteristics result in relatively higher costs and greater risks in providing credit to farmers than many other business sectors. Consequently, banks with a commercial outlook are generally not enthusiastic about providing rural credit services.

In a bid to increase their competitiveness in the face of fierce foreign competition, the state-owned commercial banks have generally withdrawn credit services from most counties and rural areas to focus on more profitable opportunities in the larger cities. The main task of their rural branches has been to attract rural deposits. A large quantity of deposits drawn from rural areas provides credit to profitable urban businesses. As a result, the burden of financing agriculture is left mainly to RCCs. As indicated previously, the RCCs operate in a risky sector for credit provision. At the end of 2002, the non-performing loans of RCCs stood at CNY 515 billion, accounting for 37% of their total outstanding loans.

The ADBC provided a wide range of preferential loans in line with government policy programmes. Loan quotas and loan eligibility criteria vary between programmes, as does the level of interest rate subsidy (paid by central government budget allocation). This included loans to major grain and cotton producing counties and to high-yield, high-quality and high-profitability agriculture demonstration counties. Between 1994 and 1998, CNY 36.57 billion in loans was used to assist the government policy programmes (*Farmers' Daily*, 16 April 1999).

Preferential loan rates were below the prevailing commercial rates (Table 2.5). The interest rates of loans to poor regions and for poverty alleviation are the lowest. However, the availability of preferential loans was limited and allocation of loans, not being part of an entitlement programme, was frequently made according to a process of negotiation between the lender and supporters of the loan application.

Significant problems existed in the targeting of these preferential, poverty alleviation loans. As the loans were initially targeted at selected counties, loan funds did not necessarily end up in the hands of the poor, and the uses to which the loans were put did not necessarily benefit the poor. There is some evidence that loan funds were diverted to supplement sub-provincial government budgets and that loans were often made to industrial enterprises rather than to support agricultural production development (Wu, 1997; Rozelle, Zhang & Huang, 2000; Park, Wang & Wu, 2002).

Table 2.5. **Annual interest rates of selected types of loans (%)**

For loan approved at ...	1 Jan. 1990	21 April 1991	15 May 1993	23 Aug. 1996	1 July 1998	7 Dec. 1998	10 June 1999	June 2002
Commercial loans								
Loan period								
Less than 6 months	11.34	8.10	8.82	9.18	6.57	6.12	5.58	5.04
7-12 months	11.34	8.64	9.36	10.08	6.93	6.39	5.85	5.31
1-3 years	12.78	9.00	10.8	10.98	7.11	6.66	5.94	5.49
Preferential loans								
Various loan periods								
Purchase of grains and cotton	10.08	7.74	8.46	9.18	n.a.	n.a.	n.a.	n.a.
Rural region development	7.02	5.76	6.48	7.20	4.05	3.60	2.97	
Loan for poverty alleviation	2.88	2.88	2.88	2.88	2.88	2.88	2.88	

n.a.: not applicable.

Note: The loan interest rates were adjusted frequently; this table covers only those for selected periods.

Source: People's Bank of China.

According to the People's Bank of China, short-term agricultural loans issued by the banking sector in 2003 totalled CNY 841.2 billion, accounting for 10% of banking sector short-term loan activity. In the same year, the banking sector made loans worth CNY 766.2 billion to village and township enterprises. As the primary industry sector (farming, forestry, animal husbandry, and fisheries) contributed around 15% of China's GDP in 2003, a loan activity rate of around 10% seems to indicate that the agricultural sector is under-represented in the bank loans market. The gap has partly been covered by the rapid development of informal financial institutions (Chapter 1).

Agricultural taxation

China has a dual tax system, with the agricultural sector being taxed according to a different system to that applied to the industrial and tertiary sectors. Sub-provincial level fees and charges levied on individuals in rural areas are also different to those applied to urban residents.

In concert with China's economic liberalisation, the taxation system underwent major changes. Within the period 1990-2004, the most wide-ranging taxation reforms occurred in 1994. The main reforms relating to agriculture were the implementation of a value added tax (VAT) and the devolution of responsibility for collecting the Animal Slaughtering Tax to provincial governments. The tax revenue sharing arrangement introduced at that time underlined the emerging economic responsibilities at the provincial government level and paved the way for devolution of other agricultural based taxes.

The main taxes levied on agriculture are the Agricultural Tax, the Animal Slaughtering Tax (prior to 2004), the Special Agricultural Products Tax, and the VAT.

Agricultural Tax

Under the central planning regime, agricultural tax was used as an instrument for the State to acquire grains by collecting tax in the form of grains. The tax base used was a so-called "constant yield" base, which resulted in variability in the effective rate of taxation between regions and between years. The tax calculation was set in 1958, calculated as a certain percentage of the normal yield of the taxable cultivated land. The tax rate varied

according to local conditions, but was to be no more than 25%. The national average tax rate for this tax was 15.5%.

In 1983, the government adopted a policy to fix the amounts of the Agricultural Tax as well as implementing state procurement of grains. With this reform, the Agricultural Tax became a lump-sum tax in terms of volume of grain turned over to the State. Over time, the effective rate of tax tended to differ between localities due to different rates of production growth.

Reform of agriculture-related taxes was proposed in 2000, leading to the trial of a system in which the Agricultural Tax was set at 7% of the annual grain-equivalent value of agricultural output for the years 1993-1997, with an additional 1.4% replacing a range of local administrative fees and charges, the so-called peasant burden (Box 2.2). This new system was due to be implemented nationally in 2001, but budgetary constraints prevented this occurring, although the experimental implementation of these reforms from 2002 took place in counties which constitute about three quarters of the rural population. These reforms were implemented nationally in rural China in 2003. In 2004, the national government announced the progressive phasing out (over a five-year period) of the Agricultural Tax, commencing in 2004. A number of provinces voluntarily reduced the levels of Agricultural Tax levied, prior to this national policy being announced (see subsection below on current tax reform).

Animal Slaughtering Tax

The Animal Slaughtering Tax was collected by sub-national governments. In principle, this was a lump-sum tax imposed on the number of animals bought and sold. The tax was a set fee determined by governments below the provincial level. The applied tax rate varied for different species and in different regions. It is reported that some local governments imposed this tax on all animals raised or even allocated planned tax revenues to all farm households based on their land areas. During the 1990s, the national government issued instructions several times to stop such practices.

Under the general reforms to agriculture-related taxation developed and implemented in the early 2000s, this tax was to be gradually abolished as the reforms were implemented across China. Liu and Liu (2004) note that by 2004, this tax was no longer collected in any province.

Special Agricultural Products Tax

Special Agricultural Products Tax was formally introduced in 1983, shortly after the household responsibility system was adopted nationally. This tax was calculated on the output value of certain taxable agricultural products (*e.g.* tobacco, horticultural products, wool and animal skins, timber and rubber, fishery products). The tax was applied to high value products in an attempt to dissuade farmers from abandoning grain production. This tax was retained in the 1994 taxation system reforms, with only minor revisions. During the late 1990s, the tax rates were frequently revised (Table 2.6). This tax was criticised by Chinese economists and other scholars as hindering the adjustment of Chinese agricultural production to align with China's comparative advantages. In the reforms of the rural taxation system since 2002, the central government allowed provincial governments to decide how to reform this tax for application at the provincial level. The only stipulation was that the provinces bear any impacts on their tax revenue. In 2004, the central government announced that, henceforth, the Special Agricultural Tax would apply only to tobacco (Table 2.6).

Table 2.6. **The rates of tax on special agricultural products – % of value**

Taxable commodity	Selected products				
	1990	1994	1997	1999	2004
Citrus	15	12	12	12	0
Apple	15	12	12	12	0
Melons	10	8	8	8	0
Mushrooms	..	8	8	8	0
Tea	..	16	12	12	0
Tobacco	..	31	31	20	20
Aquaculture	10	8	8	8	0

Source: State Administration of Taxation.

Value Added Tax

Value Added Tax was introduced in 1994. Prior to 1994, marketing and processing of agricultural products was subject to the business (product) tax. This tax was replaced by the Value Added Tax under the 1994 taxation reforms. The VAT rate for agricultural products is 13%, 4 percentage points lower than the VAT rate generally applied to other products.

VAT is not collected from the primary producers of agricultural products, but is collected from the primary purchasers of agricultural products, when they on-sell. Primary handlers can claim 10% of the original purchase price as a deduction from their VAT liability. VAT liability is calculated as “output VAT” less “input VAT” – for agricultural products “input VAT” is taken to be 10% of the input purchase price. This is intended to provide an incentive for purchasers of farm products to buy more, and to prevent downward pressure on prices received by farmers.

In addition to VAT not being applied to the primary producers of agricultural products, VAT exemptions or reduced rates have also been applied to some important agricultural inputs, such as fertilisers. The benefit of this to farmers is difficult to determine as these exemptions are generally applied in the production of the inputs rather than in the sale to farmers. The intention was that farmers would pay lower prices for inputs than would otherwise be the case.

Business Tax

Business Tax has existed in China since prior to the tax reforms of 1994. Like VAT, it is not collected from farmers. Moreover, agricultural services, such as agricultural machinery services, irrigation and drainage services, pest and disease control, and animal breeding services, are generally exempt from paying the Business Tax. This is intended to reduce these input costs for farmers.

The agricultural taxation burden

Agriculture-related taxation represented 1.7% of agricultural GDP in 1990, growing to account for 4.2% of agricultural GDP in 2002. The growth in agriculture-related taxation as a proportion of agricultural GDP is partly associated with the structural adjustment of agriculture. The rapid growth of horticulture, and livestock and fishery production, resulted in revenue from the Animal Slaughtering Tax and the Special Agricultural Products Tax rising significantly during the period 1990-2003. Moreover, the significant rise in the combined Agricultural Tax and Animal Husbandry Tax in 2002 was largely due to the

Table 2.7. **Agriculture-related taxes**

Unit: CNY million – current prices

Year	Total	Agricultural tax and animal husbandry tax ¹	Contract tax ²	Tax on special agricultural products	Tax on use of cultivated land ²
1990	8 786	5 962	118	1 249	1 457
1991	9 065	5 665	189	1 425	1 786
1992	11 917	7 010	361	1 624	2 922
1993	12 574	7 265	621	1 753	2 935
1994	23 149	11 951	1 182	6 369	3 647
1995	27 809	12 812	1 826	9 717	3 454
1996	36 946	18 206	2 520	13 100	3 120
1997	39 748	18 238	3 234	15 027	3 249
1998	39 880	17 867	5 899	12 779	3 335
1999	42 350	16 308	9 596	13 143	3 303
2000	46 531	16 817	13 108	13 074	3 532
2001	48 170	16 432	15 708	12 197	3 833
2002	71 785	32 149	23 907	9 995	5 734
2003	87 177	33 422	35 805	8 960	8 990

1. Animal slaughtering tax is not classified as an agriculture-related tax under the current Chinese taxation system, but it is likely to have an impact on meat production.
2. Contract tax and tax on use of cultivated land are both related to conversion of cultivated land to non-agricultural usages, contract tax has minimal impact on the agricultural sector.

Source: China Financial Yearbook 2004, Ministry of Finance.

impact of the trial or partial implementation of the Agricultural Tax reforms. Notably, township and village fees and charges not previously categorised as “agricultural taxes” became part of the Agricultural Tax, boosting the tax revenue collected under that category (Table 2.7).

Due to the diversity and complexity of the dual tax system operating in China, it is difficult to determine whether farmers benefit from or are disadvantaged by the system, compared to urban residents and non-agricultural businesses.

In the period 1990-2003, each year the Chinese agricultural sector contributed on average 4% of China’s official taxation revenue and generated 19% of China’s GDP. This seems to indicate that the agricultural sector receives preferential taxation treatment. Moreover, farmers engaged only in agricultural production pay the Agricultural Tax, and possibly the Animal Slaughtering Tax (prior to 2004) and Special Agricultural Products Taxes, but they do not pay business taxes, personal incomes taxes, or business income taxes unless they are engaged in non-agricultural economic pursuits from which they derive some income. Urban residents are also subject to a range of taxes such as the House Property tax and City Maintenance and Construction Tax, which rural residents do not pay.

However, such comparison does not take account of the generally lower incomes in the rural sector and farmer’s relatively lower ability to pay taxes, the non-tax government revenue collected from the rural sector, and the implicit taxation involved in the state procurement system. Arguably, until the late 1990s, farmers made a contribution to the national treasury through implicit transfers associated with state pricing and procurement. Mandatory state purchases of grains at prices lower than those prevailing in the grains market meant that the state denied farmers a proportion of the return they could have expected if their grains had been sold at market prices.

Apart from formal taxation discussed above, the Chinese farmers had to pay various fees and charges imposed by township governments and village leaders, which supposedly were used for communal social services (Box 2.2). These township and village fees and charges were paid by rural-classified residents whether or not they were engaged in agriculture-related activities (the relatively small number of urban-classified people dwelling in rural areas do not pay these fees). Aubert and Li (2002) estimate that the value of payments made by farmers (including agricultural and related taxes, fees for townships and the villages, legally and illegally collected funds, apportionments and fines) could be between CNY 180 billion and 220 billion in 2000. This is 4-5 fold more than officially collected agriculture-related taxes, but also between 40% and 50% more than the officially estimated “peasant’s burden”, which in addition to agriculture-related taxes includes official township and village levies (five *tongchu* and three *tiliu*; Box 2.2).

Box 2.2. A brief history of the “peasant burden”

Until 2000, farmers were subject to four major types of taxes:

- Government taxes – such as Agricultural Tax and Animal Slaughtering Tax.
- Township levies – the five *tongchou*, for education, public transport, military expenses, family planning, and social expenses.
- Village levies – the three *tiliu*, for the public accumulation fund, public welfare fund, and other administrative expenses.
- Miscellaneous fees, levies and fines – paid to various government institutions at different hierarchical levels.

In 1991, the national government set a limit on the fees and charges levied by township and village administrations (the five *Tongchou* and three *tiliu*). Under the Regulation on Fees and Labouring, the burden imposed on peasants at the township and village levels was capped at a maximum of 5% of the previous year’s net income. It is reported that many fees and charges were still often determined arbitrarily by local township and village authorities, and classified as miscellaneous fees, levies and fines, in an attempt to cover expenses at the township and village level. This resulted in officially reported township and village fees and charges being within the regulated limit, but with payments of surcharges and penalties, and payments to other institutions being largely unregulated additional payments at the township and village level.

During the 1990s, the cost of “official” township and village fees and charges almost doubled the cost of “normal” taxes. In addition, farmers were also obliged to provide 10–20 unpaid workdays for local development projects, such as constructing roads and repairing ditches. This practice should come to an end in line with recent reforms of the agricultural taxation system.

Source: Aubert and Li (2002).

Current tax reform

As described above, the rural taxation reforms, tried in 2000, and progressively implemented in rural China from 2003, attempt to address the issue of fees and charges for farmers, incorporating most agricultural taxes, fees and charges in one tax, and capping the tax at a maximum rate (8.4%) relative to the annual grain-equivalent value of

agricultural output for the previous years. Reforms include the removal of the Animal Slaughter Tax and of the Special Agricultural Tax on all products except tobacco.

In addition, the Chinese central government announced in 2004 that the Agricultural Tax would be phased out over five years, beginning in 2004. The initial 1 percentage point reduction in Agricultural tax is expected to cost the Chinese bureaucracy around CNY 11-12 billion in 2004. Trial implementation of the Agricultural Tax abolition commenced in Jilin and Heilongjiang, two important grain producing provinces, in 2002. In 2002 and 2003, the central government transferred around CNY 24 billion and CNY 31 billion respectively, to those two provinces to fund this reform. The appropriation rose further, to CNY 39.6 billion in 2004.

While the national government set the maximum level at which agriculture-related taxes may be applied, it also permits provincial governments to collect agriculture-related taxes at a lower tax rate than the maximum rate. Shanghai decided not to collect the Agricultural Tax in 2003 and continued this measure in 2004. Beijing, Tianjin and Xiamen City took this step in 2004.¹³ The government of Zhejiang announced that in 2004 it would not collect the Agricultural Tax from farmers producing grain and oil crops. Hebei, Inner Mongolia, Liaoning, Shandong, Jiangsu, Jiangxi, Anhui, Henan, Hubei, Sichuan and Guangdong reduced the Agricultural Tax rate by 3 percentage points. Sub-provincial measures have been applied in some areas, for example Guangdong province will collect no agricultural taxes in 2004 in Pearl River delta (Jing, 2004). At the beginning of March 2005, the government announced that agricultural tax reform should be further accelerated with the aim of phasing out all national farm taxes in 2006. An additional amount of CNY 14 billion will be transferred to provinces undertaking rural tax reform (MOF, 2005).

While rural tax reform is designed to provide more transparency, diminish abuses, eliminate illegal fees and charges, and to unify the rural and urban tax systems, there are two main threats to its sustainability. First, the success of reform depends on continued and growing (during the implementation period) tax revenue transfers from central government to provinces and counties as compensation for lower sub-national tax revenues. This will necessitate a more general tax reform in China to increase central government tax revenues and to institutionalise the system of distributing tax revenues across various levels of administration. Second, as discussed above, the official value of the “peasant burden” seems to be underestimated. Therefore, even if some taxes are successfully phased out and some illegal practices discontinued, the reform is unlikely to result in the non-collection of miscellaneous fees, levies and fines (paid to various government institutions at different hierarchical levels), as they seem not to be sufficiently accounted for in the costs of the reform.

Rural public services infrastructure

Rural public services infrastructure policies include policies on agricultural research and development, agricultural education services, food safety inspection services, physical infrastructure, and public stockholding.

Agricultural research and development

Research and development of agricultural technologies has traditionally been carried out by state owned research institutions, and technological advances were then distributed through state extension services. This top-down, hierarchical system was criticised due to

its apparent inability to respond to the changing demands placed on it in a more market oriented economy.

Reforms of the agricultural research system were first undertaken in the mid-1980s, with a directive to decentralise decisions on research priorities and to allow research institutes to sell the technologies they developed as a supplementary source of research funds. Since then, agricultural research and development has become more service-oriented and has been partially driven by market forces; grain-related research and development continues to be largely state funded, while research in the livestock sector is largely supported by private funding. While the reforms have increased the financial resources of research and development bodies and enhanced their responsiveness to market demand, some farmers have borne an increased share of the costs of developing new technologies. Similar reforms were also carried out with respect to the agricultural extension system (discussed in the next sub-section).

In 2001, the State Council released the Agricultural Science and Technology Development Program for 2001-2010. The programme is to focus on developing high-quality, high-efficiency, and low-cost sustainable agriculture, in order to improve farm incomes and ensure food self-sufficiency (*People's Daily* on-line, 24 May 2001).

Statistics on government funding for agricultural research and development are not reported in a consistent or systematic way by all the agencies involved. In general, however, the budgetary funding of agricultural research and development tended to increase until 1998. As shown in Table 2.8 below, the actual level of budgetary expenditure on research and development in 2001 was still lower than in 1995, although funding levels had recovered from a low point in 1999.

Agricultural extension services

The disbanding of the People's communes between 1978-1983 resulted in profound changes in agricultural extension activities. The system under which agricultural extension services could address a collective and obtain a collective decision to adopt new techniques or technologies became obsolete with the introduction of the household responsibility system. With this change, technical extension services had to target individual households and extension service activities became much more labour intensive than previously. As farmers had limited means of reducing risk, they tended to be conservative in the adoption of new techniques and technologies. These factors resulted in paralysis of the extension system in the early 1980s.

In response, the government committed to increasing extension service funding. The Agricultural Law and Agricultural Technological Extension Law were promulgated in 1993, setting up a legal framework for agro-technical services. Extension service personnel were assigned as township government officials and funding for extension service activities was made available in township budgets. Development of fee-for-service activities in the non-staple food sectors was also encouraged, although farmer up-take of these services was relatively slow. In addition, agricultural extension services were exempted from paying business tax and VAT in an effort to improve their commercial viability.

To some extent, provision of agricultural extension services has been fragmented. Many national programmes administered by many different ministries have contained an element of extending the use of improved agricultural techniques. One example of this is the "dragon-head company" approach to provision of extension services. Under this

approach, a particular company (the “dragon-head”) which receives preferential government treatment provides extension services. Initially developed in the 1980s in the coastal areas of eastern China, under this system the agricultural product company contracts with farmers for provision of raw materials. In order to ensure an on-going supply of quality products at fixed prices, the companies support their suppliers by providing relevant technologies, training and information.

Farmer education

Beginning in 1990, the government implemented a project of agricultural production skill enhancement and certification for farmers. This project was intended to improve farmer’s skills and so, improve agricultural production. By mid-2000, over 10 million farmers had been trained under the programme, of which about 4.6 million received certificates (Sun *et al.*, 2002). Other agricultural training initiatives include the operation of specialised technical schools, other rural vocational schools, radio and television agricultural educational programming, rural cadre schools, and remote area educational services. The government provides financial support to all these activities.

The National Bureau of Statistics of China (NBSC) collects volume statistics on formal education but does not collect data on educational expenditure. This data suggests that the distribution of educational facilities is skewed towards towns and cities for educational levels above elementary schooling. An estimate of compulsory education expenditures in 1998 suggests that the ratio of budgetary to non-budgetary expenditures for compulsory education is similar between urban and rural areas (Su, 2004).

According to the Ministry of Finance, budgetary expenditure on agricultural formal education and on extension services has tended to rise in the period 1993-2001 (Table 2.8).

Inspection services¹⁴

In recent years, China’s exported agricultural products have frequently been banned by importing countries on the grounds of failing to meet relevant product safety standards. Food safety incidents have also occurred frequently in China’s domestic food markets in the period 1990–2004. In response to this problem, the government began to improve both food safety standards and the food standards inspection system. Initiatives such as production of “hazard-free” agro-food products, “green food” certification, and the establishment of disease-free areas have been implemented with financial assistance from the government. While increased stringency of food safety standards usually increases the costs of production, and may increase product rejection rates, it is also the case that a reduction in consumer risk will work to support higher prices and may improve export opportunities and returns.

Food safety, particularly since the latter part of the 1990s, has become a high profile concern of urban consumers. Specific government responses to these concerns have included improvements in regulations on inspection, scientific developments to improve testing of foods, and improvements in the food safety standards framework.

Since 2003, nineteen research institutes in China have been engaged in developing a standardised framework of food safety standards. The framework is being developed to align Chinese domestic standards with the international food safety standards of the Codex Alimentarius Commission. The framework will be wide-ranging, specifying maximum residue limits for hazardous substances, detailing technical benchmarks for

testing procedures, and setting limits on hazardous materials in agricultural inputs such as irrigation water. Technical regulations governing food storage and transport are being developed to incorporate the Hazard Assessment Critical Control Point (HACCP) system. The framework is scheduled to be completed in 2005.

According to the Ministry of Finance, in 2001 (the latest year for which data is available) inspection services received an increase in budgetary expenditure, 53% higher than the preceding year.

Production infrastructure

Investment in agricultural infrastructure is by far the largest component in the government's budgetary support for agriculture (Table 2.8). Financial inputs in the construction of the rural infrastructure have come mainly from the State, while farmers have been mobilised to make labour contributions to infrastructure developments. Traditionally, the state investment focus has been on water management projects, which benefit the industrial and urban domestic sectors, as well as providing some benefits to the agricultural sector.

Land reclamation and improvement of low yield land areas have also received funding from the state, mainly under the Comprehensive Agricultural Development Programme. Commencing in 1988 this programme was intended to transform existing medium and low-yield cultivated lands, reclaim all exploitable wasteland resources for farming purposes, and establish new agricultural production bases. Financial support for projects under the programme came from agricultural development funds in central and sub-national government budgets (including funds raised through state bonds issue – see Box 2.3), special loans from state banks, funds raised by collectives and farmers, and international funding from organisations such as the World Bank, the Asian Development Bank, and the United Nations Development Programme.

In the period 1988-2002, Wang and Li (2004b) report that total domestic inputs to the programme were CNY 171.1 billion, of which CNY 48.35 billion were contributed by the central government, CNY 43.46 billion were contributed by sub-national governments, CNY 57.84 billion was contributed by collectives and farmers, and CNY 21.36 billion was supplied through bank loans. The projects are distributed throughout the country and under which 21.5 million hectares of low yield land areas have been improved and over 2 million hectares have been reclaimed for afforestation.

Box 2.3. Public debt funds in agricultural development

In the period 1998-2002, the state arranged almost CNY 190 billion of state bond funded investment in agriculture, fisheries and forestry (MOA, *China Agricultural Yearbook*, 2003). According to the MOA, CNY 126.3 billion of bond funds were to be invested in water conservancy works in that period, accounting for around two thirds of central government investment in agricultural infrastructure; CNY 44.3 billion was planned to be invested in forestry and ecological works (including the so-called Grain for Green Programme discussed in the environmental policy section); while CNY 6.7 billion was arranged to be invested in other agricultural projects such as construction of cotton production bases in Xinjiang and funding to support seed and livestock improvement programmes.

In the last five years, the government has increased investment in rural environmental protection projects, such as the establishment of forest belts in northern China and in the upstream catchments of the Yangtze River, and the extension of water-saving technologies in areas with poor water resource endowments. Beginning in 2001, the national government funded the “six rural small projects”, which are defined as: increasing the use of water saving irrigation, improving the supply of drinking water to people and livestock, developing energy sources from agricultural by-products, construction of small hydro-power stations, fencing of grassland, and paving country roads. Total investment reached CNY 28 billion in 2003 (Jing, 2004).

In line with the 2004 “No. 1 Document”, the government planned to increase its financial support for agricultural infrastructure from CNY 120 billion in 2003 to CNY 150 billion in 2004. The main projects include spending on improved irrigation facilities, rural roads, methane production facilities, rural hydroelectric plants, pasture enclosures, and construction of agricultural high technology parks (Gale et al. 2005).

Overall, state investments in agricultural infrastructure have tended to increase, but agriculture’s share of total capital investments declined notably. Moreover, according to the report by the Auditor General Li Jinhua to the NPC in 2004, state funds provided for agricultural infrastructure projects are not always used properly (*People’s Daily* online, 24 June 2004).

Information infrastructure

The government has developed a number of initiatives to improve information dissemination in the agricultural sector. These initiatives are aimed at improving market efficiency, improving food quality, and improving marketing opportunities in the agricultural sector.

In September 2001, the Ministry of Agriculture issued the “Action plan of rural market information services during the tenth five-year plan”. It is proposed to establish an information system covering all counties and the majority of townships, agriculture-related enterprises and wholesale markets. The purpose of the network is to provide market information to all agricultural stakeholders, and improve the delivery system for technical agricultural information.

The Internet is also used to provide economic and market information.¹⁵ Many specialised agricultural web sites have been established to provide market and policy information to the agricultural sector. For example, the Ministry of Agriculture opened a vegetable products wholesale information network in January 1995, which linked vegetable and other non-staple food wholesale markets in major cities. In the same year, the China agricultural information network was opened. The China Central TV (CCTV) agricultural channel¹⁶ started in November 1995. In the tenth five-year plan (2001-2005), the central government began to accelerate the construction of the rural economic information system.

While the various governments in China have plans to improve the flow of both technical and market information to farmers, it appears that any current benefits from electronic information delivery rely largely on non-electronic dissemination of information to the end-users. Television coverage in China is high, with satellite, cable and free-to-air broadcasting, and reports of the possible television audience vary from 84% (Thomas, 2003) to 95% (*South China Morning Post*, 31 August 2004). However, media

reports *e.g.* on internet access in China highlight that many people in rural areas have either no electricity supply, or an inadequate and unreliable supply; yet, electricity is a pre-requisite for both internet and television access. The same reports point out that personal computer ownership in rural areas is likely to be considered as an extravagance.

Promotion of China's agricultural products in international markets has mainly been carried out by several specialised commercial chambers. These include the China Council for the Promotion of International Trade, and the China Chamber of Commerce for Import and Export of Foodstuffs, Native Produce and Animal By-products. While organisations such as these are assisted by the national government, major contributions to market promotion activities come from relevant member enterprises.

Public stockholding

China has engaged in large scale public stockholding of food grains, and continues to do so. China's grain reserve policies have been dominated by concern for national food security in the event of supply shocks, such as widespread harvest failures or crop destruction due to floods and other natural occurrences. The quantities of grains held in Chinese state grain reserves is a state secret, and traditionally, grain reserve policy detail has not been easily available to the general public. However, with the increasing transparency in the process of governing, an improved analysis of grain reserve policies is becoming possible.

A more tangible reserve policy than that previously in place started to emerge in the early 1990s, following the good harvests in 1989 and 1990. With grain reserves already comprising grains obtained by levying the Agricultural Tax and through the state procurement quota, the government introduced a special reserve scheme to absorb the extra grains bought under support prices (State Council, 1990). The purchasing and storage operations were carried out by the State Grain Reserve Bureau, which was established in 1990. However, due to limited funding and limited storage capacity, implementation was largely ineffective.

In early 1993, the government attempted to establish "grain risk funds" to be used for policy operations associated with grain procurement and reserves. Grain risk funds were created under a circular from the State Council and the Central Committee of the Communist Party of China, "On policy measures for agricultural and rural development". The funds are budgetary allocations at the central and provincial levels which are intended to ensure that grain policy is implemented. The funds are principally intended to ensure that funds are immediately available to undertake policy or government directive action pertinent to maintaining grain reserves and grain price stability. Provincial contributions to the funds are a set proportion of national contributions and funds contributed by the provinces are to be used at the discretion of the provincial government.

The government began to improve storage facilities and establish a system of separate central and local grain reserves. The central reserves are used for ensuring national food security and stabilisation of the national grain market. Local reserves are used for ensuring local food security under certain unusual situations, such as coping with natural disasters. SGEs are often used as agents by local governments for managing local reserves. SGEs also have their own stocks based on the requirements of their commercial operations.

It should be noted that with significant decentralisation of administrative power during the 1990s, under the GGBRS provincial governments were made responsible for implementing regional grain policies. Regional policies are generally to be funded from provincial budgets. Sub-national governments are also required to establish local grain reserves. There appears to be notable variation in the implementation of state procurement and the associated state prices, and approaches to implement national policies also vary between regions. The regional variation seems to be driven mainly by variations in resource endowments and public financial capacity.

Closely related to China's grain reserve policy, is its grain storage capacity, although only a proportion of total storage capacity is utilised to store government grain reserves. There was a severe shortage of grain storage capacity in the 1980s and the existing grain storage facilities were in poor repair. Commencing in the early 1990s, China's grain storage capacity was improved. Investment in infrastructure improvements came from both the Chinese government and international sources. For example, in 1993, China launched the "China Grain Project" to improve the grain distribution and marketing system, with external funding of USD 490 million provided by a World Bank loan. During the 1990s, over 55 million tonnes of storage facilities were constructed specifically for national reserves. The Chinese government also allocated CNY 33.7 billion between 1998 and 2001 for the construction of a further 51.5 million tonnes of storage facilities (State Grain Bureau 2002). According to Song et al. (2002), the national government grain reserve is planned to reach a capacity of 75 million tonnes.

On 9 June 2000, with the approval of the State Council, SINOGRAIN (the China Grain Reserve Corporation) was established. SINOGRAIN has a duty to manage national stocks of grains and vegetable oil products and covering procurement, stock maintenance, interregional shipments, domestic sales, and import and exports. It is also responsible for constructing and maintaining stock facilities. While the capital investment comes from the national government, the corporation is required to take full responsibility for maintaining and increasing its assets.

Budgetary expenditure on public stock holding fluctuated significantly in the period 1996–2000. In 2000, the establishment of SINOGRAIN corresponded with a 26% annual increase in expenditure on public stockholding, while the increase between 2000 and 2001 was marginal (Table 2.8).

Consumer measures

Until 1992, the supply of grains, vegetable oils and some other important food products in the urban sector was subject to rationing. In contrast, rural consumption was characterised by self-supply of most food products.

In the early 1990s, the government placed a particularly high priority on securing price and supply stability in urban food markets. As a result, in the event of a rise in state retail prices of major food products, a lump-sum subsidy was paid to wage-earners. The subsidy was designed to ameliorate the impact of the food price increases, rather than calculated to fully offset the additional food costs faced by individual urban consumers. Following the initiation of the subsidy, each subsequent food price rise entailed an associated subsidy level increase. The subsidised food prices could be expected to increase the quantity of food demanded, thus increasing prices further, and potentially contributing to an inflationary spiral. Additional administrative intervention to dampen food price fluctuations was also used in "emergency" situations, such as when inflation accelerated

in mid-1994.¹⁷ Some of these subsidies remain in place, although currently they are of marginal importance (Table 2.8).

Environmental measures

The Chinese government began to place a high priority on environmental protection only after food became relatively abundant in the late 1990s. The major environmental initiatives include large scale forestation projects in areas suffering from soil erosion, measures to prevent and control desertification and sand encroachment in arid northern regions, protection of wetland areas, wildlife and wild flora conservation, soil and water conservation, and control of non-point pollution associated with agricultural activities.

In addressing these environmental problems, both as remedial and as preventative measures, the main focus has been on command and control instruments, involving the application of technical improvements, regulations, dissemination of information together with, to a lesser extent, the use of economic instruments such as taxes, charges and various forms of financial support. Since the late 1990s, the national government has provided financial assistance to these activities mainly using funds raised by issuing government bonds (Box 2.3). The government has also attempted to formulate an effective incentive framework to encourage private participation in environmental protection measures.

Several big afforestation projects were launched in the 1990s to control soil erosion and desertification. During 1998-2000, the national government allocated CNY 22.26 billion to natural forest protection projects. While such projects have indirect benefits to agriculture, they focus primarily on protecting the natural environment. The State Forestry Administration (2004) reports that during the 1990s the total forested land area in China increased.

Grain for green project

A major environmental policy initiative is the so-called “grain for green project”, launched in 1999, and officially titled the Returning Farmland to Forests Programme. Under this programme, cultivated lands in environmentally fragile areas are “retired” from crop production, and converted to pasture or forest. Initially, this project covered only 14 trial counties in Hunan, Hebei, Jilin and Heilongjiang provinces. It has recently been extended to other provinces. Under this project, participating farmers are provided with grains and cash subsidies according to the area of damage-susceptible land they “retire”. According to the criteria set by the national government, for each *mu* (one-fifteenth of a hectare) retired, farmers in the upstream regions of the Yellow River basin in northern China receive yearly 100 kg of grains and CNY 20 in cash; and in the upstream regions of the Yangtze River basin they receive 150 kg of grains and CNY 20 in cash. The period for which “retired” land is subsidised is set at two years for land returned to pasture, five years for land converted to “economic” forests and eight years for land converted to “ecological” forests. Free seedlings are also made available for afforestation. The programme’s costs are born mainly by the central government (Table 2.8).

Under this programme, trees were planted on about 8 million hectares of cultivated land between 1999 and 2003 (State Forestry Administration, 2004). However, the future of this project is in doubt. Farmers can be expected to keep land in “retirement” provided the economic benefits of doing so, out-weigh the benefits of farming that land. In a study addressing this question, Uchida, Xu and Rozelle (2004) found that, although farmers

generally were better off when receiving payments under the programme, there was a significant likelihood that “retired” lands would be returned to cultivation when payments ceased. This is partly due to the programme stipulation that 80% of trees planted should be ecological trees (not providing a direct cash return). Thus, unless the resources freed from farming can be more productively employed not farming the set-aside plot, it is likely the plot will be returned to farming when the subsidy incentive ceases.

China is also actively addressing water usage issues. In April 1999, the Ministry of Water Resources and the Ministry of Finance jointly launched an ecological demonstration programme. Under the project, 100 counties and 1 000 basins of small rivers were selected to carry out ecological agriculture experiments and demonstrations. The second phase of this programme, beginning in 2001, covered additional 46 counties and 374 small river basins. The programme is aimed at improving both water and soil conservation.

Non-point pollution associated with agriculture has become a widespread problem in China due to inappropriate use of chemical fertilisers and pesticides. Its effects include not only contamination of products and waterways, but also poisoning of farmers. Education of farmers in improved application of chemical inputs, including use of chemicals with higher efficiency/pollution ratios, is an identified measure to address this pollution problem.

China’s efforts to improve the rural environment are also supported and supplemented by several international organisations. For instance, the World Bank and other donors have engaged in a number of projects that support sustainable agriculture and use of land, water, grassland, forest, or coastal resources. The Chinese authorities have also established eco-protection zones (such as national natural parks) and agricultural ecological demonstration projects, and a genetic resources bank.

Environmental issues are also addressed in the Chinese legal framework. Laws are in place relating to soil and water conservation, wildlife conservation, control of sand encroachment, and wild flora conservation. China is a signatory to several multilateral agreements on environmental protection, including those to combat desertification and protect biological diversity and has set up a number of monitoring networks on desertification, soil and water retention, and biodiversity.

Overall budgetary outlays on agro-food policies

Agricultural capital investments by government declined in the 1980s, under an over-optimistic expectation of agricultural growth. However, it was recognised that this would have adverse impacts on long-term productivity. State investment in agriculture was increased from the early 1990s, with a special focus on improving irrigation and other rural infrastructure. In the second half of the 1990s, as previously discussed, the Chinese government funded some agriculture-related investment projects with money raised from issuing government bonds, rather than making these investments with tax revenue, allowing additional investment without increasing taxes or reducing tax based government expenditures in other areas.

The national government has declared that the central financial authorities will continue to increase the budgetary funds for the construction of rural infrastructure facilities, ecological improvements, rural anti-poverty endeavours, dissemination of improved strains of crops, establishment of a quality and safety standard system and an inspection system for agricultural products, and the strategic restructuring of agriculture.

Data on overall budgetary revenues from agriculture and expenditures on agriculture-related activities is provided in Table 2.8. Clearly, in nominal terms, the levels of budgetary support to agriculture have tended to increase, with a trend increase of around 16% each year in the period 1993-2001. However, total government budgetary expenditure in the period grew at around 17% each year, resulting in agriculture's share of budgetary expenditure declining.

Aggregate budgetary expenditure to support agriculture in 2001 was around 13% of total government budgetary expenditure, having fallen sharply in terms of budget share from 1998 (15.7%). The trend in the period 1993-2001 was for agriculture's share of government budgetary expenditure to decline, losing around one quarter of one per cent share each year.

Within the expenditure on agriculture, the major outlays include rural infrastructure (47% of outlays in 2001), public stockholding (24%), operating expenses of government administration and services related to agriculture (8%), and agricultural extension services (8%). Expenditure on the grain for green programme in 2001 amounted to around 2% of agriculture-related outlays, while pest and disease control, agricultural research and development, agricultural schools, inspection services and consumer food price subsidies were each around 1% or less of the total agriculture-related outlay.

While the share of outlays within agricultural budgetary support has been reasonably stable between 1999 and 2001, there are some significant differences between this latest period and the distribution of expenditure immediately prior to 1999. Notably, the share of expenditure on infrastructure gained almost 7 percentage points, and agricultural extension gained around 4 percentage points, while public stockholding lost budget share of 6 percentage points. In the minor expenditure categories, the share of expenditure on consumer subsidies declined by 75% and the share for research and development was halved.

The changes in funding levels and shares indicate that, at least in budgetary terms, agricultural infrastructure development and on-farm education and technical extension have become more important. Public stockholding remains important but has not grown in importance since 1998, food subsidies are becoming a very minor expenditure, and research and development has received large expenditure cuts but the most recent funding levels are improving. These adjustments in the structure of budgetary expenditure, and the initiation of a decline in government revenue from agriculture, correspond to the broad policy change introduced in 1998 in which farm incomes became a policy priority. The budgetary changes also indicate a recognition that agricultural infrastructure has been inadequate.

Poverty alleviation and natural disaster relief are social policies which, while not specifically targeted at the agricultural sector, provide substantial benefits to farmers. The strong growth in poverty alleviation expenditure reflects China's ongoing effort to provide adequate food and clothing to those in poverty and government provision of funds to support preferential loans to poor regions.

Despite the fact that funds are allocated from the central budget, as previously discussed in this chapter, responsibility for implementing policies is often devolved to sub-national elements of government. However, budgetary funds are not always used in line with the stated objectives. In 2003, for example, the state auditors found that disaster relief funds in some provinces in eastern and southern China had been diverted to balance

Table 2.8. **Total national aggregate budgetary support to agriculture**

Unit: CNY million – current prices

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Agricultural extension	3 631	4 856	6 047	5 635	6 111	7 008	14 706	16 459	19 184
Pest and disease control	1 262	1 687	2 100	1 957	2 145	2 294	1 275	1 190	1 439
Return farmland to forest programme	0	0	0	0	0	0		230	4 232
Relief from natural disasters	1 743	2 042	2 042	3 791	4 042	5 453	5 023	5 317	5 956
Poverty alleviation	1 417	1 950	2 000	6 000	10 000	11 000	12 869	12 493	13 487
Research and development	2 288	3 060	3 810	3 551	4 078	4 545	2 561	2 743	3 227
Agricultural schools	125	167	208	194	211	220	440	478	525
Inspection services	655	876	1 090	1 016	1 436	1 500	1 598	1 578	2 418
Infrastructure	26 012	34 789	43 315	45 321	50 367	65 828	80 663	94 549	115 163
Public stockholding	24 142	22 085	24 043	28 773	35 335	51 027	47 416	59 551	59 685
Administration operating expenses	8 975	12 003	14 945	13 928	15 654	18 435	14 185	15 872	19 594
Consumer food price subsidies	2 986	2 541	2 417	2 012	1 875	1 766	2 670	2 340	683
Budget total	73 235	86 055	102 018	112 178	131 254	169 076	183 406	212 800	245 593

Source: Ministry of Finance (2004).

county budgets and embezzled for the personal use of some officials (*People's Daily* on line, 24 June 2004). Misdirection of poverty alleviation funds has also occurred (Zhang, 2003), with funds intended to be used as preferential loans to poor farmers being lent to well-to-do business people for investment in commercial enterprises. A survey by the Development Research Center of China's State Council found that only 30% of funds destined for agriculture are actually spent on agricultural production. In the past, a large part of these funds was used for operating expenses by various levels of government to purchase cars, to pay for banquets, or otherwise misappropriated (Gale *et al.* 2005). Thus, under some programmes at least, the level of support actually received by farmers is much lower than the amounts allocated from the budget would indicate.

2.3. Trade policies

Since 1978 China has been guided by the philosophy of increasing openness and engagement with the rest of the world, as outlined in Chapter 1. This broad policy direction has resulted in numerous adjustments to economic policy, including changes to the foreign trade system in China. In this section, the major reforms of the foreign trade system will be outlined, along with the major objectives of China's agro-food trade policy. Trade measures applied by China and its major trading partners will be examined, trade relations will be outlined, and China's trade flows will be detailed.

Overall reforms of the trade system

In the early 1990s, the Chinese leaders adopted the notion of a socialist market economy and began to switch from direct control over all economic activities to more indirect economic policy interventions. With respect to the foreign trade system, the major reform measures have included:

- Developing a legal framework to govern trade activities.
- Significantly reducing import tariffs.
- Removing quantitative controls on imports and exports.
- Extending rights to engage in foreign trade to a larger number of firms.

- Transforming the STEs into commercial firms.

Foreign trade results have also been influenced by other macroeconomic policies, such as exchange rate policy (discussed in Chapter 1).

The government enacted the Foreign Trade Law in May 1994, which was revised in 2003 to accommodate China's WTO obligations. As a consequence of WTO membership, the national government has recently adopted a series of regulations dealing with antidumping and countervailing measures, quarantine and quality inspection, and safeguard measures. Many of these measures were put in place between 1999 and 2001. The general objective of these efforts has been to establish an administrative system consistent with WTO rules.

Merchandise tariff rates have been significantly reduced in the latter part of the 1990s and following WTO accession in 2001. For example, in its 1999 bilateral agreement with the United States, China committed to reduce industrial tariffs from 1997 average level of 24.6%, to an average of 9.0% by 2005, and committed to remove all tariffs on computers, semi-conductors and internet-related equipment by 2005.

China has progressively reduced the level of quantitative control it applies to international trade. This has included removing licensing requirements for some products, abolishing some quotas and converting other quotas to TRQs. These reforms have been applied to both imports and exports.

In the central planning era, all foreign trade was conducted by specific government firms, the STEs. During the period 1990-2004, the STE monopoly on foreign trade activity was abolished. Licensing procedures for the approval to engage in foreign trade have been progressively liberalised. Initially, STEs existed to carry out the plans of the central government. During the 1990s, most STEs became commercialised firms, responsible for their own business results.

In 2004, the requirement for approval was replaced with the requirement to register as a business engaged in foreign trade.

While these are broad economy wide reforms, they all apply to trade in agro-food products and will be discussed in greater detail in the sub-section on agro-food trade measures applied by China.

Main objectives of agro-food trade policy

China's agricultural trade strategy has consistently had multiple objectives: earning foreign currency income, and ensuring food security and food market stability. Under the central planning regime, earning foreign currency income to support industrialisation of the national economy was a primary objective. Political considerations also influenced trade decisions in the central planning era.

As discussed previously, the national government places a high priority on achieving food security and stability in food markets. Agricultural trade policy has contributed to these broad policy objectives. As discussed below, trade decisions regarding staple food commodities reflect a desire to maintain a balance in the domestic food market by maintaining an adequate supply of food and preventing the deterioration of farmers' incomes. Since around 1998, market competition and other distributional efficiency considerations, and supporting rural incomes, have been major concerns in discussions of agricultural trade strategy, leading to the implementation of measures to increase agricultural exports as a means of improving farmers' incomes.

Agro-food trade measures applied by China

Under China's central planning regime, all foreign trade was controlled with import and export volumes being set in annual trade plans. China has progressively liberalised its foreign trade system since 1978, with major reforms occurring since 1990. This section provides an outline of the evolution of measures applied to imports and exports.

Import measures

State trading enterprise regime. Prior to and through-out the period 1990–2004, STEs (Chapter 1) have played an important role in agro-food imports.

Under the central planning system, decisions on agricultural trade were made by the central government and carried out mainly by China National Cereals, Oils and Foodstuffs Import & Export Corporation (CEREOILS, now COFCO). At that time, CEREOILS had a state-sponsored position in agricultural trade which was largely monopolistic. The national government determined quantities of imports for different commodities, and also set the prices at which CEREOILS could sell imported product onto the Chinese market. During the central planning era, STEs operated as policy instruments, balancing supply with demand for staple foods and contributing to the achievement of the government's price objectives. STEs were not fully accountable for their financial performance, with the government subsidising trading losses, and profits being returned to the central government.

Since the reforms began, "minor" agricultural products have been deregulated, with competition introduced by extending foreign trading rights to provincial based STEs as well as non-STE. In addition to the increase in the number of STEs eligible to engage in international trading activities, the focus and scope of activities for STEs was broadened to include purely commercial trading activities.

With the advent of the agent system, introduced in 1994 under the Foreign Trade Law of the People's Republic of China, STEs lost their monopoly on exports of many controlled commodities, although they remained an important element of government control of "strategic" agricultural commodities.¹⁸ Under the agent system, two levels of approval were required. One level was to approve the enterprise which actually interfaced with overseas businesses to arrange trade contracts, and the other level was to give approval or a licence to trade for a specific volume of a specific commodity within a specific timeframe (these will be discussed in the next sub-section). STEs and other "designated" firms could import on their own behalf, on behalf of the government, or on behalf of other firms provided appropriate import approval had been obtained.

In China's WTO accession agreements, the remaining STEs lost their monopoly position, although allocations were reserved for STEs for imports of chemical fertiliser, wheat, corn, rice, sugar, cotton, tobacco and vegetable oils. The current state trading arrangement operates through the TRQ system (see sub-section on TRQs).

Clearly, STEs remain an important part of China's agro-food import arrangements. While a greater array of firms are permitted to engage in foreign trade, the STEs remain deeply involved as importers with a role to play in implementing government policy, especially policies designed to stabilise domestic prices. The gradual liberalisation of China's foreign trade regime may have diminished the influence of STEs, but the government retains some influence on import volumes through the state trading system. Government influence through this system is less direct under WTO rules than was previously the case.

Import licences. Licensing has been an important measure employed by the central government to regulate agro-food imports. There are two elements of the licensing structure: approval or licence to engage in foreign trade and approval or licensing to import specific quantities of specific commodities. Both elements have evolved from the state planned trading system. The second element will be discussed in detail in the following sub-section on TRQs.

Under the agent system in place since the trade reforms of 1993-1994, in addition to the STEs, certain other firms were granted approval to engage directly with foreign entities for the purposes of trading. This was a licence to trade, but specific approval was still required to import many commodities. In the agro-food sector, these commodities were grains, cotton, wool, sugar, tobacco, and vegetable oils.

In July 2001, immediately preceding China's WTO accession, the central government adopted a system whereby any domestic firm would be permitted to engage in foreign trading activities, provided it could meet certain criteria. Provincial governments were authorised to examine applications and register qualified firms. The criteria for enterprises under this system included minimum registered capital, expected import volumes above a set threshold level (initially CNY 5 million), a suitable bank credit rating and a satisfactory level of business profitability. Enterprises must also have recorded no breaches of regulations covering trade, finance, taxation or business activities, and, in some cases, the import volume of products subject to designated trading in the previous year was also taken into account. Specific approval to import commodities subject to quota control was still required. China reserved the right to continue this "designated trading regime" for three years after accession to the WTO until the end of 2004.

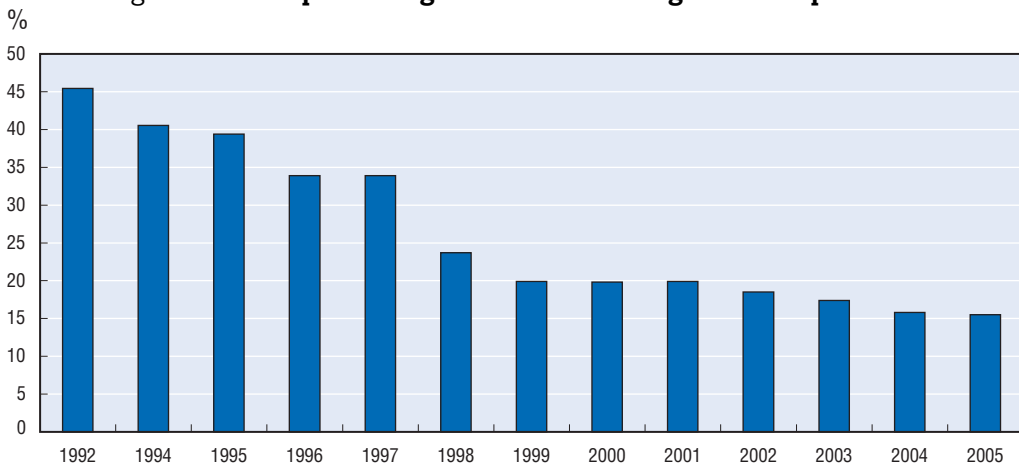
In April 2004, the Foreign Trade Law was amended to further liberalise foreign trade. Commencing in July 2004, all Chinese domestic enterprises have the right to engage in foreign trade provided they:

- Are corporate entities incorporated for at least one year.
- Have registered capital of no less than CNY 5 million (CNY 3 million in central and western China).
- Have completed tax registration and paid tax according to the law.
- Their legal representative must not have served in the same capacity with a firm which lost its foreign trade rights in the last three years.

Firms need only to register to gain trading rights, although some agricultural commodities remain subject to quota licence approval and other trade restrictions (see sub-section on TRQs). This reform also paves the way for individuals to engage in trade.

Tariffs. China introduced tariffs for many products in the early 1990s, despite many of those products being subject to state planning control.

During the period 1992–2004, the government substantially reduced tariff protection for agricultural products, through a series of tariff cuts. Figure 2.3 depicts the changes in average Most Favoured Nation (MFN) tariff rates of agricultural products since 1992, along with China's tariff rate commitments for 2004 and 2005. Clearly, the average level of tariff protection provided to Chinese agricultural products has tended

Figure 2.3. **Simple average MFN tariffs on agricultural products**

Source: China Customs Office (2005).

to decline, and was scheduled to drop in 2005 to around one third the average tariff level of 1992.

Tariffs on selected agricultural commodities are listed in Table 2.9. It is evident that, although major reductions of tariffs occurred after the mid-1990s, the introduction of the tariff-rate quota system from 1996 introduced the potential for out-of-quota imports of some commodities to incur large tariffs. Currently, the highest out-of-quota rates, at 65%, can be charged on imports of wheat, maize and rice. It is, however, notable that the in-quota tariff rates are much lower than that and even much lower than the average MFN rates. For example, in 2002 the average in-quota rate for ten TRQ products (46 tariff lines) was 6% while the average out-of-quota rate was 55%.

Since gaining WTO membership, China has continued to lower tariffs according to the schedule stipulated in the WTO accession protocol. Under this schedule, most tariff lines will be at their final bound rate by 2004; around 6% of China's agricultural tariff lines will reach their final bound rate between 2005 and 2010. The final three tariff lines – for fresh strawberries, preserved fruit and nuts other than cherries and strawberries; and other fermented beverages not elsewhere specified (such as cider, perry, mead) – are scheduled to reach their final bound rate at the beginning of 2010.

The reductions are shown in Figure 2.4. Clearly there is a shift to a greater proportion of lower tariffs. The simple average tariff rate for agriculture was 18.5% in 2002, dropping to 15.6% in 2004. The figure also demonstrates that China's tariffs are not very disperse; in 2004, 69% of tariff lines were in the 10-39% tariff range, and around 67% of tariffs lines had tariffs of less than 20%.

China has implemented tariff reduction and exemption measures in order to realise a range of policy objectives. The coverage of specific tariff reduction or exemption is determined by the State Council and all tariff reductions and exemptions are applied on an MFN basis. Goods that are exempted include those imported under inward processing programmes; domestic or foreign-funded projects encouraged by the government; articles for scientific research, for educational purposes, and for assisting people with disabilities.

Table 2.9. **Changes in MFN tariffs for basic commodities**

HS code	Description	Tariff rate applying from month									
		Dec. 1992	Dec. 1993	July 1995	April 1996	Jan. 1997	Jan. 1999	Jan. 2000	Jan. 2001	Jan. 2002	Final rate ²
01029	Bovine animals	20	20	20	12	10	10	10	10	10	10
01039	Swine, live	40	35	35	12	10	10	10	10	10	10
0104109	Sheep, live	40	35	35	12	10	10	10	10	10	10
0104209	Goat, live	40	35	35	12	10	10	10	10	10	10
0105119	Fowls, live	40	35	35	12	10	10	10	10	10	10
02011	Bovine meat	50	50	50	50	45	45	45	40	30	20
02031	Swine meat	50	45	45	45	20	20	20	20	20	20
02041	Lamb/Sheepmeat	50	45	45	45	23	23	23	22	18.2	15
02045	Goat meat	50	45	45	45	23	23	23	23	21.2	20
020711	Poultrymeat	50	45	45	45	20	20	20	20	20	20
0401	Milk and cream	30	30	30	30	25	25	25	23	19	15
0407	Eggs	60	55	55	55	25	25	25	24	22	20
08051	Oranges	80	52	52	52	40	40	40	35	22.6	11
08081	Apples	80	40	40	40	30	30	30	30	18	10
0902	Tea	80	70	70	70	30	30	30	27	21	15
1001	Wheat ¹	0	0	0	1/114	1/114	1/114	1/114	1/114	1/71	1/65
1003	Barley ¹	3	3	3	3/91.2	3/91.2	3/91.2	3/91.2	3/91.2	3	3
1005	Maize ¹	0	0	0	1/114	1/114	1/114	1/114	1/114	1/71	1/65
1006	Rice ¹	0	0	0	1/114	1/114	1/114	1/114	1/114	1/71	1/65
1201	Soybean ¹	3	3	3	3/114	3/114	3/114	3/114	3/114	3	3
1202	Ground-nut	50	45	45	20	15	15	15	15	15	15
1205	Rapeseed ¹	50	45	45	12/40	12/40	12/40	12/40	12/40	9	9
17011	Cane and beet sugar ¹	30	30	30	30	30	30	20/90	20/90	20/65.9	15/50
2401	Tobacco	50	45	45	45	40	40	40	34	22	10
5201	Cotton ¹	3	3	3	3	3	3	3	3/90	1/54.4	1/40

1. Commodities subject to tariff-rate quota management: format is in-quota tariff/out-of-quota tariff.

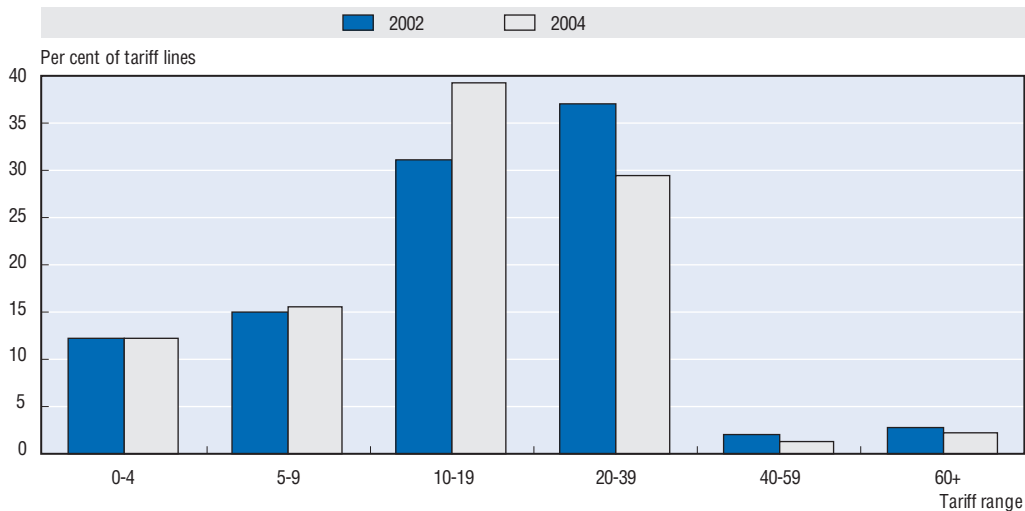
2. The reduction of tariffs is phased in within the specified periods for individual goods. For most products, the final date is 2004. The latest date is 2010.

Source: Customs General Administration (2003); WTO (2001).

There are numerous criteria for the preferential tariff treatments, such as types of enterprises (STEs and foreign joint ventures), types of goods for specific purposes as mentioned above, types of specific regions (such as special economic zones). Due to these preferences, the actual level of tariff protection is much lower than the nominal rates would suggest. According to Chinese customs statistics, the ratio of customs duties collected to the total value of imports declined from 16.5% in 1985 to 2.9% in 2002. This ratio is consistently and significantly lower than the average nominal tariff rate, which Chinese Customs calculated as 18.5% for 2002.

TRQs and quantitative restrictions. Prior to 1993, the State Planning Commission determined the quantities of products to be imported and allocated quotas to provinces, according to perceived needs. In 1993, the agent system was introduced, under which STEs acted as importing agents. Businesses wishing to import had to bid for quota allocations.

Figure 2.4. Dispersion of China's agricultural tariffs in 2002 and 2004



Source: AMAD, OECD (2004).

Quantitative restrictions applied to cotton, grains, and oilseeds, with quotas determined annually by the State Planning Commission.

China introduced TRQs for major grain and oilseed commodities in 1996. The establishment of TRQs and the mechanism by which the TRQs were to be managed, were significant issues in the bilateral negotiations which formed the basis of the Protocol of Accession of the People's Republic of China. It was agreed that China could apply TRQs to wheat, rice, corn, cotton, sugar, and wool. TRQs were also agreed for some vegetable oils, but the oilseeds themselves were subject only to a tariff. Unlike the TRQ systems many countries have under WTO rules, it has been stipulated that China's system includes criteria for allocating the import quotas to STEs and to non-STE.

The process of allocation and re-allocation of quotas is managed by the National Development and Reforms Commission (NDRC) and the Ministry of Commerce (MOFCOM). The NDRC is in charge of the management of TRQs for grains and cotton, and MOFCOM is responsible for vegetable oils and sugar TRQs.

Each October, the NDRC and MOFCOM announce the quotas for the next year and the criteria which govern applicant eligibility for a quota allocation. To be eligible to receive a quota in 2005, for example, businesses must meet two sets of criteria. The first general set applies to eligibility to receive any commodity quota:

- Have registered with the State Administration of Industry and Commerce before 1st October, and passed the latest annual examination by the Authority.
- Have no record of violating import regulations in the areas of customs, foreign exchange, industry and commerce, taxation, and quality inspection.
- Have no record of violating the Temporary Measures on Management of Import Tariff Quota of Agricultural Products (a regulation issued jointly by the NDRC and MOFCOM).

Each commodity governed by a TRQ also has a set of specific criteria. In 2005, to be eligible for a sugar quota, for example, the applicant firm must also satisfy one of the following requirements:

- be a state-owned trade enterprise; or a
- central enterprise with a national stock function; or an
- enterprise which held a sugar import quota in 2004; or a
- sugar production enterprise which processes raw sugar, with a daily production capacity of at least 600 tonnes, with registered capital of at least CNY 10 million, and with annual sales of at least CNY 200 million; or an
- enterprise which uses sugar as a raw material and is engaged in processing for export trade.

MOFCOM and the NDRC have undertaken to notify successful applicants of their quota allocations before 1st January of the year in which their quota is valid. If a quota-holder has not contracted for the full quantity of their quota by 15th September in the year for which the quota is valid, then the unused portion of the quota is to be returned to the NDRC or MOFCOM to be re-allocated. Applicants wishing to obtain a share of the re-allocated quota can apply between the 1st and the 15th of September, and re-allocations will be issued on the 1st of October.

In 2004, TRQs applied to wheat, corn, rice, sugar, cotton, and vegetable oils, 90% of the wheat quota reserved for STEs, for corn the STE reserved portion of the quota is 60%, for rice 50%, for sugar 70%, for cotton 33% and for vegetable oils 10%. Following the so-called WTO transition period during which China's quotas were expanded, the 2004 TRQ settings will remain in place (unless re-negotiated) indefinitely for all commodities listed above, with the exception of vegetable oils. China has committed to eliminate the TRQ on vegetable oils as of 2006, implementing a tariff-only arrangement instead. Although tobacco has no TRQ, tobacco trade is controlled by a state monopoly. A TRQ is also in place for chemical fertilisers with the STE reserved portion ranging from 70% to 90%, depending on the type of fertiliser. China's TRQ performance on agro-food imports is discussed below (Table 2.10).

These quantitative restrictions permit the government some control over the quantity of these particular products which enter the Chinese domestic market.

VAT. The national government introduced a Value Added Tax (VAT) with effect from January 1994. The VAT was generally applied at a rate of 13% for agricultural products and agricultural inputs compared to the regular rate of 17%. However, VAT has generally not been collected on essential farm inputs such as fertilisers, seeds and water; and VAT is not levied on purchases of farm products until the primary receiver offers them for sale, at which point the tax is calculated on the value of the trader's margin, not on the value of the product. The different methods of calculating VAT obligations for domestic and imported goods may provide an additional level of protection to some domestic producers (Box 2.4) provided that importers are not exempted from VAT payments.

VAT exemptions have been applied to a wide range of agriculture-related imports, such as imports of seeds, breeding animals, certain chemical fertiliser and pesticides, raw materials for manufacturing feed products, and cotton. Application of these exemptions has been changeable, with application of exemptions fluctuating throughout the period 1990-2004.

Box 2.4. VAT assessment on imported agricultural products

While the same VAT rate is applied to imported and domestically produced agricultural products, differences in the method of calculating the VAT to be levied on imports and on domestic agricultural products, may provide additional protection to China's agriculture sector.

Imports of agricultural products are assessed a VAT levy based on the Customs clearance price of the goods. The clearance price consists of the CIF price of the goods plus any tariff and consumption taxes which apply. Agricultural imports are assessed a VAT of 13% of the Customs clearance price.

Domestically produced agricultural products are assessed a VAT levy according to the marketing margins at each point in the marketing chain, except for the primary handler. The primary producer of agricultural products is not liable for VAT on their products. The primary handler can assume an input VAT of 10%. Assuming a wholesale or primary handler margin of 15% for grains and soybeans, VAT collected on domestic products is only around 4% of the value of the goods.

To demonstrate, assume a primary handler purchases CNY 1 000 worth of soybeans from a farmer, and on-sells to a vegetable oil mill for CNY 1 150. The VAT obligation faced by the primary handler is:

$$(13\% \text{ of CNY } 1\,150) - (10\% \text{ of CNY } 1\,000) = \text{CNY } 49.5$$

The VAT collected is 4.3% of the value of the shipment. If the same primary handler imported soybeans to sell to the mill at the same price, assuming the same margin, their VAT obligation would be the sum of the VAT on their margin and the VAT on the customs clearing price:

$$(13\% \text{ of CNY } 1\,150) = \text{CNY } 149.5$$

The VAT collected is 13% of the value of the shipment. Considering this issue from the perspective of the primary handler's profit, in this simple example, the profit from the domestic purchase is total primary handler revenue less their total costs:

$$\text{CNY } 1\,150 - \text{CNY } 1\,000 - \text{CNY } 49.5 = \text{CNY } 100.5$$

To achieve the same level of profit handling imported soybeans, the Customs clearance price must be CNY 900. VAT on the imports will be (13% of CNY 900) = CNY 117. Assuming the primary handler pays (CNY 900 + CNY 117) = CNY 1 017, their VAT obligation would be (13% of CNY 1 150 less VAT already paid on the shipment) = CNY 32.5. Primary handler's profit in this case is:

$$\text{CNY } 1\,150 - \text{CNY } 1\,017 - \text{CNY } 32.5 = \text{CNY } 100.5$$

Thus, for the same level of profit to be achieved handling both the imported and domestic commodity, the price received by the foreign primary producer must be 10% lower than that received by the domestic primary producer. This method of VAT assessment may provide additional protection to domestic producers – additional nominal border protection of around 9% for grains and soybean farmers in this example.

Source: Huang and Rozelle (2002b); Wu (2002); Huang, Rozelle and Chang (2004); Liu and Liu (2004); Wade, Branson and Qing (2002).

During the 1990s and early 2000s, selective reduction of VAT rates (to zero per cent), was an important means by which the government sought to guide import decisions. Application or exemption of the 13% VAT on agricultural imports can significantly alter the price competitiveness of those imports. For instance, in 1999 when China had a domestic

oversupply of grains, the national government removed the VAT exemption on grain imports, effectively raising the price of imported grains and increasing the relative competitiveness of domestic grains.

In November 1999, prior to China's WTO accession, China and the United States reached an agreement under which China committed to apply all taxes and tariffs uniformly to both domestic and foreign businesses. This agreement was intended to alleviate the uncertainty associated with China's inconsistent application, refunds and waivers of VAT.

VAT applied to imports has been, and in 2005 remains, an effective component of Chinese border protection for domestic producers.

SPS and TBT.¹⁹ Chinese consumers, particularly since the latter part of the 1990s, have become more concerned with food safety issues. While the public concern is relatively recent, the Chinese central government had been developing a food safety framework and infrastructure prior to that emerging concern.

The government has devoted efforts to establishing a system of quality certification for agricultural products since the early 1990s. Under the system, certificates are issued for "hazard free food", "green food" and "organic food".²⁰ Enterprises are encouraged to adopt the Hazard Analysis and Critical Control Point (HACCP) system for quality control. Food products for direct consumption are subject to compulsory certification and inspection.

Given that production is carried out by numerous smallholders, it is technically very complex and economically very costly to exercise effective control over food safety; a very large number of producers need to have their goods tested to ensure compliance with safety guidelines. In an attempt to rectify this situation, in 2002 Zhejiang provincial government introduced regulations which stipulate that sub-provincial governments allocate funds for vegetable pesticide residue monitoring. The regulation also requires that wholesale vegetable markets and supermarkets establish residue monitoring capacity.

China's accession to the WTO meant that it became bound to WTO rules on SPS and TBT measures. Under these rules, members must notify the SPS and TBT measures they apply. In April 2004, China advised the WTO Committee on Technical Barriers to Trade that work had begun on revising the 21 000 national technical standards. China advised that each standard would be checked to confirm its current relevance and alignment with international standards, and those that did not comply with these criteria would be annulled. It was expected that the revision would be completed by mid-2005.

Similarly with SPS measures, China has made numerous notifications to the WTO advising new SPS standards to be applied. An examination of WTO notifications reveals that China made 20 notifications in 2004, with most measures being aligned to relevant international standards.

China has also banned some products from entry, due to concerns over consumer safety. One example occurred in 2002 – China blocked imports of US soybeans on the grounds that they contained genetically modified material. The ban applied for 3 months, after which temporary import permits were issued while China completed a new safety evaluation of the product. In mid-2004, China banned imports of soybeans from Brazil on the basis that some shipments were contaminated with a dangerous fungicide. The contamination occurred as a result of mingling food and seed soybeans (the latter had been treated with the fungicide carboxin) in the commodity transport system. Brazil

satisfactorily addressed China's concerns and trade resumed some two months after the ban was initiated.

SPS and TBT standards are clearly an emerging issue in China. It is likely that food safety and other human, animal and plant health issues will continue to be a priority for consumers, producers and government. The government is continuing to take positive steps to ensure that human, animal and plant health is safeguarded.

Export measures

During the period 1990–2004, China utilised a range of export interventions, including: quantitative restrictions, licensing, tax rebates, and export subsidies.

State trading enterprise regime. Throughout the period 1990–2004, China used a system of state trading for exports of certain commodities. In the beginning of the 1990s, rice, soybeans, corn, tea, cotton, and peanuts, along with some other agricultural products such as raw silk and soybean meal, were subject to planned export quota control. Export plans took into account the expected level of domestic production and demand, and sought to earn foreign exchange, maintain stable prices of “strategic” agricultural commodities, and ensure adequate supplies of inputs to state-run processing industries.

In China's WTO accession agreement, state trading was permitted to be retained for rice, corn, soybeans, tea, cotton and silk. As a consequence of the continued use of state trading for exports of certain agro-food products, the Chinese central government is able to influence the domestic prices of these products, to meet policy objectives including maintaining and improving farmer incomes.

Export licences. In a set-up similar to the arrangement for import licences, China had licensed exports of certain agro-food commodities for the period 1990–2004. The main criteria used in determining whether a product was subject to export licensing were: maintenance of national security or public interests; protection against shortage of supply in the domestic market or exhaustion of natural resources; limited market capacity of importing countries or regions; or obligations stipulated in international treaties. In addition to providing a means of regulating supply on domestic markets, export licensing was also used for statistical purposes.

In the early part of the 1990s, rice, corn, soybeans, tea, cotton, raw silk, soybean meal, and peanuts were subject to export licensing and quota control. In the latter part of the 1990s, livestock and poultry were added to the list of goods subject to licence control.

Under the terms of China's accession to the WTO, export licensing was phased out with controlled goods remaining subject to the state trading regime, under which the Chinese government can achieve the same outcomes as the licensing system achieved.

VAT rebates. China introduced a tax rebate system for exports in 1985. Since 1994, VAT has been rebated for exports. The VAT rebate has been used as a measure to influence export volumes. The national government has adjusted the rates of rebate and the coverage of goods frequently, based on policy considerations. When domestic supply is abundant, the government often adjusts the rate of VAT rebate upward to encourage exports. Otherwise, the rate is adjusted downward or even removed. For instance, the VAT rebate on sugar ceased in 1995 when there was a shortage in the domestic market and a

rebate of 9% (less than the 13% VAT applying to agricultural products) was restored in late 1998 to encourage exports.

In principle, VAT should be reimbursed once goods are exported. However, implementation of this scheme has met some problems. In response to budgetary constraints, the central government stipulates a budgetary allocation from which VAT rebates will be paid. As a result of the growth in exports, the allocation has often been insufficient, causing rebate payments to be delayed.

Since WTO accession, China has continued to pay VAT rebates as permitted under WTO rules. Following the issue of VAT rebate arrears which developed in 2000, the central government has reportedly paid most outstanding rebate obligations. The official Chinese news agency reports that between October 2003 and June 2004, 96% of outstanding rebates were paid (Xinhuanet, 29 June 2004).

Clearly, rebates of VAT have the potential to influence exports, making products more competitive on international markets. In China's case, the degree of assistance provided is difficult to determine as rebate rates have been variable.

Export subsidies. Prior to becoming a WTO member, China provided export subsidies for corn and rice. These subsidies were available from the late 1990s as a means of easing the downward pressure on domestic prices which was brought about by large domestic production surpluses. According to Gale (2002b), subsidies for corn exports were of the order of CNY 368 per tonne in 1999 and CNY 378 per tonne in 2001. China was obliged to cease all export subsidies in 2002 in line with its WTO accession commitments.

Although not an export subsidy as such, in April 2002 the national government did implement a subsidy which may benefit exporters. Rail shipments of grains, cotton and soybeans were exempted from payment of the railway construction fee from April 2002 until December 2005. While this measure applied to products destined for export and the domestic market, it did provide an incentive to export from the north-eastern provinces, with a reduction of shipment cost of CNY 33 per tonne per thousand kilometres. This compares favourably with the CNY 38.9 per tonne standard freight costs to ship grains, cotton and soybeans a distance of 1 000 kilometres. The effect of the railway construction fee reduction was to achieve a substantial reduction in domestic freight costs for these commodities. The government ended this measure in May 2004 in order to ensure domestic supply.

Trade relations

WTO

During the period 1990-2004, a major influence on China's trade relations was the WTO accession package of negotiations, and subsequent membership of the WTO.

China submitted a request to restore its GATT membership just after the Uruguay Round started in 1986. Subsequently, China was involved in the Uruguay Round negotiations in an observer status. Following 15 years of accession negotiations, China became a WTO member in December 2001. During the period in which accession negotiations were in progress, China carried out a wide range of reforms on its economic system and policies, partly to meet the requirements of major parties in the negotiations and partly to extend the market-oriented reforms which began in 1978. As a result, China has increased its market openness and trade competitiveness significantly.

In the protocols of accession (WTO, 2001), China made comprehensive commitments regarding import measures for agricultural products (Box 2.5). Under the protocols, China is permitted to maintain a state trading system for the import of grains (wheat, rice and corn), vegetable oils, sugar, tobacco, cotton and chemical fertilisers. Meanwhile, China committed to use tariff-rate quotas (TRQs) to replace the previous planned quotas for products considered to be “sensitive”. In order to ensure that the state trading system does not constitute a barrier to imports, a special arrangement of allocating part of the quotas to non-STEs and reallocating STEs’ unused quotas within each year is included in the protocols (discussed previously). It is expected that implementation of the commitments will result in significant improvement in market access for imported farm products.

In addition to the above commitments, China also agreed to phase out licence controls on traded commodities by the end of 2004 and agreed to abide by the WTO rules governing technical barriers to trade and the use of export subsidies.

Since WTO accession, China has experienced an increase in both imports and exports of agro-food products, with the value of imports growing from USD 12 billion in 2001 to USD 30 billion in 2004. Export growth has been less spectacular, with agro-food exports being valued at USD 16 billion in 2001, growing to USD 23 billion in 2004.

Despite the large increase in the value of imports, the quotas in China’s TRQ system have generally not been filled and in the case of cereals, the fill rates were very low until 2003 (Table 2.10). However, it is too early to properly assess China’s TRQ performance on the basis of two years results, particularly as the performance in 2002 suffered from administrative problems in implementing the system. Particularly in 2002, the allocation of import quotas was delayed, leaving importers only about eight months to import the annual quota (Lohmar and Skully, 2003). In 2004 quota fill-rates for wheat increased to 75%, but for corn remained at 0%. Notwithstanding the fact that China is under no obligation to import any specific quantities of agricultural commodities, it does appear that the grain quotas may be under-utilised; the price differential between international prices and Chinese domestic prices for corn, for example, did provide an economic incentive for China to import corn in 2002 and 2003.

As previously mentioned, China has been gradually engaging with the major world economies since the late 1970s. The WTO accession negotiations and subsequent WTO membership have been consistent with China’s longer term trend towards a market-oriented economy.

Regional trading arrangements

In addition to engaging in multilateral trading arrangements, the Chinese government has recently begun to develop regional and bilateral trade arrangements as an integral component of its trade strategy. A China-ASEAN²¹ free trade area was proposed in 2000. Significant progress has been made so far. China and the ASEAN nations agreed in 2001 to form a free trade area and in November 2002 signed a framework agreement to progress closer economic relations between ASEAN and the People’s Republic of China (ASEAN, 2002), and agreements on tariff reduction and dispute settlement were subsequently signed in 2004. While a China-ASEAN free trade agreement covering agricultural products would almost certainly lead to some benefits for consumers, as a result of the parties to the agreement having similar resource endowments (being relatively short of arable land and being relatively abundant in labour

Box 2.5. Major WTO accession commitments by China – agricultural trade

With respect to commodities

Cereals	A tariff-rate-quota system is applied to wheat, rice and corn. The quotas are to be increased annually at different rates till 2004. The final quotas are 9.636 million tonnes for wheat, 7.2 million tonnes for corn and 5.32 million tonnes for rice. Part of the quotas is retained for non-state trading enterprises according to pre-specified proportions. With respect to corn, this share will increase from 25% in 2002 to 40% in 2004. The in-quota tariff rate remains at 1% while above-quota rate declines from 71% in 2002 to 65% in 2004. Unless re-negotiated, the 2004 tariff-rate-quota settings will be maintained thereafter. A non-quota “tariff-only” system will be applied to other minor cereals, including barley (3%). Ban on TCK wheat from the US is lifted.
Cotton, wool and wool top	A tariff-rate-quota system is applied. The quotas are to be increased to 894 000 tonnes for cotton, 287 000 tonnes for wool and 80 000 tonnes for wool tops by 2004. The in-quota tariffs are 1% for cotton, 1% for wool and 3% for wool tops, while the above-quota tariffs are reduced to 40% for cotton and 38% for wool and wool top by 2004. Two-thirds of the cotton import quota is retained for non-state trading enterprises. Unless re-negotiated, the 2004 tariff-rate-quota settings will be maintained thereafter.
Vegetable oils	A tariff-rate-quota system is applied to soybean oil, rapeseed oil and palm oil. By 2005, the import quotas will rise to 3.5871 million tonnes for soybean oil, 1.243 million tonnes for rapeseed oil and 3.168 million tonnes for palm oil. The in-quota tariff rates are uniformly 9% during the implementing period. The above-quota tariff rates will be reduced from 52.4% in 2002 to 9% in 2005. Two-thirds of the import quota is initially with-held for non-state trading enterprises, rising to 90% in 2005. China commits to eliminate vegetable oil quotas after 2005, committing to the adoption of a tariff-only system starting from 2006.
Oilseeds and meals	A tariff-only system is applied to soybeans with a tariff rate of 3%. The tariff of soybean meal remains at 5%.
Animal products	A tariff-only system is applied. Import tariffs are to be reduced gradually by varying extents. Sharp reduction of tariff is committed in frozen beef, frozen pork, edible offal of bovine animals, frozen cuts and offal of poultry, and dairy products. China commits to remove scientifically unjustified restrictions on importation of meat products.
Sugar	A tariff-quota system is applied to sugar. Import quota is raised from 1.764 million tonnes in 2002 to 1.945 million tonnes in 2005. The in-quota tariff rate is reduced from 20% in 2002 to 15% in 2005; the above-quota tariff rate will be reduced from 69.4% in 2002 to 65% in 2004. Throughout the three year WTO transitional period, 30% of the import quota is allocated to non-state trading enterprises. Unless re-negotiated, the 2004 tariff-rate-quota settings will be maintained thereafter.
Fishery products*	A tariff-only system is applied. Import tariffs are to be reduced gradually by varying extents. Sharp reduction of tariff is committed in many frozen products of sea fish species and lobster.

Box 2.5. Major WTO accession commitments by China – agricultural trade
(cont.)

Horticultural products A tariff-only system is applied. Import tariffs are to be reduced gradually by varying extents. Sharp reduction of tariff is committed in a range of fruits and nuts produced in the temperate zone. China commits to remove restrictions on the importation of horticultural products, unless the restrictions are scientifically justified.

Processed food and beverages A tariff-only system is applied. Import tariffs are to be reduced gradually by varying extents. Sharp reduction of tariff is committed in malt, wines, beer, tobacco, etc.

With respect to services

General China will permit all approved enterprises, including non-state domestic enterprises and foreign enterprises, to engage in a full range of trading and distribution activities.

Specific to agriculture China will permit all approved enterprises to engage in all services affiliated to agriculture, forestry and livestock, including wholesale, retail, and warehousing.

* Fishery products are not classified as agricultural commodities in the Uruguay Round.

Source: Compiled from WTO (2001).

Table 2.10. China's TRQ performance

Commodity	2002		2003	
	Quota (tonnes)	Fill-rate (%)	Quota (tonnes)	Fill-rate (%)
Wheat	8 468 000	7	9 052 000	5
Corn	5 850 000	0	6 525 000	0
Rice	3 990 000	6	4 655 000	6
Soybean oil	2 518 000	35	2 818 000	67
Palm oil	2 400 000	71	2 600 000	90
Rapeseed oil	878 900	9	1 018 600	15
Sugar	1 764 000	67	1 852 000	42
Wool	264 500	72	275 750	62
Cotton	818 500	22	856 250	102

Source: AMAD, OECD (2004).

resources), the benefits to the agricultural sectors of China and the ASEAN nations are likely to be muted. Although a free trade agreement between the ASEAN nations and China would be expected to generate increased trade activity, the similarity of the agricultural sectors of the economies involved is likely to result in only modest increases in trade of agricultural products.

As well as negotiating a free trade agreement with ASEAN, China is actively pursuing bilateral trade deals with New Zealand, Australia and Chile. It is not, however, officially pursuing bilateral trade arrangements with the Republic of Korea or Japan, the two most important economies in terms of China's agricultural trade.

Trade measures applied by partners

Since the late 1970s, China has been opening its economy to engage more closely with other economies active in international trade. While China has progressively dismantled and lowered its levels of border protection for agricultural products, many of its trade partners persist with relatively high border protection measures.

Japan and the European Union are important trading partners who apply significantly higher tariff protection to agriculture than does China. Japan's average agricultural tariff in 2002 was 43.6%, more than double China's 18.5%, while the European Union's average agricultural tariff was 32%. Both Japan and the European Union have more dispersed tariff schedules than China, with a larger proportion of low tariff levels and a larger proportion of high tariff levels. Both partners have a much higher maximum tariff than China (AMAD, 2004).

In terms of Chinese exports, Japan, the Republic of Korea, the European Union, and the United States are the most important markets.²² The import measures applied by these countries are examined in more detail in the following sub-sections.

Japan

Japan is currently the largest market for Chinese agro-food exports, with 28% of China's exports valued at USD 6 billion in 2003. It has been noted that Japan tends to provide relatively high levels of tariff protection; for example, 310% for wheat, 821% for rice and 268% for sugar. In products such as corn, the tariff is still relatively high at 30%, while the tariffs on apples (11%), citrus (12%), tea (10%) and poultrymeat (7.5%) are lower. Clearly, in many of the agricultural products in which China has production advantages, the Japanese tariffs are lower than the average agricultural tariff (AMAD, 2004).

China is a low cost producer of many agricultural products and Japanese tariffs are not prohibitively high for many Chinese producers. Japan has, however, instituted safeguard measures against Chinese exports in the past. In 2001, Japan applied safeguard measures to imports of Chinese Welsh onions, shiitake mushrooms and irises (Park, 2002). The safeguard comprised a TRQ for a 200-day period (from 23 April to 8 November 2001), with above-quota tariff rates of 256% (onions), 266% (mushrooms) and 106% (irises) compared with the normal rates of 3, 4.3 and 6% respectively.

As Park (2002) notes, Chinese farm products are not perceived in Japan as being of a high quality and there are concerns regarding the safety of Chinese agricultural products. The issue of food safety has proven to be a significant barrier to meat exports from China. Japan does not accept Chinese pigmeat as China is not free of a number of diseases affecting pigs, including Foot and Mouth Disease, and exports of poultry have been disrupted in recent years as a result of outbreaks of Avian Influenza.

Japan has relatively stringent SPS regulations. Enhanced maximum residue limit regulations and increased testing have reportedly led to increases in the costs of testing and in the level of export rejection, as well as a reduction in the level of Japanese orders for certain agricultural products (CFNA, 2002b).

Republic of Korea

China's exports to the Republic of Korea face significant tariff barriers. The Republic of Korea protects its corn and rice farmers with a high tariff (334%) for corn and a true quota for rice. For labour intensive agricultural products exported by China, the Republic of Korea also tends to have high tariff protection; for example, citrus faces a tariff of 99%, apples are

also well protected with a tariff of 48%, tea faces a tariff of 294%, while poultry and pigmeat of 22% and 26% respectively (AMAD, 2004). China supplies around two thirds of the Republic of Korea's vegetable imports. Potatoes, sweet potatoes, onions, garlic and peppers are the major vegetable types exported, with tariffs of around 50% in TRQs which have prohibitively high above-quota tariffs. Clearly, Chinese exports face significant tariff barriers in the Republic of Korea.

The Republic of Korea has also instigated safeguard action against China in the past. In 2000, the Republic of Korea imposed a safeguard tariff totalling 315% on frozen and processed garlic, and total safeguard tariffs of 436% on peeled garlic. These measures were in response to a surge in Chinese garlic exports to the Republic of Korea. This particular dispute has since been resolved (Park, 2002).

While the Republic of Korea has a food safety monitoring system and food safety regulations, this has not proven to be a major NTB for Chinese exports in the period 1990-2004.

The European Union

In 2003, around 10% of China's agro-food exports were destined for the European Union, making the European Union a major trading partner. As discussed above, the European Union has relatively high average agricultural product tariff levels. In terms of the average tariff levels faced by China's major export categories, these range from low to high. Tea has free entry, fruit (13%) and vegetables (16%) have moderate average tariffs but are covered by an entry-price regime, preparations of fruit and vegetables (24%) have moderately high tariffs, while cereals (50%) and sugar (81%) have quite high average tariffs (AMAD, 2004).

In addition to quite high average tariffs for meat (53%), China's exports of livestock products and fishery products to the European Union have encountered SPS and TBT barriers since the mid-1990s. In 1995, the European Union banned the import of poultry products from China on the basis that China was unable to establish an effective veterinary system and to control inappropriate use of feed additives.

In January 2002, the European Union suspended import of all products of animal origin from China. The ban was triggered by a customs inspection that reportedly found 24 batches of Chinese frozen shrimps contaminated with the antibiotic chloramphenicol. In July 2004, the European Union agreed to lift the ban. The move will allow China to resume exports of shrimps, farmed fish, honey, royal jelly, rabbit meat; and a number of other products of animal origin in recognition of China's "significant improvements" in meeting veterinary standards. It is required that all products must be checked by the Chinese food safety authorities and each consignment will be certified as meeting the relevant European Union food safety standards. However, the ban on the import of poultry products still remains in place because of safety concerns, particularly given the recent re-emergence of avian influenza in East Asia.

China's exports of tea products have also encountered NTBs. Enhanced testing measures and smaller maximum residue limits in recent years have caused a decline in tea exports to major markets, including the European Union. The major safety problems with China's tea products are reported to be: residues of pesticides and heavy metals, and contamination by harmful micro-organisms, foreign matter and dust.²³ Many pesticides used in tea production are included in the prohibited list. For instance, the list issued by the European Union in 2003 includes 10 popular pesticides used in Chinese tea production.

United States

China's 2003 exports of products of animal origin, vegetables, preparations of meat and fish, and preparations of vegetables and fruits (Harmonised System Chapters 05, 07, 16, and 20) accounted for 72% of Chinese agro-food exports to the United States. Typically, these products face very moderate or low tariffs. Animal products (not elsewhere specified) have an average tariff of less than 1%, edible fruit and nuts attract a tariff of around 9%, while food preparations of meat have an average tariff of 4% and preparations of vegetables fruit and nuts attract an average tariff of 11% (AMAD, 2004). These tariffs are relatively low and are unlikely to be prohibitive to low cost producers in China.

China does face barriers in accessing US markets. The major barriers faced by Chinese producers have been anti-dumping tariff measures. For example, the US Department of Commerce (DOC) conducted an investigation into potential dumping of apple juice in 1999, determining in June 2000 that dumping was occurring. The United States International Trade Commission voted in May 2000 to impose anti-dumping tariffs of up to 51.74%, on apple juice imports from China. Nine Chinese fruit juice firms (representing 70% of China's juice exports) appealed to the US-based Court of International Trade against the US Department of Commerce's determination of July 2000. The Court decision, issued in June 2002, overturned some key aspects of the anti-dumping order released by DOC, ruling that an anti-dumping tariff rate of 4% should apply to four of the firms involved and that no anti-dumping tariff was warranted for the other five companies which appealed.

The United States also announced anti-dumping measures against imports of shrimp from China in 2004, with tariffs tentatively set to range between 8% and 113% (*People's Daily Online* 7 July 2004).

China has also encountered SPS barriers in exporting to the United States, similar to those encountered in exporting to Japan and the European Union.

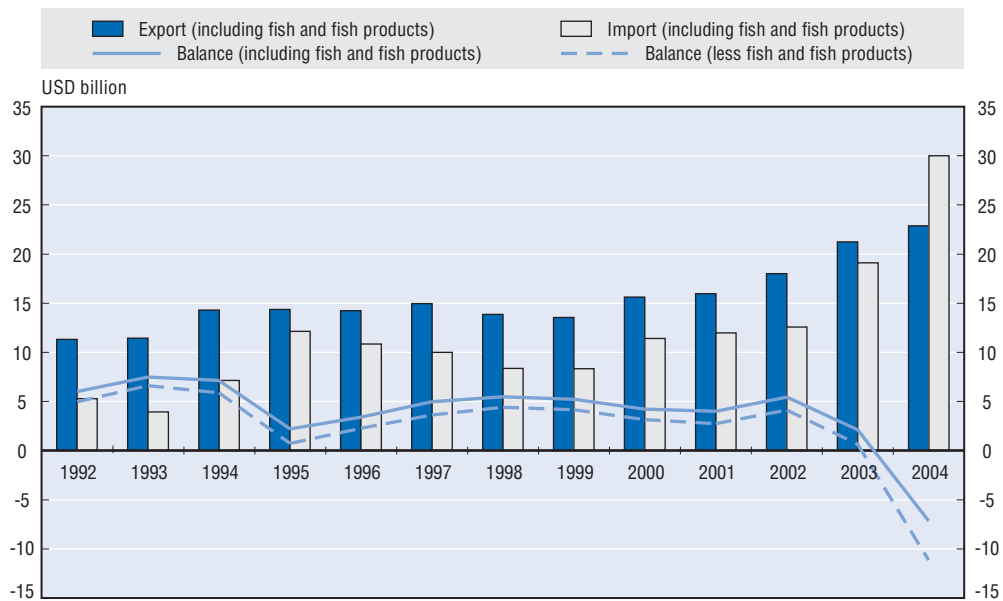
Trade flows

China has become more engaged in world markets since the reforms began in 1978 and increasing trade has been matched by increases in domestic agricultural output. Between 1992 and 2003, the value of Chinese agro-food exports increased by 88% in nominal terms, but the ratio of exports to the gross value of agricultural output declined marginally, from 7.2% in 1992, to 6.4% in 2003. The nominal value of imports increased four-fold while the ratio of value of imports to gross value of agricultural output increased from 3.4% to 5.8%. These results suggest China has remained largely self-sufficient in agro-food products, with foreign trade playing a relatively minor part in the agro-food sector.

Overall agricultural trade performance

Throughout the period 1992-2003, China was a net exporter of agro-food products, but according to preliminary data it became a large net importer in 2004 (Figure 2.5). Clearly, exports have been more stable in terms of aggregate value than imports, with two dramatic changes in net trade largely due to shifts in the aggregate value of imports.

First, net exports dropped significantly in 1995 compared to the previous three years. This was a result of a significant increase in imports of cereals. In the same year, policy makers in China believed that a shortage of food grains was imminent and planned imports of cereals surged in 1995 and remained historically high in 1996.

Figure 2.5. **China's agricultural trade, 1992-2004**

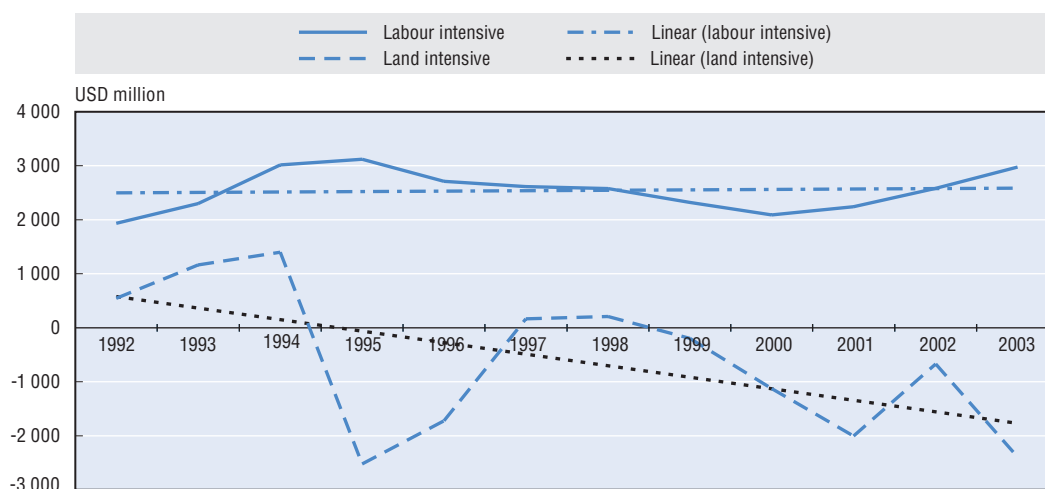
Source: Comtrade database; China Customs Statistics for 2004.

The second feature evident in Figure 2.5 is the sharp drop in net exports which occurred in 2003, followed by a large deficit in 2004. China's accession to the WTO in December 2001 ushered in a new set of trade rules for China. China's access to foreign markets improved and foreign traders' access to Chinese markets was also scheduled to improve. Delays in finalising the administration of quotas under the TRQ system contributed to a delay in the expected increase in agro-food imports. In 2002, China increased exports of cereals and vegetable, fruit and nut food preparations; in 2003, these sustained increases were more than offset by large increases in imports of cotton, soybeans and vegetable oils as problems implementing the new trade rules were overcome. In turn, growing grain prices on domestic markets in the last quarter of 2003 and in the first quarter of 2004 urged the government to buy 7 million tonnes of soft and durum wheat to replenish the strategic stocks. Sharply growing wheat imports combined with a continued fast growth in imports of soybeans and cotton contributed to net imports of agro-food products at about USD 11 billion in 2004, even if agro-food exports (excluding fish and fish products) reached a record value of USD 16.5 billion.²⁴

Composition of agro-food trade

During the period 1992-2003, China's agricultural trade shows notable structural change. The structural change in China's agricultural product trade is graphically illustrated in Figure 2.6. Clearly, net exports (exports less imports) in land intensive commodities have been trending down in the period 1992-2003, and since 1995 there has generally been a trade deficit in these commodities. This is mainly due to a large increase in cereal imports in 1995 and 1996, and an increasingly high level of oilseed imports since 1997. Labour intensive commodities have had a trade surplus throughout the period 1992-2003 with a virtually flat trend. The apparent shift in the broad composition of agro-food trade is in-line with China's perceived advantage in producing labour intensive agricultural products.

Figure 2.6. Net trade in land and labour intensive agricultural commodities



Notes: Land intensive defined as HS10 – cereals and HS12 – oilseeds. Labour intensive defined as HS07 – vegetables, HS08 – fruits and nuts, HS09 – tea, and HS24 – tobacco.

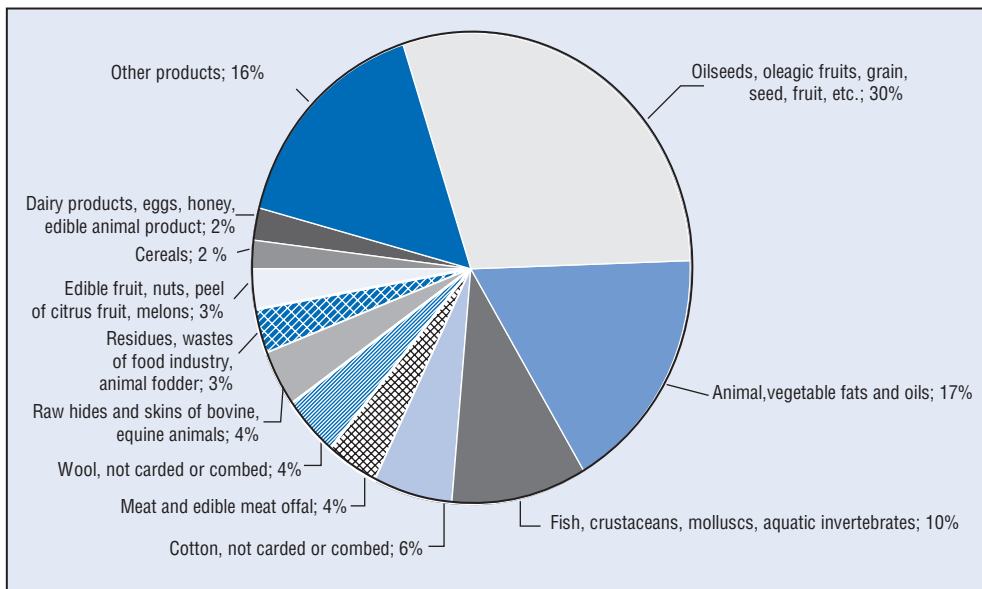
Sources: Adapted from Huang and Chen (1999); derived from Comtrade data.

An examination of China's import performance during the period 1992-2003 reveals that total imports of agro-food products (including fish and fish products) averaged growth of around 12% per year from 1992 to 2003, with oilseeds imports achieving the highest rate of 35% per year. Import of meat and edible offal, edible fruit and nuts and preparations also increased at high rates, reflecting income growth and lifestyle changes, mainly in the eastern provinces. Only two groupings of agro-food commodities experienced declining levels of nominal import value, with cereals imports declining by around 12% per year, and sugar and sugar confectionary imports declining by 2% per year during the period.

In 2003, as can be seen in Figure 2.7, oilseeds constituted almost one third of the value of Chinese agro-food imports, with animal and vegetable fats and oils contributing 17% of the value of agro-food imports, meaning that almost half the value of Chinese imports of agro-food products is contributed by edible oils or the primary product from which the oils are extracted. This reflects the relatively poor oil yield from Chinese soybeans, the existence of a strong domestic crushing industry, increasing demand for edible oils in China, and low barriers to trade in these commodities. Fish, cotton, and wool are also important imports, particularly as they are inputs to value-adding industries in China. For example, in 2003, cotton and wool imports were valued at around USD 2 billion, while wool and cotton textile product exports were valued at around USD 12 billion.

The nominal value of agro-food product exports in the period 1992-2003 grew at a rate of around 6% a year. Almost all the important product groupings exhibited export growth, with food preparations of meat and fish achieving annual growth of almost 17% to become the second most valuable export grouping at the HS 2 digit level in 2003. Fish and crustaceans (the most valuable group) achieved growth of around 8%. In those categories which experienced declining trends in real values of exports, sugar exhibited the largest annual decline at around 11%.

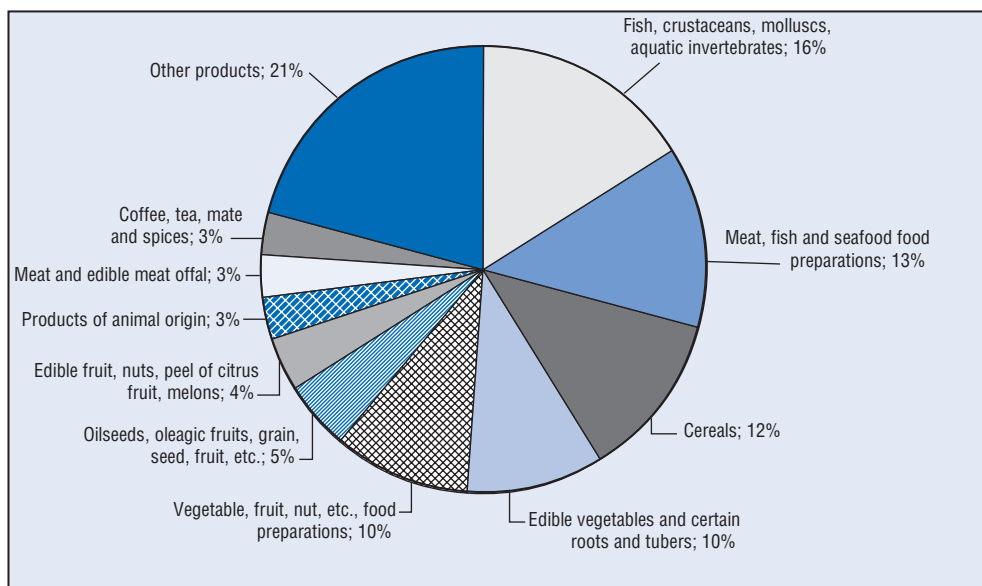
Changes in China's export performance reflect the ongoing structural adjustment in China's agro-food sector, as well as an increased level of engagement with international agro-food markets. The liberalisation of foreign trade policy in China, particularly with regard to products other than cereals and cotton, has contributed to the increase in exports

Figure 2.7. **China's main agro-food imports, 2003**

Source: Comtrade database.

of those product groupings. Domestic policies which have contributed to a significant increase in domestic production of agro-food products, coupled with a focus on increasing farm incomes, have also created a situation in which agro-food exports have grown.

In 2003, as is shown in Figure 2.8, meat, fish, and meat and fish food preparations comprised a third of the value of agro-food exports, while vegetables, fruits, nuts, and vegetable, fruit and nut food preparations comprised a quarter of the value of exports. Cereals and oilseeds comprised 17% of the value of exports, down from 21% in 1992 despite government policies that focussed on increasing production of cereals.

Figure 2.8. **China's main agro-food exports, 2003**

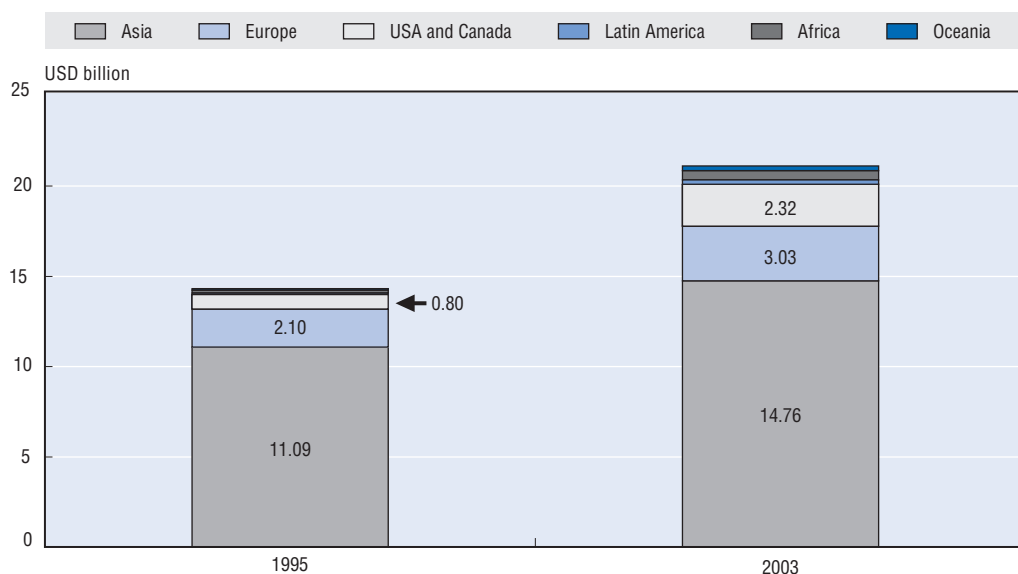
Source: Comtrade database.

Destination and origin of agro-food trade

In addition to changes in the aggregate levels of China's imports and exports, between 1992 and 2003 there have been significant changes in the make-up of China's trade flows.

China's exports have grown significantly more to some regions than others, as is evident from Figure 2.9. While exports to Asia have increased in absolute value terms, exports to Asia in 2003 constituted 70% of China's exports, down from 78% in 1995. Japan is the biggest single export market for China. As a close neighbour, there are well established trade links between China and Japan, with more than one fourth of China's agro-food exports in 2003 destined for Japan (Figure 2.10). However, Japan is a mature agro-food market and the growth of exports into that market has been slower than in some markets in which China is a relative new-comer. It is also notable that China's exports of meat and edible meat offal have declined by around USD 400 million between 1995 and 2003. Most of this decline was a result of large declines in poultrymeat exports in 2002 and 2003 due to disease out-breaks in China's poultry industry.

Figure 2.9. **China's agro-food exports (including fish and fish products) by region**



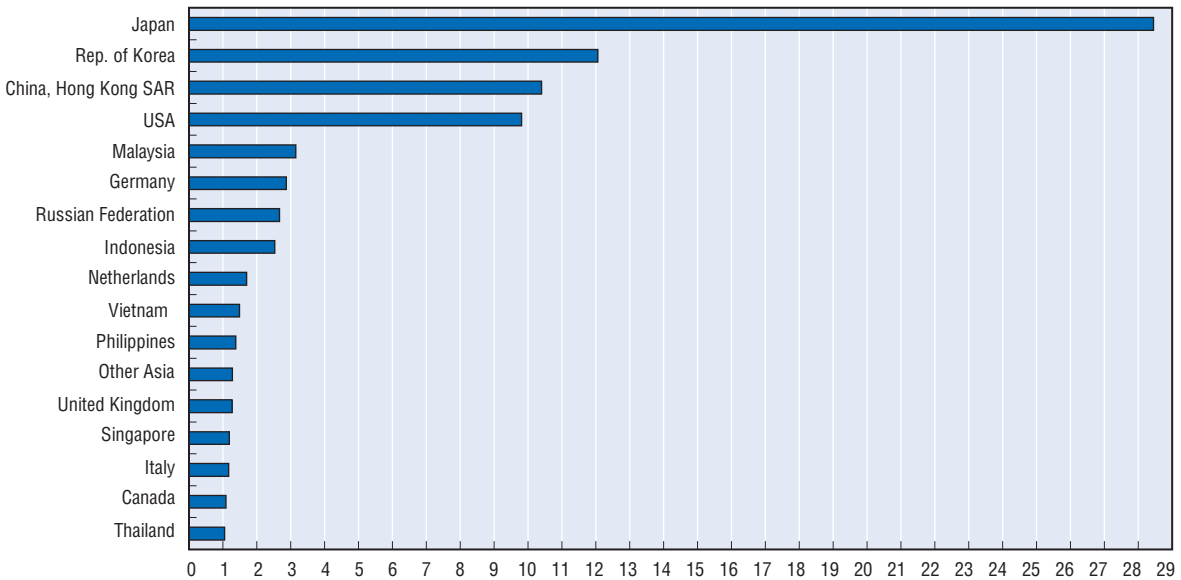
Source: Comtrade database.

China's exports to the United States, for example, have grown from being around 5% of China's agro-food exports in 1995 to 10% in 2003. This growth has been a result of large increases in exports of fruit, vegetable and nuts, and particularly a consequence of increases in exports of food preparations of fish, meat, fruit, nuts and vegetables. This result reflects China's comparative advantage in labour and Chinese policies supporting the development of vertically integrated food processing companies.

While Latin America, Africa and Oceania have approximately doubled their respective shares of China's exports, their shares remain very small at 1% in aggregate.

The situation for imports is quite different. As can be seen in Figure 2.11 and Figure 2.12, China's imports from Asia constitute a much lower proportion of total Chinese

Figure 2.10. **Main export markets for Chinese agro-food products (including fish and fish products), 2003**
As per cent of total agro-food exports



Source: Comtrade database.

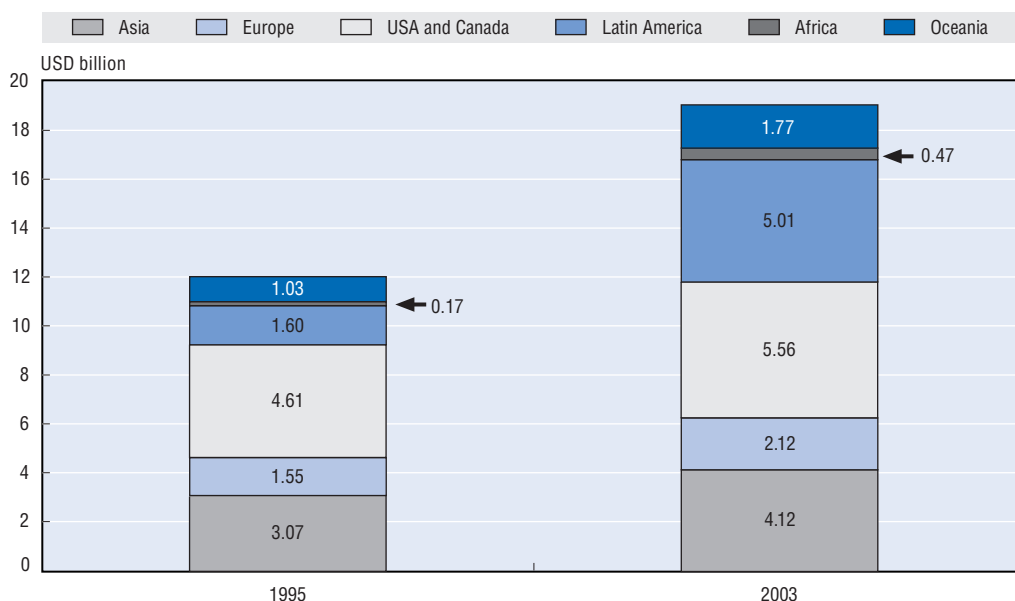
imports, than Asia's share of China's exports. North and South America, and Oceania feature more prominently as import originators than as export destinations.

The most outstanding features of Figure 2.11 are the very large absolute and proportional change in imports from Latin America, and the proportional decline in imports from the United States. However, the decline in the US import share – from around 35% in 1995 to 26% in 2003 – is not representative for the period 1990-2004. In 1995, China's imports of cereals were uncharacteristically high, and the United States was a major supplier of those imports. Chinese imports of US cereals were more than USD 1 billion greater in 1995 than in the previous year. Discounting the unusual trade in cereals in the mid-1990s, the US share of China's agro-food imports is approximately the same in 1995 as in 2003.

The increase in imports from Latin America is very significant. The increase is as a result of a major increase in Chinese imports of oilseeds from Brazil and Argentina – imports worth USD 3.2 billion in 2003 compared to around USD 25 million in 1995. This change in import levels is a result of Chinese policies which supported the development of a domestic oilseed crushing industry and trade policies since 2002 which have allowed oilseed imports (particularly soybeans) at relatively low tariffs with no quantity restrictions.

Clearly, foreign trade is becoming more diversified both in terms of the balance of products being traded and in terms of the proportion of trade taking place in the various regions of the world. Overall, the picture is one of gradually increasing trade volumes, the maintenance of established trading relationships and the development of new trading partners. There is evidence of China's advantage in labour contributing to improved levels of trade with strong growth in exports of food preparations, and in the growth of oilseed

Figure 2.11. **China's agro-food imports (including fish and fish products) by region**



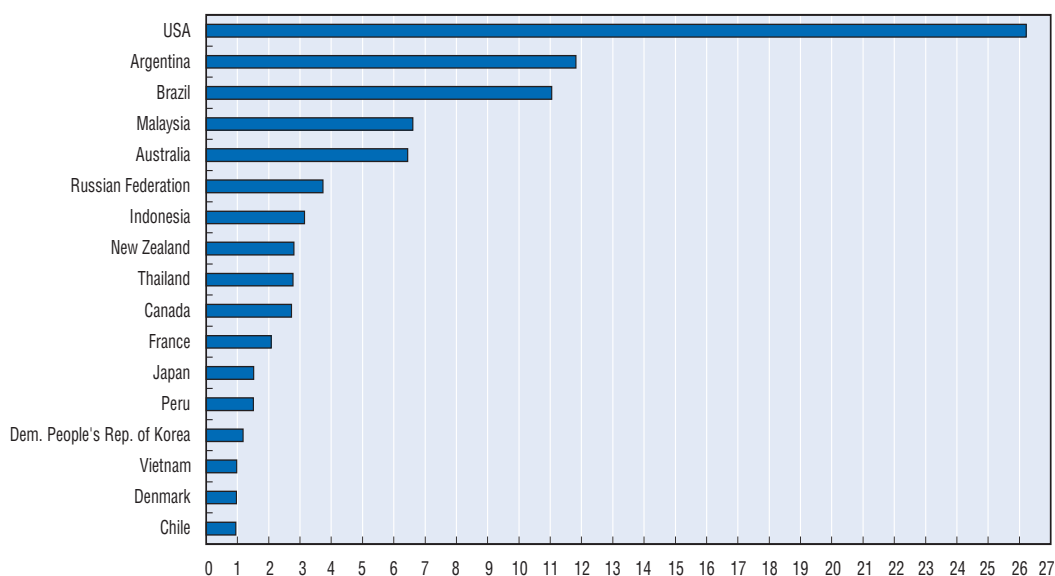
Source: Comtrade database.

imports there is a suggestion that China's relative scarcity of land is also influencing the composition and direction of trade flows.

These trends accord with Chinese trade policy for the agro-food sector, with China progressively becoming more open and engaged in international markets, especially in the more labour intensive farm products sector. The absence of significant increases in the

Figure 2.12. **Main suppliers of agro-food products (including fish and fish products) to China, 2003**

As per cent of total agro-food imports



Source: Comtrade database.

level of food grain imports also accords with the policy objective of maintaining a high level of grain self-sufficiency.

2.4. Evaluation of support to Chinese agriculture

This section presents a quantitative evaluation of support provided to Chinese agriculture through agricultural and trade policies discussed in detail in the previous sections of this chapter. The evaluation is based on the indicators of agricultural support developed by the OECD, including the Producer Support Estimate (PSE), Consumer Support Estimate (CSE), General Services Support Estimate (GSSE) and Total Support Estimate (TSE). While Box 2.6 provides basic definitions, a detailed description of the PSE methodology applied by OECD as well as detailed PSE databases for OECD members and for a number of non-members, including for China, is available from www.oecd.org/agr/support (click on “Statistics”; click on “Producer and Consumer Support Estimates, OECD Database 1986-2004”; select “China”).

Box 2.6. OECD indicators of support to agriculture: definitions

Producer Support Estimate (PSE): An indicator of the annual monetary value of gross transfers from consumers and taxpayers to support agricultural producers, measured at farm gate level, arising from policy measures, regardless of their nature, objectives or impacts on farm production or income. The PSE measures support arising from policies targeted to agriculture relative to a situation without such policies – i.e. when producers are subject only to general policies (including economic, social, environmental and tax policies) of the country. The PSE is a **gross** notion implying that any costs associated with those policies and incurred by individual producers are not deducted. It is also a **nominal assistance** notion meaning that increased costs associated with import duties on inputs are not deducted. But it is an indicator **net** of producer contributions to help finance the policy measure (e.g. producer levies) providing a given transfer to producers. The PSE includes implicit and explicit transfers. The **%PSE** is the ratio of the PSE to the value of total gross farm receipts, measured by the value of total production (at farm gate prices), plus budgetary support.

Producer Nominal Assistance Coefficient (NACp): An indicator of the nominal rate of assistance to producers measuring the ratio between the value of gross farm receipts including support and gross farm receipts valued at world market prices without support.

Producer Nominal Protection Coefficient (NPCp): An indicator of the nominal rate of protection for producers measuring the ratio between the average price received by producers (at farm gate), including payments per ton of current output, and the border price (measured at farm gate level).

Consumer Support Estimate (CSE): An indicator of the annual monetary value of gross transfers to (from) consumers of agricultural commodities, measured at the farm gate (first consumer) level, arising from policy measures which support agriculture, regardless of their nature, objectives or impact on consumption of farm products. The CSE includes explicit and implicit transfers from consumers associated with: market price support on domestically produced consumption (transfers to producers from consumers); transfers to the budget and/or importers on the share of consumption that is imported (other transfers from consumers). It is **net** of any payment to consumers to compensate them for their contribution to market price support of a specific commodity (consumer subsidy from taxpayers); and the producer

Box 2.6. OECD indicators of support to agriculture: definitions (cont.)

contribution (as consumers of domestically produced crops) to the market price support on crops used in animal feed (**excess feed cost**). When negative, transfers from consumers measure the implicit tax on consumption associated with policies to the agricultural sector. Although consumption expenditure is increased/reduced by the amount of the implicit tax/subsidy, this indicator is not in itself an estimate of the impacts on consumption expenditure. The **%CSE** is the ratio of the CSE to the total value of consumption expenditure on commodities domestically produced, measured by the value of total consumption (at farm gate prices) minus budgetary support to consumers (consumer subsidies).

Consumer Nominal Assistance Coefficient (NACc): an indicator of the nominal rate of assistance to consumers measuring the ratio between the value of consumption expenditure on agricultural commodities domestically produced including support to producers and that valued at world market prices without support to consumers.

Consumer Nominal Protection Coefficient (NPCc): an indicator of the nominal rate of protection for consumers measuring the ratio between the average price paid by consumers (at farm gate) and the border price (measured at farm gate level).

General Services Support Estimate (GSSE): An indicator of the annual monetary value of gross transfers to services provided collectively to agriculture and arising from policy measures which support agriculture, regardless of their nature, objectives and impacts on farm production, income, or consumption of farm products. It includes taxpayer transfers to: improve agricultural production (research and development); agricultural training and education (agricultural schools); control of quality and safety of food, agricultural inputs, and the environment (inspection services); improving off-farm collective infrastructures, including downstream and upstream industry (infrastructures); assist marketing and promotion (marketing and promotion); meet the costs of depreciation and disposal of public storage of agricultural products (public stockholding); and other general services that cannot be disaggregated and allocated to the above categories due, for example, to a lack of information (miscellaneous). Unlike the PSE and CSE transfers, these transfers are not received by producers or consumers individually and do not affect farm receipts (revenue) or consumption expenditure by their amount, although they may affect production and consumption of agricultural commodities. The **%GSSE** is the ratio of the GSSE to the *Total Support Estimate*.

Total Support Estimate (TSE): An indicator of the annual monetary value of all gross transfers from taxpayers and consumers arising from policy measures which support agriculture, net of the associated budgetary receipts, regardless of their objectives and impact on farm production and income, or consumption of farm products. The TSE is the sum of the explicit and implicit gross transfers from consumers of agricultural commodities to agricultural producers net of producer financial contributions (in MPS and CSE); the gross transfers from taxpayers to agricultural producers (in PSE); the gross transfers from taxpayers to general services provided to agriculture (GSSE); and the gross transfers from taxpayers to consumers of agricultural commodities (in CSE). As the transfers from consumers to producers are included in the MPS, the TSE is also the sum of the PSE, the GSSE, and the transfers from taxpayers to consumers (in CSE). The TSE measures the overall transfers associated with agricultural support, financed by consumers (transfers from consumers) and taxpayers (transfers from taxpayers) net of import receipts (budget revenues). The **%TSE** is the ratio of the TSE to the GDP.

The methodology applied in this study is fully consistent with that applied for OECD and other non-member countries. Box 2.7 provides basic information on how this has been done. It also discusses some data limitations which should be seen in the context of more general problems with China's agricultural statistics, discussed in Box 1.4.

Box 2.7. China's PSEs: what and how?

Period covered: 1993-2003

Products covered: wheat, maize, rice, rapeseed, soybeans, peanuts, apples, sugar, cotton, milk, beef and veal, pigmeat, sheepmeat, poultry, eggs. These 15 commodities accounted for about 80% of the total value of gross agricultural output (GAO) in China in 1994-1995, but this share fell to 53% in 2002 and then increased to 61% in 2003. The share of the 9 crop products in the total crop production fell from 60-69% between 1993 and 1995 to just 37% in 2002 and then increased to 43% in 2003. The share of 6 livestock products in the total livestock production remained high during the whole period at above 80%.

Changes in the shares reflect restructuring in China's agriculture (switch from grains and other traditional PSE products to fruits and vegetables; see Chapter 1), changes in relative prices, and, most likely, an overestimation of fruit and vegetable production in China in more recent years. An attempt has been made to include such products as tea, tobacco and oranges (0.7-1.0% of GAO each), but insufficient price information and quality gaps made it impossible to assess the level of support for these commodities.

Market Price Support

Exchange rate CNY/USD: weighted average for 1993 to reflect two exchange rates then applied for trade transactions: official and secondary (Chapter 1). As exporters were obliged to sell 20% of foreign currencies earned at official rate and 80% they could sell at secondary markets, the weighted average was calculated as follows: $(0.8 \times 8.28) + (0.2 \times 5.76) = 7.776$. Following the devaluation of the Yuan at the beginning of 1994, official rate was used for trade transactions. Therefore, for the period 1994-2003 official exchange rates were applied for the price gap calculations.

Producer prices: unit values of above mentioned agricultural commodities sold by rural households through different marketing channels. Data originate from the yearly rural household surveys conducted by the NDRC in various regions.

External reference prices: FOB prices for exportables and CIF prices for importables registered at the Chinese border.

Marketing margins: estimated on the basis of price gaps between domestic wholesale and farm gate prices for a given commodity. Available technical coefficients were used when needed (e.g. to convert paddy to milled rice; sugar cane to sugar or live weight to slaughter weight). As data on wholesale prices were not sufficient to assess the level of margin, this source was supplemented for almost all products by phone interviews with various traders in China. A marketing margin for a given commodity was expressed as a percentage of a farm gate price. While it was assumed that the percentage margin remained at the same level over the whole period, its equivalent in absolute terms varied depending on the level of farm gate price in a given year. The absolute value of the margin in a given year was subtracted from the border reference price.

Transportation costs (between China's border and domestic wholesale markets): assessed on the basis of phone interviews with traders and expressed as a percentage of the border reference price. These percentages have been converted into absolute values and added to the CIF price for importables and subtracted from the FOB price for exportables.

Box 2.7. China's PSEs: what and how? (cont.)

Quality adjustments: all efforts have been made to select such products traded by China whose quality corresponds best to products produced domestically (like with like comparisons). In most cases identifiable quality gaps reflected in price differences were small, 1-5% of the reference price. Therefore, quality adjustments have not been made with the exception of wheat. In the case of wheat, there have been two tendencies: a share of higher quality wheat in the overall wheat production has been growing, but at the same time the share of high quality durum wheat in total wheat imports has also been increasing (until 2003). Therefore, the CIF import price of wheat on the Chinese border has been adjusted by the same coefficient of 0.85 for the whole period under analysis. The coefficient has been calculated on the basis of detailed price survey conducted by Jikun Huang and Scott Rozelle in October 2001.

Price gap estimates: for all the above mentioned products relevant data have been collected and price gaps calculated. But, as for selected exportable products such as peanuts, apples, beef and veal, pigmeat, poultry and eggs; no export subsidies and no other market price policy supporting or taxing producers have been identified, in line with the OECD methodology applied for other countries; the price gaps for these products have been set at zero.

Budgetary support

Budgetary information for the period 1993-2001 originates from the Ministry of Finance. Expenditures for different programmes in 2002 and 2003 have been estimated on the basis of partial information from *China Statistical Yearbooks* 2003 and 2004.

While all budgetary expenditures from various government bodies and at various levels of government administration should be accounted in the Ministry of Finance reporting, it is difficult to verify if this is the case. A general problem is that publicly available budgetary data, including on expenditures related to agricultural policy, tend to be strongly aggregated and do not allow precise assessment of the amounts actually spent on various policy measures and thereby evaluate their effectiveness. Moreover, more detailed information is not available for free and is released with long delays.

Even if information received from the Ministry of Finance is more detailed than that available in the *Statistical Yearbooks*, it remains very aggregated and for many programmes the coverage of payments within a given programme is so large that it is impossible to separate:

- i) PSE-type payments from those which could be classified as General Services; and
- ii) support to agriculture from support to rural areas in general, including for non-agricultural activities in rural areas.

In particular, it concerns support for agricultural infrastructure which is by far the largest component of transfers (about USD 13.9 billion in 2001). One of the examples is the so-called Comprehensive Development Plan for Agriculture being handled by a special office within the Ministry of Finance. It mainly gives support to (original wording): "improvement of low and medium-yielding fields; building of small-scale reservoirs; building of irrigation and drainage systems; building of electrical pumping wells; improvement of soil; purchase of agro-facilities for dry farming; building of roads; building of shelter-forests, building of agro-technical service stations and facilities for farmers' training". While part of the above mentioned (and similar) budgetary expenditures which have the objective of supporting rural infrastructure could be treated as input subsidies (e.g. "purchase of agro-facilities for dry farming"), other expenditures (e.g. on water supply or flood prevention included in other programmes under the general label of agricultural infrastructure) provide benefits to urban and industrial centres (e.g. township and village enterprises) in the vicinity. For now, due to a lack of accurate information, these expenditures are allocated to General Services.

As for other transition or developing economies, the results have to be interpreted carefully bearing in mind recognised limitations with respect to policy and commodity coverage, and data availability. In addition, the macroeconomic and institutional framework within which agricultural policy measures have been applied may have an impact on the results. Thus, the market price support (MPS) element may capture the effects not only of agricultural policies as such, but also macroeconomic policies (in particular through the exchange rate) and of imperfect price transmission from the border to the farm gate level. In the case of China, with very stable exchange rates, the impact of macroeconomic factors is weak. However, other factors such as a continuing inefficient downstream sector, a large share of agricultural production consumed on farms (Tian *et al.*, 2002), weak price transmission compared to mature market economies, and data collection systems lagging behind the changes in the economy, may distort the measured level of support.

Aggregate results

Producer Support Estimate

As measured by the aggregate percentage PSE, producer support in China fluctuated within a range of minus 14% to plus 6% between 1993 and 1998. After falling to minus 3% in 1999, it increased each year and was plus 8% in 2003. A comparison of producer support for China and selected OECD and non-OECD countries, including principal world players, indicates that China has a low level of producer support. The percentage PSE in China, at 6% on average in 2000-2003, is above that in countries with the lowest support (New Zealand, Brazil, Australia), but much lower than the OECD average (31%) and far below that in Japan and Korea (58% and 64%, respectively), the closest OECD neighbours and main export markets for agro-food products (Table 2.11 and Figure 2.13).

Table 2.11. **Evolution of producer support (% PSE) and consumer support (% CSE) in China and selected countries, 1993-2004**

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Producer support estimates (% PSE)												
China	-14	1	6	1	1	1	-3	3	5	7	8	n.c.
Brazil	n.c.	n.c.	-1	1	1	6	1	4	3	3	4	3
Japan	57	62	61	57	53	57	59	60	57	58	59	56
Korea	73	73	72	64	63	57	65	67	62	65	61	63
Mexico	30	23	-5	5	15	18	18	24	19	26	19	17
United States	17	14	10	13	13	21	26	24	22	18	15	18
Turkey	23	14	12	15	25	26	23	21	4	20	29	27
EU ¹	38	36	36	33	34	37	39	33	32	34	36	33
OECD	35	34	31	29	29	33	35	32	29	31	30	30
Consumer support estimates (% CSE)												
China	15	0	-6	1	0	2	5	-2	-3	-5	7	n.c.
Brazil	n.c.	n.c.	1	2	3	-3	2	-2	0	-1	-2	-1
Japan	-51	-53	-53	-49	-47	-52	-54	-50	-49	-52	-52	-50
Korea	-71	-69	-71	-63	-61	-53	-63	-63	-59	-64	-58	-58
Mexico	-25	-11	18	6	-8	-12	-15	-19	-14	-22	-14	-10
United States	2	4	7	4	4	-2	-2	0	0	4	7	6
Turkey	-23	-8	-8	-11	-22	-27	-23	-23	-2	-17	-26	-22
EU ¹	-27	-25	-23	-20	-20	-24	-28	-20	-18	-21	-22	-19
OECD	-28	-27	-24	-21	-21	-24	-27	-23	-20	-22	-21	-20

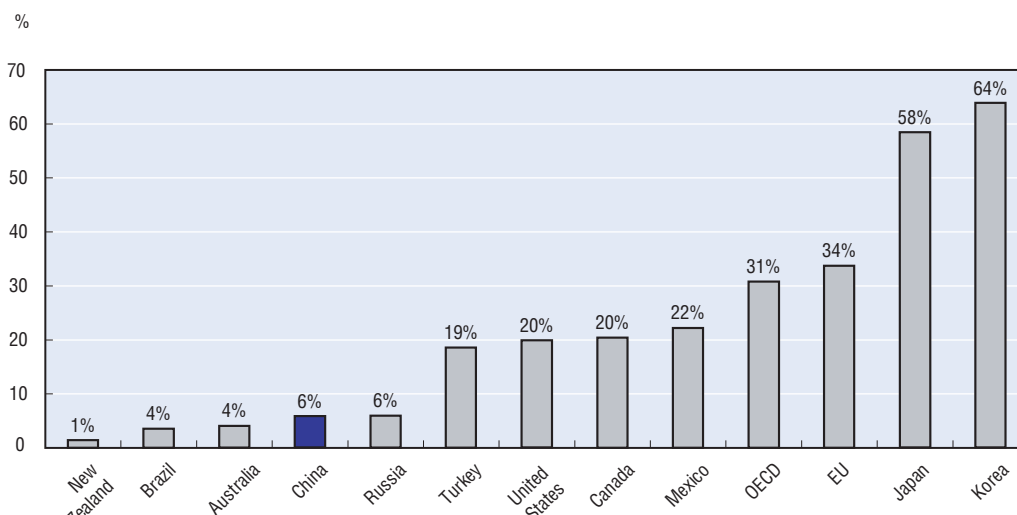
n.c.: not calculated.

1. 1990-1994: EU12; 1995-2003: EU15; 2004: EU25.

Source: OECD PSE/CSE databases 2005.

Figure 2.13. **Percentage PSEs for China and selected countries, average 2000-2003**

As per cent of gross farm receipts

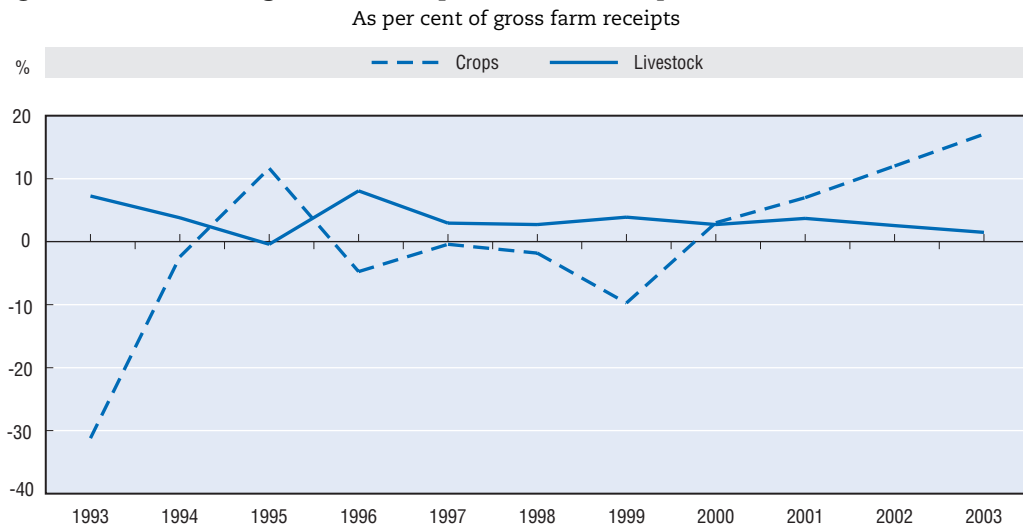


Note: EU15.

Source: OECD PSE/CSE databases 2005.

Changes in the level of support for China are driven mainly by the evolution of support for crop products, in particular for grains (Figure 2.14). As explained in Section 2.1 and Section 2.2, the Chinese government pays special attention to grain policies and the adequate supply of grains is a major driver, not only of grain policies specifically, but also of broader agricultural policies in general. Therefore, some volatility in the level of support, in particular in the 1990s, was to a large extent created by relative changes in the domestic and international prices for grains. For example, China's government raised state procurement prices sharply between 1994 and 1996 (Figure 2.2), but an increase in the world market prices represented by prices on the Chinese border was even stronger, which resulted in a fall in the support for the Chinese producers to 1% in 1996. In turn, a fall in world market prices for grains in 1997 and 1998 was fully transmitted on China's domestic markets. As a result, the level of support stabilised as measured by the PSE. Partial grain market reforms in mid-1998 combined with the pressure of huge grain stocks accumulated in the previous years contributed to the fall in grain prices on China's domestic markets in 1999, in particular for wheat and rice. As a result, the level of support fell again to minus 3%. Since then, the level of support has increased each year, which may seem paradoxical taking into account China's accession to WTO in 2001 and a continued fall in the level of import tariffs.

It should be noted, however, that up to the end of the 1990s prices for basic crops (cereals, soybeans and cotton) were fixed by the government, that state trading played a key role in foreign trade transactions, and that domestic grain supplies were secured by the grain quota system. Therefore, the level of tariffs, even if much higher than in the 2000s, had very limited impact on trade flows and on the level of domestic prices in China, including for importables. Tariffs were at most a source of budgetary revenues, but their regulatory impact on trade flows and prices was outweighed by the other more direct regulation instruments. The situation started to change at the end of the 1990s, when grain surplus encouraged the government to discontinue grain quotas and to engage in the

Figure 2.14. **Percentage PSE for crops and livestock products in China, 1993-2003**

Source: OECD PSE/CSE databases 2005.

process of continued liberalisation of domestic grain markets. China's WTO commitments allowed private enterprises to participate to a growing extent in foreign trade transactions (even if for the most sensitive grains the share of private traders remains small) and registration procedures for enterprises active in foreign trade transactions have been substantially simplified.

Within such a framework, tariffs, even if falling, started to play a more active role in the determination of domestic prices, in particular for importables. The same applies for other measures such as VAT paid on imports at a higher rate than that charged on domestically produced agricultural commodities (Box 2.4). This could be one reason that, within the context of falling grain production in China between 1999 and 2003 and the growing expectation that China will become a net import of grains, the level of support for China's producers has tended to increase since 1999. Incidentally, the potential of China becoming a net importer coincided with the declared switch in policy objectives from the maximisation of agricultural production to policies supporting rural incomes (Section 2.1).

Consumer Support Estimate

The Consumer Support Estimate (CSE) is a PSE-related indicator measuring the cost of producer support to consumers of agricultural products. In the OECD methodology, the consumer is understood as the first buyer of these products. In the absence of consumer support policies, CSE generally mirrors the developments in the market price support (Table 2.11). An overall low degree of producer support in China means that agricultural support puts a relatively small burden on consumers, but overall taxation of Chinese consumers through agricultural policy measures has been growing in more recent years from 2% in 2000 to 7% in 2003.

Composition of the PSE

As is seen from Figure 2.15, the level of producer support in China is determined predominantly by the Market Price Support (MPS). However, during the period covered by the study, the contributions of MPS to the PSE varied, in particular in the 1990s, reflecting fluctuations in the levels of domestic prices relative to world prices.

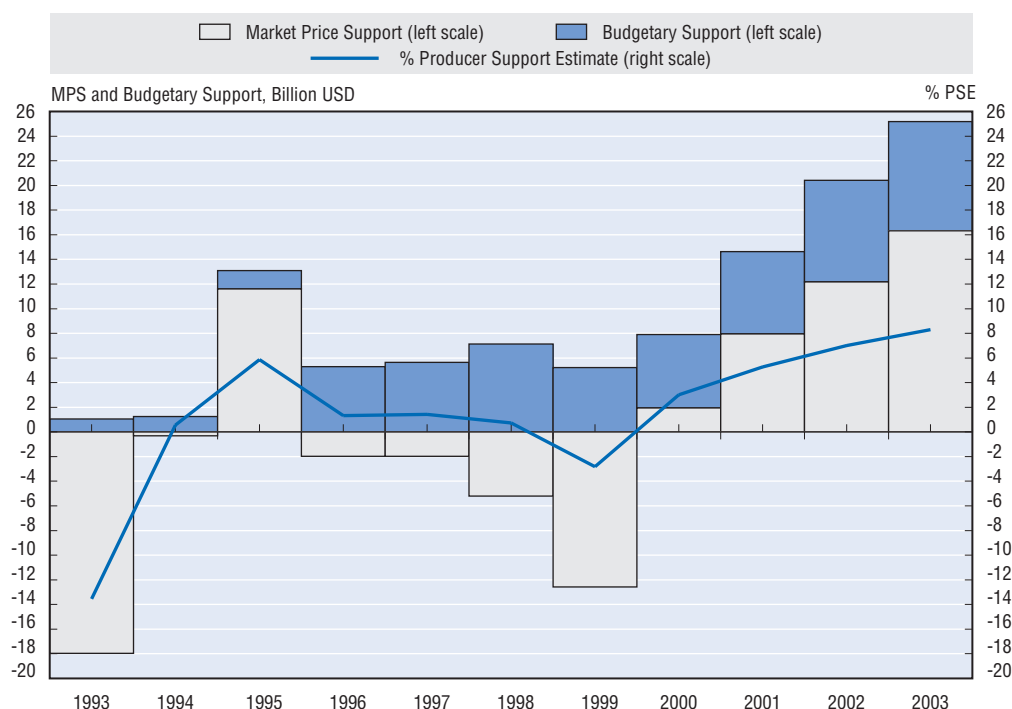
It is worth noting that the share of MPS in the PSE has substantially increased between 2000 and 2003. While budgetary support has almost constantly been growing in absolute terms, its share in the aggregate has been falling in the 2000s. However, within budgetary support, a large part is provided through input subsidies (Chapter 2). Both MPS and input subsidies are known to be most trade distorting and least efficient channels of providing agricultural assistance. In particular, low transfer efficiency means that only a small part of support is effectively received by producers (Box 2.8).

Total Support Estimate

The Total Support Estimate (TSE) is the broadest indicator of support, representing the sum of transfers to agricultural producers (the PSE), expenditure for general services (the GSSE), and direct budgetary transfers to consumers.

The aggregate TSE in China reached USD 43 billion per year in 2000-2003. The TSE expressed as a percentage of GDP, indicates the cost that the support to the agricultural sector places on the overall economy. Between 1993 and 1998, the Chinese percentage TSE fluctuated between minus 1.9% and 3.4% and then, after falling to 1.1% in 1999, it increased each year and was 3.7% in 2003 (Table 2.12). This suggests a relatively high burden of the agricultural support on the Chinese economy. China's average percentage TSE at 3.3%

Figure 2.15. **Composition of producer support estimate, 1993-2003**



Source: OECD PSE/CSE databases 2005.

Box 2.8. **Transfer efficiency in agricultural support policies**

PSE/CSE methodology estimates the support aimed at agricultural producers, not the support effectively received by producers. It is important to note that a part of the support aimed at agricultural producers is captured at other stages of the food chain, such as upstream and downstream sectors, and part of it is a dead-weight loss. The higher the support effectively received by producers out of total costs incurred by consumers and taxpayers to provide such support, the higher the transfer efficiency of agricultural support policies is.

The Policy Evaluation Matrix (PEM), which is an OECD model showing the effects of “small” changes in support on production, trade and economic welfare, indicates that the effects of a given amount of support may differ substantially depending on the type of support measures used. The results show that the estimated effects on farm household income of support in the form of payments based on area are systematically higher than for the other support measures (market price support, payments based on output, payment based on input use). The model also shows that the estimated effects on farm household income of support provided in the form of payments based on the use of purchased inputs are always lower than when the same amount of support is provided through other measures. It means that transfer efficiency of payments based on area is relatively high and that transfer efficiency of input subsidies is relatively low. The results confirm that input subsidies constitute the least efficient way of supporting producers, as most of the support is captured by input suppliers and part of it is a dead-weight loss.

Quantitative estimations of transfer efficiency of various policy measures have been made for several OECD countries. The results show that on average only 17% of the additional support given in the form of input subsidy is transferred to farm households. In the case of market price support and deficiency payments, the percentage is higher at 24-25%. The highest transfer efficiency is for area payments at 47%, which is about double that of either the deficiency payment or market price support and almost triple that of input subsidies.

Source: OECD (2003).

between 2000 and 2003 was one of the highest, next to Turkey and Korea, compared to other important agricultural producers and much higher than the OECD average (Figure 2.16). It means that for a relatively poor country with a still large agricultural sector, even if the level of agricultural support as measured by the PSE is low, the cost of support to the economy can be relatively high.

Another factor contributing to China's high percentage TSE, even though China's percentage PSE is low, is the high relative importance of general services in total support (Table 2.12). This is a positive factor in that general services in the areas of rural infrastructure, advisory services, training, research and development, and inspection services can improve long-term productivity or expand the sector's production capacity, the distorting effects on production and trade are generally much lower than other forms of support.²⁵ The share of GSSE in the total was still relatively high at 51% in 2003, but lower compared to 72% in 2000, reflecting a growing importance of measures providing support to producers (the PSE component). However, even the 2003 share compares favourably to

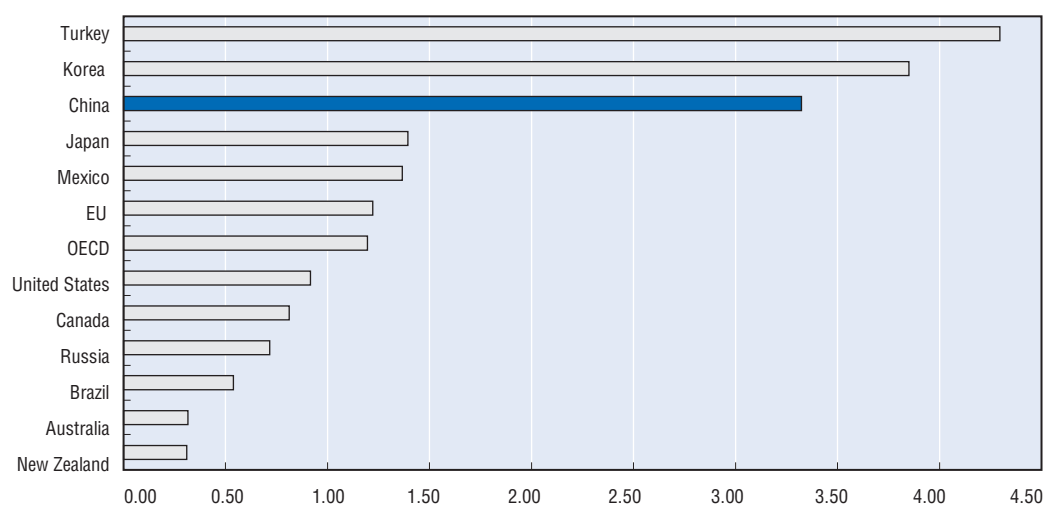
Table 2.12. **Total support to Chinese agriculture**

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003p
Total Support Estimate (TSE), million CNY	-66 168	83 642	199 256	122 330	139 446	159 201	88 605	242 522	322 437	379 315	428 072
<i>of which:</i>											
Producer Support Estimate (PSE)	-131 351	8 122	109 426	27 535	30 490	15 880	-60 928	65 411	121 142	168 965	208 392
General Services (GSSE)	62 197	72 979	87 413	92 783	107 081	141 555	146 863	174 771	200 612	209 750	219 080
Transfers to consumers from taxpayers	2 986	2 541	2 417	2 012	1 875	1 766	2 670	2 340	683	600	600
Total Support Estimate in:											
Million USD	-8 509	9 705	23 860	14 713	16 821	19 229	10 703	29 296	38 956	45 828	51 718
Million EUR	-9 796	8 165	18 240	11 604	14 833	17 169	10 046	31 798	43 533	48 694	45 824
TSE as share of GDP, %	-1.9	1.8	3.4	1.8	1.9	2.0	1.1	2.7	3.3	3.6	3.7

p: provisional.

Source: OECD PSE/CSE databases 2005.

Figure 2.16. **Total support estimate in China and selected countries, average 2000-2003 – as per cent of GDP**



Note: EU15.

Source: OECD PSE/CSE databases 2005.

the OECD average at 18% in 2001-03. Only in countries with the least distorting policies, such as Australia and New Zealand, the average shares were at or above 40% (OECD, 2004a).

Transfers to consumers from taxpayers are of marginal importance (Table 2.12).

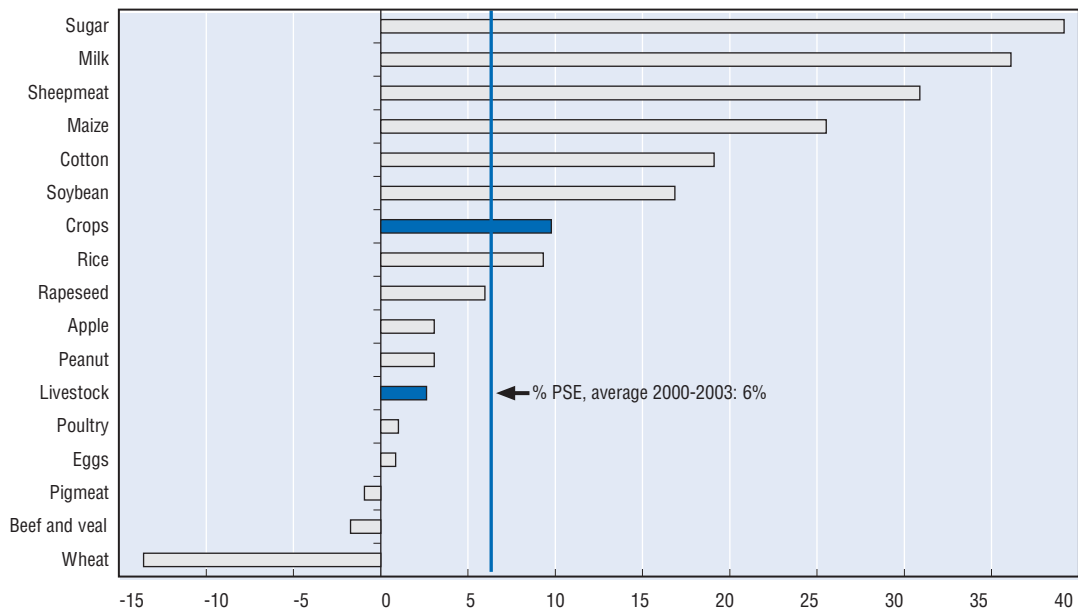
Commodity profile of producer support²⁶

Level of producer support by commodity

While China's aggregate producer support is low, the level of support varies significantly across commodities. The spread in support levels across commodities is a potential source of distortion. There is a clear distinction between the levels of support for importable and exportable products (Figure 2.17). For the majority of importables, such as soybeans, sugar, milk, sheepmeat and cotton, the average level of support between 2000

Figure 2.17. **Chinese % PSE by commodity, average 2000-2003**

As per cent of gross farm receipts



Source: OECD PSE/CSE databases 2005.

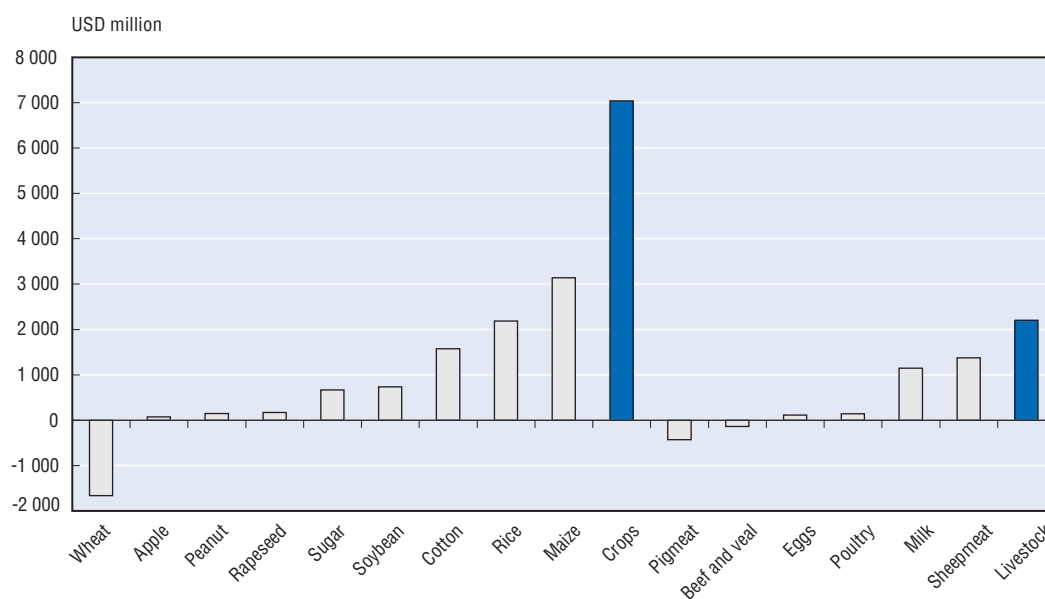
and 2003 was high and ranged between 17% (soybean) and 39% (sugar). In contrast, for the majority of exportables, such as pigmeat, beef and veal, eggs, poultry, peanuts and apple, the level of support was low or even negative, reflecting no explicit policies supporting livestock, fruit and vegetable producers. Slightly negative support for pigmeat and beef and veal producers is a result of the taxing impact of positive support for feed crops, in particular maize, transmitted to livestock producers through the feed adjustment component.

Grains still do not fit into this general picture as domestic prices for exportable maize and rice are higher and domestic prices of importable wheat lower than world prices. One of possible explanations is a dominant role of state trading in grain transactions, even if the role of private traders increased in line with China's WTO commitments. Trade flows in grains are still not driven by profits and relative price levels but rather by the government decisions reflecting concerns over food security and the level of grain stocks. For example, in 2004 (not yet covered by the PSE calculations) the government decided to import more than 7 million tonnes of wheat to replenish government stocks at prices reportedly higher than domestic ones. On the other hand, between 1999 and 2003, China exported large amounts of maize at lower prices than domestic prices to get rid of huge stocks accumulated in the second half of the 1990s.

Distribution of producer support across commodities

The distribution of overall producer support across commodities reflects relative price changes on domestic and world markets, the scale of budgetary assistance to specific commodities, and the relative importance of these commodities to overall agricultural production. In line with China's policy focus on key crop commodities, about 75% of overall PSE transfers (on average about USD 7 billion) between 2000 and 2003 was provided to crop

Figure 2.18. **Distribution of producer support by commodity, 2000-2003 average**



Source: OECD PSE/CSE databases 2005.

products, in particular to maize and rice producers. In the livestock sector, only milk and sheepmeat producers were the recipients of any significant support (Figure 2.18).

Conclusions

Bearing in mind data problems discussed at the beginning of this section, from the above analysis of agricultural support in China, the following general conclusions can be drawn.

- In the 1990s China's government was still applying a large number of distortive policies such as grain quotas, government fixed prices for selected crops and state trading. But domestic prices, including those set by the government, were usually fixed at levels close to world prices. Budgetary support for producers was low. As a result, the level of support, as measured by the percentage PSE, although fluctuating was generally low.
- The level of support in the 2000s increased, but remained far below the OECD average. The increase in support may mean that, within the context of largely liberalised domestic commodity markets, producer prices started to adjust to reflect market conditions as well as border protection, in particular for imported commodities. Therefore, even as border protection declined, tariffs and other border measures started to have a stronger impact on domestic prices compared to the 1990s. At the same time, budgetary support tended to increase, which contributed to a rise in the level of support to 8% in 2003.
- While China's producer support is low, the level of support varies significantly across commodities, which is an indication of distortive policies. The highest levels of support are for import-competing commodities, such as sugar, milk, sheepmeat, soybeans and cotton, as well as some export commodities such as maize and rice. The distortions on grain markets are still high, mostly due to state trading which continues to drive a wedge between domestic and world prices.

- The mix of measures used to support China's farmers is dominated by market price support and input subsidies, categories known to be amongst the least efficient and most trade distorting ways of providing agricultural assistance. In particular, low transfer efficiency means that only a small part of support is effectively received by producers.
- Total support to China's agricultural sector (measured by the TSE) places a relatively high cost on the Chinese economy, which is much higher than the OECD average. This is partly due to the economic importance of agriculture in a relatively poor economy, and partly due to large budgetary expenditures on general services.
- The share of producer support (the PSE) in the total support to the agricultural sector (the TSE) started to increase in the 2000s, but the share of general services in the total is still very high, mostly due to large investments in agricultural infrastructure. The high share of general services can be viewed as a positive feature of China's policy as such support is provided through measures characterised by relatively low production-distortions. However, as discussed in Box 2.7, the share may be overestimated as the available budgetary data are very aggregated, which does not allow a clear distinction to be made between payments supporting producers and those improving the performance of the agricultural sector as a whole.

Notes

1. In fact, according to the Chinese definition of grains (see Chapter 1), the self-sufficiency rate was much lower at 82% in 2003, mostly due to massive imports of oilseeds (Han Jun, Development Research Center of the State Council, personal communication, April 2005).
2. The "No. 1 Document" is the highest priority document of the Chinese authorities identifying the top priority issues for a given year and addressing attention of the party organs and governments (ministries, departments) at various levels.
3. Additional information on the agricultural policy development process and on institutions designing and implementing agricultural policies in China can be found in OECD (2005a).
4. The State Grain Administration (SGA) was supervised by the Ministry of Internal Trade in the early 1990s and is currently supervised by the National Development and Reform Commission.
5. Also known as Foreign Trade Corporations (FTCs).
6. The Ministry of Foreign Trade and Economic Co-operation (MOFTEC) was merged with Ministry of Internal Trade to form the Ministry of Commerce in 2002.
7. For instance, while the national government imposes quantitative restriction on local governments for approving transfers of agricultural lands to non-agricultural purposes, local governments may sometimes take the approach of piecemeal approval in order to avoid control by the central government – large parcels of land are broken into smaller parcels which are then approved for transfer by the local government. Also, some local governments are reported to have either over- or under-reported rural incomes for either personal gain from exaggerating their performances or for local benefit from obtaining special assistance such as poverty alleviation funds.
8. A detailed description of policies by commodity is provided in Annex B.
9. Price, determined according to both state-set and market prices, at which government would purchase above quota quantities offered for sale to the state.
10. Unlike a normal commercial transaction, the terms of the loan are not always enforced.
11. Under the previous arrangement, the prices were calculated as the state-set final user prices minus handling costs.
12. Village electricity infrastructure and user charges are the responsibility of the village administration. The village usually trains an "electrician" who is responsible for maintaining the

local distribution grid and collecting user charges from end-users. The village has payment responsibility for electricity delivered to the village transformer and must raise this payment from end-users. Especially prior to the Electricity Network Reform Program instituted in 1997-98, loss of energy in obsolete local distribution networks resulted in end-users effectively paying higher prices for electric power than was indicated by nominal electricity fees at the provincial level.

13. Tibet has been exempt from paying agricultural taxes since the Autonomous Region was established.
14. A comprehensive overview of China's food safety system is provided in Annex C. In this subsection some basic issues are discussed briefly.
15. Information is sent electronically to local Agricultural Bureaux and extension services, which disseminate information to farmers by word-of-mouth, leaflets, and public notice boards.
16. CCTV-7 carries shows principally for children, military affairs programming, and agriculture-related programming. The agricultural programmes mainly target rural life and the agricultural economy, featuring news, entertainment, agricultural science and information services.
17. In March 1994, the government issued an instruction to supervise the prices of 20 essential goods and services; including wheat flour, rice, vegetable oils, pork, eggs, milk and sugar. To protect urban consumers, the national government authorised sub-national governments to take measures to prevent price escalation, such as announcing reference prices, controlling retail mark-ups, and instituting price ceilings.
18. As defined in Chapter 1, these are: cereals, oilseeds and vegetable oils, sugar, cotton, tobacco, tea and silk.
19. See Annex C for detailed information on China's food safety regulations.
20. These categories are classified based on a series of criteria and safety standards. The standards for green food and organic food products include requirements on environmental conditions of production sites as well as stipulations on production practices.
21. ASEAN members are Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.
22. Hong Kong SAR of China received around 10% of China's agro-food exports in 2003. While China's trade flows with Hong Kong are registered separately, it is not a sovereign country.
23. Available from: <http://info.china.alibaba.com/news/detail/v2-d5294515.html>.
24. However, balance data may be to some extent misleading as China imports large quantities of raw materials such as cotton, hides and skins which are classified as agricultural imports and then exports processed products such as apparel which is not included in the agricultural export statistics.
25. Support for general services to agriculture does not depend on individual farmer's production decisions regarding output or use of factors of production, and does not directly affect farm receipts (OECD, 2004a).
26. A detailed overview of agricultural policy measures and trends in support for individual commodities is presented in Annex A.

Acronyms and Abbreviations

ABC	Agricultural Bank of China
ACFSMC	All-China Federation of Supply and Marketing Co-operative
ADBC	Agricultural Development Bank of China
AGVA	Agricultural Gross Value Added
AQSIQ	National Administration for Quality Supervision, Inspection and Quarantine
ASEAN	Association of South-East Asian Nations
CCCPC	Central Committee of the Communist Party of China
CCTV	China Central TV
CEREOLS	China National Cereals, Oils and Foodstuffs Import & Export Corporation; now COFCO
CIF	Cost, Insurance and Freight
CITES	Convention on International Trade and Endangered Species
CNY	Yuan Renminbi
COFCO	China National Cereals, Oils and Foodstuffs Import & Export Corporation
CPC	Communist Party of China
CSE	Consumer Support Estimate
DRC	Development Research Centre of the State Council
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	FAO statistical database
FDI	Foreign Direct Investment
FOB	Free on Board
GAO	Gross Agricultural Output
GDP	Gross Domestic Product
GGBRs	Governor's Grain-Bag Responsibility System
GMO	Genetically Modified Organisms
GSSE	General Services Support Estimate
GVA	Gross Value Added
HACCP	Hazard Assessment Critical Control Point
HPRS	Household Production Responsibility System
ISO	International Standards Organisation
JGIEC	Jilin Grain Group Import and Export Company
MFN	Most Favoured Nation
MLR	Ministry of Land Resources
MOA	Ministry of Agriculture
MOF	Ministry of Finance
MOFCOM	Ministry of Commerce
MOFTEC	Ministry of Foreign Trade and Economic Co-operation; now MOFCOM

MOH	Ministry of Health
MPS	Market Price Support
MWR	Ministry of Water Resources
NBSC	National Bureau of Statistics of China
NDRC	National Development and Reform Commission
NPC	National People's Congress
NTBs	Non-Tariff Barriers
OECD	Organisation for Economic Co-operation and Development
OIE	International Office for Epizootics
PBC	People's Bank of China
PPP	Purchasing Power Parity
PRC	People's Republic of China
PSE	Producer Support Estimate
RCGs	Rural Credit Co-operatives
RCRE	Research Centre of Rural Economy
SARS	Severe Acute Respiratory Syndrome
SAGR	State Administration of Grain Reserves
SASAC	State-owned Assets Supervision Administration Commission
SEPA	State Environmental Protection Administration
SFDA	State Food and Drug Administration
SGA	State Grain Administration
SGEs	State Grain Enterprises
SINOGRAIN	China Grain Reserve Corporation
SMCs	Supply and Marketing Co-operatives
SOEs	State Owned Enterprises
SPS	Sanitary and Phytosanitary (measures)
STEs	State Trading Enterprises
TBT	Technical Barriers to Trade
TFP	Total Factor Productivity
TRQ	Tariff Rate Quota
TSE	Total Support Estimate
TVEs	Township and Village Enterprises
VAT	Value Added Tax
WB	World Bank
WTO	World Trade Organization

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Table of Contents

Highlights and Policy Recommendations	9
1. Reforms and their impacts	11
2. Agricultural policy trends	17
3. The benefits of future policy reforms	22
4. Policy challenges	24
Chapter 1. The Policy Context	27
1.1. General aspects	28
1.2. Agriculture's importance to China's economy	31
1.3. Structural change in the agro-food sector	36
1.4. The effects of economic reforms on China's agriculture	47
Chapter 2. Policy Trends	73
2.1. Agricultural policy framework	74
2.2. Domestic policies	85
2.3. Trade policies	110
2.4. Evaluation of support to Chinese agriculture	134
Chapter 3. Policy Impacts	149
3.1. Welfare impacts of trade and agricultural policy reforms	150
3.2. The impact of liberalisation on Chinese agricultural commodity markets	159
3.3. Domestic and world market implications of alternative grain stock estimates and trade policies in China	166
Annex A. Labour Mobility and Rural Poverty in China	177
Annex B. Agricultural Policies and Support for Individual Commodities	189
Annex C. China's Approach to Food Safety	216
Acronyms and Abbreviations	226
List of Boxes	
1.1. China's political system	29
1.2. Trade reform and factor mobility in China: the long and the short of it	35
1.3. The distribution of land rights across levels of authority	40
1.4. Problems with Chinese agricultural statistics	51
1.5. Social security in rural China	61
2.1. The Agricultural Law of China	82
2.2. A brief history of the "peasant burden"	99
2.3. Public debt funds in agricultural development	103
2.4. VAT assessment on imported agricultural products	118
2.5. Major WTO accession commitments by China – agricultural trade	123
2.6. OECD indicators of support to agriculture: definitions	134
2.7. China's PSEs: what and how?	136
2.8. Transfer efficiency in agricultural support policies	142
3.1. The baseline projections for Chinese and world agricultural markets	160
A.1. The role of rural industries	180

List of Tables

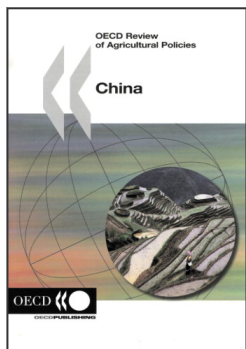
1.1. World top-10 countries by GDP (current USD), 2002.....	30
1.2. China: selected macroeconomic indicators, 1990-2003	30
1.3. Arable land and yields in selected countries, 2000-2002 average	36
1.4. Food industry in China between 1999 and 2003	44
1.5. The composition of food industry and tobacco enterprises in China by type of ownership, 2002.....	44
1.6. Agricultural machinery in China per 100 rural households, 1990-2003	49
1.7. Changes in the composition of the primary sector production, current prices, 1990-2003, %	53
1.8. China's agricultural trade, 1992-2003	57
1.9. Relative labour productivity by sector, 1978-2001	59
1.10. Rural poverty in China, 1978-2003.....	60
1.11. Rural household incomes by source, 1985-2003	61
1.12. Food consumption in China, 1990-2002 (kg/person/year)	64
1.13. Shifts in energy sources in the Chinese diet, ages 20-45	65
2.1. Major laws and regulations in the agro-food sector	83
2.2. Prices of electricity by different users in selected provinces in 2002	92
2.3. Rates of railway shipment for selected goods (since July 2000)	92
2.4. Comparison of water prices among different usages	93
2.5. Annual interest rates of selected types of loans (%).....	95
2.6. The rates of tax on special agricultural products – % of value	97
2.7. Agriculture-related taxes	98
2.8. Total national aggregate budgetary support to agriculture	110
2.9. Changes in MFN tariffs for basic commodities	115
2.10. China's TRQ performance	124
2.11. Evolution of producer support (% PSE) and consumer support (% CSE) in China and selected countries, 1993-2004	138
2.12. Total support to Chinese agriculture	143
3.1. Tariffs levied and faced (%)	150
3.2. Welfare effects of multilateral policy reform, USD millions	151
3.3. The 2000 rural household survey frame	154
3.4. Structure of household income, provincial averages (% of total income)	155
3.5. Consumption and poverty, provincial averages	156
3.6. Proportional welfare effects of price changes	157
3.7. Money metric welfare effects of price changes	158
3.8. Principal assumptions of the liberalisation scenarios	162
3.9. Development of Chinese grain tariff rate quotas after WTO accession	169
A.1. Rural poverty rates by region, China, 2002	177
A.2. Comparison of income structure in rural areas, 2000	178
A.3. TVEs in China's economy, 1990-2002	180
A.4. Migrants and remittances	185
A.5. Duration of migration and remittances	185
B.1. Changes in grain prices (CNY/kg in current price)	190
B.2. China's WTO grain trade commitments	195
B.3. The state-set guidance prices for sugar beet and cane (CNY/tonne)	200
B.4. China's WTO sugar trade commitments	201
B.5. The state-set prices of cotton	204
B.6. China's WTO cotton trade commitments	205

List of Figures

0.1. China's agricultural trade, 1992-2004	15
0.2. Net trade in land and labour intensive agricultural commodities	15
0.3. Producer Support Estimate in China and selected countries, 2000-2003 average ..	20
0.4. Composition of Producer Support Estimate, 1993-2003	21
0.5. China's Producer Support Estimate by commodity, 2000-2003 average	21
0.6. Welfare gains (losses) by source of liberalisation	23
1.1. The share of agriculture in GDP, employment, total exports and imports, 1990-2003	32

1.2. Agriculture's share in GDP versus GDP per capita (2000-2002)	33
1.3. Agriculture's share in employment versus GDP per capita (2000-2002)	33
1.4. Regional distribution of agricultural labour and cultivated area, 2003	37
1.5. Nominal price indices, 1990-2003, 1990 = 100	48
1.6. Chemical fertiliser use in China (active substance kg/ha of sown area), 1985-2003	49
1.7. Chemical fertiliser use in selected countries (active substance kg/ha of sown area), 2002	50
1.8. Growth in Gross Agricultural Output, 2003 (1989-1991=100)	50
1.9. GAO yearly growth rates in China, %, 1990-2003	52
1.10. Output indices for main crops, 1990-2003, 1990 = 100	53
1.11. Total cereal production and nominal farm gate prices, 1993-2003	54
1.12. Composition of the sown area, 1991 and 2003, %	55
1.13. Indices of livestock production, 1990 = 100	55
1.14. Crop yields for selected crops, 1990-2003	56
1.15. Evolution of employment in Chinese agriculture, 1990-2003	58
1.16. Rural household income per person, 1981-2004	59
1.17. Wages and net incomes per person in peasant families across provinces, CNY, 2003	62
1.18. Urban to rural per capita income and living expenditures ratios, 1978-2004	63
2.1. Central institutions with oversight over China's agro-food sector	80
2.2. Comparison of different types of grain and soybean prices in China	86
2.3. Simple average MFN tariffs on agricultural products	114
2.4. Dispersion of China's agricultural tariffs in 2002 and 2004	116
2.5. China's agricultural trade, 1992-2004	128
2.6. Net trade in land and labour intensive agricultural commodities	129
2.7. China's main agro-food imports, 2003	130
2.8. China's main agro-food exports, 2003	130
2.9. China's agro-food exports (including fish and fish products) by region	131
2.10. Main export markets for Chinese agro-food products (including fish and fish products), 2003	132
2.11. China's agro-food imports (including fish and fish products) by region	133
2.12. Main suppliers of agro-food products (including fish and fish products) to China, 2003	133
2.13. Percentage PSEs for China and selected countries, average 2000-2003	139
2.14. Percentage PSE for crops and livestock products in China, 1993-2003	140
2.15. Composition of producer support estimate, 1993-2003	141
2.16. Total support estimate in China and selected countries, average 2000-2003 – as per cent of GDP	143
2.17. Chinese % PSE by commodity, average 2000-2003	144
2.18. Distribution of producer support by commodity, 2000-2003 average	145
3.1. Welfare gains (losses) by source of liberalisation	152
3.2. Changes in factor returns to agriculture and non-agriculture resulting from multi-sectoral reduction in trade protection	153
3.3. Chinese grain market developments: past and projections	160
3.4. Development of Chinese meat production	161
3.5. Impact of 50% liberalisation on world crop markets, average 2005-2013	163
3.6. Impact of 50% liberalisation on Chinese crop markets, average 2005-2013	163
3.7. Recent developments in the Chinese grains balance, 1990/91-2003/04	167
3.8. Chinese total grain stocks: recent FAO revisions	168
3.9. Impact of Chinese grain stock revisions: import projections of wheat, coarse grains and rice	169
3.10. Impact of restricted and extended import quota access on Chinese and world grain prices, average 2004-2013	170
3.11. Impact of restricted and extended import quota access on Chinese grain consumption, average 2004-2013	171
3.12. Impact of unlimited import quota extension on Chinese grain imports, 2002-2013	172

3.13. Self-sufficiency rates of Chinese grain markets, 1991-2013, in different scenarios	173
B.1. Percentage PSEs, producer and reference prices for wheat, 1993-2003	196
B.2. Percentage PSEs, producer and reference prices for maize, 1993-2003	196
B.3. Percentage PSEs, producer and reference prices for rice, 1993-2003	197
B.4. Percentage PSEs, producer and reference prices for soybean, 1993-2003	199
B.5. Percentage PSEs, producer and reference prices for rapeseed, 1993-2003	199
B.6. Percentage PSEs, producer and reference prices for peanuts, 1993-2003	200
B.7. Percentage PSEs, producer and reference prices for sugar, 1993-2003	202
B.8. Percentage PSEs, producer and reference prices for cotton, 1993-2003	206
B.9. Percentage PSEs, producer and reference prices for apples, 1993-2003	209
B.10. Percentage PSEs, producer and reference prices for beef and veal, 1993-2003	212
B.11. Percentage PSEs, producer and reference prices for pigmeat, 1993-2003	212
B.12. Percentage PSEs, producer and reference prices for sheepmeat, 1993-2003	213
B.13. Percentage PSEs, producer and reference prices for poultry, 1993-2003	213
B.14. Percentage PSEs, producer and reference prices for milk, 1993-2003	214
B.15. Percentage PSEs, producer and reference prices for eggs, 1993-2003	214



From:
OECD Review of Agricultural Policies: China 2005

Access the complete publication at:
<https://doi.org/10.1787/9789264012615-en>

Please cite this chapter as:

OECD (2006), "Policy Trends", in *OECD Review of Agricultural Policies: China 2005*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264012615-4-en>

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