

11 China's agricultural trade following its WTO accession

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Since its entry into the WTO in December 2001, China's economy has grown rapidly. The average annual growth rate of China's real GDP was more than 9.8 per cent during 2002-05.¹ China's foreign trade has been expanding even more rapidly than its economic growth. The total value of China's foreign trade has increased from US\$457 billion in 2001 to US\$1263 billion in 2005—an annual growth rate of 28.6 per cent, as compared with 9.4 per cent during the 1990s.² Undoubtedly, China's economy has benefited from its more open international trade regime resulting from accession to the WTO.³

The impact of China's entry into the WTO on its agricultural sector has been the major concern of the Chinese government and has been the hottest topic among policy makers and academics in and outside China (for example, Anderson 1997; Cheng 1997; Development Research Centre 1998; Huang 1998; Huang and Chen 1999; Wang 1997). In general, experts argued that based on China's resource endowments and comparative advantage, after entry into the WTO China's land-intensive farming sector would shrink but its labour-intensive horticultural sector, its animal husbandry sector and its processed agricultural product sector would expand. As a result, China would import more land-intensive agricultural products, such as grains and vegetable oils, and export more labour-intensive agricultural products, such as vegetables and fruits, animal products and processed agricultural products.

What has happened to China's agricultural trade since its accession to the WTO? Have there been any changes in the pattern of China's agricultural trade and in its revealed comparative advantages in agriculture? If so, what factors have driven these changes? This chapter examines these questions.

Classification of agricultural commodities and sources of data

In analysing agricultural trade, the first step is to identify the coverage of agricultural commodities in international trade. Here, the classification of agricultural commodities in international trade is based on the Harmonised System (HS) of Trade Classification 1992. Table 11.1 presents the product coverage used and the product coverage in the Uruguay Round Agreement on Agriculture (URAA). The product coverage in this chapter and in the URAA is very similar. The differences are that here fish and fish products are included, but HS Code 2905.43 (mannitol), HS Code 2905.44 (sorbitol), HS Heading 33.01 (essential oils), HS Headings 35.01 to 35.05 (albuminoidal substances, modified starches, glues), HS Code 3809.10 (finishing agents) and HS Code 3823.60 (sorbitol n.e.p.) are excluded. The main reasons for these inclusions and exclusions are that fish and fish products are very important agricultural products in China's trade while the trade values of those excluded are negligible.

The agricultural trade data for the period 1992 to 2004 are from the United National Statistics Division, Commodity Trade Statistics Database (COMTRADE). Data for 2005 are from the China Customs Statistical Monthly Report.⁴ All the values of agricultural trade data presented here are at 2000 constant US\$ prices.

For the purpose of analysing changes in the pattern of China's agricultural trade, the data have been grouped in two ways. First, the data are divided into five categories based on the nature of the commodities

- cereals, edible vegetable oilseeds and vegetable oils
- horticultural products
- animal products (including fish)
- processed agricultural products (including processed fish products)
- raw materials for textiles.

Second, the data are grouped into two categories based on the factor intensity of production

- land-intensive agricultural products
- labour-intensive agricultural products.

Agricultural trade data for the period 1992-2005 categorised in this way are presented in the appendix in Tables A11.1 and A11.2.

Table 11.1 Comparison of agricultural product coverage

Product coverage in this study	Product coverage in the URAA
HS Chapters 1 to 24, plus	HS Chapters 1 to 24 less fish and fish products, plus
HS Headings 41.01 to 41.03 (hides and skins)	HS Code 2905.43 (mannitol)
HS Heading 43.01 (raw fur skins)	HS Code 2905.44 (sorbitol)
HS Headings 50.01 to 50.03 (raw silk and silk waste)	HS Heading 33.01 (essential oils)
HS Headings 51.01 to 51.03 (wool and animal hair)	HS Headings 35.01 to 35.05 (albuminoidal substances, modified starches, glues)
HS Headings 52.01 to 52.03 (raw cotton, waste and cotton carded or combed)	HS Code 3809.10 (finishing agents)
HS Heading 53.01 (raw flax)	HS Code 3823.60 (sorbitol n.e.p.)
HS Heading 53.02 (raw hemp)	HS Headings 41.01 to 41.03 (hides and skins)
	HS Heading 43.01 (raw fur skins)
	HS Headings 50.01 to 50.03 (raw silk and silk waste)
	HS Headings 51.01 to 51.03 (wool and animal hair)
	HS Headings 52.01 to 52.03 (raw cotton, waste and cotton carded or combed)
	HS Heading 53.01 (raw flax)
	HS Heading 53.02 (raw hemp)

Sources: The Uruguay Round Agreement on Agriculture and author's classification.

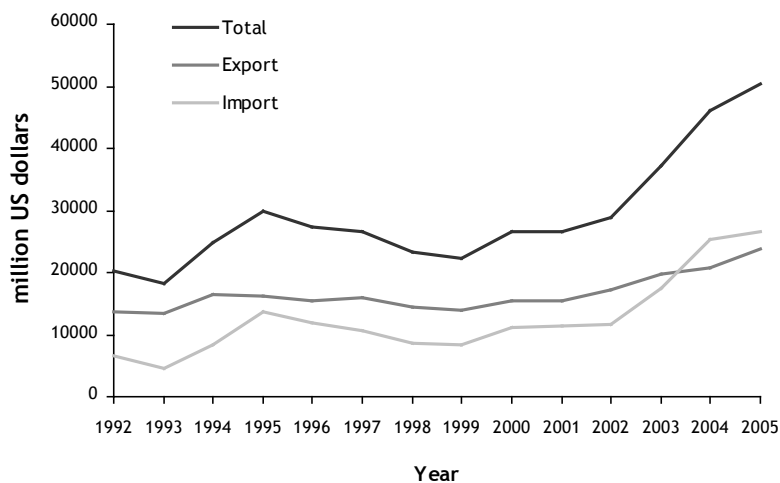
Trends in China's agricultural trade following WTO accession

Aggregate trends in agricultural trade

Between 1992 and 2001, China's agricultural trade experienced large fluctuations but did not grow (Figure 11.1). Since its entry into the WTO, the value of China's agricultural trade has increased dramatically to reach US\$50.44 billion in 2005—an increase of 90 per cent over the 2001 figure.

The trends in exports and imports were similar to that of total agricultural trade during the period 1992 to 2001. However, following entry into the WTO, agricultural imports have increased more rapidly than agricultural exports. From 2002 to 2005, the annual growth rate of agricultural imports was 31.5 per cent, while that of agricultural exports was 11.7 per cent. As a result, in 2004 and 2005 agricultural imports exceeded agricultural exports

Figure 11.1 China's agricultural trade, 1992-2005 (at constant 2000 US\$ prices)



Sources: Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

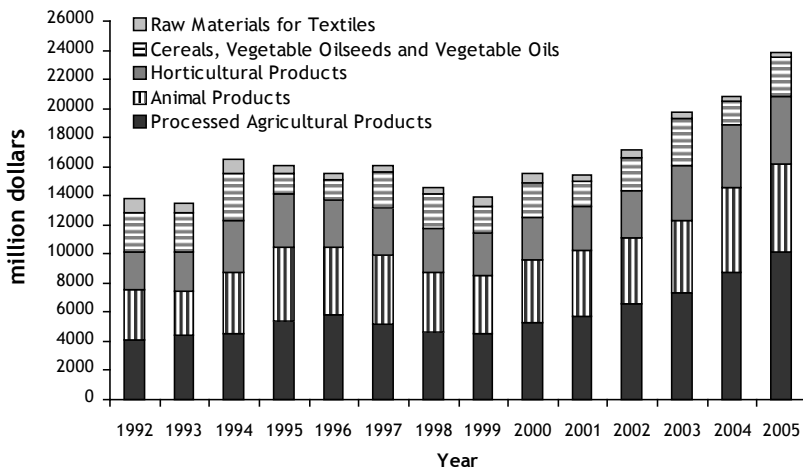
and China has experienced agricultural trade deficits for the first time since the early 1990s. It is expected that the higher growth of agricultural imports will continue.

Trends in agricultural trade, by commodity grouping

Agricultural exports, by commodity grouping

Figure 11.2 presents China's agricultural exports based on commodity groupings for the period 1992 to 2005. China's agricultural exports are dominated by processed agricultural products, followed by animal products and horticultural products. The export values of cereals, vegetable oilseeds and vegetable oils and, in particular, raw materials for textiles are small.

Figure 11.2 China's agricultural exports by category, 1992-2005 (at constant 2000 US\$ prices)



Sources: Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

Processed agricultural products

The group of processed agricultural products has been the largest commodity group in China's agricultural exports. Following entry into the WTO, the export value of processed agricultural products has risen sharply, from US\$5.74 billion in 2001 to US\$11.12 billion in 2005—an annual average growth rate of 15.3 per cent. As a result, its share in China's total agricultural exports increased from 32.9 per cent in the period of 1992-2001 to 40.2 per cent in the period of 2002-05.

Within this group, exports have been dominated by two product categories, namely the preparations of meat and fish, and the preparations of vegetables and fruits. The export value of the preparations of meat and fish increased from US\$2 billion in 2001 to US\$3.9 billion in 2005. The export value of the preparations of vegetables and fruits has increased from US\$1.5 billion in 2001 to US\$2.8 billion in 2005, an increase of 88 per cent. Their combined share in the export value of processed agricultural products has increased from 48.8 per cent in the period of 1992-2001 to 63 per cent in the period of 2002-05. Moreover, their combined share in China's total agricultural exports increased from 16 per cent in the earlier period to 25.3 per cent in 2002-05.

Animal products

The group of animal products has been the second largest commodity group in China's agricultural exports. The exporting of animal products has also been increasing steadily since China's accession, up from US\$4.5 billion in 2001 to US\$6 billion in 2005—an average annual growth rate of 7.5 per cent. However, because of the larger share and faster growth of the exports of processed agricultural products, the export share of animal products in China's total agricultural exports has declined marginally.

In this group, aquatic products have been the most important component, followed by meats, products of animal origin, and live animals. After 2001, exports of aquatic products increased very fast. Consequently, the share of aquatic products in total exports of animal products increased from 48 per cent during 1992-2001 to 62.5 per cent during 2002-05. As a result, the shares of other animal products have declined.

Horticultural products

The group of horticultural products has been the third largest commodity group in China's agricultural exports. Exports of horticultural products have increased relatively quickly, from US\$3 billion in 2001 to US\$4.7 billion in 2005, at an average annual growth rate of 11.6 per cent, which is similar to the annual growth rate of total agricultural exports. As a result, the share of horticultural products in China's total agricultural exports has remained at around 20 per cent.

Within this group, vegetables are the most important commodities, followed by fruits and the product categories of tea, coffee, mate and spices. After 2001 exports of vegetables and fruits increased more rapidly than other commodities in this group and the share of vegetables in horticultural exports has increased from 52.4 per cent during 1992-2001 to 55.3 per cent during 2002-05. At the same time the share of fruits in total horticultural exports has increased from 14.7 per cent to 18.8 per cent.

Cereals, edible vegetable oilseeds and vegetable oils

The 'cereals, edible vegetable oilseeds and vegetable oils' group ranks fourth in China's agricultural exports. The annual export value of cereals, edible vegetable oilseeds and vegetable oils has fluctuated extensively over the period 1992 to 2005. Following China's entry into the WTO, the importance of this commodity group has declined, falling from 14.8 per cent during 1992-2001 to 12.2 per cent during 2002-05.

Within the group, corn has been the single most important export commodity. Annual exports of corn averaged US\$0.8 billion in 1992-2001, increased to US\$1.1 billion in 2002, and to US\$1.7 billion in 2003. In 2004, because of several economic and policy factors, including changes in the relationship between domestic prices and world prices,⁵ and the reduction in corn export quotas (Gale 2005), China's corn exports declined sharply to US\$0.3 billion. However, corn exports increased again in 2005, reaching almost US\$1 billion. On average, corn exports have accounted for around 40 per cent of the total exports of this group during 2002-05.

Raw materials for textiles

Finally, China's exports of the commodity group of raw materials for textiles have been small. Both the export value and the export share of this commodity group in China's total agricultural exports have declined substantially since its WTO accession. The export value has declined from around US\$0.6 billion annually over 1992-2001 to around US\$0.35 billion annually in 2002-05. As a result, the export share of this commodity group in China's total agricultural exports has fallen from 4 per cent in 1992-2001 to 1.75 per cent in 2002-05.

Within this group, silk has been the largest export commodity for a long time. However, silk exports have been declining since the mid 1990s. The export values of cotton and raw hides have declined substantially since 2001.

Agricultural imports, by commodity grouping

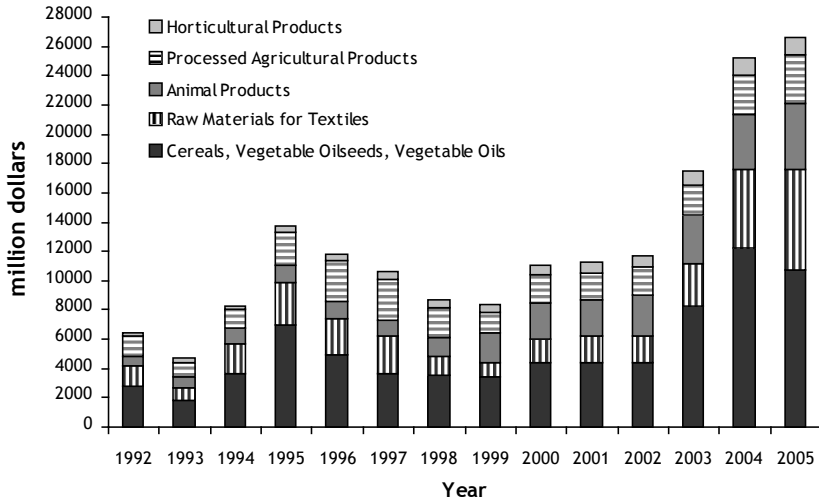
China's imports of agricultural products are overwhelmingly dominated by cereals, vegetable oilseeds and vegetable oils, followed closely by raw materials for textiles (Figure 11.3). The imports of animal products, processed agricultural products, and horticultural products are relatively low but have been rising rapidly, especially since 2003.

Cereals, edible vegetable oilseeds and vegetable oils

Cereals, edible vegetable oilseeds and vegetable oils is the largest group in China's agricultural imports. But imports of these commodities experience large fluctuations (Figure 11.3). Imports of this commodity group averaged around US\$3.9 billion in 1992-01 but increased sharply to US\$8.9 billion in 2002-05. As a result, the share of the group in China's total agricultural imports increased from 41.6 per cent in 1992-2001 to 43.9 per cent in 2002-05.

Cereals dominated the imports of this commodity group from 1992 to 1996. However, from 1997 to 2003, imports of cereals declined, reaching their lowest level of US\$0.4 billion in 2003. In 2004, imports jumped to US\$2 billion and then fell to US\$1.2 billion in 2005. Wheat has dominated

Figure 11.3 China's agricultural imports by category, 1992-2005 (at constant 2000 US\$ prices)



Sources: Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

imports of cereals. Wheat import rose to above US\$2 billion in 1995-96 because of a sharp increase in China's domestic grain prices in 1994. However, from 1997 to 2003 wheat imports declined to reach their lowest level of US\$0.07 billion. The decline in wheat imports during this period was mainly caused by consecutive bumper domestic harvests from 1996 to 1999. After 2000, grain production in China declined and government had to use state grain reserves to fill the gap between demand and supply. In late 2003, China's domestic grain prices began to increase sharply. In 2004 the Chinese government implemented a series of policies, including subsidies to farmers and gradually abolishing agricultural taxes,⁶ with the aim of increasing grain production and farmers' incomes. At the same time, China began to increase

wheat imports. China imported US\$1.5 billion of wheat in 2004 and US\$0.7 billion in 2005, mainly to replenish state grain reserves.

In the early 1990s, China imported a limited amount of edible vegetable oilseeds. However, since 1997, imports of edible vegetable oilseeds have increased rapidly, from US\$1 billion to US\$3.2 billion in 2001. Following entry into the WTO, imports of edible vegetable oilseeds have been increasing even more rapidly, jumping to US\$5.3 billion in 2003, to US\$6.7 billion in 2004, and to US\$7.3 billion in 2005. The share of edible vegetable oilseeds in total imports of cereals, edible vegetable oilseeds and vegetable oils reached 61.2 per cent during 2002-05. Within the edible vegetable oilseeds group, soybean has been overwhelmingly the largest import, accounting for 95 per cent of total imports during 2002-05.

Edible vegetable oils are the next important commodities in the imports of cereals, edible vegetable oilseeds and vegetable oils. China imported US\$1.3 billion of edible vegetable oils annually during 1992-2001. Imports of these commodities increased sharply during 2002-05, up to US\$2.4 billion annually. Soybean oil and palm oil are the most important commodities in this group. Their combined share was 88 per cent of total imports of edible vegetable oils from 2002 to 2005.

Raw materials for textiles

Raw materials for textiles is the second large group in China's agricultural imports. Since 2003 imports of raw materials for textiles have increased sharply from US\$2.9 billion, to US\$5.4 billion in 2004 and US\$6.9 billion in 2005. As a result, the share of raw materials for textiles in China's total agricultural imports increased from 19.1 per cent in 1992-2001 to 21.1 per cent in 2002-05. The dramatic increase in the import of raw materials for textiles during 2003 to 2005 was mainly driven by the large expansion of China's textile industry as the Agreement on Textiles and Clothing (ATC) was phased out at the end of 2004 and the import quotas on textiles and clothing were to be abolished from 1 January 2005.

Within this group, wool is a very important import commodity. From 1992 to 2001, imports of wool were fairly stable with an average annual import value around US\$0.65 billion. However, in 2004 and 2005, imports increased to above US\$1 billion. The share of wool in the total imports of

this group averaged 35.8 per cent from 1992 to 2001. However, its share declined to 21.2 per cent during 2002 to 2005 due to the large increases in imports of cotton and raw hides and skins.

Cotton is also an important commodity in this group. Cotton imports averaged around US\$1.3 billion from 1994 to 1997, but declined to less than US\$0.2 billion from 1998 to 2002. From 2003 to 2005, cotton imports increased significantly to reach US\$2.9 billion. As a result, cotton became the largest import commodity in this group, accounting for 41.4 per cent of total imports of the group over the period 2002 to 2005.

Raw hides and skins are also important commodities in this group. Imports of raw hides and skins have been increasing steadily since 1992. However, since 2003, imports have increased sharply, up from US\$0.9 billion in 2003 to US\$1.4 billion in 2004 and with a further jump to US\$2.8 billion in 2005. As a result, the share in total imports of raw materials for textiles increased to 33.3 per cent during 2002 to 2005.

Animal products

Animal products rank third in China's agricultural imports. The import value of animal products increased gradually from 1992 to 1998 then increased rapidly during 1999-2001. After entry into the WTO, imports of animal products increased even faster, rising from US\$2.75 billion in 2002 to US\$4.5 billion in 2005. As a result, the share of animal products in China's total agricultural imports increased from 14.9 per cent in the period of 1992-2001 to 17.6 per cent in the period 2002-05.

Within the group, fish and other aquatic products are the most important commodities. Imports of fish and other aquatic products have increased particularly quickly since entry into the WTO, rising to US\$2.6 billion in 2005, nearly double that of 2001. Hence, the share of fish and other aquatic products in China's total imports of animal products increased to 55.7 per cent during 2002-05.⁷

Meat and dairy products are the next most important commodities in this group. In the 1990s China imported very limited amounts of these products. However, since 1999 and particularly since 2001, imports of meat and dairy products have increased quickly. The import value of meat increased from US\$0.26 billion annually in 1992-2001 to US\$0.57 billion annually in 2002-05,

while the import value of dairy products increased from US\$0.12 billion annually in 1992-2001 to US\$0.35 billion annually in 2002-05. The imports of other animal products have also shown an increasing trend since 2001.

Processed agricultural products

The group of processed agricultural products holds fourth place in China's total agricultural imports. Imports of processed agricultural products have been very variable during 1992 to 2005. They increased quickly in the mid 1990s, reaching their highest level of US\$2.8 billion in 1997. They declined to US\$1.4 billion in 1999. In the early 2000s, imports recovered to around US\$2 billion, and then rose rapidly to US\$2.7 billion in 2004 and US\$3.2 billion in 2005. However, because of the larger increase in the imports of other agricultural products, particularly edible vegetable oilseeds, vegetable oils, and raw materials for textiles, the import share of processed agricultural products in China's total imports of agricultural products has declined from 19.8 per cent in 1992-2001 to 12.4 per cent in 2002-05.

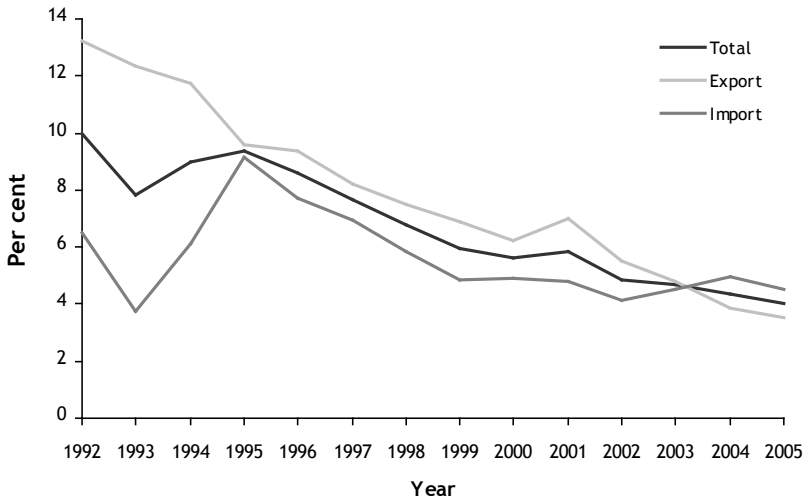
The imports of processed agricultural products have been dominated by imports of animal feed (residues of the food industry and feedstuffs). China imported a large quantity of animal feed during 1996 to 1998. The import value of animal feed reached a historical high of US\$1.9 billion in 1997. During 1999 to 2004, imports of animal feed have been US\$0.7-0.8 billion. In 2005, imports of animal feed increased to US\$1.2 billion. Another important import commodity in this group is sugar. China imported large volumes of sugar in the mid 1990s, reaching a high point of US\$1.1 billion in 1995. Since then sugar imports have declined and are around US\$0.3 billion. Imports of tobacco, miscellaneous edible preparations, and beverages and spirits have been small, but show a slightly increasing trend after 2002.

Horticultural products

Horticultural products have been the smallest component in China's agricultural imports, accounting for around 5 per cent of total agricultural imports during the period 1992 to 2005. From 1992 to 2001, imports of horticultural products increased gradually from US\$0.25 billion to US\$0.74 billion. After 2002, they increased quickly to US\$1.26 billion in 2005.

Fruits and vegetables dominate the imports of horticultural products. Import of fruits and vegetables surged during 2003 to 2005. This was mainly because of the implementation of the 'early-harvest' program (EHP), which is part of the China-ASEAN Free Trade Area Framework Agreement signed by China and the ASEAN in 2002. Under the EHP, which was implemented on 1 January 2004, the two sides immediately cut tariffs on about 600 agricultural imports to between 2 per cent and 15 per cent, and agreed to scrap these tariffs in 2006. Thailand has taken the lead among the ASEAN members in initiating this free trade accord as it has phased out all import tariffs on 188 fruits and vegetables imports from China starting in October 2003 (*China Daily*, 9 August 2004). China's import of fruits from Thailand

Figure 11.4 Share of china's agricultural trade in total trade, 1992-2005 (per cent)



Sources: Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

increased sharply from US\$77.7 million in 2003 to US\$165 million in 2004, while its imports of vegetables from Thailand increased from US\$141.4 million in 2003 to US\$249.5 million in 2004.

Changes in the pattern of China's agricultural trade after WTO accession

Despite the recent rapid increases in absolute values of agricultural trade, its importance in China's total trade has been declining. As shown in Figure 11.4, the share of agricultural trade in China's total trade declined from 10 per cent in 1992 to 5.8 per cent in 2001. After China's entry into the WTO, this decline has become even more pronounced. The share of agricultural trade was only 4 per cent in 2005, and the share of agricultural exports in China's total exports declined even faster—from 7 per cent in 2001 to 3.5 per cent in 2005.

According to international trade theory, a country's pattern of trade with the rest of the world is determined by its comparative advantage, and its comparative advantage is determined by its resource endowments. In the case of China, the characteristics of China's resource endowments with respect to agricultural production are that it is scarce in land resources but abundant in labour. China's per capita arable land is 0.11 hectares, only 43 per cent of the world average, and its per capita pasture land is 0.3 hectares, only 33 per cent of the world average. However, China has abundant labour—1.3 billion population—with nearly 70 per cent living in rural areas, and half of the labour force is in the agricultural sector. Based on its resource endowments, China should have a comparative advantage in labour-intensive agriculture and a comparative disadvantage in land-intensive agriculture. Further, China should have a bias towards exporting labour-intensive agricultural products and importing more land-intensive agricultural products.

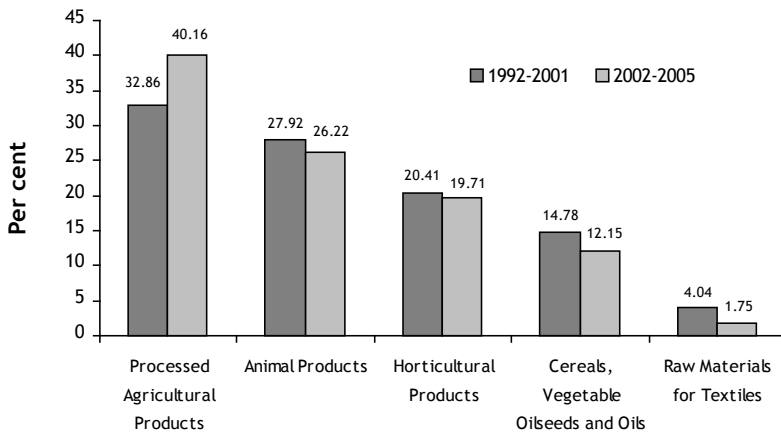
Given that the WTO accession commitments should have led to China producing and trading more in accord with its comparative advantage, an interesting question is whether there has been any change in the pattern of China's agricultural trade since its accession? To answer this question, we compare China's agricultural trade patterns for the two periods 1992-2001 and 2002-05, both by commodity group and by factor intensity of production.

Changes in the pattern of China's agricultural trade, by commodity group

Figure 11.5 shows the composition of China's agricultural exports by commodity group for the two periods 1992-2001 and 2002-05, illustrating how the dominance of processed agricultural products has increased. Between the two periods, its export share increased by 7.3 percentage points, while the shares of all other agricultural commodity groups declined.

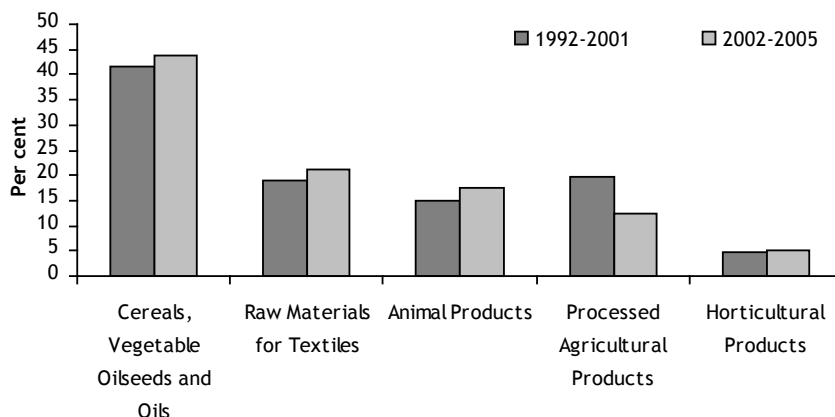
Figure 11.6 shows the composition of China's agricultural imports by commodity group for the same two periods. China's imports of agricultural products are dominated by the group of cereals, vegetable oilseeds and

Figure 11.5 Shares of China's agricultural exports by commodity groupings, 1992-2001 and 2002-2005 (per cent)



Sources: Author's calculation. Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

Figure 11.6 Share of China's agricultural imports by commodity grouping, 1992-2001 and 2002-2005 (per cent)



Sources: Author's calculation. Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

vegetable oils. Raw materials for textiles and animal products are also important. All increased their shares since 2001 at the expense of processed agricultural products.

Changes in the pattern of China's agricultural trade, by factor intensity of production

To see if there have been any changes in the pattern of agricultural trade in terms of factor intensity, agricultural trade was grouped into labour-intensive products and land-intensive products. The labour-intensive products include processed agricultural products, animal products, horticultural products and silk, while the land-intensive products include cereals, vegetable oilseeds and vegetable oils, and raw materials (excluding silk) for textiles.

Figure 11.7 shows the composition of China's agricultural exports by factor intensity of production. It can be seen that China's agricultural exports are overwhelmingly dominated by exports of labour-intensive products and that this domination has increased since 2001.

Figure 11.8 shows that China's agricultural imports are biased towards land-intensive products, accounting for 60.6 per cent and 65 per cent of China's total agricultural imports during the two periods of 1992-2001 and 2002-05, respectively.

Since its accession into the WTO, China's agricultural trade has been moving in line with its comparative advantage and is now more consistent with its resource endowments of relative scarcity of land resources and relative abundance of labour.

Figure 11.7 Shares of China's agricultural exports by factor intensity of production, 1992-2001 and 2002-2005



Sources: Author's calculation. Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

Figure 11.8 Share of China's agricultural imports by factor intensity of production, 1992-2001 and 2002-2005 (per cent)



Sources: Author's calculation. Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

Changes in revealed comparative advantage in China's agriculture following WTO accession

The above section showed that China's agricultural trade has moved in line with its resource endowments, exporting mainly labour-intensive products and importing mainly land-intensive products. This trade pattern has been strengthened since WTO accession. However, have there been any changes in China's comparative advantage in agriculture as revealed by its international agricultural trade performance?

It is difficult if not impossible to measure a country's comparative advantage directly. The most common indirect approach is the principle of revealed comparative advantage (RCA) proposed by Balassa (1965). It is argued that since its trade is generated by a country's underlying comparative advantage, data on exports and imports can be used to infer

the underlying pattern of comparative advantage. This idea has given rise to various RCA indicators. One of these indicators is the net export ratio (NER_{ij}), which is defined as

$$RCA (NER_{ij}) = (X_{ij} - M_{ij}) / (X_{ij} + M_{ij})$$

where X_{ij} are the exports of good i by country j and M_{ij} are the imports of good i into country j .

The rationale behind the index is that countries are revealed as having a comparative advantage in a particular good if they export more of it than they import. However, to simply consider net exports might be misleading where, for example, we compare a large and a small country. For this reason net exports are divided by total trade (exports plus imports). Net export ratios have a minimum value of -1 (the country only imports the good concerned) and a maximum value of +1 (the country only exports the good). Positive values are taken to reveal a comparative advantage and negative values are taken to reveal a comparative disadvantage.

However, RCA indices have one major flaw. The principle of revealed comparative advantage presumes that observed trade flows are generated by underlying comparative advantages and disadvantages. However, observed trade flows are not just created by underlying economic forces but are often significantly affected by government policies. Because of the higher levels of government intervention in agriculture, this problem has been potentially more serious for trade in agricultural products than in manufactured goods. As far as China is concerned, the WTO accession commitments have led to trade being less affected by government intervention. Therefore, RCAs for the period since 2001 are more likely to show true comparative advantage than previously.

Revealed comparative advantage in China's agriculture

Table A11.3 presents China's RCA indices calculated by using the measure of net export ratio for agricultural products for the period of 1992 to 2005.

With respect to individual commodities, in the group of cereals, vegetable oilseeds and vegetable oils, with the exception of some years China has

a revealed comparative advantage in corn, rice, peanuts, other oilseeds and miscellaneous grains. However, China has a revealed comparative disadvantage in wheat, soybean, rapeseeds, and all vegetable oils.

In the group of horticultural products, China has a revealed comparative advantage in all horticultural products, except vegetable plaiting materials.

In the group of animal products, China has a revealed comparative advantage in live animals (including pigs and poultry), beef, pork, fish and aquatic products, and products of animal origin, but has a revealed comparative disadvantage in mutton, dairy products and animal fats.

For the group of processed agricultural products, China has a revealed comparative advantage in products of the milling industry, preparations of meat, fish and aquatic products, preparations of cereals, preparations of vegetables and fruits, miscellaneous edible preparations, beverages and spirits, and tobacco products, while it has a revealed comparative disadvantage in sugar and sugar confectionary, cocoa and cocoa preparations, and residues from food industry and animal feed.

In the group of raw materials for textiles, China has a revealed comparative advantage in silk, but has a revealed comparative disadvantage in raw hides and skins, wool, cotton, and other vegetable textile fibres.

In terms of commodity groups, China has a revealed comparative advantage in horticultural products, in processed agricultural products, and in animal products. But has a revealed comparative disadvantage in cereals, vegetable oilseeds and vegetable oils, and in raw materials for textiles.

In terms of the factor intensity of production, China has a revealed comparative advantage in labour-intensive agricultural products, but has a revealed comparative disadvantage in land-intensive agricultural products.

These patterns of China's revealed comparative advantage and disadvantage are consistent with the country's resource endowments.

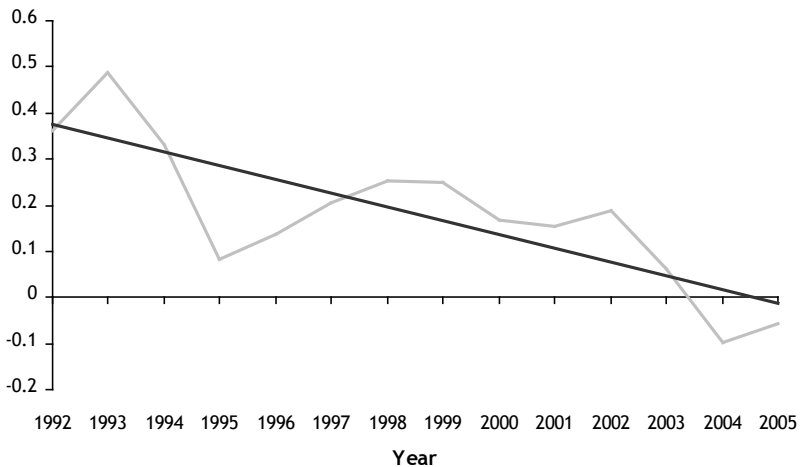
Changes in the revealed comparative advantage of agriculture

China's revealed comparative advantage in agriculture has been on a declining trend, especially after 2002 (Figure 11.9). The values of China's revealed comparative advantage indices for all agricultural products declined from around 0.4 in the early 1990s to around 0.2 in 2002, and

then fell into negative territory in 2004 and 2005. In other words, since 2004 China's agriculture as a whole has lost its comparative advantage to non agricultural activities. In fact, agriculture may well have not had a comparative advantage prior to 2002 but the removal of government protection through the WTO accession has made this clear. Certainly, individual agricultural industries and commodities have a comparative advantage, as seen above. Also, the regional dimension of China's agricultural comparative advantage is not examined here and comparative advantage could vary widely throughout the country.

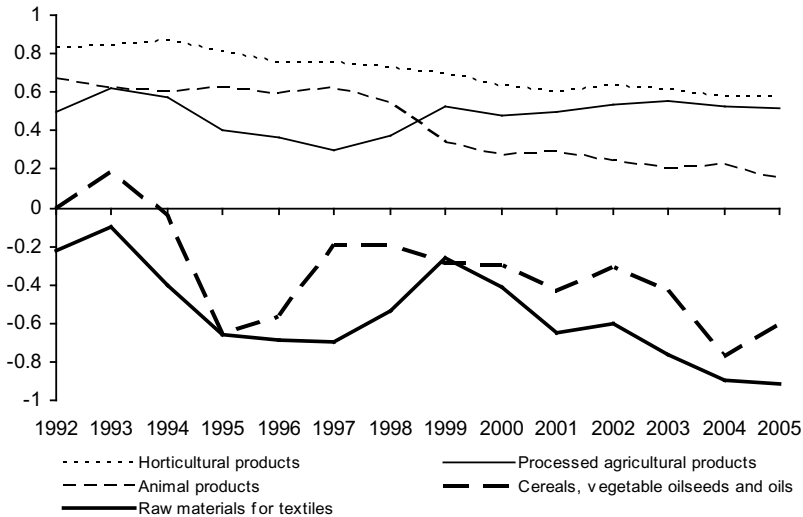
Figures 11.10 and 11.11 show in terms of commodity groups and factor intensities where agriculture has comparative advantage and where it does not. Across commodity groups the RCA indices have been declining, except for processed agricultural products. In fact, the comparative advantage of

Figure 11.9 China's revealed comparative advantage indices (NER) of all agricultural products, 1992-2005



Sources: Author's calculation. Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

Figure 11.10 China's revealed comparative advantage indices (NER) of agricultural products by commodity group, 1992-2005



Sources: Author's calculation. Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

agricultural processing, which is a labour-intensive activity, has increased slightly. Though declining, the RCAs for horticultural products and animal products indicate that these activities still have comparative advantage. However, the RCA for animal products has moved close to zero. The RCAs for the land-intensive agricultural products, cereals, vegetable oilseeds and vegetable oils and raw materials for textiles, have declined rapidly, particularly since 2003, and have become significantly negative. These are the activities from which we will most likely see resource flows and structural adjustment.

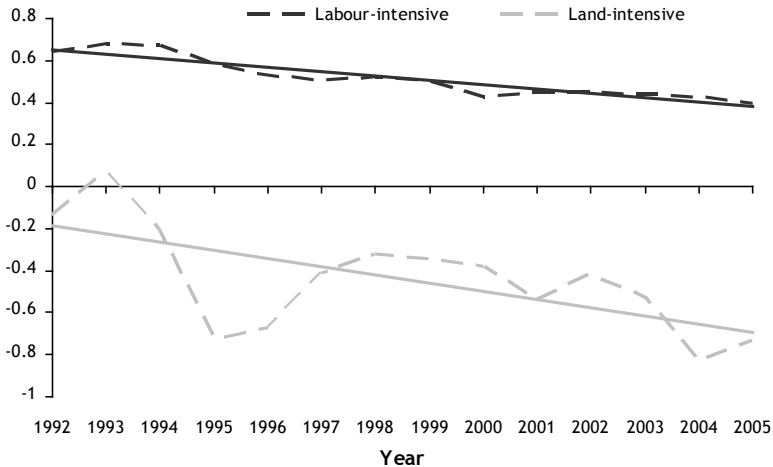
Figure 11.11 illustrates China's comparative advantage in labour-intensive activities and its comparative disadvantage in land-intensive activities.

While maintaining its comparative advantage, the RCA for labour-intensive agricultural products suggests a weakening, due most likely to competition from labour-intensive non agricultural activities.

Factors driving the changes in revealed comparative advantage in China's agriculture

What are the reasons for the changes in China's revealed comparative advantage in agriculture? Empirical studies have shown that during the process of economic growth a country's comparative advantage in agriculture declines, and for those countries where arable land is scarce,

Figure 11.11 China's revealed comparative advantage indices (NER) of agricultural products by factor intensity of production, 1992-2005



Sources: Author's calculation. Data from 1992 to 2004 are from United Nations Statistics Division, *Commodity Trade Statistics Database*, COMTRADE. <http://unstats.un.org/unsd/comtrade/default.aspx>. Data for 2005 are from China General Administration of Customs (various issues, 2005). *Zhongguo Haiguan Tongji Yuebao* [China Customs Statistical Monthly Report], Zhongguo Haiguan Chubanshe, Beijing.

the comparative advantage in agriculture tends to decline more rapidly (Anderson 1990). Undoubtedly, the changes in China's RCAs for agriculture during the period 1992 to 2005 have mainly been the result of the fast economic growth and the resulting dramatic structural changes. These structural changes appear to have become even more rapid following entry into the WTO and the removal of agricultural protection.

Economic factors

Since entry into the WTO in 2001, China's economy has been growing at a rapid average annual growth rate of around 9.8 per cent. This rapid economic growth has led to changes in the structure of the economy, with the growth of manufacturing and services sectors much faster than the growth of the agricultural sector. The share of agricultural GDP in total GDP has declined from 15 per cent in 2001 to 13.8 per cent in 2004 (calculated from various issues of the SSB).

The structure of the agricultural economy has also been changing. Although the farming sector remains the most important agricultural sector, its share has declined from 55.2 per cent in 2001 to 50 per cent in 2004. However, the animal husbandry and fishery sectors have been growing rapidly and the share of these sectors has increased from 41.2 per cent in 2001 to 46 per cent in 2004 (calculated from various issues of SSB).

With the rapid economic growth, especially after China's entry into the WTO, it is likely that the comparative advantage of China's agricultural sector has been declining, and in particular that the comparative advantage of China's farming sector has been declining. This changing pattern of comparative advantage is consistent with China's resource endowments. It is also an indication of the improvement in resource allocation among China's economic sectors.

China's remarkable industrial growth has also played a large part in driving up agricultural imports. Over 30 per cent of the growth in China's agricultural imports in 2004 came from raw materials used in production of non food manufactured products: such as cotton, wool, animal hides, and rubber. In particular, growing textile production is generating demand for cotton and wool that is beyond China's production capacity. China's

exports of apparel and footwear grew at double digit rates during 2004, and its domestic retail sales of apparel, shoes, and textiles rose 18.7 per cent. Chinese yarn production grew 13.9 per cent and cloth production grew 18.8 per cent during 2004 (Gale 2005).

The continued increase in per capita income in China has led to not only a rise in food consumption but also a change in the structure of food consumption. Since the late 1990s, China has sharply increased imports of vegetable oilseeds (mainly soybeans) and vegetable oils (mainly soybean oil and palm oil). Soybeans are crushed to produce vegetable oil for human consumption and animal feed to help the rapid growth in animal production. Driven by consumer and food industry demands, China has also rapidly increased imports of meats, fish, milk, cheese, wines, and fruits since the early 2000s.

Trade barriers

Apart from the economic factors discussed above, other factors could also affect China's revealed comparative advantage in agriculture. RCA indices are not only created by underlying economic forces but are often significantly distorted by government policies. This problem has been more serious for trade in agricultural products. Admittedly, after the establishment of the WTO and the implementation of the Uruguay Round Agreement on Agriculture (URAA), some liberalisation of trade in agriculture has taken place. However, significant trade barriers remain. In particular, the developed countries have increasingly resorted to sanitary and phytosanitary (SPS) measures for animal and plant health and technical barriers to trade (TBT) to block agricultural imports, especially from developing countries; these actions have seriously affected the developing countries' exports of agricultural products in which they have a comparative advantage.

Chinese farmers and exporters anticipated a large, positive impact on exports of agricultural products following accession to the WTO, especially for labour-intensive agricultural products such as vegetables, fruits, animal products, and aquatic products. In fact, these products have been hardest hit by the need to meet significant SPS standards, which has prevented substantial growth in these exports.

According to official Chinese sources, SPS and TBT actions have resulted in huge direct losses for agricultural exports. The indirect losses are even larger. In 2001, about US\$7 billion worth of Chinese exports were affected by SPS and TBT actions. In early 2002, the EU banned imports of Chinese animal-derived food, seafood and aquatic products, resulting in a 70 per cent slump in China's aquatic product exports during the second half of that year (MOFCOM 2005). Also, according to an investigation by China's Ministry of Commerce (MOFCOM), in 2002 about 90 per cent of China's exporters of foodstuffs, domestic produce, and animal by-products were affected by foreign TBTs and suffered losses totalling US\$9 billion (*China Daily* 2003).

Although the WTO's SPS Agreement requires members to ensure that SPS measures are based on sufficient scientific evidence, there are some well-founded concerns that countries may abuse SPS measures and use them as trade barriers. Because of very low production and labour costs, some agricultural products exported from China are very competitive in world markets. Consequently, importing countries may look to restrict imports from China by setting relatively high standards or strict inspections in order to protect domestic markets.

Conclusions

Entry into the WTO has boosted China's agricultural trade, especially its agricultural imports. The pattern of China's agricultural trade appears consistent with its resource endowments. Following entry into the WTO, changes in the pattern of agricultural trade indicate that China is moving closer to its comparative advantage.

China has a comparative advantage in labour-intensive agricultural products and a comparative disadvantage in land-intensive agricultural products. Since entry into the WTO, its comparative advantage in labour-intensive agricultural products has been declining, especially in animal and horticultural products, and China's agriculture as a whole has lost comparative advantage since 2004.

Fast economic growth and the associated structural changes have played significant roles in driving the changes in comparative advantage

in China's agriculture. However, the application of TBT and SPS measures by importing countries may have also contributed to the rapid decline in China's revealed comparative advantage in labour-intensive animal and horticultural products. Because of China's low production costs, some agricultural products exported from China are very competitive in world markets. Consequently, importing countries may look to restrict imports from China by setting relatively high SPS standards or may impose strict inspections in order to protect domestic markets.

China itself should first increase and strengthen SPS domestic standards to meet the international standards in order to increase its exports of animal and horticultural products, especially to developed countries' markets. As China is likely to face more and more SPS disputes, the government needs to initiate bilateral negotiations to counter unfair trade restrictions and discrimination and could use the WTO to coordinate and resolve trade disputes. As a member of the WTO, China can now participate in the negotiation and establishment of international regulations and standards to obtain a more equal position for its agricultural exports.

Notes

- 1 In January 2006 China revised its GDP growth rate for the period of 1979-2004. The revised growth rates for the three years 2002 to 2004 were 9.1 per cent, 10.0 per cent and 10.1 per cent respectively. The GDP growth rate in 2005 was 9.9 per cent.
- 2 All the trade values are at 2000 constant US\$ prices.
- 3 China's average tariff level has been reduced to 9.9 per cent in 2005 as against 15.6 per cent in 2000. In 2005 the average tariff on industrial products was 9.3 per cent as against 14.8 per cent in 2000; for agricultural products the change was from 23.2 per cent in 2000 to 15.3 per cent.
- 4 Data for 2005 are preliminary statistics subject to final revision.
- 5 China's domestic grain prices increased sharply in the last quarter of 2003. From September to December 2003, rice prices increased by 27 per cent, wheat prices by 37 per cent, and corn prices by 14 per cent.
- 6 China abolished agricultural taxes at the beginning of 2006.
- 7 According to a Chinese customs official, a large amount of the imported fish was processed for export, which contributed to the rapid increase in exports of processed fish and aquatic products.

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Appendix

Table 11A.1 China's Agricultural Exports by Commodity Group, 1992-2005 (US\$ million at 2000 constant prices)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total Agricultural Exports	13,778.52	13,530.96	16,483.80	16,095.57	15,530.50	16,054.78	14,528.82	13,904.08	15,524.50	15,405.71	17,108.66	19,715.37	20,777.77	23,808.82
Cereals, vegetable oilseeds and vegetable oils	2,709.83	2,635.12	3,336.60	14,13.01	1,368.27	2,477.60	2,382.56	1,873.40	2,345.10	1,746.44	2,327.66	3,299.59	1,595.50	2,664.70
Cereals (10)	1,822.43	1,755.87	1,779.80	85.88	205.30	1,262.67	1,578.24	1,173.33	1,643.00	1,005.58	1,579.60	2,423.52	674.99	1,254.51
Wheat (1001)	0.37	9.54	11.62	1.70	0	0.11	1.48	0.21	0.20	45.71	67.01	248.06	102.20	0
Corn (1005)	1,456.72	1,375.61	1,096.69	14.69	32.94	921.52	562.00	465.20	1052.00	608.79	1,117.21	1,654.06	295.65	983.69
Paddy, Rice (1006)	267.53	301.59	598.30	18.08	122.96	284.29	976.10	674.02	561.00	319.96	363.79	463.36	212.05	206.36
Vegetable Oilseeds	727.13	645.61	993.29	830.58	776.96	556.24	512.77	585.73	605.70	646.72	671.38	793.70	830.61	1,228.59
Soybean (1201)	196.36	121.59	257.91	113.01	72.46	78.31	66.55	64.09	64.00	74.88	73.71	81.44	132.10	150.62
Peanuts (1202)	233.17	233.64	365.95	290.42	278.86	149.12	164.80	200.55	232.00	255.77	252.74	297.67	272.31	283.85
Rapeseeds (1205)	13.87	22.65	3.49	0.57	1.32	0	0.53	0	0.40	0	0.67	0.94	0.09	0.09
Other oilseeds (1203-1204, 1206-1209, 1212)	283.73	267.73	365.95	426.59	424.32	328.81	280.89	321.09	309.30	316.07	344.26	413.65	426.11	794.03
Vegetable Oils	160.28	233.64	563.51	496.54	386.01	658.69	291.56	144.33	96.40	94.14	76.68	82.38	89.89	181.60
Soybean oil (1507)	4.42	14.30	56.93	54.24	94.42	393.71	142.61	35.15	17.00	22.37	20.68	6.08	12.13	35.61
Palm oil (1511)	23.69	78.67	274.17	222.62	110.88	71.88	23.24	0.62	0.30	0	3.06	0	0.18	0
Rapeseeds oil (1514)	33.87	35.76	146.38	155.95	125.16	98.70	50.71	18.61	24.00	23.34	10.05	3.74	3.73	145.99
Other vegetable oils (1508-1510, 1512-1513, 1515)	98.30	104.90	86.03	63.73	55.55	94.41	75.00	59.96	55.10	48.43	42.89	72.55	73.84	0
Horticultural products	2,645.28	2,732.63	3,475.95	3,646.66	3,266.48	3,243.57	2,996.55	2,881.53	2,861.30	3,028.41	3,247.94	3,745.36	4,360.84	4,695.42
Live trees and other plants (06)	18.41	22.65	27.88	31.64	32.94	34.33	31.69	32.05	32.00	34.03	41.17	45.87	58.62	68.48
Edible vegetables (07)	1,292.27	1,351.77	1,843.69	1,935.77	1,692.91	1,623.13	1,566.62	1,570.26	1,545.00	1,698.01	1,802.66	2,040.66	2,313.16	2,710.94
Edible Fruits (08)	347.30	411.25	480.96	542.42	506.12	497.77	459.53	439.35	417.00	423.04	531.32	703.93	835.45	947.84

Coffee, tea, mate and species (09)	568.21	554.30	527.43	525.47	540.15	593.25	549.32	505.51	506.00	527.10	528.45	584.11	788.22	823.77
Vegetable plaiting materials (14)	62.59	53.64	62.73	68.93	57.09	53.64	47.54	41.35	43.00	41.82	42.12	43.06	39.66	43.74
Other vegetable products (1210-1214, 13)	356.51	339.02	533.24	542.42	437.28	441.45	341.84	292.97	318.30	304.40	302.23	327.72	325.74	100.65
Animal products	3,435.49	3,067.12	4,224.06	5,090.40	4,625.74	4,677.35	4,113.57	3,974.22	4,388.60	4,512.66	4,555.37	4,917.16	5,800.07	6,022.16
Live Animals (01)	587.84	540.00	543.70	568.41	533.56	510.45	465.87	398.00	385.00	334.55	329.32	306.10	301.12	292.01
Pig (0103)	357.12	324.23	313.67	315.28	322.77	323.98	307.41	245.00	232.00	214.93	205.83	202.19	219.53	201.49
Poultry (0105)	114.13	107.28	121.98	141.26	132.84	122.30	101.41	102.34	104.00	75.86	78.50	62.72	30.36	33.22
Meat and edible meat offal (02)	456.53	413.64	736.55	1,154.91	1,192.28	1,040.60	887.37	714.33	753.00	817.89	636.63	604.71	644.36	659.75
Beef (0201, 0202)	47.86	33.38	36.01	37.86	55.99	57.93	77.12	26.88	23.00	32.09	18.29	14.04	27.62	36.86
Pork (0203)	93.27	75.10	148.70	276.86	236.04	209.19	191.21	69.26	67.00	132.26	201.04	251.81	418.91	360.71
Mutton (0204)	2.95	3.58	2.79	3.39	2.20	2.90	4.23	4.14	6.00	4.38	7.47	19.66	38.12	30.00
Poultry (0207)	204.95	220.53	441.46	701.76	758.62	659.76	552.49	556.17	587.00	580.59	383.89	299.55	132.01	98.99
Fish and aquatic products (03)	1,676.39	1,494.82	2,109.73	2,358.40	1,908.09	2,126.26	1,833.89	2,012.75	2,270.00	2,519.79	2,750.41	3,121.83	3,697.33	3,863.76
Dairy products, Eggs and natural honey (04)	195.13	170.46	181.23	183.07	214.08	177.01	184.87	169.54	188.00	186.72	185.72	207.81	213.51	237.51
Dairy products (0401-0406)	27.74	31.71	25.56	30.06	32.94	43.98	42.26	44.45	50.00	37.93	52.46	44.00	51.33	50.00
Product of animal origin not elsewhere specified (05)	508.07	436.29	634.31	803.46	744.35	750.95	686.65	648.17	760.00	633.11	626.57	693.64	889.32	898.48
Animal fats (1501-1506, 1516-1518, 1520-1521)	11.54	11.92	18.53	22.15	33.38	71.88	54.93	31.43	32.60	20.62	26.71	37.07	54.43	70.65
Processed agricultural products	4,101.38	4,381.94	4,549.40	5,342.85	5,811.00	5,194.43	4,638.60	4,555.82	5,259.00	5,735.41	6,527.09	7,311.73	8,735.53	1,0122.25
Products of milling industry (11)	57.68	76.29	91.78	114.13	239.33	199.54	111.98	82.70	93.00	104.06	112.97	132.92	155.26	177.63

Agriculture and Food Security in China

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Preparations of meat, fish and aquatic products (16)	488.44	717.61	906.16	1,261.13	1,612.76	1,489.03	1,291.96	1,432.80	1,883.00	1,989.77	2,227.71	2,507.76	3,180.69	3,876.35
Sugars and sugar confectionery (17)	824.69	780.79	421.71	264.43	333.75	208.12	193.32	144.73	173.00	151.71	217.31	183.47	229.92	371.61
Cocoa and cocoa preparations (18)	44.18	53.64	40.66	46.33	53.80	60.08	46.48	41.35	29.00	26.74	34.46	51.48	63.45	97.59
Preparations of cereals, flour (19)	157.09	145.43	192.85	238.44	258.00	290.73	276.77	299.79	360.00	401.65	434.63	493.32	595.13	674.77
Preparations of vegetables and fruits (20)	844.33	814.16	947.99	1,223.84	1,149.46	1,121.06	1,089.14	1,164.02	1,315.00	1,455.86	1,682.03	2,029.43	2,350.35	2,748.85
Miscellaneous edible preparations (21)	136.22	145.43	185.88	244.09	275.56	326.13	347.55	348.38	359.00	388.03	441.33	509.23	559.03	635.42
Beverages, spirits and vinegar (22)	403.76	356.42	439.14	441.85	435.85	498.85	470.09	472.43	493.00	556.28	571.53	582.24	677.36	638.26
Residues from food industry and animal feeds (23)	603.79	529.27	526.27	379.70	380.96	295.02	200.71	222.26	252.00	285.92	390.59	360.39	456.10	424.60
Tobacco and manufactured tobacco substitutes (24)	541.21	762.91	796.96	1128.92	1071.52	705.89	610.59	347.35	302.00	375.39	414.52	461.49	468.23	477.17
Agricultural Products as Raw Materials														
for Textiles	886.53	714.15	897.80	602.65	459.02	461.83	397.52	619.12	670.50	382.78	450.62	387.54	285.84	304.29
Raw hides and skins, leather, fur skins and articles	52.28	42.08	72.38	57.29	35.35	45.38	26.73	12.72	11.30	10.60	11.87	8.61	8.15	7.94
Raw hides and skins (4101-4103)	43.08	28.01	67.96	53.56	29.75	30.47	16.80	9.20	6.20	6.62	7.18	4.31	1.13	1.10
Raw fur skins (4301)	9.20	14.07	4.41	3.73	5.60	14.91	9.93	3.51	5.10	4.08	4.69	4.31	7.02	6.84
Silk	398.85	293.24	470.51	400.04	343.63	335.78	265.15	291.21	331.70	273.76	256.18	223.63	215.24	237.19
Cocoon (5001)	28.23	28.61	65.06	27.12	31.84	12.87	6.34	3.82	5.70	3.40	1.53	0.84	0.91	0.89

Raw silk (5002)	342.40	225.30	343.88	340.14	289.84	295.02	225.01	247.07	272.00	236.32	232.63	198.45	194.73	217.20
Waste silk (5003)	28.23	39.34	61.57	32.77	21.96	27.89	33.80	40.32	54.00	34.04	22.02	24.34	19.60	19.10
Wool, fine or coarse														
animal hair	162.73	105.50	159.16	85.09	60.71	69.73	38.24	15.82	12.70	15.75	14.84	26.49	43.67	47.78
Uncarded wool (5101)	12.27	13.11	8.60	14.69	30.19	45.06	25.35	9.30	10.00	12.62	11.97	23.40	40.20	44.41
Uncarded fine or coarse														
animal hair (5102)	149.72	90.59	149.05	67.80	29.09	22.53	10.56	4.76	1.40	1.85	0.77	0.37	0.55	0.53
Waste wool and fine or coarse														
animal hair (5103)	0.74	1.79	1.51	2.60	1.43	2.15	2.32	1.76	1.30	1.26	2.11	2.71	2.92	2.84
Cotton	266.68	265.82	186.58	55.15	15.37	5.26	62.33	294.83	307.90	79.65	165.43	126.46	15.77	8.45
Uncarded cotton														
(5201)	258.94	227.68	173.10	53.11	13.72	3.54	59.16	292.56	306.00	77.80	162.75	124.50	14.31	7.03
Waste cotton (5202)	6.14	30.99	9.29	2.03	1.65	1.07	3.17	1.55	1.20	1.36	2.11	1.22	1.19	1.15
Carded cotton (5203)	1.60	7.15	4.18	0	0	0.64	0	0.72	0.70	0.49	0.57	0.75	0.27	0.27
Other vegetable textile fibres														
(5301-5302)	6.00	7.51	9.18	5.09	3.95	5.69	5.07	4.55	6.90	3.01	2.30	2.34	3.01	2.93

Table 11A.2 China's Agricultural Imports by Commodity Group, 1992-2005 (US\$ million at 2000 constant price)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total Agricultural Imports	6,462.93	4,671.29	8,252.71	13,684.17	11,784.04	10,574.66	8,685.94	8,334.66	11,048.10	11,293.18	11,705.20	17,463.26	25,258.46	26,636.15
Cereals, vegetable oilseeds and vegetable oils	2,741.74	1,799.38	3,615.59	6,964.24	4,933.58	3,650.26	3,561.82	3384.04	4,359.00	4,372.82	4,422.20	8,243.13	12,245.78	10,699.22
Cereals (10)	2,058.06	1,188.46	1,488.20	4,046.69	2,805.04	956.92	735.25	513.78	574.00	590.32	461.43	415.62	2,021.33	1,237.93
Wheat (1001)	1,845.75	994.16	1,116.44	2,288.34	2,074.96	394.79	294.73	88.90	147.00	117.67	98.61	72.08	1495.49	686.44
Corn (1005)	0	0.24	0.23	922.12	80.14	0.21	33.80	8.27	0.40	4.67	1.53	0.37	0.73	1.31
Paddy, Rice (1006)	47.86	41.72	163.81	490.44	313.99	150.19	126.77	80.63	113.00	96.28	76.59	90.80	229.28	177.14
Vegetable oilseeds	88.36	66.75	101.89	165.44	404.78	1,006.38	1,364.96	1,649.38	3,029.80	3,207.45	2,609.88	5,266.68	6,677.36	7,248.27
Soybean (1201)	35.59	30.99	15.92	84.75	351.32	904.36	850.39	920.05	2,270.00	2,732.77	2,377.05	5,070.75	6,362.66	6,908.95
Peanuts (1202)	0.37	0.48	2.67	0.34	0.22	2.68	2.11	0.41	0.20	0	0.38	0.09	0.73	0
Rapeseeds (1205)	0.12	0	45.31	29.38	0.11	17.16	424.67	649.21	658.00	363.72	140.73	44.00	122.53	152.80
Other oilseeds (1203-1204, 1206-1209, 1212)	52.28	35.28	37.99	50.97	53.14	82.18	87.79	79.70	101.60	110.96	91.71	151.83	191.45	186.52
Vegetable oils	595.33	544.17	2,025.51	2,752.11	1,723.76	1,686.96	1,461.62	1,220.88	755.20	575.05	1,350.89	2,560.84	3,547.09	2,213.02
Soybean oil (1507)	122.72	45.30	756.30	1,157.17	838.77	734.86	552.49	435.22	126.00	22.85	390.59	950.12	1,412.16	806.26
Palm oil (1511)	284.72	379.07	801.61	977.49	578.57	653.33	623.27	617.16	456.00	413.32	812.77	1,350.77	1,702.89	1,065.17
Rapeseeds oil (1514)	109.22	87.02	370.60	466.71	205.30	211.34	184.87	39.28	28.00	18.96	37.62	79.57	198.56	92.55
Other vegetable oils (1508-1510, 1512-1513, 1515)	78.67	32.78	97.01	150.75	101.11	87.43	100.99	129.22	145.20	119.91	109.90	180.38	233.48	249.04
Horticultural products	245.44	233.64	239.67	384.89	451.55	463.34	487.78	514.30	653.20	741.93	726.71	906.78	1,186.07	1,263.16
Live trees and other plants (06)	7.36	11.92	6.97	6.78	5.49	8.58	11.62	17.57	21.00	21.40	31.59	42.12	46.86	61.00
Edible vegetables (07)	46.63	29.80	17.42	88.14	84.55	79.39	75.00	85.80	82.00	204.23	185.72	226.53	369.04	465.13
Edible Fruits (08)	50.32	53.64	76.68	94.92	216.28	252.10	255.65	266.71	368.00	356.91	361.87	464.30	564.23	583.96
Coffee, tea, mate and species (09)	29.45	16.69	11.62	16.95	30.74	10.73	21.13	19.64	23.00	20.42	22.02	26.21	29.54	37.00

Vegetable plaiting materials (14)	38.04	36.95	46.47	101.70	43.91	35.40	45.42	49.62	83.00	63.21	42.41	67.40	80.13	60.20
Other vegetable products (1210-1214, 13)	73.63	84.63	80.51	76.39	70.59	77.13	75.95	74.95	76.20	75.76	83.10	80.22	96.27	55.87
Animal products	693.26	725.36	1,044.99	1,189.49	1,183.39	1,096.92	1,224.78	1,972.43	2,546.80	2,470.87	2,754.72	3,274.69	3,694.69	4,509.74
Live Animals (01)	24.54	22.65	26.72	40.68	51.60	43.98	58.10	68.23	52.00	34.04	50.74	109.52	200.47	96.73
Pig (0103)	0	0	0.58	2.26	1.87	2.15	3.17	4.14	4.00	1.85	1.94	1.87	2.55	na
Poultry (0105)	20.49	13.11	12.20	16.95	16.69	15.02	10.56	11.37	11.00	9.73	12.45	14.04	11.76	na
Meat and edible meat offal (02)	69.95	81.06	98.75	107.35	172.36	159.85	151.06	515.85	637.00	581.56	600.25	709.55	433.77	521.12
Beef (0201, 0202)	4.91	6.44	6.12	4.52	4.39	3.22	5.28	6.20	7.00	5.84	12.25	11.23	9.12	na
Pork (0203)	0	0.08	0.23	1.13	1.10	2.15	7.39	24.81	58.00	40.85	78.50	85.18	49.69	na
Mutton (0204)	0.37	0.36	0.70	0.79	1.76	2.57	5.28	8.27	14.00	19.45	25.85	36.51	38.84	na
Poultry (0207)	61.36	69.14	83.65	90.40	153.70	139.46	114.09	423.85	481.00	431.80	407.82	432.47	140.12	na
Fish and aquatic products (03)	396.39	433.90	666.84	676.90	655.42	583.60	703.55	912.82	1,212.00	1,294.42	1,498.22	1,745.79	2,133.19	2,557.08
Dairy products, Eggs and natural honey (04)	84.68	67.95	98.75	72.32	62.58	72.95	94.02	169.54	218.00	212.98	260.39	327.63	408.51	410.66
Dairy products (0401-0406)	75.84	59.14	89.80	65.99	59.17	67.69	89.79	164.37	214.90	210.58	256.95	324.07	405.14	na
Product of animal origin not elsewhere specified (05)	50.32	48.87	56.93	80.23	104.30	123.37	107.75	121.98	160.00	168.25	183.42	205.00	229.10	196.67
Animal fats (1501-1506, 1516-1518, 1520-1521)	67.37	70.93	97.01	212.00	137.12	113.18	110.29	184.01	267.80	179.62	161.69	177.20	289.63	727.50
Processed agricultural products	1,387.99	1,035.88	1,248.88	2,257.83	2,723.80	2,823.57	2,114.89	1,413.16	1,874.00	1,910.02	1,986.94	2,097.76	2,733.61	3,236.90
Products of milling industry (11)	46.63	33.38	42.98	81.36	77.95	72.95	58.10	81.67	64.00	78.77	90.95	127.31	172.03	164.96
Preparations of meat, fish and aquatic products (16)	8.59	5.96	9.29	13.56	8.78	8.58	7.39	12.41	12.00	13.62	18.67	25.27	23.89	25.53

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	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Sugars and sugar confectionery (17)	335.03	158.54	518.14	1056.59	469.89	268.20	180.64	188.15	177.00	365.67	268.05	202.19	306.50	400.93
Cocoa and cocoa preparations (18)	44.18	46.49	56.93	66.67	64.77	76.17	67.61	55.82	71.00	77.80	76.59	108.59	123.71	157.65
Preparations of cereals, flour (19)	19.64	28.61	37.18	25.99	18.66	18.24	15.85	49.62	71.00	90.44	142.64	138.54	177.68	213.13
Preparations of vegetables and fruits (20)	17.18	30.99	20.91	16.95	17.57	19.31	25.35	44.45	60.00	82.66	105.31	125.43	129.46	139.06
Miscellaneous edible preparations (21)	57.68	72.71	79.00	74.58	93.32	93.33	87.68	123.02	147.00	177.00	171.36	292.06	433.22	271.23
Beverages, spirits and vinegar (22)	42.95	54.83	42.98	41.81	46.11	72.95	79.23	127.15	161.00	141.99	141.69	174.11	238.03	363.76
Residues from food industry and animal feeds (23)	565.75	365.96	404.29	474.62	1425.03	1921.36	1481.06	639.90	907.00	621.44	739.06	616.88	862.89	1159.76
Tobacco and manufactured tobacco substitutes (24)	250.35	238.41	37.16	405.69	501.72	272.49	111.98	90.97	204.00	260.63	232.63	287.38	266.20	340.89
Agricultural products as raw materials for textiles	1,394.50	8,77.03	2,103.58	2,887.72	2,491.71	2,540.57	1,299.67	1,050.72	1,615.10	1,797.54	1,814.62	2,940.89	5,398.31	6,927.13
Raw hides and skins, leather, fur skins and articles	158.80	206.82	292.76	444.22	396.77	429.33	418.75	412.27	627.80	819.54	739.25	929.34	1,268.85	2,755.22
Raw hides and skins (4101-4103)	102.47	118.01	240.48	396.65	353.51	381.91	366.57	365.23	564.00	753.70	679.71	845.28	1,137.11	2,626.88
Raw fur skins (4301)	56.33	88.81	52.28	47.57	43.26	47.42	52.19	47.04	63.80	65.84	59.55	84.06	131.73	128.34
Silk	3.56	2.03	10.69	18.42	7.58	21.24	13.20	13.13	14.20	9.82	6.80	9.08	14.22	13.86
Cocoon (5001)	2.58	0.60	3.95	6.44	1.43	4.29	2.11	1.76	1.70	3.31	0.86	0.47	0.46	0.44
Raw silk (5002)	0.25	1.07	1.05	0.68	0.99	0.86	0.53	2.07	6.50	2.63	2.11	2.53	2.10	2.04
Waste silk (5003)	0.74	0.36	5.69	11.30	5.16	16.09	10.56	9.30	6.00	3.89	3.83	6.08	11.67	11.37

Wool, fine or coarse animal hair	670.56	623.79	691.12	768.77	668.71	558.60	446.22	473.98	779.60	786.08	785.68	727.90	1,009.57	1,105.24
Uncarded wool (5101)	650.43	606.75	654.06	711.93	643.35	532.10	436.29	454.86	745.00	768.29	780.23	704.87	981.58	1,077.94
Uncarded fine or coarse animal hair (5102)	17.18	14.30	32.53	51.98	18.66	23.60	8.45	18.61	33.00	16.24	4.98	20.78	24.98	24.34
Waste wool and fine or coarse animal hair (5103)	2.95	2.74	4.53	4.86	6.70	2.90	1.48	0.52	1.60	1.56	0.48	2.25	3.01	2.93
Cotton	557.04	28.61	1,068.81	1,607.15	1,388.25	1,497.61	379.24	85.80	86.10	81.40	183.23	1,111.32	2,913.48	2,865.61
Uncarded cotton (5201)	527.71	19.07	1,022.34	1,557.20	1,314.14	1,427.88	350.72	69.26	74.00	69.05	172.32	1,088.66	2,886.77	2,839.59
Waste cotton (5202)	4.17	3.58	4.65	4.75	4.39	2.15	2.11	3.10	4.00	7.68	4.50	17.04	17.77	17.32
Carded cotton (5203)	25.16	5.96	41.82	45.20	69.71	67.59	26.41	13.44	8.10	4.67	6.41	5.62	8.93	8.70
Other vegetable textile fibres (5301-5302)	4.54	15.78	40.20	49.16	30.41	33.79	42.26	65.54	107.40	100.69	99.66	163.25	192.19	187.24

Table 11A.3 China's revealed comparative advantage indices (NER) 1992-2005

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
All agricultural products	0.36	0.49	0.33	0.08	0.14	0.21	0.25	0.25	0.17	0.15	0.19	0.06	-0.10	-0.06
By factor intensity of production														
Labour-intensive agricultural products	0.64	0.68	0.67	0.58	0.53	0.51	0.52	0.50	0.43	0.45	0.45	0.44	0.43	0.40
Land-intensive agricultural products	-0.13	0.07	-0.21	-0.72	-0.67	-0.41	-0.32	-0.34	-0.38	-0.54	-0.42	-0.53	-0.83	-0.73
By commodity group														
Cereals, vegetable oilseeds and vegetable oils														
Cereals (10)	-0.01	0.19	-0.04	-0.66	-0.57	-0.19	-0.20	-0.29	-0.30	-0.43	-0.31	-0.43	-0.77	-0.60
Wheat (1001)	-0.06	0.19	0.09	-0.96	-0.86	0.14	0.36	0.39	0.48	0.26	0.55	0.71	-0.50	0.01
Corn (1005)	-1.00	-0.98	-0.98	-1.00	-1.00	-1.00	-0.99	-1.00	-1.00	-0.44	-0.19	0.55	-0.87	-1.00
Paddy, Rice (1006)	1.00	1.00	1.00	-0.97	-0.42	1.00	0.89	0.97	1.00	0.98	1.00	1.00	1.00	1.00
Vegetable oilseeds	0.70	0.76	0.57	-0.93	-0.44	0.31	0.77	0.79	0.66	0.54	0.65	0.67	-0.04	0.08
Soybean (1201)	0.78	0.81	0.81	0.67	0.31	-0.29	-0.45	-0.48	-0.67	-0.66	-0.59	-0.74	-0.78	-0.71
Soybean (1202)	0.69	0.59	0.88	0.14	-0.66	-0.84	-0.85	-0.87	-0.95	-0.95	-0.94	-0.97	-0.96	-0.96
Peanuts (1202)	1.00	1.00	0.99	1.00	1.00	0.96	0.97	1.00	1.00	1.00	1.00	1.00	0.99	1.00
Rapeseeds (1205)	0.98	1.00	-0.86	-0.96	0.85	-1.00	-1.00	-1.00	-1.00	-1.00	-0.99	-0.96	-1.00	-1.00
Other oilseeds (1203--1204, 1206--1209, 1212)	0.69	0.77	0.81	0.79	0.78	0.60	0.52	0.60	0.51	0.48	0.58	0.46	0.38	0.62
Vegetable oils	-0.58	-0.40	-0.56	-0.69	-0.63	-0.44	-0.67	-0.83	-0.77	-0.72	-0.89	-0.94	-0.95	-0.85
Soybean oil (1507)	-0.93	-0.52	-0.86	-0.91	-0.80	-0.30	-0.59	-0.85	-0.76	-0.01	-0.90	-0.99	-0.98	-0.92
Palm oil (1511)	-0.85	-0.66	-0.49	-0.63	-0.68	-0.80	-0.93	-1.00	-1.00	-1.00	-0.99	-1.00	-1.00	-1.00
Rapeseeds oil (1514)	-0.53	-0.42	-0.43	-0.50	-0.24	-0.36	-0.57	-0.36	-0.08	0.10	-0.58	-0.91	-0.96	0.22
Other vegetable oils (1508--1510, 1512--1513, 1515)	0.11	0.52	-0.06	-0.41	-0.29	0.04	-0.15	-0.37	-0.45	-0.42	-0.44	-0.43	-0.52	-1.00

Horticultural products	0.83	0.84	0.87	0.81	0.76	0.75	0.72	0.70	0.63	0.61	0.63	0.61	0.57	0.58
Live trees and other plants (06)	0.43	0.31	0.60	0.65	0.71	0.60	0.46	0.29	0.21	0.23	0.13	0.04	0.11	0.06
Edible vegetables (07)	0.93	0.96	0.98	0.91	0.90	0.91	0.91	0.90	0.90	0.79	0.81	0.80	0.72	0.71
Edible fruits (08)	0.75	0.77	0.73	0.70	0.40	0.33	0.29	0.24	0.06	0.08	0.19	0.21	0.19	0.24
Coffee, tea, mate and species (09)	0.90	0.94	0.96	0.94	0.89	0.96	0.93	0.93	0.91	0.93	0.92	0.91	0.93	0.91
Vegetable plaiting materials (14)	0.24	0.18	0.15	-0.19	0.13	0.20	0.02	-0.09	-0.32	-0.20	.000	-0.22	-0.34	-0.16
Other vegetable products (1210--1214, 13)	0.66	0.60	0.74	0.75	0.72	0.70	0.64	0.59	0.61	0.60	0.57	0.61	0.54	0.29
Animal products	0.66	0.62	0.60	0.62	0.59	0.62	0.54	0.34	0.27	0.29	0.25	0.21	0.22	0.14
Live animals (01)	0.92	0.92	0.91	0.87	0.82	0.84	0.78	0.71	0.76	0.82	0.73	0.47	0.20	0.50
Pig (0103)	1.00	1.00	1.00	0.99	0.99	0.99	0.98	0.97	0.97	0.98	0.98	0.98	0.98	1.00
Poultry (0105)	0.70	0.78	0.82	0.79	0.78	0.78	0.81	0.80	0.81	0.77	0.73	0.63	0.44	1.00
Meat and edible meat offal (02)	0.73	0.67	0.76	0.83	0.75	0.73	0.71	0.16	0.08	0.17	0.03	-0.08	0.20	0.12
Beef (0201, 0202)	0.81	0.68	0.71	0.79	0.85	0.89	0.87	0.63	0.53	0.69	0.20	0.11	0.50	1.00
Pork (0203)	1.00	1.00	1.00	0.99	0.99	0.98	0.93	0.47	0.07	0.53	0.44	0.49	0.79	1.00
Mutton (0204)	0.78	0.82	0.60	0.62	0.11	0.06	-0.11	-0.33	-0.40	-0.63	-0.55	-0.30	-0.01	na
Poultry (0207)	0.54	0.52	0.68	0.77	0.66	0.65	0.66	0.14	0.10	0.15	-0.03	-0.18	-0.03	1.00
Fish and aquatic products (03)	0.62	0.55	0.52	0.55	0.49	0.57	0.45	0.38	0.30	0.32	0.29	0.28	0.27	0.20
Dairy products, eggs and natural honey (04)	0.39	0.43	0.29	0.43	0.55	0.42	0.33	0.00	-0.07	-0.07	-0.17	-0.22	-0.31	-0.27
Dairy products (0401-0406)	-0.46	-0.30	-0.59	-0.37	-0.28	-0.21	-0.36	-0.57	-0.62	-0.69	-0.66	-0.76	-0.78	na
Product of animal origin not elsewhere specified (05)	0.82	0.80	0.84	0.82	0.75	0.72	0.73	0.68	0.65	0.58	0.55	0.54	0.59	0.64

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	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Animal fats (1501--1506, 1516--1518, 1520--1521)	-0.71	-0.71	-0.68	-0.81	-0.61	-0.22	-0.34	-0.71	-0.78	-0.79	-0.72	-0.65	-0.68	-0.82
Processed agricultural products	0.49	0.62	0.57	0.41	0.36	0.30	0.37	0.53	0.47	0.50	0.53	0.55	0.52	0.52
Products of milling industry (11)	0.11	0.39	0.36	0.17	0.51	0.46	0.32	0.01	0.18	0.14	0.11	0.02	-0.05	0.04
Preparations of meat, fish and aquatic products (16)	0.97	0.98	0.98	0.98	0.99	0.99	0.99	0.98	0.99	0.99	0.98	0.98	0.99	0.99
Sugars and sugar confectionery (17)	0.42	0.66	-0.10	-0.60	-0.17	-0.13	0.03	-0.13	-0.01	-0.41	-0.10	-0.05	-0.14	-0.04
Cocoa and cocoa preparations (18)	0.00	0.07	-0.17	-0.18	-0.09	-0.12	-0.19	-0.15	-0.42	-0.49	-0.38	-0.36	-0.32	-0.24
Preparations of cereals, flour (19)	0.78	0.67	0.68	0.80	0.87	0.88	0.89	0.72	0.67	0.63	0.51	0.56	0.54	0.52
Preparations of vegetables and fruits (20)	0.96	0.93	0.96	0.97	0.97	0.97	0.95	0.93	0.91	0.89	0.88	0.88	0.90	0.90
Miscellaneous edible preparations (21)	0.41	0.33	0.40	0.53	0.49	0.55	0.60	0.48	0.42	0.37	0.44	0.27	0.13	0.40
Beverages, spirits and vinegar (22)	0.81	0.73	0.82	0.83	0.81	0.74	0.71	0.58	0.51	0.59	0.60	0.54	0.48	0.27
Residues from food industry and animal feeds (23)	0.03	0.18	0.13	-0.11	-0.58	-0.73	-0.76	-0.48	-0.57	-0.37	-0.31	-0.26	-0.31	-0.46
Tobacco and manufactured tobacco substitutes (24)	0.37	0.52	0.91	0.47	0.36	0.44	0.69	0.58	0.19	0.18	0.28	0.23	0.28	0.17
Agricultural products as raw materials for textiles	-0.22	-0.10	-0.40	-0.65	-0.69	-0.69	-0.53	-0.26	-0.41	-0.65	-0.60	-0.77	-0.90	-0.92
Raw hides and skins, leather, fur skins														

and articles	-0.50	-0.66	-0.60	-0.77	-0.84	-0.81	-0.88	-0.94	-0.96	-0.97	-0.97	-0.98	-0.99	-0.99
Raw hides and skins														
(4101--4103)	0.41	-0.62	-0.56	-0.76	-0.84	-0.85	-0.91	-0.95	-0.98	-0.98	-0.98	-0.99	-1.00	-1.00
Raw fur skins (4301)	-0.72	-0.73	-0.84	-0.85	-0.77	-0.52	-0.68	-0.86	-0.85	-0.88	-0.85	-0.90	-0.90	-0.90
Silk	0.98	0.99	0.96	0.91	0.96	0.88	0.91	0.91	0.92	0.93	0.95	0.92	0.88	0.89
Cocoon (5001)	0.83	0.96	0.89	0.62	0.91	0.50	0.50	0.37	0.54	0.01	0.28	0.29	0.33	0.33
Raw silk (5002)	1.00	0.99	0.99	1.00	0.99	0.99	1.00	0.98	0.95	0.98	0.98	0.97	0.98	0.98
Waste silk (5003)	0.95	0.98	0.83	0.49	0.62	0.27	0.52	0.63	0.80	0.79	0.70	0.60	0.25	0.25
Wool, fine or coarse														
animal hair	-0.61	-0.71	-0.63	-0.80	-0.83	-0.78	-0.84	-0.94	-0.97	-0.96	-0.96	-0.93	-0.92	-0.92
Uncarded wool (5101)	-0.96	-0.96	-0.97	-0.96	-0.91	-0.84	-0.89	-0.96	-0.97	-0.96	-0.96	-0.93	-0.92	-0.92
Uncarded fine or coarse														
animal hair (5102)	0.79	0.73	0.64	0.13	0.22	-0.02	0.11	-0.59	-0.92	-0.80	-0.73	-0.96	-0.96	-0.96
Waste wool and fine or coarse														
animal hair (5103)	-0.60	-0.21	-0.50	-0.30	-0.65	-0.15	0.22	0.55	-0.10	-0.10	0.63	0.09	-0.02	-0.02
Cotton	-0.35	0.81	-0.70	-0.93	-0.98	-0.99	-0.72	0.55	0.56	-0.01	-0.05	-0.80	-0.99	-0.99
Uncarded cotton (5201)	-0.34	0.85	-0.71	-0.93	-0.98	-1.00	-0.71	0.62	0.61	0.06	-0.03	-0.79	-0.99	-1.00
Waste cotton (5202)	0.19	0.79	0.33	-0.40	-0.45	-0.33	0.20	-0.33	-0.54	-0.70	-0.36	-0.87	-0.88	-0.88
Carded cotton (5203)	-0.88	0.09	-0.82	-1.00	-1.00	-0.98	-1.00	-0.90	-0.84	-0.81	-0.84	-0.76	-0.94	-0.94
Other vegetable textile fibres														
(5301--5302)	0.14	-0.36	-0.63	-0.81	-0.77	-0.71	-0.79	-0.87	-0.88	-0.94	-0.95	-0.97	-0.97	-0.97