



◀ The Grand Canal provides a waterway between northern and southern China.

China Develops a New Economy

17.1 Introduction

In the last chapter, you learned about changes in China's government. In this chapter, you will learn about the growth of China's **economy** during the Song dynasty, from about 960 to 1279 C.E.

The Song period was a time of great prosperity. Changes in **agriculture**, especially a boom in the production of rice, fed the growth of the economy. **Trade** and **commerce** flourished. These developments had started during the Tang dynasty. Under the Song, they would help make China one of the most advanced societies in the world.

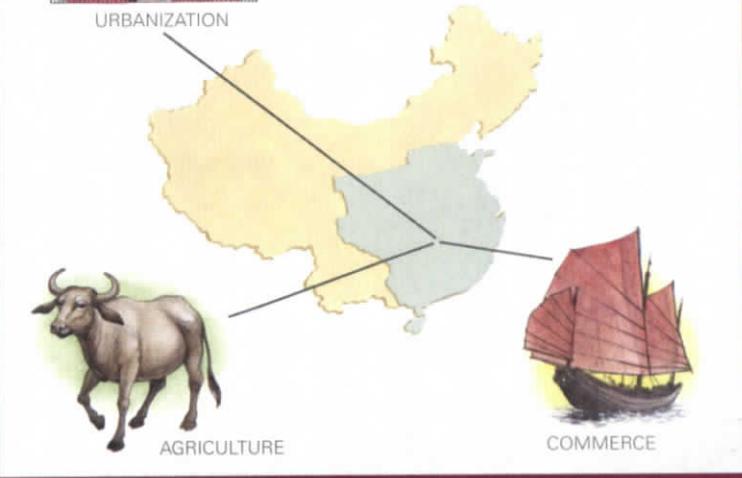
Along with prosperity came **urbanization**, or the growth of cities. During this period, China's huge cities dwarfed the cities of medieval Europe.

An Italian traveler named Marco Polo first saw China toward the end of the Song dynasty. He marveled at China's crowded cities and bustling markets. Polo was especially impressed by the boat traffic on the Grand Canal. This great waterway linked northern China with the Chang Jiang (Yangtze) river valley in the south. Farmers and merchants used the canal to ship their crops and goods. Polo wrote, "It is indeed surprising to observe the multitude and the size of the vessels that are continually passing and repassing, laden [loaded] with merchandise of the greatest value."

In this chapter, you will learn how changes in agriculture, trade and commerce, and urbanization made China so prosperous. Let's begin by finding out how changes in agriculture helped to spur the growth of China's economy.



China's Economy



URBANIZATION

AGRICULTURE

COMMERCE

Use this spoke diagram as a graphic organizer to help you understand more about the changes in Chinese agriculture, commerce, and urbanization that occurred from the 10th to the 13th centuries.



Rice, grown in southern China, became the country's most important crop during the 13th century. Peasants worked hard during the growing season. Above, a peasant is preparing the rice paddy with a water buffalo (left) before rice seedlings are planted (right). Opposite, a chain pump provides water for the rice paddy (top), and peasants harvest the rice by hand (bottom).

17.2 Changes in Agriculture

Changes in agriculture were a major reason for the growth of China's economy during the Song dynasty. This period saw a huge increase in the production of rice as well as new and better farming methods. Let's look at how and why these changes happened.

Reasons for Agricultural Changes There were several reasons for the changes in Chinese agriculture. The first was the movement of farmers to the fertile basins of the Chang Jiang river in southern China.

During the Tang dynasty, northern China was the wealthiest and most populous part of the country. But wars and attacks by people from Mongolia drove many landowners to move south. Under the Song, southern China continued to grow. By 1207, about 65 million people lived in the south, compared to 50 million in the north.

The move to the south changed what farmers grew. Northern farmers had cultivated wheat and millet. These crops grew well in the north's cold, dry climate. In contrast, the south's climate was warm and wet. Wetlands covered most of the Chang Jiang valley. These conditions were ideal for cultivating rice plants, which need a lot of water.

Rice farmers, though, had their own problems. Rice crops were frequently destroyed by drought (periods of dry weather) and violent storms called *typhoons*. Even if a crop survived, it took five months to mature from planting to harvest.

During the 11th century, a new kind of rice was brought to China from Southeast Asia. The new type of rice was resistant to drought, and it matured in two months instead of five. Now farmers could plant at least two crops of rice each year, and rice production boomed.

Production increased even more with new and better farming techniques and tools. An improved plow and **harrow** made it easier

harrow a farm tool used to break up and even out plowed ground

to prepare fields for planting. Farmers began using fertilizer to produce larger crops. A device called a **chain pump** helped farmers irrigate land at the edges of lakes, marshes, and rivers. To grow rice on hill-sides, farmers created flat areas called terraces. More and more land was devoted to farming, and landowners became wealthier.

Characteristics of the New Agriculture Imagine visiting a farming area in southern China during the 13th century. Small farms cover every bit of suitable land. Terraced hillsides spread as far as the eye can see. Rice grows on the terraces in flooded fields called *paddies*. Elaborate irrigation systems crisscross the paddies, bringing water where it's needed.

Early in the growing season, you can see water buffaloes pulling a plow and harrow to level the fields and prepare them for planting. The seeds have been growing in seedbeds for a month. Now workers will transplant the young plants to the paddy.

Growing rice takes a lot of hard work done by many hands. In the fields, large numbers of workers walk backward as they transplant the rice plants in straight rows. Two months from now, the workers will harvest the rice by hand.

Before and during the growing season, the rice paddy has to be constantly watered and drained. Dams, dikes, gated channels, and chain pumps help to move water into and out of the paddies.

Although rice is the main crop, peasants also grow tea, cotton, and sugar. To feed silkworms, they grow mulberry trees. In the southern hill area, you see tea plants. The Chinese had once used tea only as medicine. But by the ninth century, tea was the national drink. Tea drinking became a social custom, and teahouses became popular. To meet the demand, farmers grew more tea.

Results of Agricultural Changes The shift to rice growing was an important development for China. First, it increased food production. The abundance of food helped support a larger population. For the first time, China's population grew to more than 100 million people.

With ample food, peasants could take time away from farming to make silk, cotton cloth, and other products to sell or trade. Rice farmers could also market their surplus rice. Landowners became rich enough from growing rice to buy luxury items. All these changes encouraged the growth of trade and commerce, which we will look at next.

chain pump a pump with containers attached to a loop of chain to lift water and carry it where it is wanted



17.3 The Growth of Trade and Commerce

Trade and commerce had already begun growing during the Tang dynasty. Tang emperors eased restrictions on merchants, and they actively promoted trade. Products like rice, silk, tea, jade, and porcelain traveled along trade routes to India, Arabia, and Europe. Under the Song, business activity blossomed even more.

Reasons for Growth in Trade and Commerce One reason for the growth of trade and commerce was that wealthy landowners were eager to buy luxuries. The demand for luxuries encouraged traders as well as Chinese artisans, who made silk and other goods.

Commerce was also helped by water transportation. A vast network of rivers and canals connected different parts of China. Farmers in central China could ship their rice north along the Grand Canal. Busy boat owners had plenty of business, because it was cheaper and faster to move goods by water than by road. A **barge** could travel 45 miles a day, compared to 25 miles a day for an oxcart.

Improvements in navigation helped increase overseas trade. Navigational charts and diagrams, along with the magnetic compass (a Chinese invention), made it easier for sailors to find their way on long voyages.

With so much buying and selling going on, people needed more **currency**. During the 11th century, the government minted huge numbers of copper coins—so many that there was a copper shortage. Moneylenders began issuing paper money to merchants. The idea caught on, and the government printed paper money in large quantities. The increase in currency further spurred the growth of commerce.

Characteristics of China's Commercial Growth

Let's take a trip on the waterways of China in the 13th century. Our first stop is at a market town along a canal. The canal is crowded with barges loaded with rice and other goods. The barges are sailed, rowed, or pushed along with the help of long poles. Oxcarts and pack animals trudge along the roads and over the bridges that cross the canal. Peasants are coming to town to sell their surplus crops and animals, as well as things they have made at home, such as silk, charcoal, and wine.

On the streets and bridges, merchants have set up small shops to attract customers who are visiting the city. Street peddlers sell goods from the packs they carry.

You also see “deposit shops” where merchants trade long strings of copper coins for paper money. Paper money is much easier to carry around, but unlike copper, it has no value in itself. If there is too much paper money in

barge a long boat with a flat bottom

currency the form of money used in a country

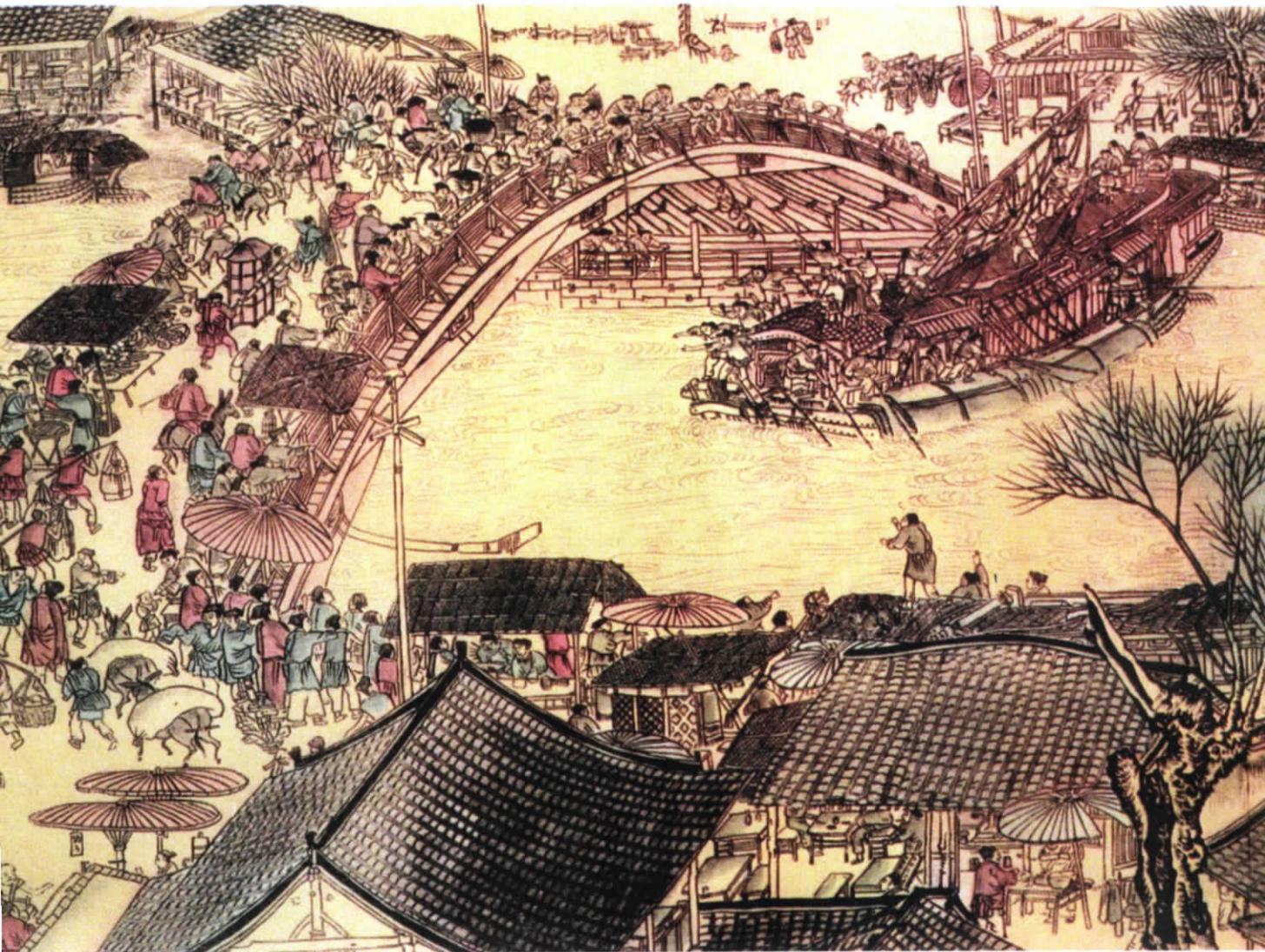


circulation, it loses its value. For this reason, the government controls the amount of paper money that is available. It also threatens to cut off the heads of counterfeiters (people who print fake money).

Let's continue our journey to a port city on the eastern coast. In the harbor, men are loading silk, ceramics, sugar, and rice wine into sailing vessels called *junks*. These ships are big enough to hold several hundred men. Notice their sails, which are made of bamboo matting. The junks will soon depart for Korea, Japan, Southeast Asia, India, the East Indies, and even Africa. They will return loaded with indigo, spices, silver, ivory, and coral.

Results of Growth in Trade and Commerce The increase in trade and commerce had several effects. First, it resulted in the growth of the merchant class. Second, business activity brought increased prosperity, giving China the highest standard of living in the world. Third, many commercial centers grew into big cities. You'll learn about China's increasing urbanization in the next section.

Commerce greatly expanded in China under the Song dynasty. This scene shows commercial life in the northern Song city of Kai-Feng during the 13th century.



As population increased and commerce grew, huge cities like Kai-Feng developed. These two scenes are part of a 15-foot scroll called *Ch'ing Ming Festival on the River*.



17.4 Urbanization

Urbanization increased during the Song dynasty as cities sprouted up all over China: Chinese cities became the largest in the world. The city of Hangzhou had perhaps 2 million people within its walls. It's no wonder that Marco Polo was impressed with the cities he visited. European cities of this period had no more than 50,000 residents.

Reasons for Urbanization Why did the growth of cities increase under the Song? One answer is that the growth of commerce encouraged people to move to cities and towns. There, people could make a living as merchants, traders, peddlers, and shopkeepers. In addition, landowners left their farms because they preferred the shops and social life of the cities. More people brought still more opportunities for business, and cities grew even larger.

Characteristics of Cities China's cities at this time were crowded, exciting places. The crowds in Hangzhou astonished Marco Polo. He wrote, "Anyone seeing such a multitude would believe it impossible that food could be found to feed them all, and yet on every market day all the market squares are filled with people and with merchants who bring food on carts and boats."

Let's stroll through a typical 13th-century city. The streets are filled with rich landowners, merchants, traders, moneylenders, and visiting peasants eager to sell their surplus crops. Signs in the market area identify the goods sold in each shop—silk, silver, pearls, food items, fans, lacquerware, porcelain, and many more.

In the entertainment area musicians, jugglers, acrobats, and puppeteers perform outdoors. There are theaters, restaurants, wine shops, and teahouses. Food vendors carrying trays of food on their heads provide plenty to eat.

You might be surprised to see young girls whose feet are so tightly bound with cloth that their toes are bent under. The girls will grow up to have tiny feet, which the Chinese consider beautiful. But they will also have difficulty walking.



This custom of foot binding first became common during the Song dynasty. It marked a decline in the status of women. Some followers of neo-Confucianism taught that women were inferior to men. In addition, women in cities did not take part in farmwork. In the countryside, women enjoyed greater status because they did do farmwork.

Results of Urbanization The growth of cities changed the way many ordinary Chinese lived. Cities were vibrant centers of activity, from buying and selling to hobbies and board games. Public works projects provided employment for many city dwellers. Urbanization also stimulated culture, giving artists an audience of wealthy, leisured people. Paintings produced during the Song period are considered some of the finest in the world.

17.5 Chapter Summary

In this chapter, you learned about changes in agriculture, trade and commerce, and urbanization during the Song dynasty. During this time, the center of Chinese civilization shifted from the north to the south. The south's warm, wet climate was ideal for growing rice. Rice became China's most important crop.

A new kind of rice seed and improvements in farming methods greatly increased rice production. This helped support a larger population. It also gave landowners money for buying luxuries, which stimulated the growth of commerce.

Commerce was also helped by a network of rivers and canals. Improvements in navigation made overseas trade easier. Traders and merchants supplied the goods people wanted to buy. As China moved to a money economy, the increase in currency helped business grow.

Commercial activity contributed to the growth of cities. Merchants, peasants, peddlers, and traders sold all kinds of goods. China enjoyed the highest standard of living in the world.

Chinese scientists and inventors also contributed to China's prosperity. Next you'll learn about some of their inventions and discoveries.