

### Shaanxi Province



Source: Fiducia Management Consultants

#### Introduction

Shaanxi province is considered as one of the centers where ancient Chinese civilization developed. Approximately, 13 dynasties had their capitals in the province, from the Zhou dynasty to the Tang dynasty – a period of about 1,100 years.

Its capital Xi'an is also one of the four great capitals of China. Qin Shi Huang ruled over a united China for the first time from Xi'an and crowned himself the first emperor of China (previously the country was divided into separate warring states). The city's famous terracotta

warriors are statues that were buried with the body of Qin Shi Huang in a belief that they would protect his body after his death.

Xi'an is also the Northern end of the Silk Road, which connected it with Kashgar in today's Xinjiang autonomous region of China. From there the road continued into Parthia, which is presently a part of Iran. For this reason, many consider Xi'an as one of the gateways to western China.

Shaanxi has a significant role in the modern Chinese history as well. The city of Yan'an in central Shaanxi was home to Mao Zedong and the Communist Party after the Long March from 1935 to 1948.

The geographical layout of the province is varied. The northern portion of the province is a desert up to its border with Inner Mongolia. The central part is on the Loess Plateau and therefore the soil in this area is quite frequently susceptible to erosion by the wind that blows across the plateau. The southern part of the province is considered subtropical and receives more rain than the dry northern part. In south Shaanxi, the Qinling Mountains runs from east to west.

Shaanxi's main economic bases include agriculture, electricity, oil, natural gas and coal. The secondary economic drivers of the economy are iron and steel and machinery manufacturing. The following types of machineries are produced in Shaanxi:



- Oil drills
- Grinding machines
- Lathes
- Railway equipment
- Mining machines
- Electricity generating equipment
- Petroleum and chemical processing equipment

## **Industry**

### **Aerospace**

Shaanxi is a national-level research base for China's aviation industry. This year, the Chinese government is developing a civil aviation center, National Civil Aerospace Industrial Base, in Xi'an over an area of 23km<sup>2</sup>. It will focus on the following aspects of civil aviation technology:

- Energy
- New material development
- IT and other technology
- Communication satellites

The development of Xi'an National Civil Aerospace Industrial Base is likely to create numerous jobs in central and northeastern China. By 2012, it is expected to generate annual revenue of US\$ 2.8 billion.

Currently, the aerospace industry in Xi'an focuses on manufacturing of equipment, new construction materials and solar photovoltaics and development of software and service outsourcing. One of the major companies in the city is Xi'an Aircraft Industrial Corporation, set up in 1958 to manufacture large and medium-sized planes, primarily for military use. This corporation is part of the large state owned consortium - China Aviation Industry Corporation I (AVIC I) - that was

formed in 1999. AVIC I focuses on the manufacturing of large planes such as bombers, medium-sized planes for commercial use and fighter planes. AVIC II also manufactures small commercial planes and helicopters.

### **Agriculture**

Shaanxi is one of the important agricultural bases of China. There are two major river valleys, the Wei valley and the Han valley. The northwest portion of Shaanxi with its good irrigation facilities is the most productive region.

The major crops in Shaanxi include:

- Corn
- Cotton
- Millet
- Rice
- Sorghum
- Sweet potatoes
- Wheat

One of the key agricultural products is apple. Approximately 4,260km<sup>2</sup> area is devoted to growing apple in the province. Shaanxi produces a quarter of China's apple crop every year. In 2005, they exported apple concentrate worth US\$ 180 million. Apple is mainly grown in northern part of the province on the Loess Plateau. The soil here is rich in nitrogen, phosphorus and potassium that are needed to produce a stable apple crop. Chinese Guoguang apple and Japanese Fuji apple are the two main varieties of apples produced here. Fuji apples attract higher prices in global supermarkets and companies that make products from processed apples favor it.

The province also has a good animal husbandry industry.



### Automotive

Like most provinces in China, Shaanxi also has its own automotive and auto parts industry. Shaanxi Auto is the province's successful manufacturer of heavy trucks. In 2007, the company sold 30,611 heavy trucks, an increase of over 104% year-on-year. This success was chalked up to the company's "high-quality program". Shaanxi Auto is a key player in building auto industry in China. First as part of this program, the company moved into the Shaanxi Auto Commercial Vehicle Industrial Park. Many of the company's suppliers joined it and formed an auto cluster, which made it much easier for the company to monitor the quality of the auto parts that it purchased from its suppliers. In 2005, the company also upgraded its equipment so that its punching, soldering, painting and assembly processes could reach the international levels in quality. It also developed new products such as Delong, Aolong, Deyu and Shunchi. In 2006, the company signed agreements with the service providers in the region such as Weichai Power and Fast Gear-box, to ensure a tighter and more reliable supply chain.

### Coal

Shaanxi is one of the major coal sources of China. Shenmu and Fugu are two places known for high-quality coal. China is currently facing coal shortage, especially as two-thirds of China's power plants depend on coal. South Africa's Sasol and the China Shenhua Group are setting up one coal-to-liquid project in Shaanxi province jointly. The second plant will be built in the Ningxia Hui Autonomous Region. Coal-to-liquid is the process of burning coal at 1,000 degrees Celsius and then mixing with water. The resulting gas can then be used as a substitute for oil. These two plants are expected to produce a total of 80,000 barrels of liquid fuel each day.

Depending on coal quality each plant can turn out 13 to 19 million tons of coal annually.

### Business Process Outsourcing

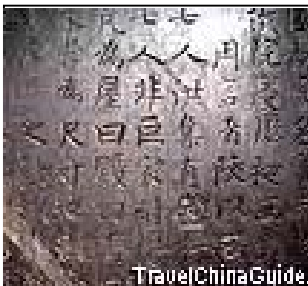
Xi'an, capital of Shaanxi, has already made itself known as one of China's early pioneers in business process and software design outsourcing. The industry earned revenue of US\$ 42 million in export in 2005. Xi'an has approximately 100 universities in the area, which turn out about 3,000 computer graduates every year. The huge pool talent and low wages have attracted many international companies like Intel, Nortel and NTT Data from Japan to set up their businesses in this area.

Recruiting talent is a major priority for Xi'an city government to build a strong BPO industry in China. The city government has been encouraged by the growth of BPO industry in India. In late 2007, the Xi'an Service Outsourcing Development Association signed an agreement with Starting Point Competence Training and Snam Abrasive of India to help improve the skill of Xi'an BPO professionals and their companies' level of customer service. The city government hopes the agreement will help to provide jobs to 100,000 college students and bring 1,000 domestic and foreign companies to set up businesses in Xi'an by 2010. But there is strong competition for BPO services with in China. Shanghai and other areas such as Shenzhen have already emerged as strong services hubs.

### Machinery

Shaanxi is known for its machinery and equipment-manufacturing sector. This sector turns out equipment for the railway, mining, power-generation and petroleum and chemical processing industries among others.

Shaanxi Qinchuan Machinery Development Co. Ltd, one of Shaanxi's large machinery



manufacturing companies, was founded in 1965 when its workshops were split off from the Shanghai Machine Tool Works and relocated to the city of Baoji in Shaanxi. Today, the company has more than 2,000 employees and 16 subsidiary companies. It produces the following items:

- CNC machines
- Gear grinders
- Worm-wheel gear grinders
- Double-wheel gear grinders

Shaanxi Qinchuan exports its products to more than 20 countries including the US, Japan and South Korea.

### Tourism

As an ancient imperial capital of China, it is one of the favorite destinations of foreign and domestic tourists. Most of the tourists visit Xi'an during three national holiday periods - Spring Festival/Chinese New Year (January-February), Labor Day (May) and National Day (October). As the city is in the north it also receives a large number of tourists during the summer season.

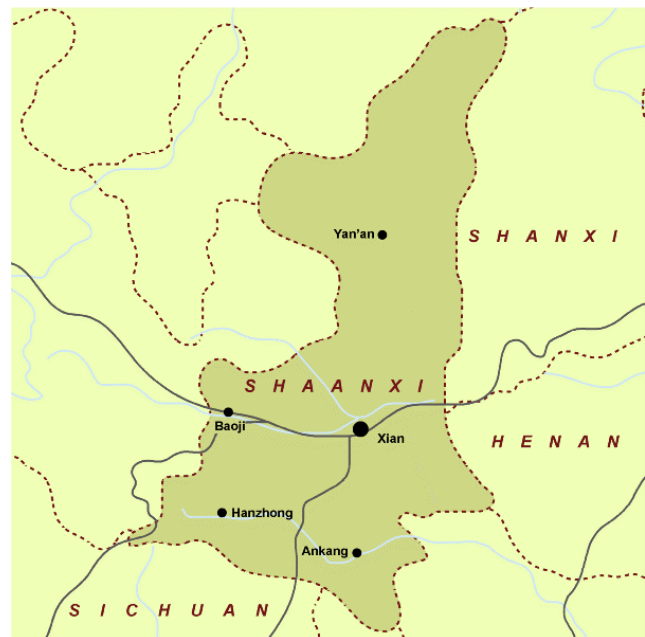
Tourist attractions in Xi'an include:

- Terracotta warriors of the first emperor Qin Shui Huang
- The old Xi'an city wall dating back to the Ming Dynasty, one of the few ancient city walls still in existence in China
- The Bell and Drum Towers located in the city center
- The city's Muslim quarter and the Great Mosque of Xi'an giving insights into the past of the daily lives of Muslims in China

- Banpo Neolithic era village showing how the ancient people that originally settled around Xi'an used to live

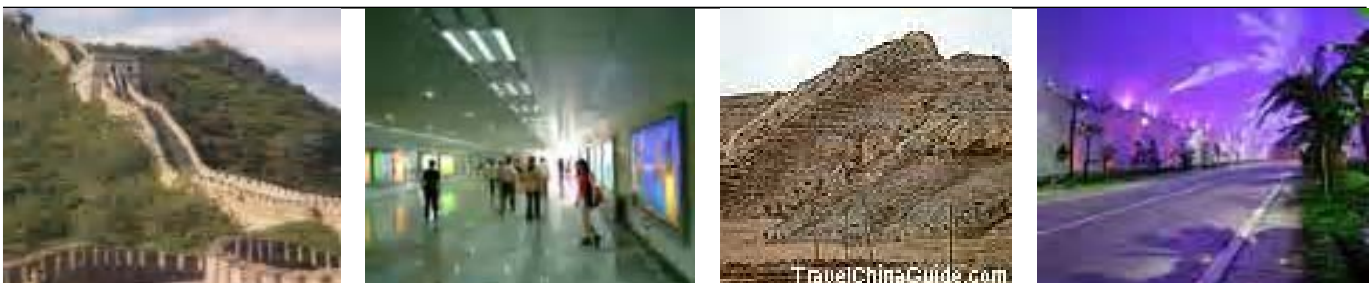
With over 1 million foreign and 69.5 million domestic tourists, the province earned RMB 37.8 billion from tourism in 2006. This figure is expected to go up in 2008 as people traveling to Beijing for the Olympic Games may also visit Xi'an during this period.

### Transportation



#### Air

Xi'an Xianyang International Airport is the major airport in the area. Its main tenants are China Eastern Airlines and local airline, Chang'an Airlines. The airport offers domestic flights to most of the major cities in China. Besides, it also offers flights to Singapore, Tokyo, Bangkok, Osaka, Hong Kong, Seoul and Pusan among other Asian destinations.



## Rail

Xi'an Railway Station is a major rail hub in Northern China. It provides services to 80,000 people each day. Services are provided from Xi'an to Baoji, Xi'an to Zhengzhou, Xi'an to Lanzhou and Xi'an to Mount Hua, a scenic spot that is popular with tourists. The route from Xi'an to Baoji is a high-speed express train and takes less than 90 minutes. Shaanxi has 13 feeder railways. The continental railway, which runs from Lianyungang to Rotterdam in the Netherlands, passes through the province. There is also a north-south railway line currently under construction. This would help solve the transportation bottleneck that frequently develops from those people who wish to travel between northern and southern part of the province.

## Road

The highway system in Shaanxi has been developed with Xi'an at the core. There are expressways from Xi'an to Baoji, Lintong and Tongchuan. There is also the Xi-Han Expressway, which connects Xi'an to the city of Hanzhong and goes through the Qinling Mountains. In Xi'an city, there are two ring-road expressways to make it easier to travel around by car. There is also a subway system.

## Industrial Parks

Xi'an Fengjing Hi-Tech Industrial Park, located 2km east of Huxian County, was set up in 2001. The park has four sections:

- Science
- Technology
- Administration
- Trade

Currently the total investment level in this park exceeds RMB 3 billion and there are

approximately 50 enterprises from pharmaceutical, machinery and plastic packing industries. There is also a campus of the Xi'an University of Petroleum located inside the park. The park is just 10 minutes by car from city of Xi'an and 40 minutes by car from Xi'an international airport. The Xi-Han Expressway passes through the park, as does the Xi'an-Yuxia section of Longhai Railway, which is convenient for shipping of goods. Apartments, retail and entertainment facilities are under construction in the park to attract foreigners to bring their families and set up businesses.

## Areas for Improvement

The Chinese government has asked the Shaanxi provincial government to reopen some of the small coalmines, which were closed due to safety concerns. It is necessary to open them as China is facing shortage of coal, which could lead to electricity shortages or rationing in the country. The Shaanxi government refused to open the mines however, because it was afraid to take responsibility for the mines if accidents occurred. Shaanxi is known for the frequent coalmine accidents. As recently as on July 1<sup>st</sup> 2008, 18 miners in the province died when the mine they were working in collapsed. Therefore, it is important to make sure that miners and mine staff have proper training and facilities. Besides there is urgent need to set up a monitoring program to make sure that no corruption occurs in coalmining. This may be tough as mining in China is an industry that does not have a strong reputation.

The other option that the central government could consider is to either let the foreign companies participate fully in the mining sector and open either their own independent mines or joint ventures or let them come in and provide safety training to Chinese mine companies.



## Conclusion

Shaanxi is a province that still relies heavily on its old industrial economy of coal and machinery. However, it has made some advancement in the service sector with business process outsourcing services, tourism and a growing aviation industry. The key to make it an economic success comparable to its neighbors on eastern coast will depend on how it sustains its service sectors as well as improving staple industries such as mining. If Shaanxi is able to do so, it can build itself into a strong gateway to China's western region.



**Confederation of Indian Industry**



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