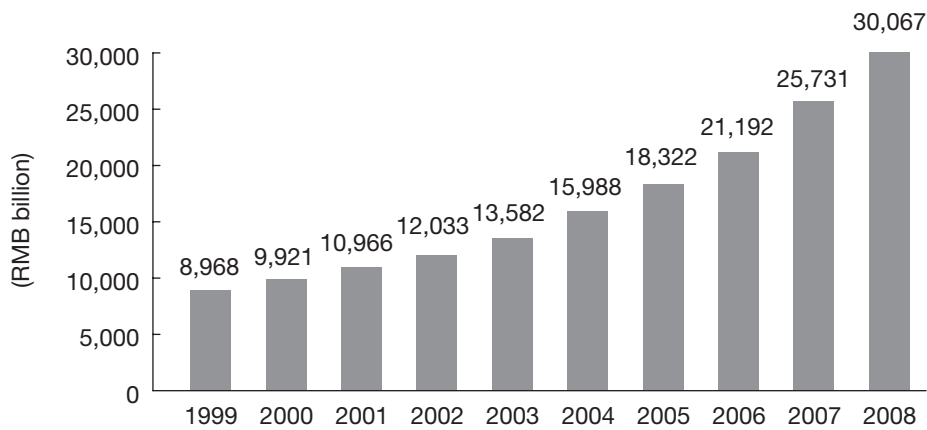


## INDUSTRY OVERVIEW

### OVERVIEW OF THE PRC ECONOMY

Over the past 10 years, the PRC economy has experienced significant growth with strong potential for future growth, and it is now one of the fastest growing economies in the world. According to the National Bureau of Statistics of China, the average annual growth rate of China's GDP from 1999 to 2008 is 9.9%. According to reports issued by the World Bank in 2009, China ranked as the third largest economy in the world in terms of GDP in 2008, and the second largest in terms of purchasing power parity in 2005. The following diagram illustrates China's GDP growth from 1999 to 2008:

**GDP Growth of the PRC Economy from 1999 to 2008**



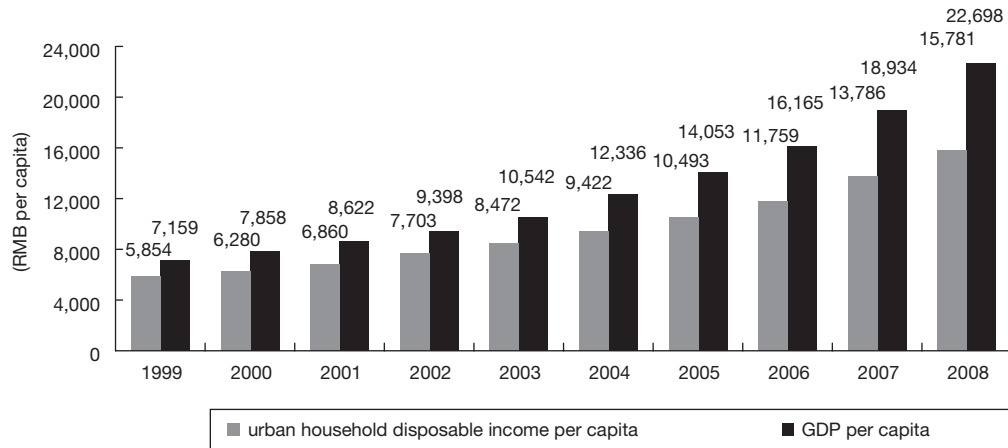
Source: National Bureau of Statistics of China

Under the Eleventh Five-Year Plan approved by the Tenth National People's Congress of the PRC in 2006, the GDP of the PRC is expected to grow at an average annual growth rate of 7.5% for the period from 2006 to 2010. The actual annual growth rate, however, has surpassed the expected annual growth rates set in the Tenth and Eleventh Five-year Plans every year since 2001. China's per capita GDP increased from RMB7,159 in 1999 to RMB22,698 in 2008, which represents a CAGR of approximately 13.7%. During the same period, the per capita urban household

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disposable income in China increased from RMB5,854 to RMB15,781, which represents a CAGR of approximately 11.7%. The following diagram shows the GDP per capita and the urban household disposable income per capita in China from 1999 to 2008:

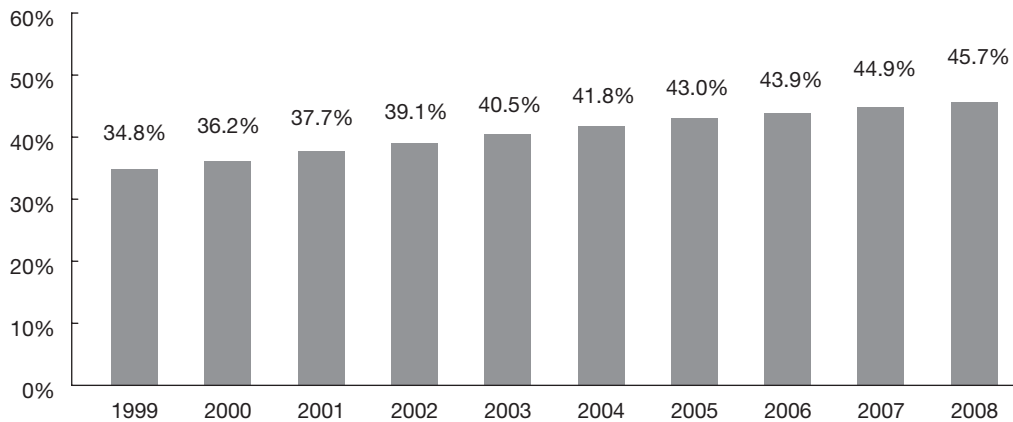
**GDP and Urban Household Disposable Income Per Capita**



Source: National Bureau of Statistics of China

China has been undergoing rapid urbanization in large part due to the rapid growth of its economy. In recent years, the percentage of China's urban population rose from approximately 34.8% in 1999 to approximately 45.7% in 2008. This rapid urbanization has increased the purchasing power of the overall population. The following diagram shows the growth of China's urban population as a percentage of the total population for each year from 1999 to 2008:

**China's Urban Population as a Percentage of the Total Population in China from 1999 to 2008**

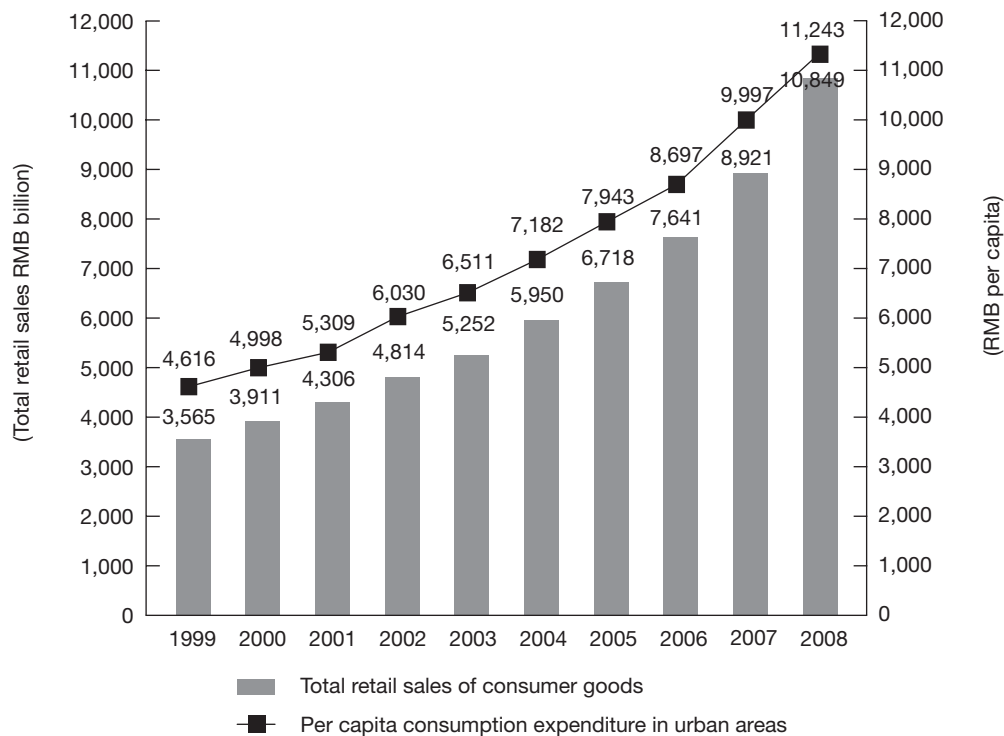


Source: National Bureau of Statistics of China

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The rapid urbanization and increase of urban household disposable income have contributed to the significant growth of China's consumer market in recent years. Moreover, with the launch of the Eleventh Five-Year Plan, the Chinese government will continue to stimulate domestic demand as a long-term strategic policy to maintain the momentum of economic growth. During the past decade, the annual per capita consumption expenditure in urban areas achieved a CAGR of approximately 10.4% from RMB4,616 in 1999 to RMB11,243 in 2008. Leveraged by the upward trend in consumer purchasing power, the total retail sales of consumer goods in China increased from RMB3,565 billion in 1999 to RMB10,849 billion in 2008, which represents a CAGR of approximately 13.2%. The following diagram shows the total retail sales of consumer goods and the annual per capita consumption expenditure in urban areas in China from 1999 to 2008:

**Total Retail Sales of Consumer Goods and Annual Per Capita Consumption Expenditure in Urban Areas in China from 1999 to 2008**



Source: National Bureau of Statistics of China

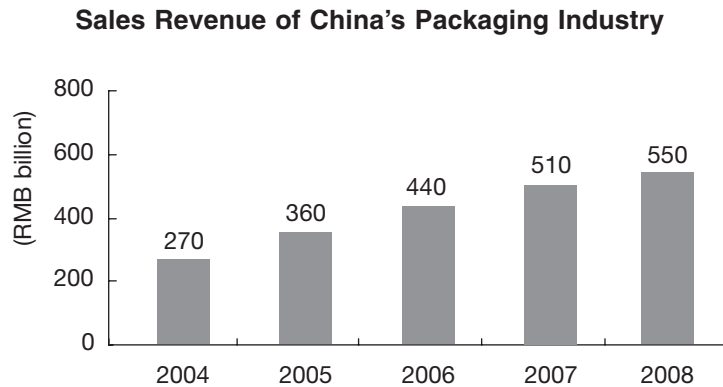
China is expected to become the world's second largest consumer market by 2015. China's economic growth, together with the development of the consumer market, has resulted in increased demand for packaging products, which has in turn led to the growth of the packaging industry and the improvement in the quality of packaging products.

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**THE PACKAGING INDUSTRY OF CHINA**

According to the CPF Report, China’s packaging industry has grown rapidly in recent years, with sales revenue achieving a CAGR of approximately 19.5% from RMB270 billion in 2004 to RMB550 billion in 2008, and sales revenue of the industry is expected to exceed RMB1,000 billion by 2012. According to the World Packaging Organization, China became the world’s third largest manufacturer of packaging products in 2007, ranking after the United States and Japan, respectively. It is estimated that the rapid growth of China’s packaging industry will continue in the foreseeable future.

The following diagram illustrates the sales revenue of China’s packaging industry from 2004 to 2008:



Source: CPF Report

The packaging industry consists of manufacturers of metal, paper, plastic and glass packaging products, as well as package printing and packaging machinery and others. The table below shows the market share of each of the main product categories included in China’s packaging industry during the years 2004 to 2008:

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
	(%)	(%)	(%)	(%)	(%)
Metal Packaging . . . . .	8.7	8.9	8.9	9.1	9.4
Paper Packaging . . . . .	34.6	37.1	34.0	36.1	33.2
Plastic Packaging . . . . .	28.3	26.9	30.8	30.3	31.3
Glass Packaging . . . . .	2.7	2.7	2.7	2.7	3.0
Package Printing . . . . .	17.5	17.4	16.6	14.8	15.2
Manufacturing of Packaging Machinery . . . . .	5.2	4.8	5.0	5.1	6.4
Others . . . . .	3.0	2.2	2.0	1.9	1.6
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

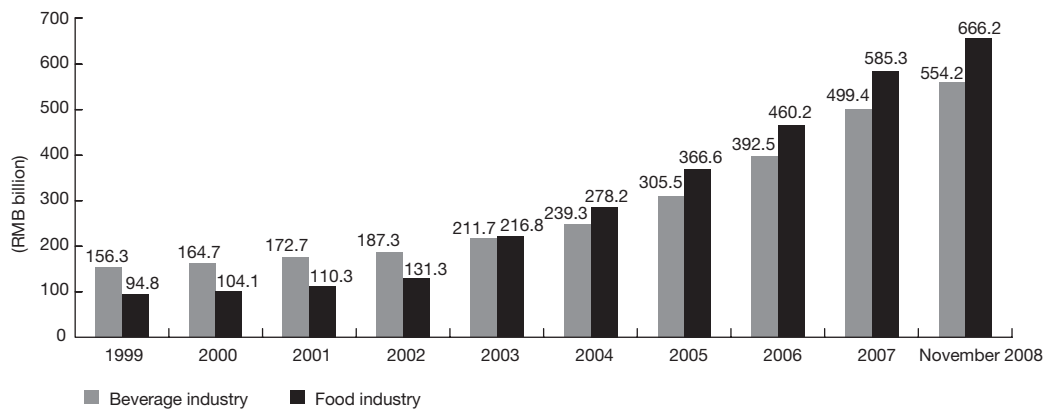
Source: CPF Report

**INDUSTRY OVERVIEW**

**Metal Packaging Market**

According to the CPF Report, metal packaging products have been widely used in China by manufacturers of consumer foods, beverages and household and industrial chemical products, mainly by virtue of their sealing function and strong durability that ensure the preservation of the packaged products, as well as their capability to display vivid artworks. In recent years, the growth of urban consumption has driven the rapid development of China's packaging industry, in particular the metal packaging industry. The food and beverage industry is the largest market for China's metal packaging industry, followed by the chemical product industry. The cosmetic and pharmaceutical industries also account for a significant portion of the market for metal packaging products. According to the National Bureau of Statistics of China, the urban household expenditure on food and beverages accounted for 37.9% of total household expenditure in 2008, representing the largest household expenditure. The sales revenue of China's food industry grew from RMB94.8 billion in 1999 to RMB585.3 billion in 2007 at a CAGR of approximately 25.6%, and the sales revenue of China's beverage industry grew from RMB156.3 billion in 1999 to RMB499.4 billion in 2007 at a CAGR of approximately 15.6%. China became the second largest beverage production country in the world when its total output of beverage production rose to 42.2 million tons in 2006, making it one of the largest markets for beverage cans in Asia. In the fast growing beverage industry, metal cans have been the most commonly used containers for non-carbonated fruit juices and drinks in recent years. Additionally, the continuous growth of the chemical, cosmetic and pharmaceutical industries has also become a driving force behind the growth of the metal packaging industry. The diagram below illustrates growth for both the food and beverage industries in China from 1999 to 2008 in terms of sales revenue:

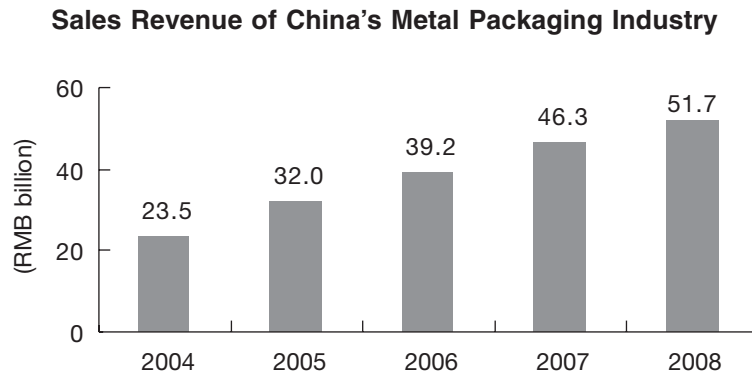
**Sales Revenues of China's Food and Beverage Industries**



Source: National Bureau of Statistics of China

## INDUSTRY OVERVIEW

According to the CPF Report, the sales revenue of China's metal packaging industry increased from RMB23.5 billion in 2004 to RMB51.7 billion in 2008 at a CAGR of approximately 21.8%. The following diagram illustrates the aggregate revenue of China's metal packaging industry from 2004 to 2008:



Source: CPF Report

It is estimated that the sales revenue generated by the PRC metal packaging industry will maintain its growth momentum in the foreseeable future, as there is room for expansion when it is compared to developed countries such as the United States and Japan. For instance, in the United States, the combined product shipment value of metal cans and containers as well as crown caps and closures was approximately US\$16.2 billion in 2006. Annual per capita consumption of metal packaging in the United States in 2006 was equivalent to RMB420, while annual per capita consumption of metal packaging in the PRC for the same year was RMB30. In addition, annual per capita consumption of canned food in China was 1.5 kilogram in 2006, as compared with the annual per capita consumption of canned foods of 50 kilograms in Europe and 23 kilograms in Japan, respectively.

### Metal Packaging Products

In recent years, the metal packaging industry in China has developed to provide full product coverage, ranging from beverage cans (i.e., three-piece beverage cans, two-piece aluminum beverage cans and two-piece steel beverage cans), food cans (i.e., milk powder cans and general food cans), aerosol cans (i.e., tinplate pharmaceutical cans, insecticides cans, cosmetics cans, industrial and household chemical products cans, among others), metal caps (i.e., twist and crown caps and easy-open ends), printed and coated tinplates, chemical cans, steel barrels and miscellaneous cans, among others.

#### *Beverage cans*

Three-piece beverage cans are used mainly for non-carbonated fruit juices and drinks, such as tea drinks, coconut juice, almond juice, and milk, among others. The aggregate number of three-piece beverage cans manufactured in China was 4.5 billion units in 2004 and 11.5 billion units in 2008. This increase was mainly due to the rapid growth of consumption of tea and other health drinks. With sales revenue increasing at a CAGR of approximately 38.7% from 2004 to 2008, the three-piece beverage can has become one of the fastest growing metal packaging products. Two-piece beverage cans, namely two-piece aluminum beverage cans and two-piece steel beverage cans, are often used for packaging carbonated drinks and beers. The aggregate number of two-piece beverage cans manufactured in China rose from 6.5 billion units in 2004 to 14.0 billion units in 2008. The sales revenue of two-piece beverage cans increased at a CAGR of

## INDUSTRY OVERVIEW

approximately 25.4% from 2004 to 2008. The market for beverage cans has strong growth potential. In 2006, the average per capita consumption was 17 beverage cans in China, as compared to 380 beverage cans in the United States.

### *Food cans*

Food cans include milk powder cans and general food cans. Milk powder cans are used for packaging milk powder, seasonings and nutrition products, among others. General food cans are used for packaging processed agricultural products, such as mushrooms, asparagus, oranges, boiled bamboo shoots, luncheon meat, tuna fish and ketchup. With the increase in export of canned foods and individually packaged instant food products, especially supermarket instant foods, the demand for food cans has grown rapidly. The number of food cans manufactured in China was 3.12 billion units in 2004 and reached approximately 7.33 billion units in 2008. The sales revenue for general food cans increased at a CAGR of approximately 21.0%, while the sales revenue for milk powder cans increased at a CAGR of approximately 16.2%, from 2004 to 2008.

### *Aerosol cans*

Aerosol cans are important packaging products for chemical products, including insecticides, cosmetics and pharmaceutical products. The number of aerosol cans manufactured in China reached 0.8 billion units in 2004 and 1.2 billion units in 2008. The sales revenue of aerosol cans, like other metal packaging products, has enjoyed rapid growth. During the period from 2004 to 2008, the sales revenue of aerosol cans increased at a CAGR of approximately 13.5%.

### *Metal caps*

Of the various types of metal caps, crown caps are used primarily for packaging beer and carbonated drinks, while twist caps are used mainly for the packaging of foods and seasonings requiring a tight hermetic seal. From 2004 to 2008, the aggregate number of crown caps manufactured in China increased from 40 billion units to 64.8 billion units, with sales revenue increasing at a CAGR of approximately 9.7%, while the aggregate number of twist caps manufactured in China rose from 2.2 billion units to 4.0 billion units, with sales revenue increasing at a CAGR of approximately 16.8%.

Easy-open ends, serving as accessories, are often applied to several metal packaging products, such as three-piece beverage cans, two-piece beverage cans and food cans. Given their lightness, small size and durability, the production of easy-open ends has been increasing around the world. The aggregate number of easy-open ends manufactured in China increased from 13 billion units in 2004 to 27.5 billion units in 2008, with sales revenue increasing at a CAGR of approximately 28.2%.

### *Printed and coated tinplates*

Printing and coating on the surface of metal packaging products occurs in the initial stage of production. At present, the types of printed and coated tinplates in China have evolved from black and white to double colors, and now four, five and even six colors. According to the CPF Report, there are now approximately 800 production lines for printed and coated tinplates in China, a majority of which are engaged in manufacturing printed and coated tinplates for external sale. The amount of printed and coated tinplates manufactured for sale in China increased from 450 thousand tons in 2004 to 680 thousand tons in 2008, with sales revenue increasing at a CAGR of approximately 13.2%.

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### *Chemical cans*

Chemical cans are used mainly for chemical paint, oil paint and lubricating oil, among others. Along with the rapid development of the automobile, construction, real estate and adhesive and thinner industries, the demand for chemical cans has been rising sharply. The number of chemical cans manufactured in China was 6.3 billion units in 2004 and increased to 7.5 billion units in 2008, with sales revenue increasing at a CAGR of approximately 15.0%.

### *Steel barrels*

Steel barrels are used to transport foods, including edible oil, fruit juice and jam; chemical raw materials, including fragrance and flavoring substances; and petroleum products, including lubricating oil, in large volume. Driven by the growth of the petroleum and chemical industries, the production of steel barrels experienced a rapid expansion, as the aggregate number of steel barrels manufactured in China increased from 37 million units in 2004 to 62 million units in 2008, with sales revenue increasing at a CAGR of approximately 16.4%.

### *Miscellaneous cans*

Miscellaneous cans refer mainly to cans used for packaging solid foods, stationery, desk accessories, toys and gifts. The aggregate number of miscellaneous cans manufactured in China has increased from 4.5 billion units in 2004 to 7.5 billion units in 2008, with sales revenue increasing at a CAGR of approximately 19.6%.

The following diagram illustrates the 2008 aggregate sales revenue and market share of various types of metal packaging products in China:

### Aggregate Sales Revenue and Market Share of Metal Packaging Products Industry in China

Products	Aggregate Revenue (RMB billion)	Market Share (%)
Two-piece beverage cans . . . . .	8.4	16.3
Three-piece beverage cans . . . . .	8.5	16.5
Milk powder cans . . . . .	0.6	1.2
General food cans . . . . .	6.0	11.6
Aerosol cans . . . . .	1.4	2.6
Chemical cans . . . . .	4.9	9.5
Printed and coated tinplates <sup>(1)</sup> . . . . .	2.3	4.5
Steel barrels . . . . .	6.8	13.2
Miscellaneous cans. . . . .	4.7	9.1
Crown caps. . . . .	1.9	3.6
Twist caps. . . . .	0.8	1.5
Easy-open ends . . . . .	5.4	10.5
	<u>51.7</u>	<u>100</u>

Note:

1. Only includes external sales of printed and coated tinplates

Source: CPF Report



## INDUSTRY OVERVIEW

### **Geographic Locations of Metal Packaging Markets**

According to the CPF Report, there were a total of approximately 1,400 metal packaging companies located in China in 2008. With a favorable business environment and good market conditions as well as convenient sales channels and infrastructure, the metal packaging companies are located mainly in southern China, northern China and the coastal areas of eastern China. Furthermore, a majority of the large-scale metal packaging companies are located in the Bohai Bay, the Yangtze River Delta and the Pearl River Delta regions. The metal packaging manufacturers locate their operating facilities in well-developed consumer markets. At present, southern China and eastern China are the largest markets for metal packaging manufacturers. It is estimated that both demand and supply of the metal packaging market in central and western China will grow significantly as manufacturers currently based in the coastal areas of eastern China gradually expand their markets and operating presence in central and western China. These two areas are believed to have significant potential for metal packaging markets. In particular, the metal packaging industry in Sichuan and Hubei, which rely on traditional industries of agricultural production and food-processing, have enjoyed and will continue to enjoy rapid growth.

### **Concentration and Consolidation of Metal Packaging Industry**

Among the 1,400 metal packaging companies in China in 2008, 763 companies had annual revenues of more than RMB5.0 million, while only 99 companies had annual revenue of RMB100.0 million or more. By 2008, small-sized and medium-sized companies accounted for a majority of the metal packaging companies, resulting in a relatively low industry concentration ratio. In 2008, the combined revenue of the 10 largest metal packaging groups in China reached RMB14.5 billion, representing approximately 28.1% of the total revenue of the metal packaging industry in China. Our Group's combined revenue generated from the sales of metal packaging products reached RMB3.3 billion in 2008, representing approximately 6.4% of the aggregate revenue of China's metal packaging industry, making us the largest metal packaging group in China.

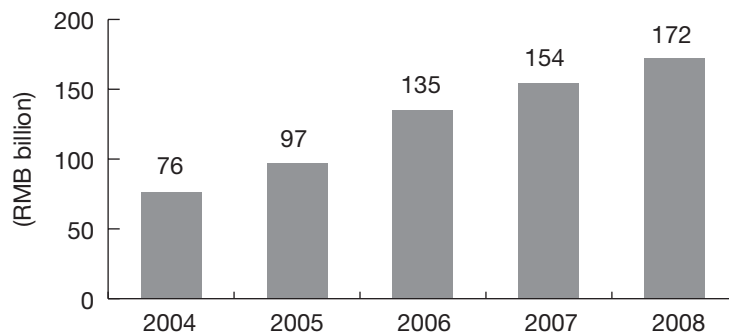
China's metal packaging industry has been experiencing consolidation in recent years through mergers and acquisitions. Such industry consolidation is expected to continue in the foreseeable future. Major metal packaging companies, which have established their own brands and possess intellectual property rights, are expected to grow by acquiring small metal packaging companies.

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### Plastic and Paper Packaging Market

The plastic packaging industry is mainly comprised of manufacturers of film, pouches, bottles and buckets. Plastic packaging products are principally used for packaging beverages, foods, household chemical products and medicines. Most plastic packaging products are primarily made of either PE or PET. In addition, application of degradable plastics, especially polylactic acid, is becoming increasingly more popular in the plastic packaging industry. According to the CPF Report, the sales revenue generated by China's plastic packaging industry increased from RMB76 billion in 2004 to RMB172 billion in 2008, representing a CAGR of approximately 22.5%. The following diagram illustrates the aggregate revenue of China's plastic packaging industry from 2004 to 2008:

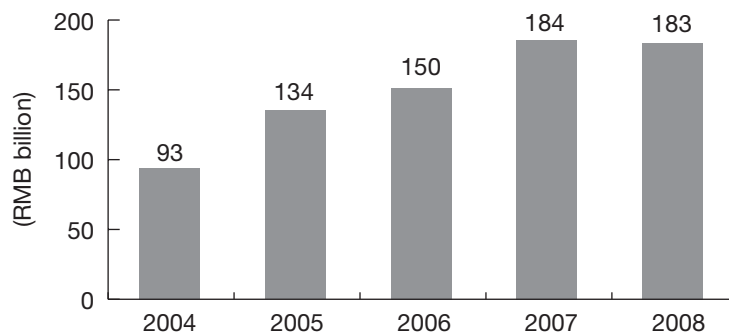
**Sales Revenue of China's Plastic Packaging Industry**



Source: CPF Report

The paper packaging industry consists of manufacturers of a broad range of paper packaging products for industries of food, textile, decoration material and electrical equipment. For instance, paper packaging products are used for packaging beverages, dairy products, foodstuffs, fruits, pharmaceutical products and electrical appliances. Composite paper packaging products are widely used in the beverage industry mainly for packaging milk, juice, tea and coffee. The paper packaging industry in China has also experienced an increase in the sales revenue from RMB93 billion in 2004 to RMB183 billion in 2008, representing a CAGR of approximately 18.3%. The following diagram illustrates the sales revenue of China's paper packaging industry from 2004 to 2008:

**Sales Revenue of China's Paper Packaging Industry**



Source: CPF Report