SIAL 西雅展 in China

INSPIRE FOOD BUSINESS

SOUTH CHINA F&B MARKET REPORT

Shenzhen

CONTENTS

Chapter 1

Background of the Greater Bay Area (GBA)

Background of the Greater Bay Area (GBA)

Greater Bay Area (GBA), including Hong Kong, Macao and nine cities in mainland China. Surrounded by mountains on three sides and converging with three rivers, it has a long coastline with excellent ports and a vast sea area. Featuring in the vast economic hinterland, the Pan Pearl River Delta region has about 1/5 of the national land area, 1/3 of the population, and 1/3 of the total economic output.

Zhaoqing

"Hometown of Gold and Chinese Ink Stone Capital "

A gateway city connecting the Pearl River Delta with the Southwest China hub

The Western Corridor from the Bay Area to the Greater Southwest and ASEAN

Guangzhou

Provincial political, economic, technological, educational, and cultural centers

International shipping, aviation hub, international technological innovation hub

The central city of the Pan Pearl River Delta Economic Zone and the Greater Bay Area, as well as the transportation hub of the "The Belt and Road"

Foshan

Manufacturing Innovation Center

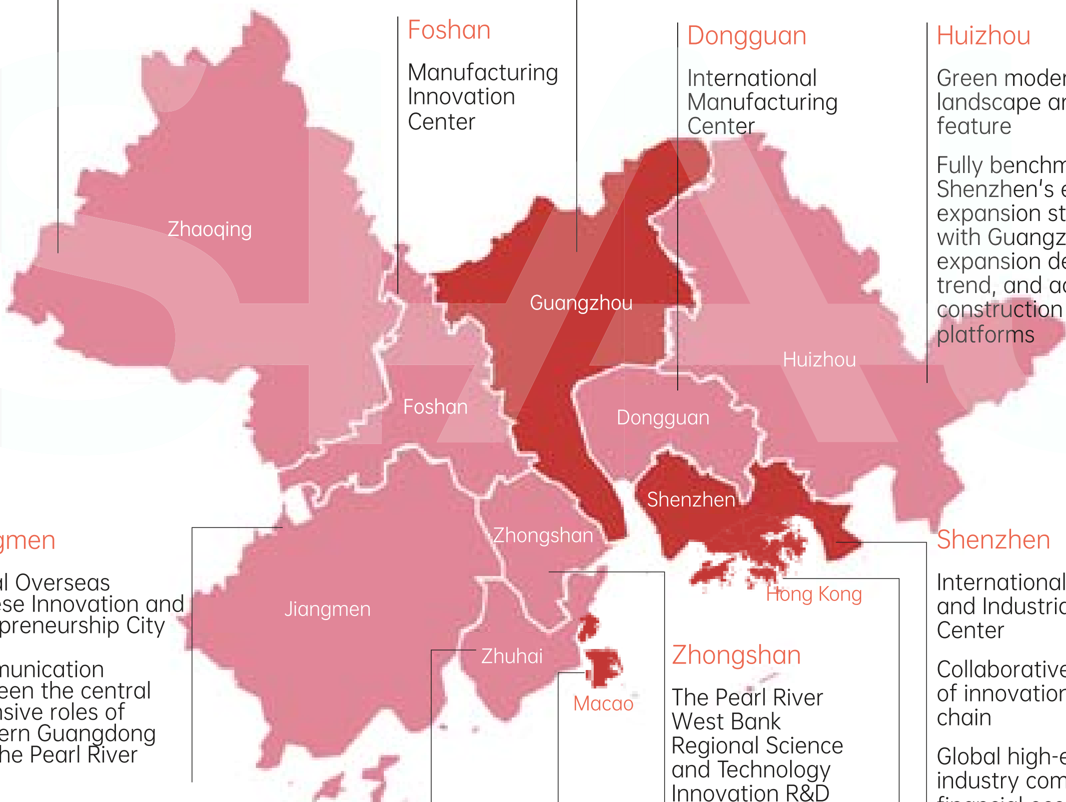
Dongguan

International Manufacturing Center

Huizhou

Green modern city with landscape and ecological feature

Fully benchmark against Shenzhen's eastward expansion strategy, aligning with Guangzhou's eastward expansion development trend, and accelerating the construction of innovation platforms



Jiangmen

Global Overseas Chinese Innovation and Entrepreneurship City

Communication between the central defensive roles of Western Guangdong and the Pearl River Delta

Shenzhen

International Technology and Industrial Innovation Center

Collaborative construction of innovation ecological chain

Global high-end financial industry complex and financial ecosystem

Zhongshan

The Pearl River West Bank Regional Science and Technology Innovation R&D Center

Regional transportation hub on the east and west sides of the Pearl River

Zhuhai

The only bay area city in China connecting to Hong Kong, Macao, and mainland China

As an important city and innovation highland in the Greater Bay Area

Opening up a cooperation path of "Hong Kong and Macao markets and innovative resources as well as Zhuhai space and platform", as a transit station for international innovative resources to enter the mainland

Macao

World Tourism and Leisure Center

Business Cooperation Service Platform between China and Portuguese-speaking Countries

Hong Kong

International finance, shipping, trade centers, and international aviation hubs

Global offshore RMB business hub, strengthening the function of international asset management center

The Policy Guidelines of the Greater Bay Area

The Greater Bay Area is one of the regions with the highest degree of openness and the most economically vigorous region in China, taking up an important strategic position in the overall national development. The construction of the Greater Bay Area is not only a new attempt to promote the formation of a new pattern of comprehensive opening up in the new era, but also a new practice to promote the development of the cause of "one country, two systems". Over the years, there are more and more policy plans to support the development of the Greater Bay.

2005.08 Planning for Coordinated Development of Urban Town Groups in the Pearl River Delta (2004-2020)

The concept of "Bay Area" was officially proposed for the first time, clarifying the "Guangdong-Hong Kong-Macao cross-border cooperation and development area"

2008.12 Outline of the Pearl River Delta Reform and Development Plan (2008-2020)

Support the "Bay Area" key action plan and encourage Guangdong, Hong Kong, and Macao to jointly formulate regional cooperation plans

2010.04 Guangdong-Hong Kong Cooperation Framework Agreement

Promote complementary industrial advantages between Guangdong and Hong Kong, and promote coordinated development of central cities

2014.03 Shenzhen Municipal Government Work Report (2014)

Propose the "Bay Area Economy" for the first time, create industrial clusters in the Bay Area, and strengthen exchanges and cooperation with Hong Kong, Macao, and Taiwan

2015.03 Vision and actions to jointly build the Silk Road Economic Belt and the 21st Century Maritime Silk Road

The "Guangdong–Hong Kong–Macao Greater Bay Area" was proposed for the first time to play the role of Qianhai, Nansha, Hengqin and other open cooperation zones

2017.07 Framework Agreement on Deepening Guangdong-Hong Kong-Macao Cooperation and Promoting the Construction of the Greater Bay Area

Build a high-quality living circle that is livable, suitable for business, and suitable for tourism, and create an international first-class bay area and world-class urban agglomeration

2018.11 Opinions on Establishing a More Effective New Mechanism for Regional Coordinated Development

Clearly focus on Hong Kong, Macao, Guangdong and Shenzhen, and lead the construction of the Guangdong–Hong Kong–Macao Greater Bay Area

2019.02 Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area

Clarify the scope, strategic positioning, development direction, and urban division of labor of the Greater Bay Area

2020.05 Opinions on Financial Support for the Construction of the Guangdong–Hong Kong–Macao Greater Bay Area

Cross border flow of funds and interconnectivity of financial markets, expanding the opening up of the financial industry to the outside world, and improving the innovation level of financial services

2021.09 Comprehensively Deepen the Reform and Opening up Plan of Qianhai

Expanding the scope of the Qianhai Cooperation Zone and clarifying the goal of promoting comprehensive deepening of reform and development in the Qianhai Cooperation Zone

2021.09 Overall Plan for the Construction of Hengqin-Guangdong-Macao Deep Cooperation Zone

Defined the implementation scope, strategic positioning, and development goals of the "Guangdong-Macao Deep Cooperation Zone"

Seven Major Development Categories	
	Building an International Science and Technology Innovation Center
	Accelerate infrastructure connectivity
	Building a modern industrial system with international competitiveness
	Promote the construction of ecological civilization
	Building a high-quality living circle that is livable, suitable for business, and suitable for tourism
	Close cooperation and joint participation in the construction of the "The Belt and Road"
	To jointly develop platforms for Guangdong-Hong Kong-Macao cooperation

Promote the cooperation and development of Guangdong-Hong Kong-Macao logistics, vigorously develop third-party logistics and cold chain logistics, improve the level of supply chain management, and build an international logistics hub. Support Macao in accelerating the construction of a food distribution center for Portuguese speaking countries.

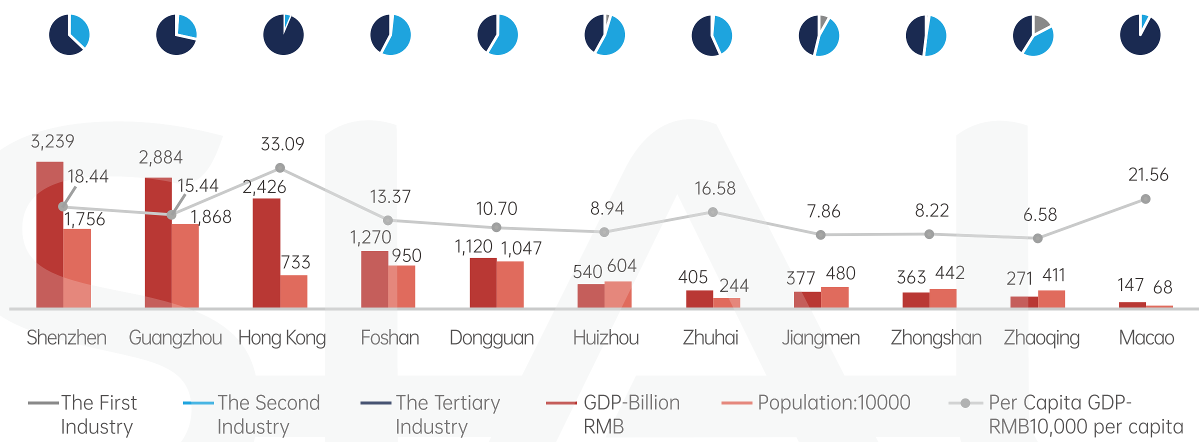
Strengthen cooperation on food and agricultural product safety. Improve the traceability system of food origin between Hong Kong, Macao and the mainland China, and enhance the informationization level of food safety supervision in the Greater Bay Area. Improve the level of regional food safety assurance, establish and improve a mechanism for investigating and handling food safety information notification cases and emergency response to food safety accidents, and establish a system for exchanging and releasing food safety related risks. Ensure the safety of food supplied by the mainland China to Hong Kong and Macao, support Hong Kong and Macao in participating in the construction of Guangdong's export food and agricultural product quality and safety demonstration zone and "Good Reputation Farm", and build a high-level Huizhou-Guangdong-Hong Kong-Macao green agricultural product production and supply base, as well as a Zhaoqing (Huaiji) green agricultural and sideline product distribution base.

Source: Public information from government official website of RPC

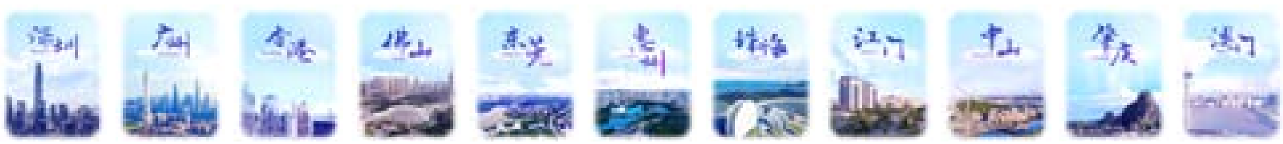
Economic Environment Analysis of the Greater Bay Area

The Greater Bay Area has a leading level of economic development in the country, a complete industrial system, obvious cluster advantages, strong economic complementarity, highly developed service industries in Hong Kong and Macao, and the nine cities in the Pearl River Delta have initially formed an industrial structure with strategic emerging industries as the pioneer and advanced manufacturing and modern service industries as the main force.

The Industrial Structure, GDP and the Seventh National Census Data of the Greater Bay Area in 2022



Source: Guangdong Provincial Bureau of Statistics, Bulletin of the Seventh National Population Census of Guangdong Province, public information



The Spatial Layout of the Greater Bay Area and the Industrial Belt Dual Ring Development

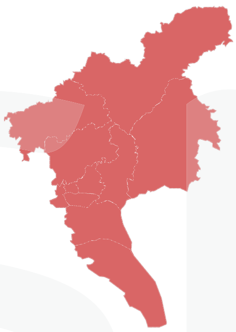
The dual ring development model of the Greater Bay Area has begun to take shape in the outer ring, which is jointly constructed by the Guangzhou-Shenzhen Science and Technology Innovation Corridor (East Ring) and the West Bank of Pearl River Advanced Equipment Manufacturing Industrial Belt (West Ring). The inner ring is built around the important coastal platforms such as Shenzhen Qianhai, Guangzhou Nansha and Zhuhai Hengqin. Adhering to the driven pole and supporting axis as well as hub to the surrounding areas, and efforts should be made to promote reasonable division of roles and responsibilities and complementary functions in large, small, and medium-sized cities.

1. Shipbuilding and Marine Engineering Equipment Manufacturing
2. Cluster of Photoelectric Equipment Industry
3. Shunde High-tech Industrial Development Zone
4. Sino German Industrial Service Area
5. Smart City, Science City
6. Pazhou Internet Innovation Cluster
7. Sino Singapore Knowledge City
8. Banxuegang Technopole
9. Shenzhen Bay Super Headquarters Base

a. Hengqin Free Trade Zone
b. Cuiheng New Area
c. Nansha Free Trade Zone
d. Binhai Bay New Area
e. Qianhai Free Trade Zone

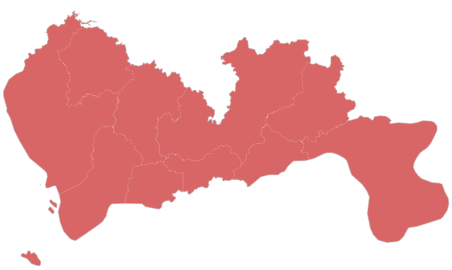
Guangzhou - Circle-layer Development

Pearl River New Town has developed into the core CBD of Guangzhou, and the commercial activity of the whole city has also roughly shown a gradual declining trend from Pearl River New Town to the surrounding areas. In addition, the industrial linkage between Pearl River New Town and its surrounding areas such as Huangpu District and Haizhu District has further consolidated its central position in Guangzhou.



Shenzhen - Axis Belt Development

The city is distributed in a belt, with the east, middle and west point layout structure centered on Sha Tau Kok, Luohu-Shangbu and Nanshan-Shekou. The axial belt development and the linear distribution of transportation routes lays the foundation for the "multi center" development model of cities.



Technological Innovation and R&D Capability of the Greater Bay Area

The three regions of Guangdong, Hong Kong, and Macao have outstanding technological research and transformation capabilities. They have a group of universities, research institutes, high-tech enterprises, and national large science projects with significant influence nationwide and even globally. With the attractive innovation elements, they have a good foundation for building an international scientific and technological innovation center. Shenzhen-Hong Kong-Guangzhou has become an important global technological innovation cluster, second only to Tokyo-Yokohama.

Rank	Technology Innovation Cluster	Number of International Patent Applications	Number of Scientific Publications	Proportion of International Patent Applications in the World	Global Proportion of Scientific Publications
1	Tokyo-Yokohama	122,526	112,890	10.7%	1.6%
2	Shenzhen-Hong Kong-Guangzhou	94,340	133,327	8.2%	1.9%
3	Beijing	32,016	260,937	2.8%	3.7%
4	Seoul	46,273	124,530	4.0%	1.8%
5	San Jose-San Francisco	42,884	58,087	3.7%	0.8%
6	Shanghai-Suzhou	22,869	148,203	2.0%	2.1%
7	Osaka-Kobe-Kyoto	34,738	50,605	3.0%	0.7%
8	Boston-Cambridge	16,172	73,457	1.4%	1.0%
9	New York	13,020	73,623	1.1%	1.0%
10	Paris	14,147	62,793	1.2%	0.9%

Source: Global Innovation Index 2022 issued by the World Intellectual Property Organization, public information

According to the Global Innovation Index 2022, "Shenzhen-Hong Kong-Guangzhou" is the world's important scientific and technological innovation cluster, second only to "Tokyo-Yokohama", with the ranking in the second place for the third consecutive year since 2020.

With the gradual diffusion of Guangzhou, Shenzhen, West Zhuhai and other metropolitan areas and the increasingly strengthened interaction and exchange between Guangdong, Hong Kong and Macao, this advantage will spread to the entire Greater Bay Area, better gathering and promoting innovation momentum and scale effect.

From 2016 to 2022, the patent application, authorization and transformation of the Greater Bay Area will maintain excellent quality and quantity. The PCT international patent application volume in the Greater Bay Area, especially in Shenzhen, is far ahead. The proportion of patent authorizations in the Greater Bay Area in China exceeded 17% in 2018. Guangzhou and Shenzhen, two high level R&D cities and Dongguan and Foshan, two major manufacturing cities, have performed relatively outstandingly.

In 2021, the R&D expenditure of 9 cities in the Pearl River Delta within the Greater Bay Area exceeded RMB 360 billion, with 57,000 national high-tech enterprises and an estimated 780,000 patent authorizations, including an estimated over 100,000 invention patents.

In 2021, the total local R&D expenditure in Hong Kong reached HKD 27.827 billion, an increase of 5% compared to the previous year. The total expenditure on local research and development accounted for 0.97% of the current year's gross domestic product.

The Macao Science and Technology Development Fund will support 639 projects in 2021 with a total amount of about MOP 350 million.

Comparison among the Greater Bay Area and the Three Largest Bay Areas in the World

The Greater Bay Area - Finance+High-tech+Industry

The Greater Bay Area is a major gathering place for China's new generation of information technology, high-end equipment manufacturing, new materials, biomedicine and other emerging industries.

New York Bay Area - Financial Bay Area

The service industry in the New York Bay Area mainly focuses on finance and information services, while the manufacturing industry mainly focuses on pharmaceuticals and electronic information manufacturing.

San Francisco Bay Area - High-tech Bay Area

The formation of the San Francisco Bay Area is driven by the innovation of colleges and universities, and is dominated by new generation information technology, new energy, biomedicine and other emerging industrial clusters.

Tokyo Bay Area - Industrial Bay Area, Japan

The Tokyo Bay Area has formed emerging industrial clusters represented by robots, biomedicine, new energy, etc.

Leading Enterprises (Partial)

Land Area	56,098 square kilometers	21,479 square kilometers	17,887 square kilometers	36,898 square kilometers
Local GDP	1.67 trillion USD	1.8 trillion USD	1 trillion USD	1.7 trillion USD
Per Capita GDP	2 trillion USD	9 trillion USD	13 trillion USD	5 trillion USD
Proportion of Tertiary Sector of the Economy	65.6%	89.4%	82.8%	82.3%

To become a world-class dominant hub, the Greater Bay has a long way to go.

Firstly, play the role of a grand port in high-level of opening up to the outside world.

Secondly, reinforce the modern service industry and advanced manufacturing industry, changing the previous commodity centered services to people-centered services.

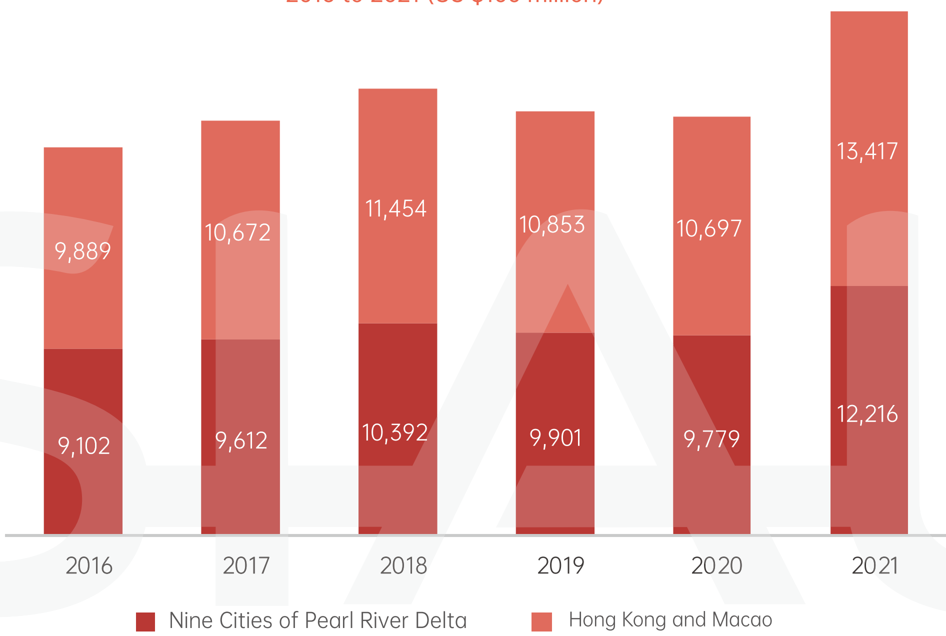
Thirdly, emphasize the role of the Greater Bay Area as the intersection of the "The Belt and Road" in the dual cycle stragety.

Source: The Report on World Bay Area Development Index (2022), public information

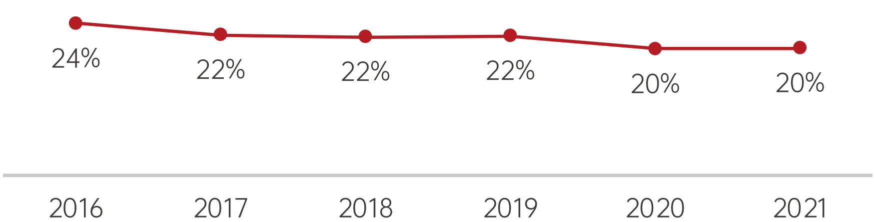
The Access to Overseas Markets

The Greater Bay Area is at the forefront of China's coastal opening up, with the Pan Pearl River Delta region as the vast hinterland for further development, which plays an important role in the construction of the "The Belt and Road". Because of its convenience in transportation, the GBA owns the Hong Kong International Shipping Center and important ports such as Guangzhou and Shenzhen, which have the highest throughput in the world, as well as aviation hubs with international influence such as Hong Kong, Guangzhou, and Shenzhen.

The Value of Urban Goods Import and Export in the Greater Bay Area from 2016 to 2021 (US $100 million)



Proportion of Import and Export Value of Nine Cities of the Pearl River in National Import and Export Value



Source: Guangdong Sub-administration of GACC, Statistics Bureau of Guangdong Province, Census and Statistics Department of Hong Kong Government, Statistics and Census Service of Macao Government, General Administration of Customs of the People's Republic of China, public information

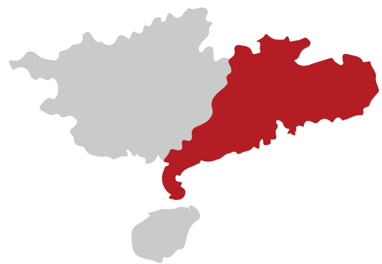
In recent years, Guangdong's total import and export value has steadily ranked in the first among the provinces in China's foreign trade.

At the same time, Hong Kong continues to consolidate and enhance its position as an international financial, shipping, trade center, and international aviation hub; Macao will continue to build a world tourism and leisure center, as well as a business cooperation service platform between China and Portuguese speaking countries. The Greater Bay Area takes Hong Kong, Macao, Guangzhou and Shenzhen as the core engines of regional development so as to power the development of the surrounding areas.

Chapter 2

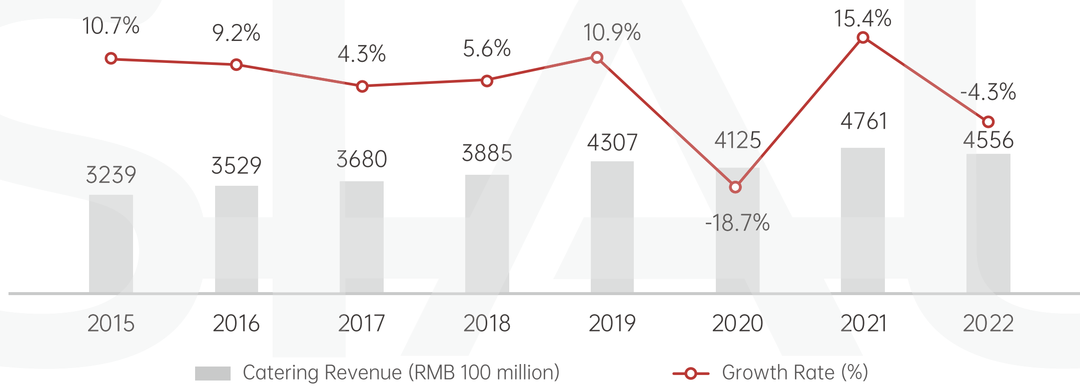
Overview of South China F&B Market Size

Catering Market Size in South China - Guangdong Province

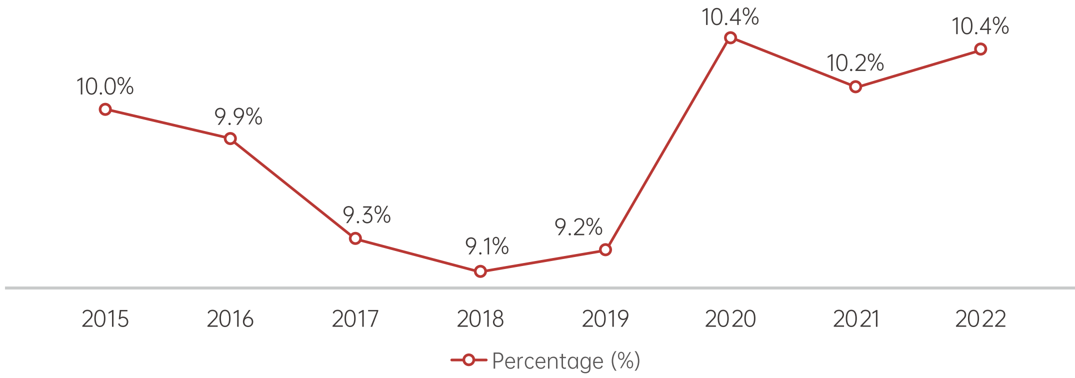


The catering industry is highly related with people contact. In 2022, due to the impact of the COVID-19, Guangdong's annual catering revenue reached RMB 455.6 billion, a year-on-year decrease of 4.3%, a drop of 2.2 percentage points compared to the first three quarters of 2022 and a decrease of 0.4 percentage points compared to the first half of the year. After 2020, the overall impact on the catering industry in Guangdong was significantly lower than the national average. Innovative models such as prefabricated food were promoted and help the market quickly recovered, and broke through the market size before the epidemic. The proportion of catering revenue in Guangdong to the national catering industry revenue has exceeded 10% for three consecutive years since 2020, reaching 10.4% in 2022, which is the highest level in nearly a decade.

Catering Revenue (RMB 100 million) and Growth Rate (%) in Guangdong from 2015 to 2022

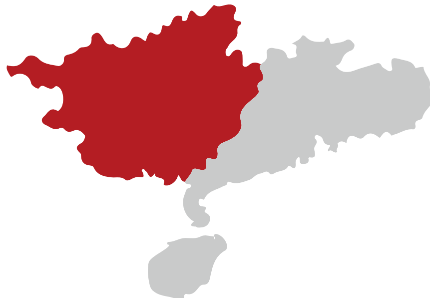


The Catering Revenue in Guangdong of National Catering Revenue from 2015 to 2022



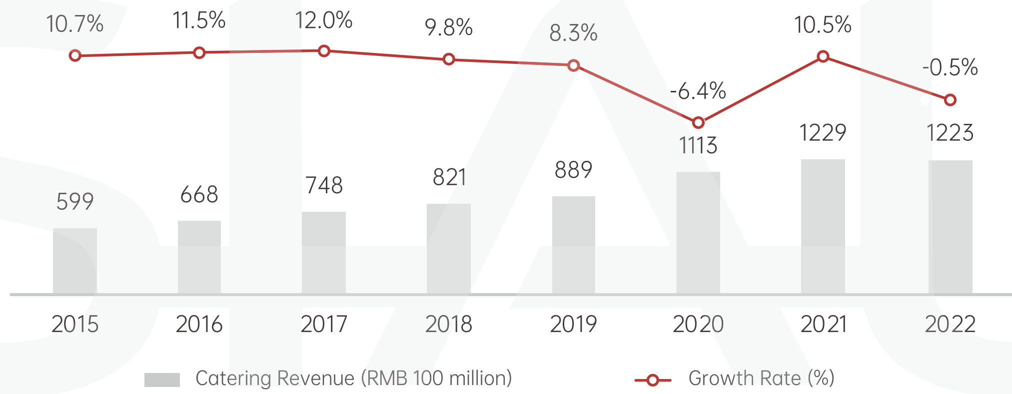
Source: National Bureau of Statistics, Guangdong Provincial Bureau of Statistics (Statistical Information Network), public information.
Note: The catering revenue and year-on-year growth rate of Guangdong Province from 2015 to 2022 are based on the data disclosed by the Guangdong Provincial National Economic and Social Development Statistical Bulletin of that year. According to the results of the Fourth National Economic Census and relevant regulations, the statistical caliber of total retail sales of consumer goods for 2016 to 2019 has been adjusted to some extent.

Catering Market Size in South China - Guangxi Zhuang Autonomous Region

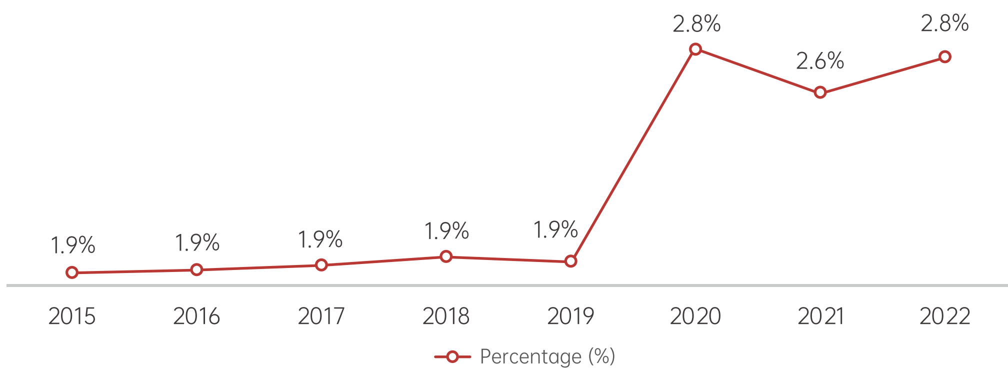


In 2022, the annual catering revenue of Guangxi reached RMB 122.3 billion, a year-on-year decrease of only 0.5%. Similar to Guangdong Province, the overall catering industry in Guangxi has been far less hit by the epidemic comparing to the national average in 2020. Since 2020, the catering revenue of Guangxi has accounted for more than 2.5% of the national catering industry revenue for three consecutive years. In 2022, the proportion reached the highest level of 2.8% in nearly a decade. The catering industry in both Guangdong and Guangxi has the outstanding capability of resilience, which is expected to further become the core driving force for the growth of the catering industry in South China.

Catering Revenue (RMB 100 million) and Growth Rate (%) in Guangxi from 2015 to 2022

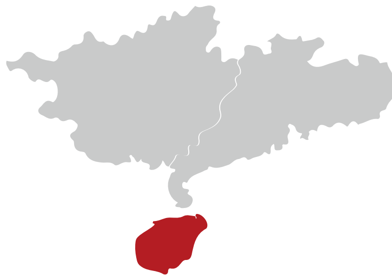


The Catering Revenue in Guangxi of National Catering Revenue from 2015 to 2022



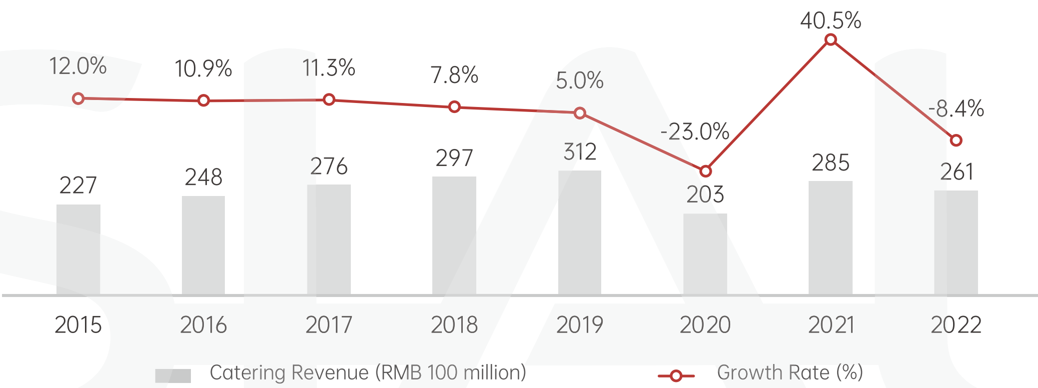
Source: National Bureau of Statistics, Guangxi Bureau of Statistics, public information
Note: The catering revenue and year-on-year growth rate of Guangxi from 2015 to 2022 are all based on the values disclosed in the Statistical Bulletin of National Economic and Social Development of the same year. According to the results of the fourth national economic census and relevant regulations, the statistical caliber of total retail sales of consumer goods from 2016 to 2019 has been adjusted to some extent.

Catering Market Size in South China – Hainan Province

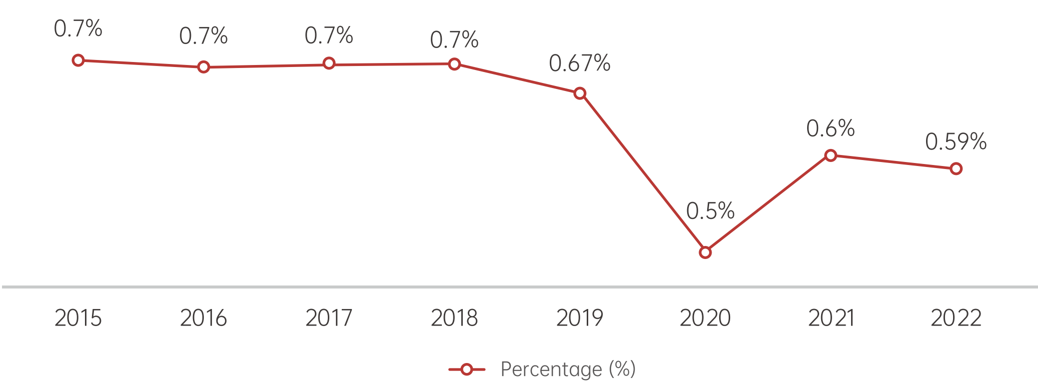


In 2022, the annual catering revenue of Hainan Province reached RMB 26.1 billion, a year-on-year decrease of 8.4%. With its distinctive feature in tourism, the catering industry in Hainan has been severely affected by the impact of the epidemic. Neither 2021 nor 2022 has exceed Hainan's catering income level before the epidemic, and its percentage of national catering revenue has also decreased from 0.7% to around 0.59%. It is expected to resume a high growth rate and continue to exceed the revenue scale of RMB 30 billion in 2023 after the COVID-19 prevention and control was lifted.

Catering Revenue (RMB 100 million) and Growth Rate (%) in Hainan from 2015 to 2022



The Catering Revenue in Hainan of National Catering Revenue from 2015 to 2022

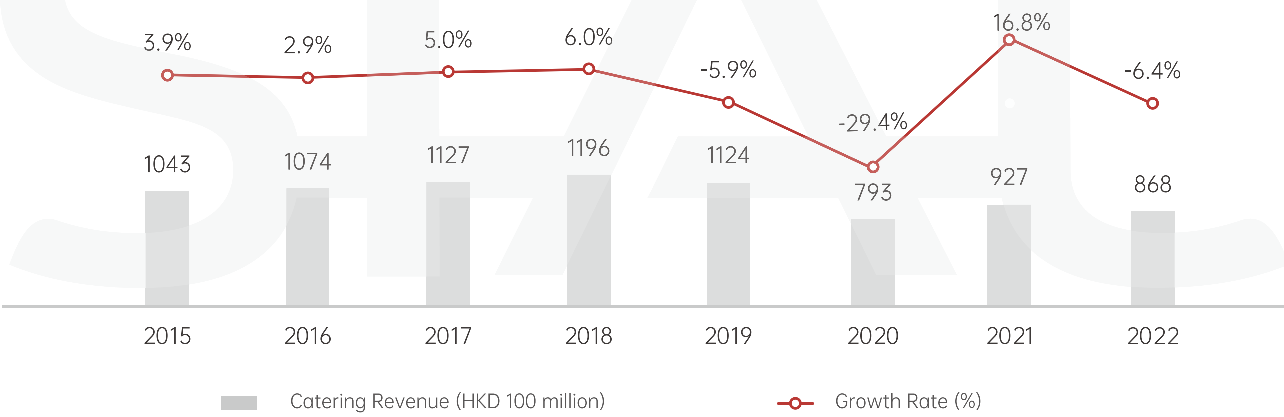


Source: National Bureau of Statistics, Hainan Provincial Bureau of Statistics, public information
Note: The catering revenue and year-on-year growth rate of Hainan Province from 2015 to 2022 are based on the data disclosed in the National Economic and Social Development Statistical Bulletin of Hainan Province that year. According to the results of the Fourth National Economic Census and relevant regulations, the statistical caliber of total retail sales of consumer goods from 2016 to 2019 has been adjusted to some extent.

Catering Market Size in South China – Hong Kong Special Administrative Region

Since 2020, Hong Kong has experienced five waves of COVID-19, and the catering industry has suffered a heavy blow. Currently, it has returned to over 80% of the pre-epidemic level. However, the labor costs of restaurants have become one of the obstacles during the recovery. According to the data from Hong Kong Federation of Restaurants & Related Trades, Hong Kong catering industry employed population has decreased by 15.6% compared to the pre-epidemic data, and the unemployment rate has risen to 11%. At the same time, consumers have reduced the exploratory spending, since they have become more cautious and concerned about the cost-effectiveness of restaurants. Therefore, it is expected that the recovery rate of the catering industry in Hong Kong will be slower than in mainland China, but multiple listed leading companies have stated that they will carry out store expansion plans, which is expected to accelerate the recovery of a scale of HKD 100 billion.

Catering Revenue (HKD 100 million) and Growth Rate (%) in Hong Kong from 2015 to 2022



Changes in Year-on-Year Growth Rate of Various Catering Revenue in Hong Kong from 2021 to 2022

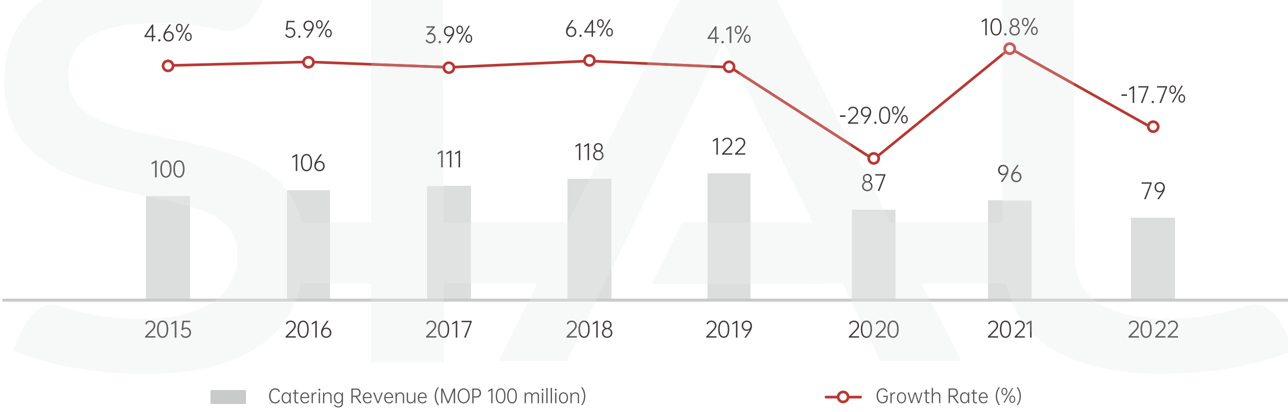
Catering Category	Year-on-year Growth Rate in 2021	Year-on-year Growth Rate in 2022
Chinese Restaurant	+18.3%	-10.0%
Non Chinese Restaurant	+23.0%	-6.3%
Fast Food Store	+8.5%	-2.0%
Bar	-0.1%	-9.5%
Miscellaneous Catering Places	+12.3%	-1.1%

Source: Census and Statistics Department of Hong Kong Government, public information

Catering Market Size in South China - Macao Special Administrative Region

In 2022, the revenue of the catering industry in Macao fell to its lowest level since 2015, once again breaking the low level created by the epidemic in 2020. Taking the data at the end of December 2022 as an example, Macao's catering industry declined by 28.4% year on year, with the decline of Chinese restaurants being the most obvious, reaching 38.8%. It is expected that the overall catering market size of Macao will rebound significantly in 2023. Taking January 2023 as an example, driven by the relaxation of entry epidemic prevention measures and the Chinese New Year, the income of the foodservice will grow 45.8% year on year and 85.0% month on month.

Catering Revenue (MOP 100 million) and Growth Rate (%) in Macao from 2015 to 2022

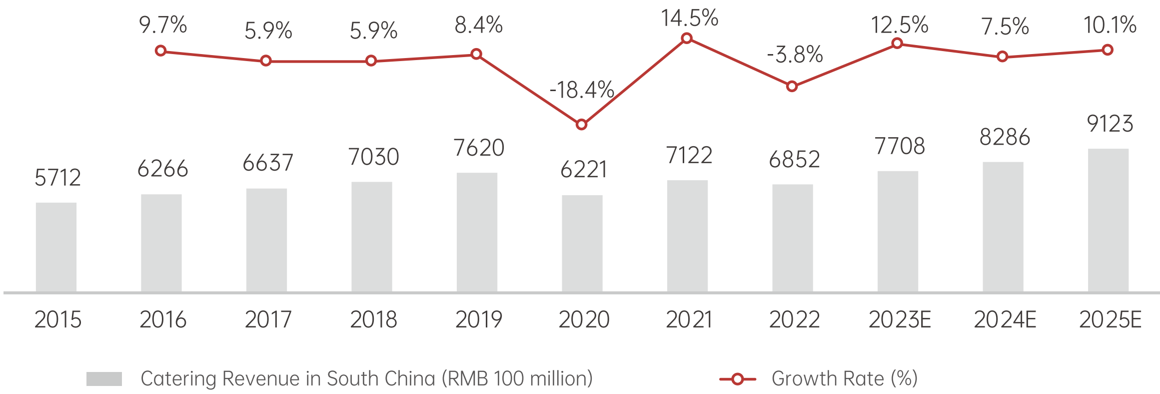


Changes in Year-on-Year Growth Rate of Various Catering Revenue in Macao at the Beginning and End of 2022

Catering Category	Year-on-year Growth Rate in 2021	Year-on-year Growth Rate in 2022
Chinese Restaurant	+5.5%	-38.8%
Western Restaurant	-10.8%	-27.0%
Japanese and Korean Restaurant	-0.7%	-15.3%
Tea Restaurant, Congee and Noodle Restaurant	-7.6%	-23.4%

Source: Statistics and Census Service of Macao Government, public information

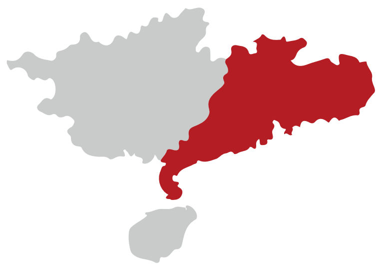
Market Size and Forecast of Catering Industry in South China from 2015 to 2025



The original statistical currencies of the historical catering market size in Macao and Hong Kong are HKD and MOP. When converted to RMB, the average exchange rate of the year is used for final calculation.

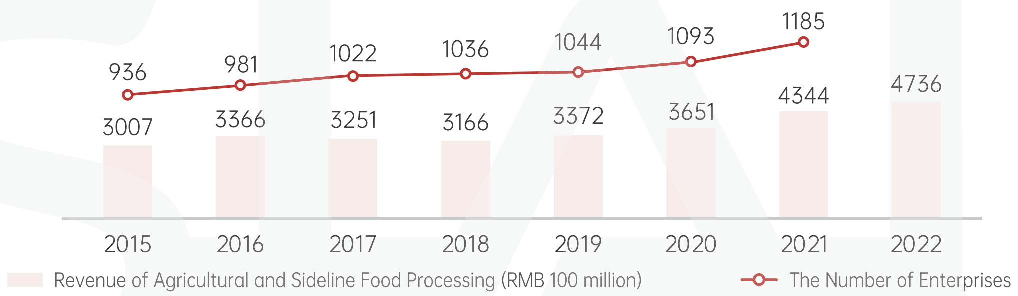
According to the results of the Fourth National Economic Census and relevant regulations, there have been certain adjustments to the statistical caliber of total retail sales of consumer goods from 2016 to 2019. Therefore, the market size caliber for 2019 and before has been adjusted based on year-on-year growth rate when summarizing.

Market Size of Food and Beverage in South China - Guangdong Province

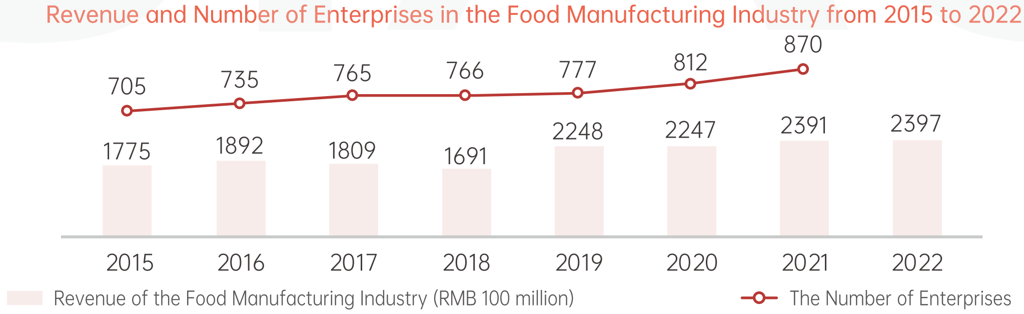


In 2022, the operating revenue of enterprises above designated size in agricultural and sideline food processing, food manufacturing, wine, beverage and refined tea manufacturing in Guangdong will reach RMB 473.61 billion, RMB 239.67 billion and RMB128.03 billion respectively, with year-on-year growth rates of 9.0%, 0.2% and 6.0% respectively. The overall scale of the food and beverage market reached RMB 841.3 billion, a year-on-year increase of 5.9%, and it still maintained a stable growth trend after the rebound of the epidemic in 2021. From the perspective of industrial added value by quarter, the growth rate of industrial added value above designated size in the province has demonstrated a trend of being high in the front and flat in the back due to various factors such as the epidemic, short-term impact on the industrial chain supply chain, and insufficient demand.

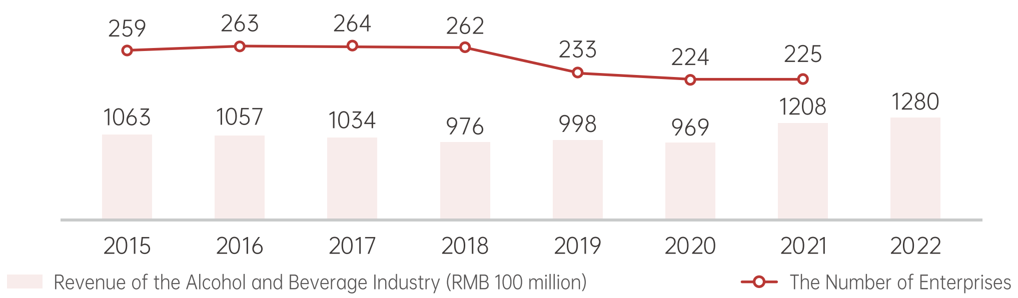
Revenue and Number of Enterprises in the Agricultural and Sideline Food Processing Industry from 2015 to 2022



Revenue and Number of Enterprises in the Food Manufacturing Industry from 2015 to 2022



Revenue and Number of Enterprises in the Alcohol and Beverage Manufacturing Industry from 2015 to 2022

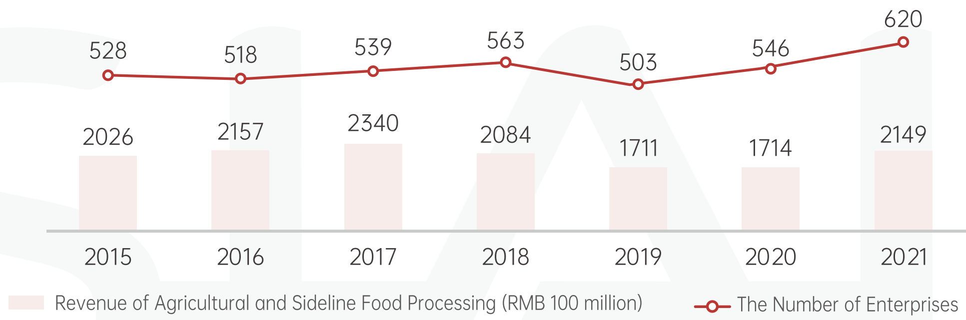


Source: National Bureau of Statistics, Guangdong Provincial Bureau of Statistics (Statistical Information Network), public information

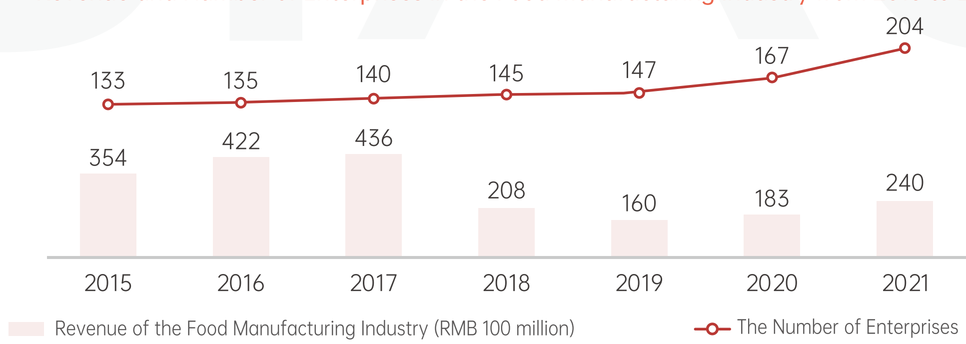
Market Size of Food and Beverage in South China – Guangxi Zhuang Autonomous Region

In 2022, the revenue scale of food and beverage related industries in Guangxi not officially disclosed. From the perspective of industrial added value growth, the added value of agricultural and sideline food processing, food manufacturing, wine, beverage and refined tea manufacturing in Guangxi increased by 4.1%, 3.7% and 10.2% respectively year on year. In addition, in 2022, the online retail sales of physical goods in the entire region increased by 15.0% compared to the previous year. The operation of offline retail stores remained stable, with retail sales increasing by 3.0% compared to the previous year. The groceries, convenience stores, and supermarkets, all of which are small and refined, widely distributed, and more convenient to purchase daily necessities, increased by 9.7%, 2.6%, and 1.5% respectively.

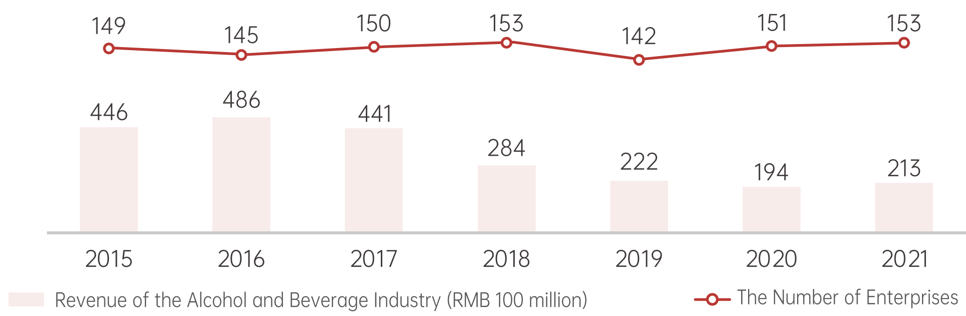
Revenue and Number of Enterprises in the Agricultural and Sideline Food Processing Industry from 2015 to 2022



Revenue and Number of Enterprises in the Food Manufacturing Industry from 2015 to 2022

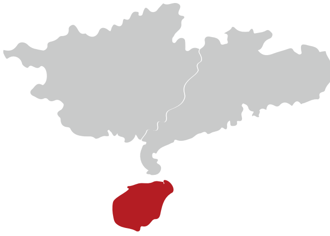


Revenue and Number of Enterprises in the Alcohol and Beverage Manufacturing Industry from 2015 to 2021



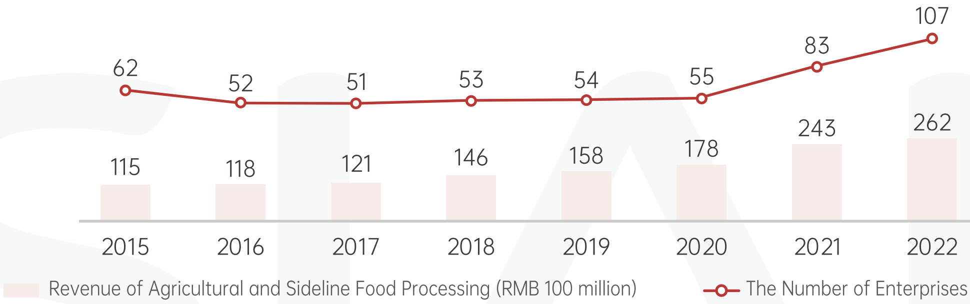
Source: National Bureau of Statistics, Guangxi Bureau of Statistics, public information

Market Size of Food and Beverage in South China – Hainan Province

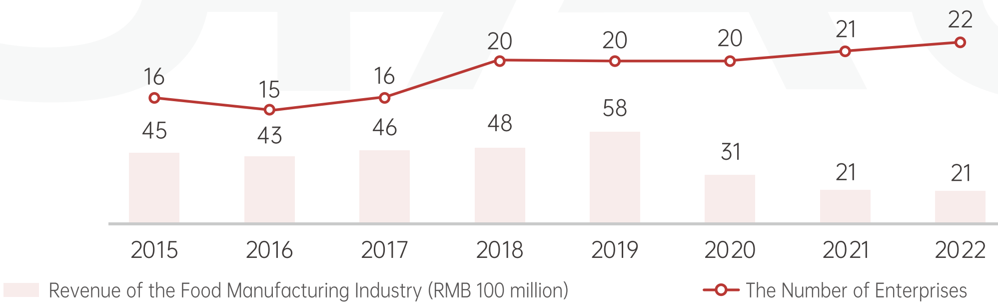


In 2022 (From January to November), the operating revenue of enterprises above designated size in agricultural and sideline food processing, food manufacturing, wine, beverage and refined tea manufacturing in Hainan has reached RMB 26.24 billion, RMB 2.1 billion and RMB 6.73 billion respectively, with year-on-year growth rates of 21.7%, 19.6% and -14.8% respectively. The number of enterprises above designated size and units above designated size is 107, 22, and 33 respectively, an increase of 24, 1, and 4 compared to 2021. The scale of the food and beverage market in Hainan has gradually shifted from being dominated by agricultural and sideline food processing to diversified and synchronized development in three major sub sectors.

Revenue and Number of Enterprises in the Agricultural and Sideline Food Processing Industry from 2015 to 2022



Revenue and Number of Enterprises in the Food Manufacturing Industry from 2015 to 2022



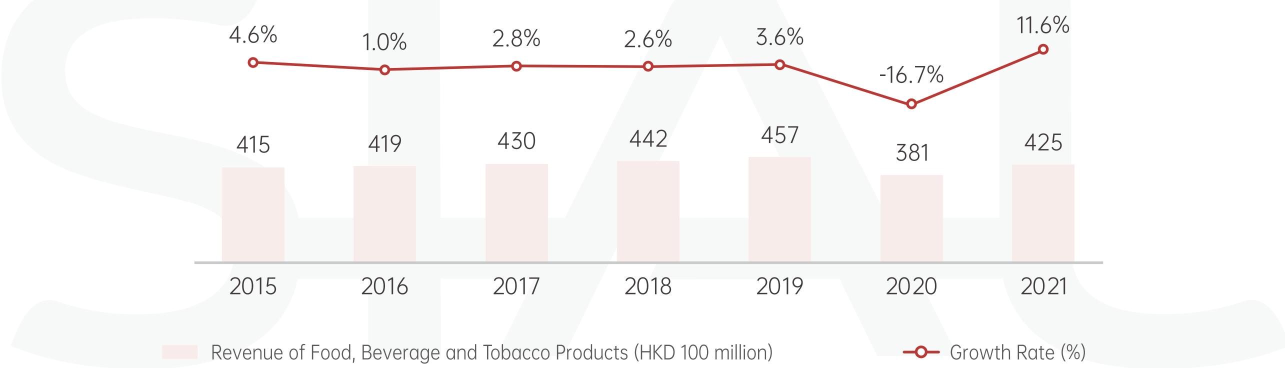
Revenue and Number of Enterprises in the Alcohol and Beverage Manufacturing Industry from 2015 to 2021

Source: National Bureau of Statistics, Hainan Provincial Bureau of Statistics, public information
Note: According to the disclosure by the Hainan Provincial Bureau of Statistics, the 2022 data only includes the income scale from January to November, and the corresponding growth rate has been adjusted to compare the year-on-year growth rate of the income scale from January to November 2021.

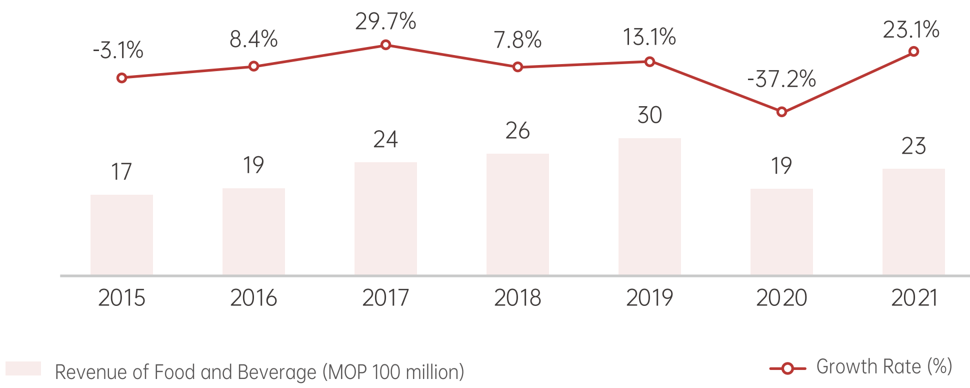
Market Size of Food and Beverage in South China - Hong Kong and Macao Special Administrative Regions

After experiencing a significant decline in 2020, the income from food and beverage manufacturing in Hong Kong and Macao will rise by 11.6% and 23.1% to HKD 42.5 billion and MOP 2.31 billion respectively year on year in 2021. Among them, the pastry manufacturing category with tourists as the main source of customers has grown rapidly, with a 36.9% increase in Macao's Chinese style pastry manufacturing (RMB 450 million) and a 9.6% increase in Western style pastry manufacturing (RMB 680 million). It is expected that the size of the food and beverage markets in Hong Kong and Macao will rebound significantly in 2023 and recover to the pre-epidemic level of revenue at a faster pace compared to the catering industry in the future.

Revenue and Growth Rate of Food, Beverage and Tobacco Products in Hong Kong from 2015 to 2021

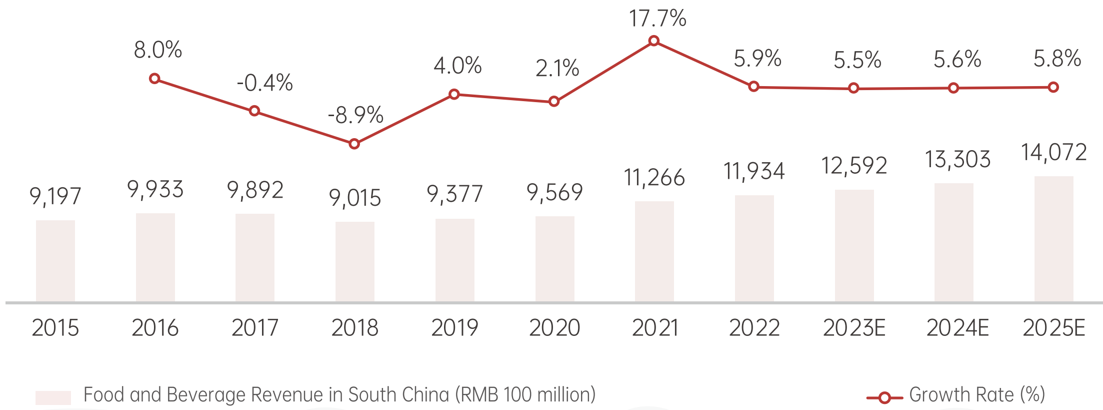


Revenue and Growth Rate of Food and Beverage Manufacturing Industry in Macao from 2015 to 2021



Source: Census and Statistics Department of Hong Kong Government, Statistics and Census Service of Macao Government, public information

Market Size and Forecast of Food and Beverage Industry in South China from 2015 to 2025



The original statistical currencies of the historical catering market size in Macao and Hong Kong are HKD and MOP. When converted to RMB, the average exchange rate of the year is used for final calculation.

In some years of historical scale, provinces have adjusted the income scale of enterprises above designated size, so there are certain differences in the historical scale. The absolute values of each statistical bureau in that year are used for aggregation, and the growth rate is predicted according to a phased function

Chapter 3

South China F&B Market Supply and Demand Analysis

Raw Material Supply and Demand Analysis in South China -- Guangdong Province

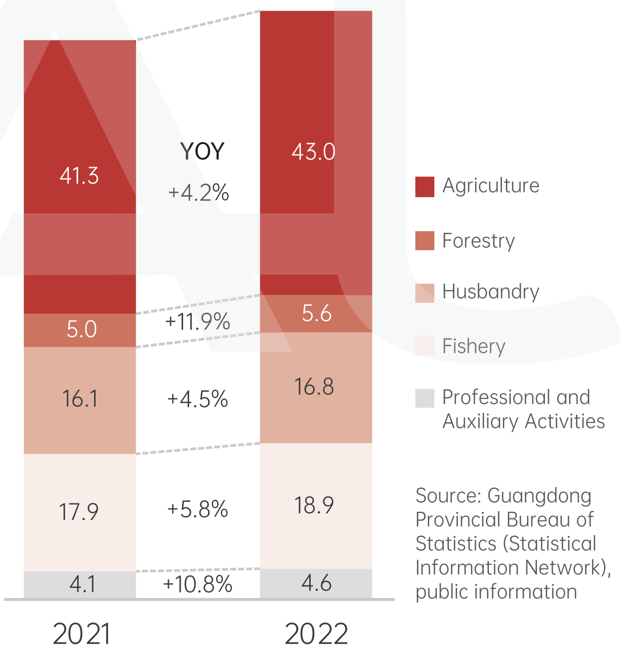
Guangdong focuses on the key tasks of rural revitalization strategy and accelerates the construction of the "12221" market system for agricultural products. In 2022, Guangdong achieved balanced development in agriculture, forestry, husbandry, and fishery, with a total output value of RMB 889.056 billion, an increase of 5.4% compared to the previous year. The output value of agriculture, forestry, husbandry, fishery, and their professional and auxiliary activities reached RMB 430.27 billion, RMB 55.863 billion, RMB168.132 billion, RMB 189.221 billion and RMB 45.57 billion respectively, accounting for 48.4%, 6.3%, 18.9%, 21.3%, and 5.1% of the total output value of agriculture, forestry, husbandry and fishery. The growth rate of various industries and regions was above 4%.

Development of Catering, Food and Beverage Related Raw Material Industries in Guangdong in 2022

Agriculture

In 2022, the sown area of grain crops in Guangdong was 33.4543 million mu, an increase of 258,700 mu or year-on-year growth rate of 0.8%, exceeding the national task of Guangdong's grain sown area; the grain production reached 12.9154 million tons, an increase of 116,700 tons or 0.9%, achieving a "four consecutive increases", the highest level in nearly 10 years; the grain yield per unit area is 386.1 kilograms per mu, 0.1%. The increase in grain yield, area, and yield per unit area is higher than the national average level.

Output Value of Agriculture, Forestry, Husbandry, and Fishery in Guangdong from 2021 to 2022 (RMB 10 billion)



Source: Guangdong Provincial Bureau of Statistics (Statistical Information Network), public information

As one of the main production bases for transporting winter vegetables from the south to the north in China, Guangdong has launched a promotional "flying plan" for winter vegetables, ensuring a stable supply of "vegetable baskets". In 2022, the vegetable planting area in the province was 21.4256 million mu, a year-on-year increase of 2.6%; The production of vegetables and edible mushrooms reached 39.9911 million tons, an increase of 3.7%.

Guangdong continues to create advantageous and distinctive "Cantonese Brand" products, establish multiple international procurement and trading centers for fruit RCEP agricultural products. In 2022, the actual area of garden fruits in the province was 16.0309 million mu at the end of the year, a year-on-year increase of 1.7%, and the production was 18.9627 million tons, an increase of 3.8%.

Husbandry

At the end of 2022, the number of live pigs for slaughter and on hand was 21.9586 million, an increase of 5.8%. The production of pork reached 2.7981 million tons, an increase of 6.3%. The production of poultry meat reached 1.8948 million tons, an increase of 4.0%. The production of poultry eggs reached 472,000 tons, an increase of 8.1%. The production of raw milk reached 198,100 tons, an increase of 15.0%.

Fishery

In 2022, the aquatic production in Guangdong reached 8.9414 million tons, an increase of 1.1%. The production of seafood reached 4.5839 million tons, an increase of 0.7%; the production of freshwater products reached 4.3574 million tons, an increase of 1.5%. In November, Guangdong creatively proposed to create a "New Year Fish Economy", innovate new consumption scenarios, and promote ceremonial consumption with fish as a carrier. According to the report data released by NCBD, the index of pre-made vegetable industry in Guangdong ranks the first in the country.

Raw Material Supply and Demand Analysis in South China – Guangxi Zhuang Autonomous Region

In 2021, the total output value of agriculture, forestry, animal husbandry, and fishery in the entire region was RMB 652.439 billion, an increase of 10.3% compared to the previous year. Among them, the output value of agriculture, forestry, animal husbandry, fisheries, and agricultural, forestry, animal husbandry, and auxiliary activities accounted for 56.6%, 8.2%, 22.0%, 8.5%, and 10.1% respectively. In 2022, the catering, food and beverage related raw material industries in Guangxi have steadily grown: grain production has maintained three consecutive years of "three growth" in terms of area, unit yield, and total output; The number of pigs sold and stored in the livestock industry is increasing, and the cattle and sheep industry is gradually becoming a new growth point; The standardized production level of aquaculture continues to improve, with a yield increase of 3.1%.

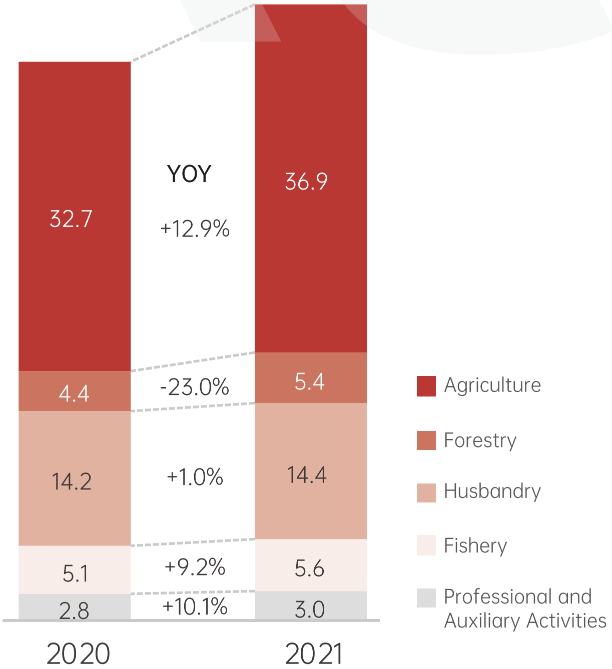
Development of Food and Beverage Related Raw Material Industries in Guangxi in 2022

Agriculture

In 2022, Guangxi will implement the strategy of "Storing Grain in the Land and Storing Grain in Technology", control the phenomenon of abandoned farmland, accelerate the construction of high standard farmland, vigorously promote good varieties and methods, implement grain production subsidies in place, and fully mobilize the enthusiasm of farmers. In 2022, the grain planting area in the entire region was 42.4395 million mu, an increase of 96,000 mu or 0.2% compared to the previous year; the unit yield is 328.27 kilograms/mu, an increase of 0.82 kilograms/mu compared to the previous year, an increase of 0.1%, and a new historical high; the total production was 13.931 million tons, an increase of 66,000 tons or 0.5% compared to the previous year, maintaining a "three growth" in area, unit yield, and total production for three consecutive years.

Output Value of Agriculture, Forestry, Husbandry, and Fshery in Guangxi from 2020 to 2021 (RMB 10 billion)

2022 data not yet released



Source: Statistics Bureau of Guangxi Zhuang Autonomous Region (output value data up to 2021, output data up to 2022), public information

Husbandry

In 2022, the number of live pigs for slaughter and on hand shows an increasing trend. Various regions in Guangxi have accelerated the construction of large-scale pig farms, continuously releasing new production capacity, increasing concentrated production volume, and continuously increasing market supply. The price of live pigs is favorable, and farmers are actively supplementing pens. Throughout the year, 33.4744 million pigs were sold in the entire region, an increase of 7.5% compared to the previous year. At the end of the fourth quarter, there were 22.197 million pigs on hand, a year-on-year increase of 4.3%.

In 2022, the cattle and sheep industry will gradually become a new growth point for the agricultural economy in the entire region. Throughout the year, 1.4282 million cattle were sold in the entire region, an increase of 6.3% compared to the previous year. 2.6185 million sheep were sold, an increase of 6.5% compared to the previous year.

Fishery

Guangxi is accelerating the development of deep-water anti-wind and wave net cages and other facilities for fisheries, as well as the construction of high standard aquaculture pond industrial parks. The standardized production level of aquaculture is constantly improving. On the basis of consolidating the traditional fish and shrimp breeding advantages, the breeding varieties are constantly adjusted and optimized, and the symbiotic breeding model of rice fish and shrimp is actively developed. In 2022, the production of aquatic products reached 3.6377 million tons, an increase of 3.1% compared to the previous year.

Raw Material Supply and Demand Analysis in South China -- Hainan Province

In 2022, the total output value of agriculture, forestry, husbandry, and fishery in Hainan reached RMB 227.2 billion, an increase of 3.5% compared to the previous year. The output value of agriculture, forestry, husbandry, fishery, and their professional and auxiliary activities reached RMB 125.382 billion, RMB 11.529 billion, RMB 34.041 billion, RMB 46.657 billion, and RMB 9.591 billion respectively, accounting for 55.2%, 5.1%, 15.0%, 20.5%, and 4.2% of the total output value of agriculture, forestry, husbandry, and fishery. The growth rate of industries related to catering, food and beverage raw materials is all above 3%.

Development of Catering, Food and Beverage Related Raw Material Industries in Hainan in 2022

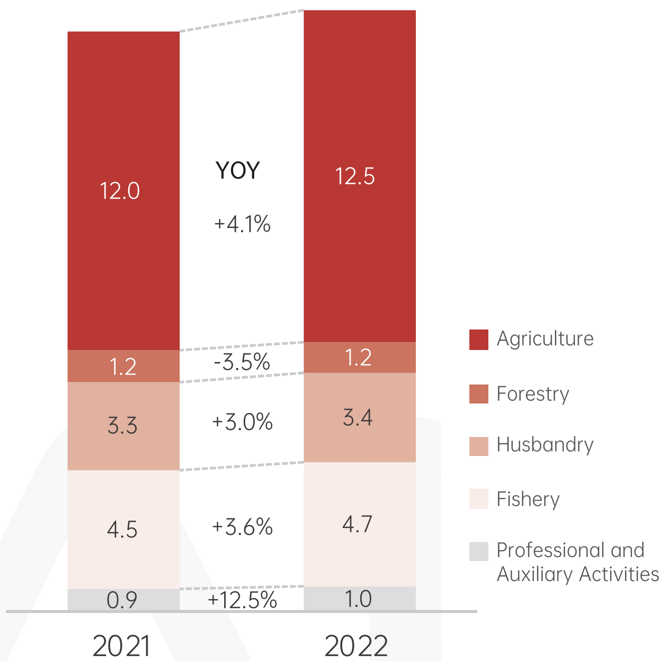
Agriculture

The total grain output was 1.4658 million tons, an increase of 0.4%; the sown area is 273.01 thousand hectares, an increase of 0.6%. The harvested area of vegetables (including vegetable melons) was 4,017,100 acres, an increase of 1.9%; the production was 6.0543 million tons, an increase of 2.8%.

The fruit harvest area was 3.263 million mu, an increase of 4.7%; the production was 5.6347 million tons, an increase of 7.2%. The harvested area of fruits (referring to fruit) was 702,600 acres, an increase of 10.2%; the production was 1.7562 million tons, an increase of 11.2%; the harvested area of garden fruits was 2.5605 million mu, an increase of 3.3%; the production reached 3.8785 million tons, an increase of 5.5%. The core growth of output of garden fruits came from pitaya and pineapple, with the total output of 383,000 tons and 516,100 tons, up 23.9% and 14.6% respectively.

Tropical crops: In 2022, the total yield of coconut in Hainan was 223 million, an increase of 9.9%; the total production of betel nut in Hainan is 294,800 tons, an increase of 6.7%

Output Value of Agriculture, Forestry, Husbandry, and Fishery in Hainan from 2021 to 2022 (RMB 10 billion)



Source: National Bureau of Statistics, Hainan Provincial Bureau of Statistics, public information

Husbandry

At the end of 2022, there were 3.2335 million pigs on hand, an increase of 4.1%, and 4.1022 million pigs were sold within the year, an increase of 7.3%. The production of pork reached 338,600 tons, an increase of 10.9%. The amount of poultry meat reached 314800 tons, a decrease of 2.5%. The production of poultry eggs reached 591,900 tons, an increase of 7.9%.

Fishery

In 2022, the total production of aquatic products reached 1.7118 million tons, an increase of 4.3%. Seafood still account for the vast majority, with an annual output of 1.2805 million tons, accounting for 74.8% of aquatic products, a year-on-year increase of 0.5%, and fishing and aquaculture reaching 1.0179 million tons and 262,600 tons respectively; freshwater products have become the main growth point of fisheries in Hainan in 2022, with an annual output of 431,300 tons, a year-on-year increase of 17.5%.

Core Consumers in South China

Post 50s-60s Generation Conservative	Reform and Opening-up Three Years of Difficulties	Basic Need	Silver Economy
Post 70-80s Generation Pragmatic	Urban Construction Connecting the Past and the Future	Eat after Work	Midlife Crisis
Post 90s-00s Generation Interest Driven	Sufficiency in Food and Clothing Being Unique and Independent	I Buy What I Like	Generation Z

Keywords of Core Consumers in South China - Generation Z

Consumption Value	Experience, quality, sophistication and freshness. Focus on shopping experience and new products in the catering, food and beverage industries. Meanwhile, they hope to achieve the sophisticated and high-quality lifestyle in a cost-effective way.
Circles	Socializing, seeking knowledge, sharing, and recognition. Generation Z pays more attention to both online and offline social behaviors, gaining knowledge and recognition through interpersonal interactions, and appreciate the connections.

Consumption Value of Generation Z (18-24 years old) (7-point scale, TOP1)

Sense of experience
They believe that the shopping experience is very important
They also like visiting shops

In General	24.2%
Generation Z	27.1%

Sense of quality
They sometimes buy very expensive but can improve the quality of life

In General	19.9%
Generation Z	22.5%

Sense of shrewdness
They have many ways to get better discounts

In General	23.3%
Generation Z	25.2%

Sense of freshness
They especially like to try new brands

In General	16.0%
Generation Z	17.1%

Circle of Generation (18-24 year old) (7-point scale, TOP1)

Sense of socializing
They are good at socializing and enjoying a lively life, and passionate about organizing family and friends outings

In General	23.0%
Generation Z	26.4%

Sense of knowledge seeking
They are curious and motivated of investigating and study

In General	19.0%
Generation Z	22.6%

Sense of sharing
They love social media and enjoying sharing on social media

In General	19.1%
Generation Z	22.1%

Sense of recognition
They think themselves as the most important,and strong confidence in both the country and the nation

In General	18.2%
Generation Z	21.3%

Source: N=2797, IResearch Consulting Group Customer Behavior and Attitude Continuous Monitoring Database

Chapter 4

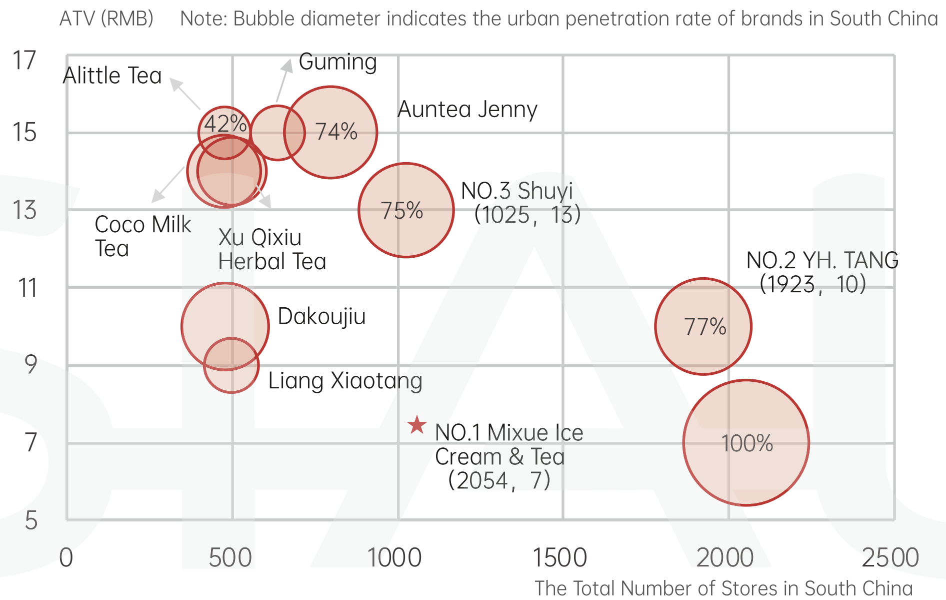
South China F&B Market Competition Analysis

South China F&B Market Competition Analysis - Fresh-made Tea Drinks and Coffee

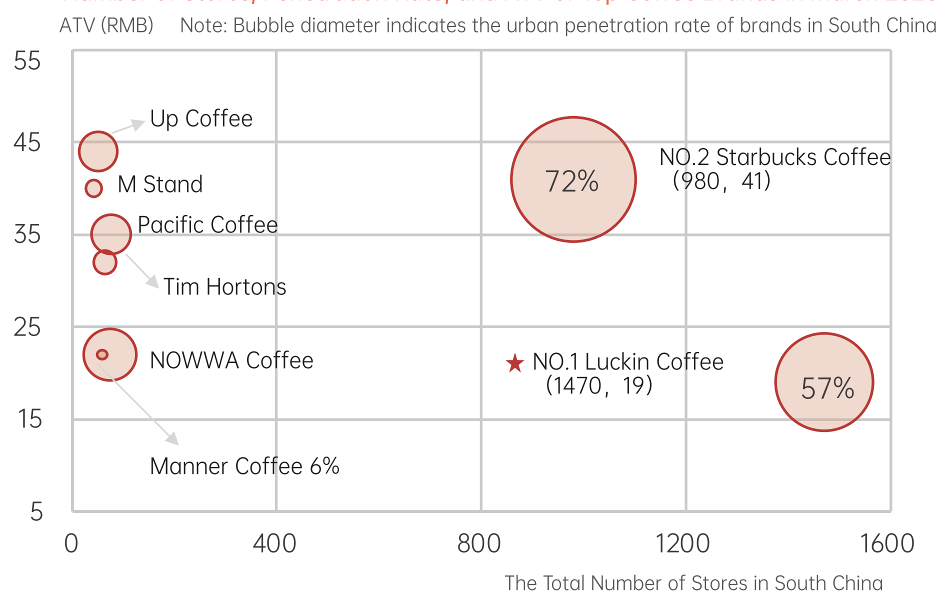
Fresh-made Tea Drinks: the core price competition zone is located at the range of RMB 13-15. The number of stores and penetration rate of Mixue Ice Cream & Tea and YH. TANG in South China lead this segment, and the target customer base is in the lower tier markets.

Coffee: the core price competition zone is located at the range of RMB 35-45. The number of Luckin Coffee stores is 1,470, which is more than the total number of other Top 10 brands, but the urban penetration rate is still lower than Starbucks' 15 pct.

Number of Stores, Penetration Rate, and ATV of Top Fresh-made Tea Drink Brands in March 2023



Number of Stores, Penetration Rate, and ATV of Top Coffee Brands in March 2023



Source: GeoHey, data as of March 8, 2023, public information

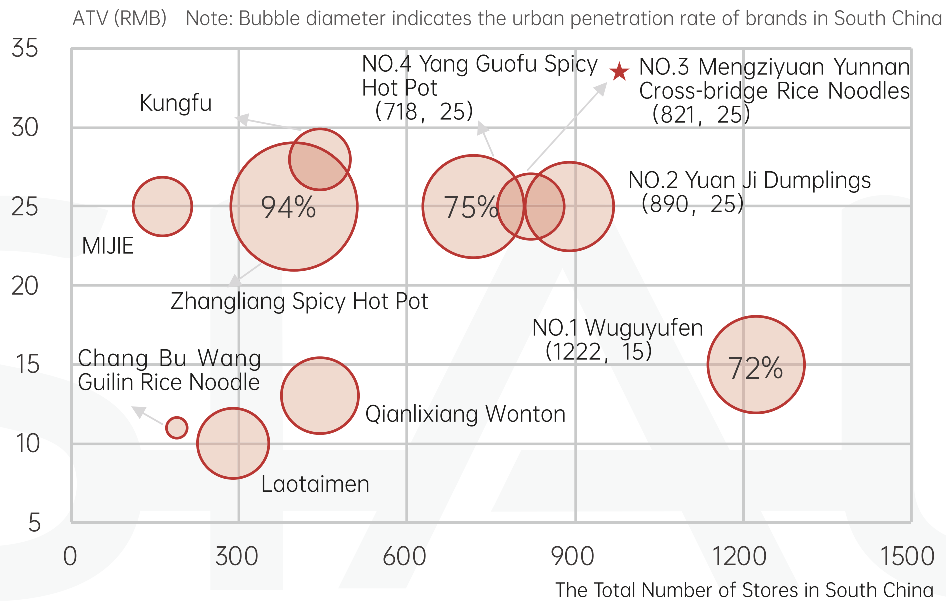
★ Brands with relatively fast growth in store numbers recently

South China F&B Market Competition Analysis – Chinese Fast Food and Western Fast Food

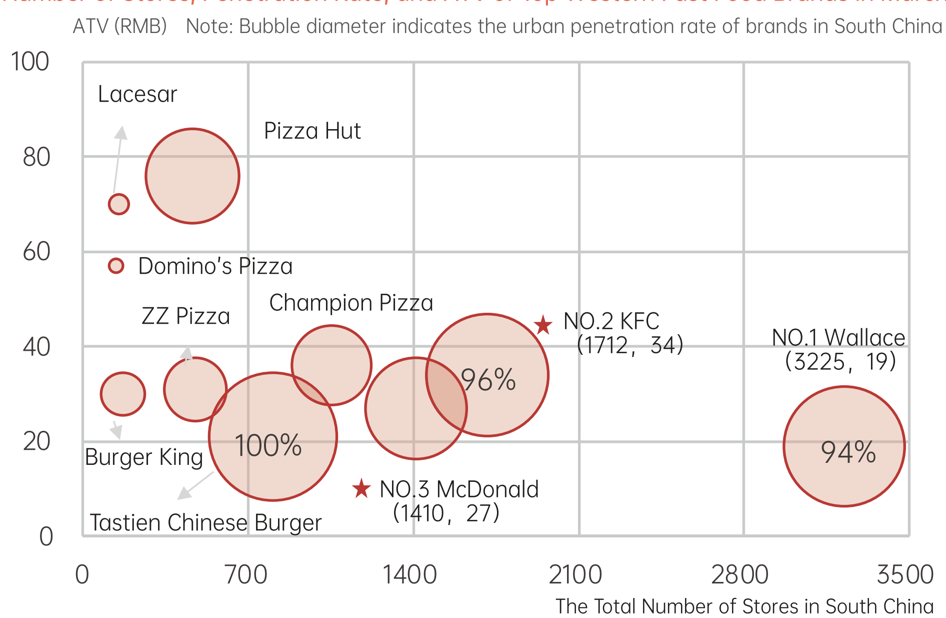
Chinese Fast Food: the core price competition zone is located about RMB 25, mainly including Cooked Wheaten Food (Rice Noodles, Wonton, Soup Dumplings) and Spicy Hot Pot, among which Mengziyuan Yunnan Cross-bridge Rice Noodles has seen a rapid growth in recent years;

Western Fast Food: the core price competition zone is located in the range between RMB 20-40, and the urban penetration rate of multiple international brand such as KFC exceeded over 90%. However, there is a significant gap in the number of stores compared to Wallace.

Number of Stores, Penetration Rate, and ATV of Top Chinese Fast Food Brands in March 2023



Number of Stores, Penetration Rate, and ATV of Top Western Fast Food Brands in March 2023



Source: GeoHey, data as of March 8, 2023, public information ★ Brands with relatively fast growth in store numbers recently

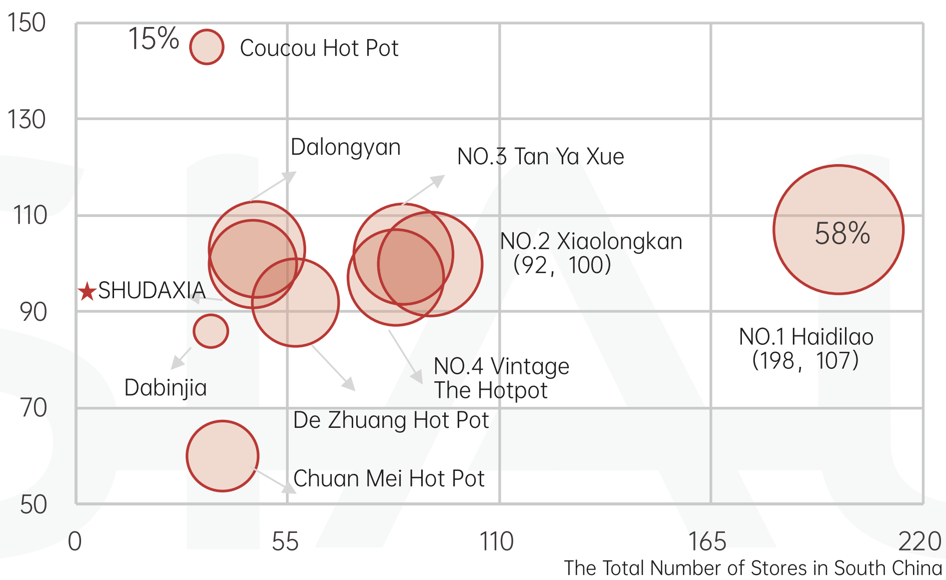
South China F&B Market Competition Analysis - Hot Pot and Local Cuisine

Hot Pot: the core price competition zone is located in the range between RMB 90-110. Currently, the urban penetration rate of hot pot brands in South China is relatively low, with only Haidilao exceeding 50%, and most brands have less than 100 stores.

Local Cuisine: the core price competition zone is located at the range of RMB 75-100 and the development is relatively diversified. At present, the brands with more than 100 stores include Duoluo Crawfish, Mr.Cold Rice Noodles and Taier Pickled Chinese Cabbage Fish.

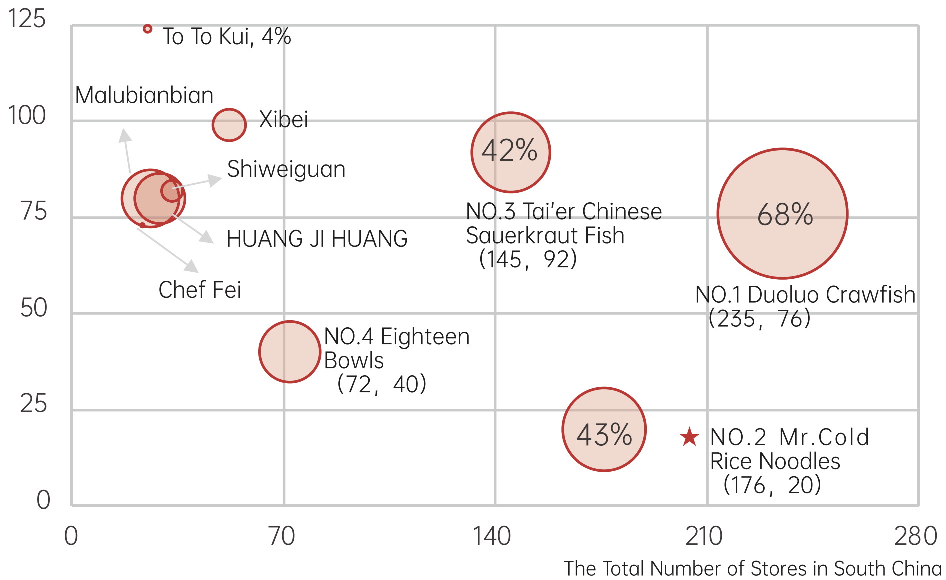
Number of Stores, Penetration Rate, and ATV of Top Hot Pot Brands in March 2023

ATV (RMB) Note: Bubble diameter indicates the urban penetration rate of brands in South China



Number of Stores, Penetration Rate, and ATV of Top Local Cuisine Brands in March 2023

ATV (RMB) Note: Bubble diameter indicates the urban penetration rate of brands in South China



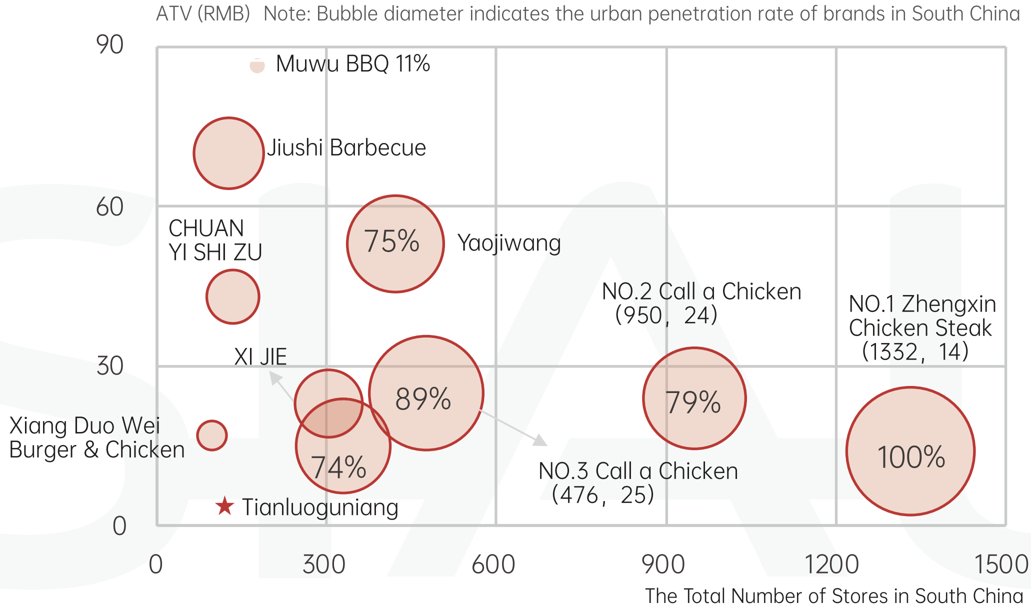
Source: GeoHey, data as of March 8, 2023, public information ★ Brands with relatively fast growth in store numbers recently

South China F&B Market Competition Analysis - Barbecue, Kushiage and Braised Dishes

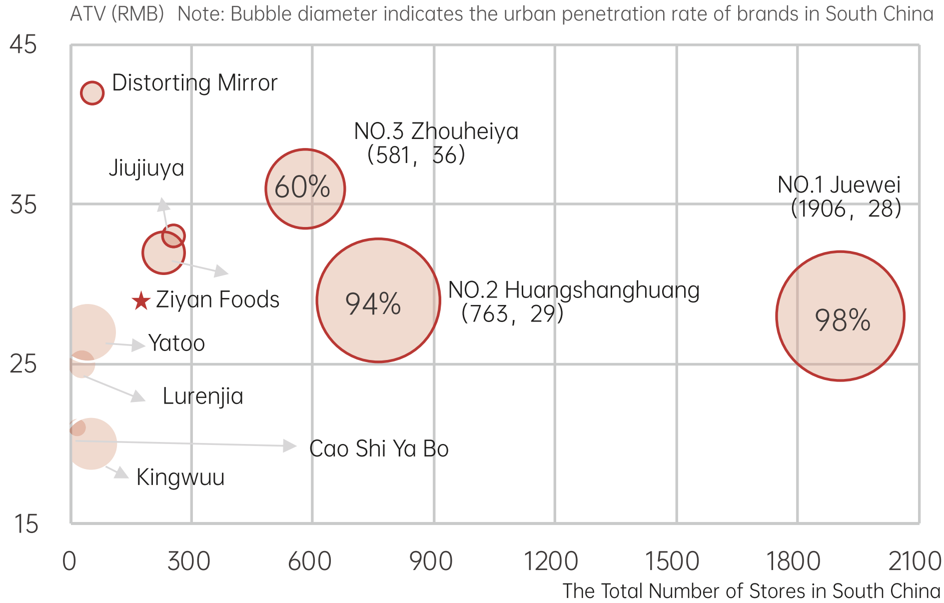
Barbecue and Kushiage: the core price competition zone is located at the range between RMB 15-25, of which Zhengxin Chicken Steak has penetrated all cities in South China and is the only brand in this field with more than 1000 stores.

Braised Dishes: the core price competition zone is located in the range between RMB 25-35, with 1906 stores, Juewei surpasses other Top 5 brands and half of the number of braised dishes brand stores still remain within the 100.

Number of Stores, Penetration Rate, and ATV of Top Barbecue and Kushiage Brands in March 2023



Number of Stores, Penetration Rate, and ATV of Top Braised Dishes Brands in March 2023



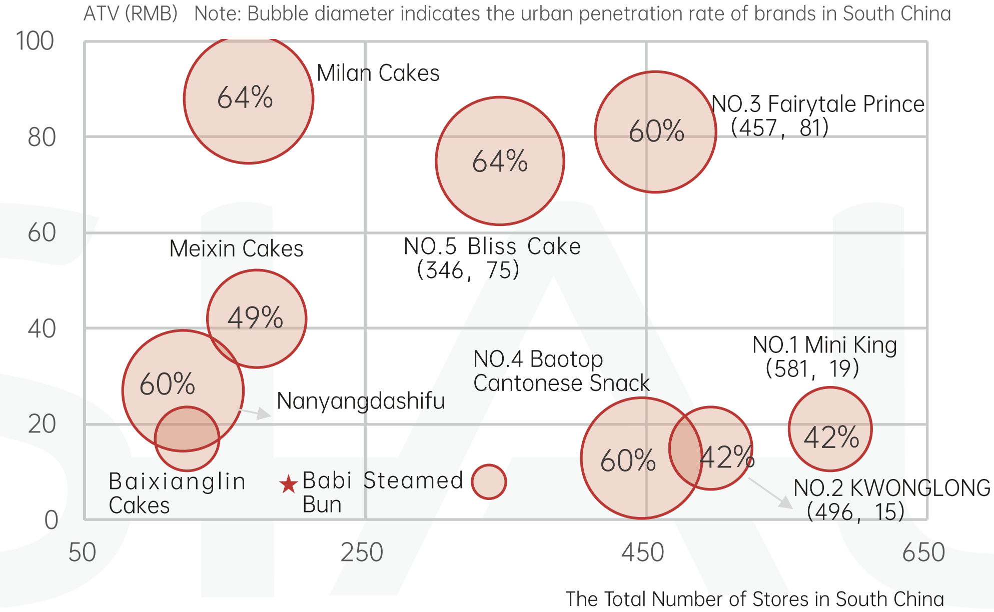
Source: GeoHey, data as of March 8, 2023, public information ★ Brands with relatively fast growth in store numbers recently

South China F&B Market Competition Analysis - Bread, Dessert and Other Catering

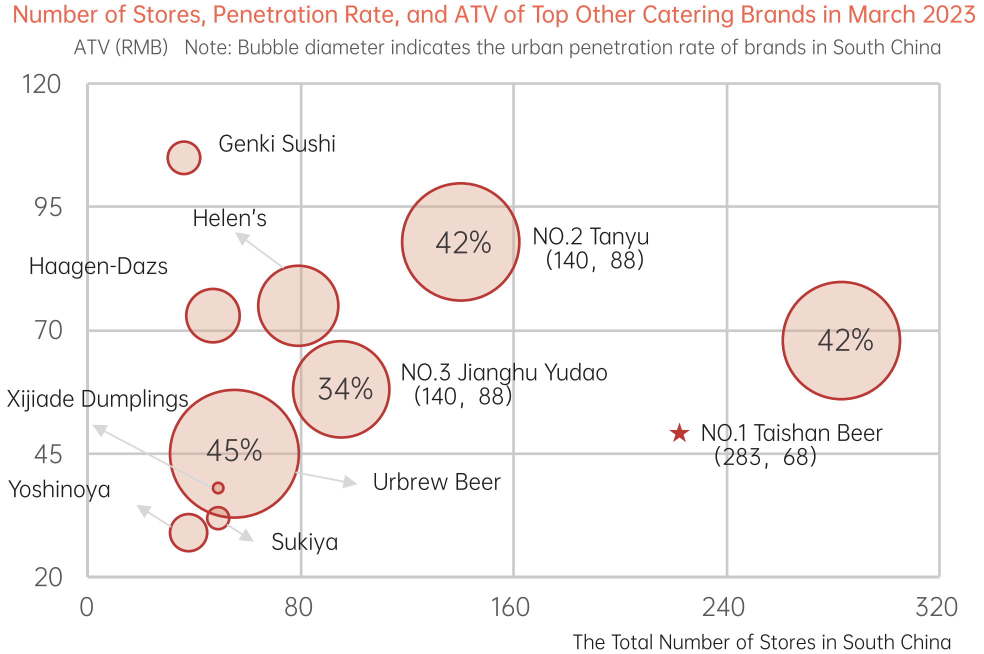
Bread and Dessert: the core price competition zone is located in the range between RMB 10-20 as well as the range between RMB 70-90. Currently, the urban penetration in this field is still relatively scattered, while the urban penetration rate of Mini King, the brand with the most stores, is less than a half.

Other Catering: there are differences in core price competition according to different categories, mainly including bistro, grilled fish, Japanese cuisine, and other categories. The number of stores is within the range of 300.

Number of Stores, Penetration Rate, and ATV of Top Bread and Dessert Brands in March 2023



Number of Stores, Penetration Rate, and ATV of Top Other Catering Brands in March 2023



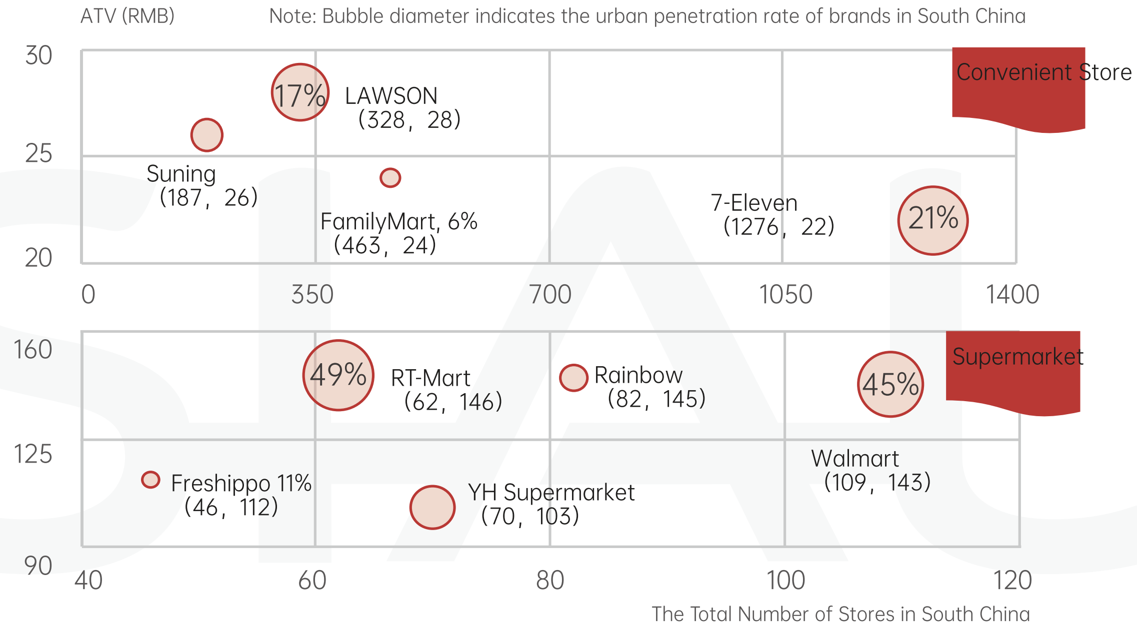
Source: GeoHey, data as of March 8, 2023, public information ★ Brands with relatively fast growth in store numbers recently

South China F&B Retail Channel Competition Analysis

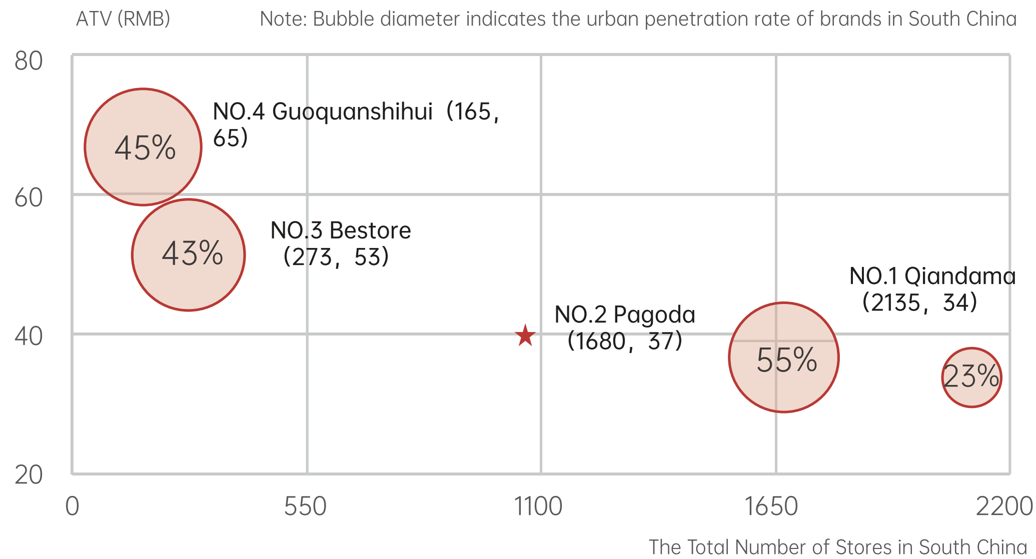
Convenience Store/Supermarket: traditional food and beverage retail channels have a relatively concentrated ATV, with convenience stores priced at the range between RMB 20-30 and supermarkets priced at the range between RMB 140-150. The number of channel solidification stores is relatively stable.

Other Retail: specialized centralized stores have emerged in various segments such as hot pot and snacks, with significant differences in ATV depending on the business format. The number of stores has increased significantly compared to traditional channels.

Number of Stores, Penetration Rate, and ATV of Top Convenient Store and Supermarket Brands in March 2023



Number of Stores, Penetration Rate, and ATV of Top Other Retail Store Brands in March 2023



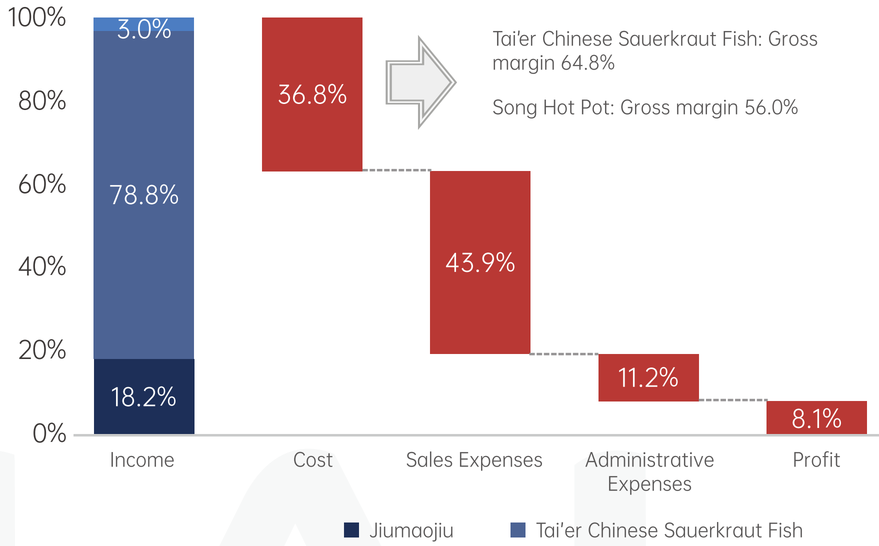
Source: GeoHey, data as of March 8, 2023, public information

★ Brands with relatively fast growth in store numbers recently

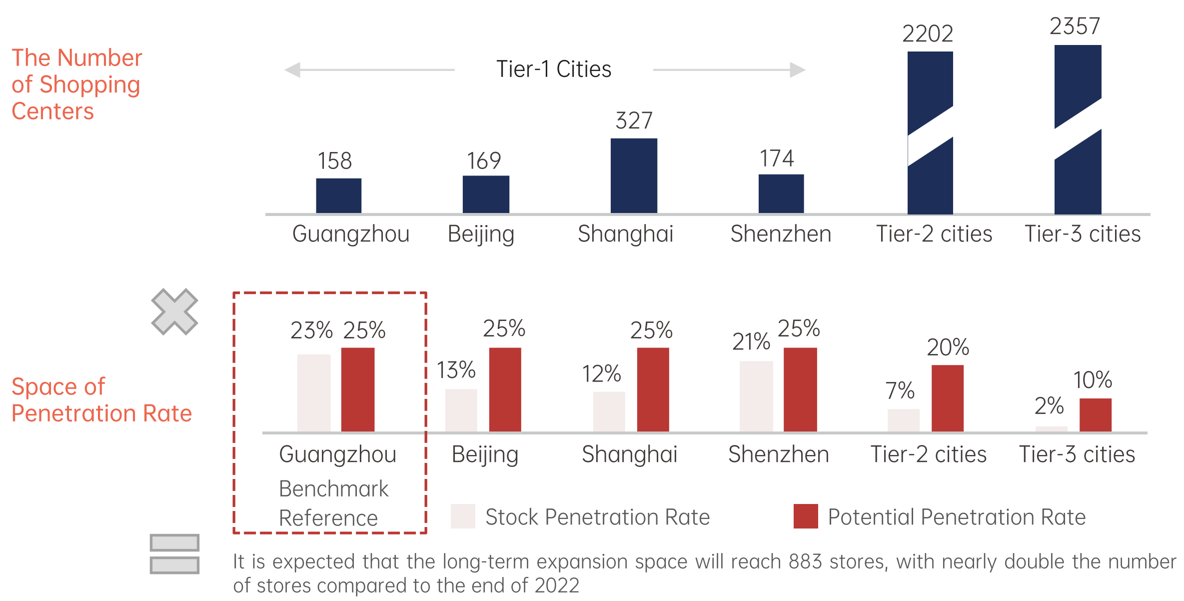
Analysis of Leading Catering Enterprises in South China - Jiumaojiu Group

Jiumaojiu Group, founded in Haikou in 1995, is currently positioned as a "Chinese Fast Food Operator", covering a number of segments including Northwest cuisine, Sichuan cuisine, hot pot, Cantonese cuisine and grilled fish. Among them, Tai'er Chinese Sauerkraut Fish is the main earner accounted for 78% of the revenue in the first half of 2022. Under the impact of the epidemic, profit ability continues to be achieved, and measures such as extending store service scenarios and setting up localized food supply have been taken to expand target customer groups and increase traffic. The brand potential and business model have been fully validated, and there is still considerable room for expansion in lower tier markets and overseas markets. On the other hand, new sub brands such as Song Hot Pot are expected to replicate the successful experience of Tai'er, relying on differentiated positioning and using minimalist SKUs to enhance standardized expansion capabilities, forming a second growth curve, and creating a "track strategy".

Revenue and Profit Structure of Jiumao Jiu Group in 2021



Core Revenue Contribution of Jiumaojiu Group - Potential Incremental Space for Tai'er in the Future

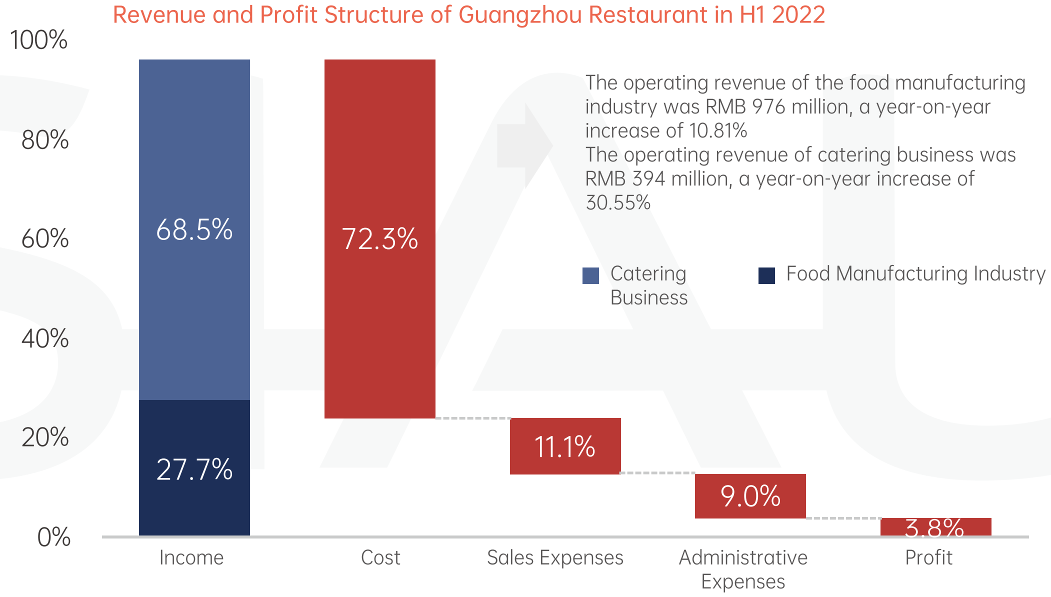


Source: Company financial report, Wind, cninfo, public information

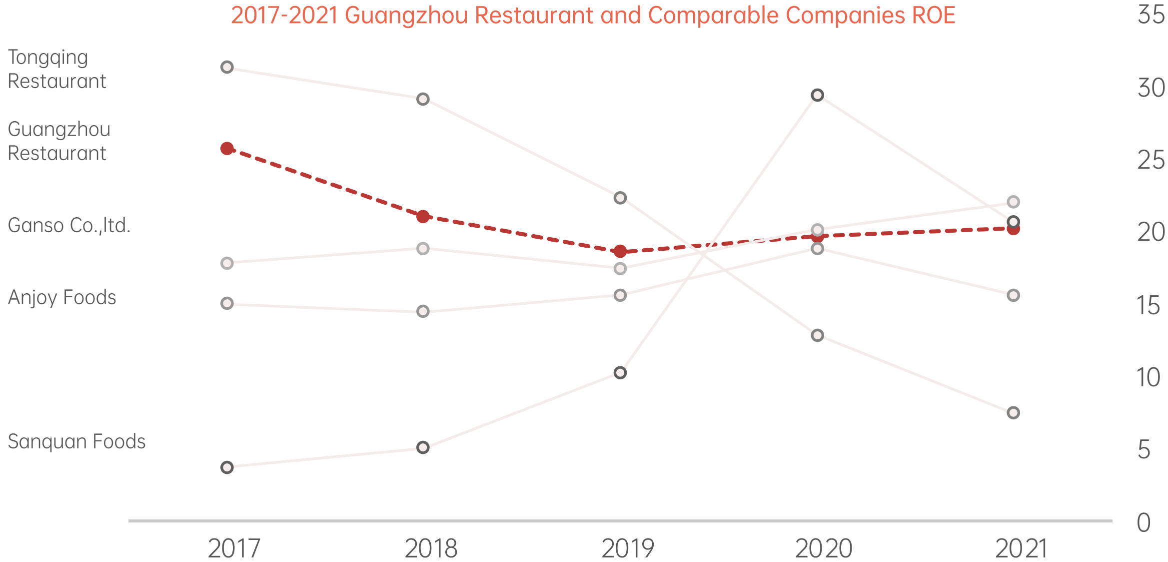
Analysis of Leading Food Manufacturing Enterprises in South China - Guangzhou Restaurant

Guangzhou Restaurant, founded in 1935, is a large food manufacturing and catering service group with Lingnan characteristics. It produces and realizes the brand advantages of tradition catering being accumulated with many years through the scale production of food such as moon cake. At present, the food manufacturing business accounts for nearly 70% of the revenue, including moon cakes, frozen food, cured meat, etc. The ROE level of the company over the years is higher than 15%, which is basically higher than that of the peers. In 2021, the ROE is 18.7%/+0.4pct. After spin off by DuPont, the company's high ROE is mainly due to its high profit margin, which is 14.5%/+0.4pct in 2021. The high profit margin is due to the high gross margin of the main product, moon cake, and the company's frozen products are also higher than that of the peers due to the main C-end profit margin. The company's equity multiplier is significantly lower than its peers, and the growth drivers of ROE are relatively high-quality.

Revenue and Profit Structure of Guangzhou Restaurant in H1 2022



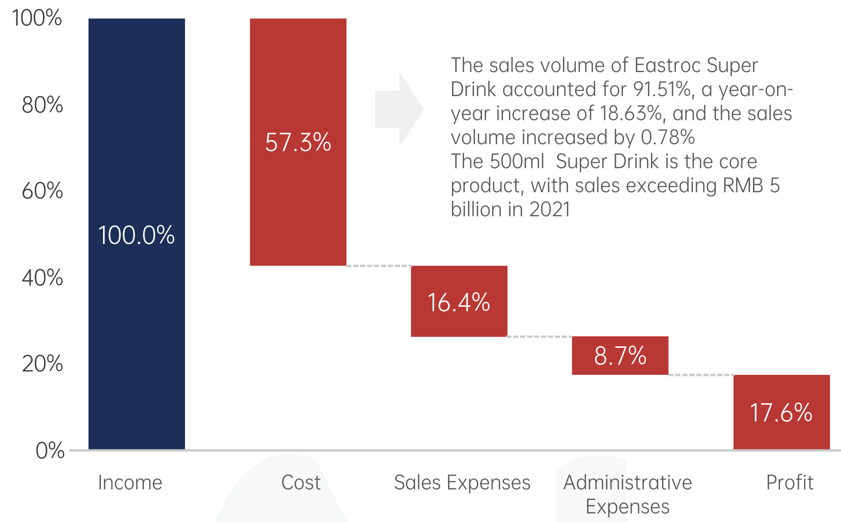
2017-2021 Guangzhou Restaurant and Comparable Companies ROE



Source: Company financial report, Wind, cninfo, public information

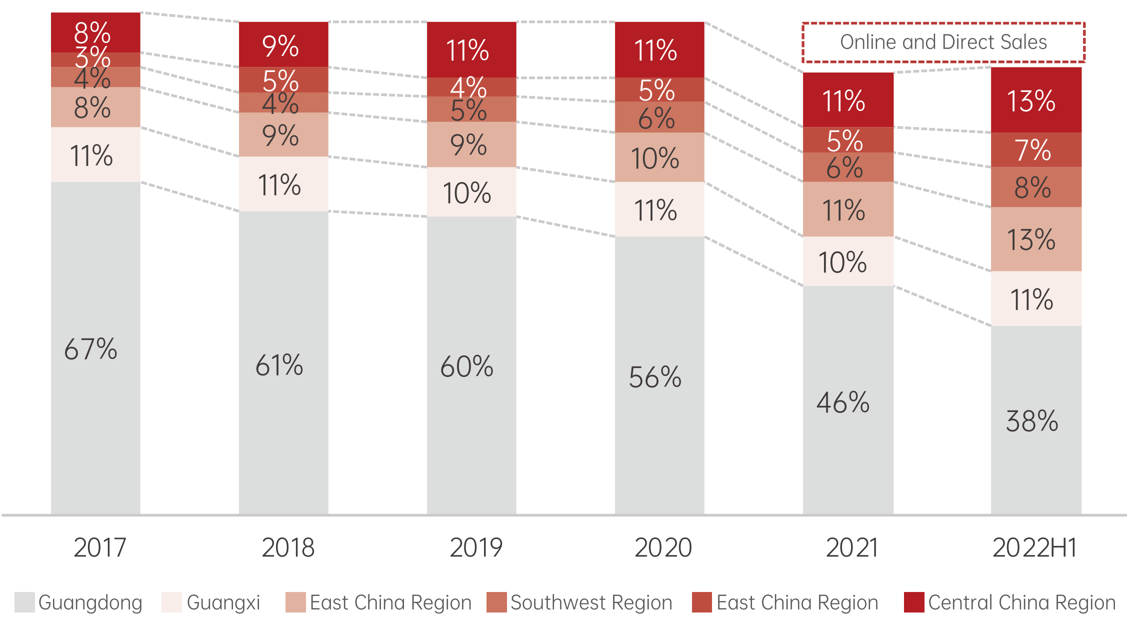
Analysis of Leading Beverage Enterprises in South China - Eastroc Beverage

Revenue and Profit Structure of Eastroc Beverage in H1 2022



Eastroc Beverage is a leading company of Energy drink in China. Established in 1994, and have been deeply involved in the beverage market for over 20 years, mainly engaging in the R&D, production, and sales of beverages. The main products of the company are divided into energy drink (Eastroc Super Drink, etc.), non energy drink (Eastroc Coffee, etc.) and packaged drinking water. The Guangdong region is the company's core competitive market, maintaining the top position in the industry for five consecutive years, with a market share of over 50%. At present, the company is actively promoting a layout nationwide with sales in the East, Southwest, and North China regions achieving year-on-year growth rates of 46%, 45%, and 63% in H1 2022 respectively. On the other hand, the company continuously segments the needs of different consumer groups for taste and functionality, gradually constructing and expanding the product matrix of "Eastroc Energy+" with Eastroc Super Drink as the core.

From 2017 to 2022, Eastroc Beverage promoted its layout nationwide step by step.



Source: Company financial report, Wind, cninfo, public information

Chapter 5

South China F&B Market Development Trend Forecast

Midstream and Upstream Trends - Cost Reduction and Efficiency Enhancement of Synthetic Biological New Materials

In the past decade, with the development of warehousing and logistics system as well as the Internet e-commerce platform, the innovation of China food and beverage industry has mainly focused on the downstream circulation link. However, as the downstream competition tends to intensify, the technological evolution in the food and beverage industry will gradually develop towards the middle and upper streams. The synthetic biotechnology represented by cell culture meat is expected to challenge traditional processes so as to achieve cost reduction, efficiency enhancement, and large-scale innovation.

Advantages and Current Application of Synthetic Biology in Food and Beverage Related Fields

The raw materials needed for synthetic biology are mainly biomass raw materials, which conform to the concept of recyclable development, and are characterized by large quantity, low price, and carbon cycle.

Wastewater discharge ▼90%

Energy consumption ▼40%

The smallest reaction unit for the production of chemicals using synthetic biology is mainly the catalysis of cells or enzymes. The same set of devices is suitable for the production of different products, and the products are easy to switch to each other.

The cycle from research and development to application ▼50%+

Category	Application of food related fields
Artificial Meat	Soy hemoglobin, synthetic milk, egg white, cheese, etc.
Oil	High oleic soybean oil - Calyno patchouli oil, etc.
Alcohol	Alcohol without fermentation, non-grape wines, etc.
Food Additives	Natural solvents, insulation agents, fragrances, etc.
Functional Food	Nootkatone, Resveratrol, Vanillin, etc.

Historical scale of food related industries
213 million US dollars

Scale of food related industries in 2024E
2.575 billion US dollars

Expected annualized growth rate
64.6%
(significantly higher than other five application areas)

Middle and Upstream Trends - Innovative Packaging Materials to Achieve Low Carbonization

In recent years, national policies have imposed stricter and clearer environmental and low-carbon requirements on food and beverage packaging materials, plastic bags, agricultural facilities, etc. "Reducing packaging waste through optimized use", "Low-carbon production of packaging materials", and "Packaging material technology innovation" are the three core (technological) innovation paths (detailed examples can be found on P50). In the context of the normalization of the epidemic and the implementation of the national "Dual Carbon" policy, it is beneficial to accelerate the design and application of low-carbon products so as to enhance the corporate social responsibility and win more consumers.

National Policy on Low-Carbon Food and Beverage Packaging Materials (Partial)

Release Time	Publishing Department	Policy Name	Content Interpretation
2021.09	State Administration for Market Regulation	National Food Safety Standard Restricting Excessive Packaging for Foods and Cosmetics	Food and cosmetics enterprises should in accordance with the requirements of the Standardization Law and the Solid Waste Pollution Prevention and Control Law, effectively raise awareness and take the initiative to fulfill their corporate social responsibilities as well as implement, use, and meet standards as soon as possible, so as to provide the market with the products that are greener and more environmentally friendly, higher quality but low-carbon.
2021.10	National Development and Reform Commission, Ministry of Ecology and Environment of the PRC	Action Plan for Plastic Pollution Control of the 14th Five-Year Plan	It is prohibited to produce ultra-thin plastic shopping bags with a thickness of less than 0.025 mm, polyethylene agricultural film with a thickness of less than 0.01mm, daily chemical products containing micro bead and other products that are harmful to the environment and human health.
2022.01	National Development and Reform Commission and other departments	Implementation Plan on Promoting Green Consumption	Promote the governance of over-packaging, promote producers and operators to comply with the mandatory standards restricting over-packaging of commodities, implement color reduction printing, and gradually realize the greening, reduction and recycling of commodity packaging.
2022.09	General Office of the State Council	Notice on Further Strengthening the Control of Excessive Packaging of Commodities	Strengthen the whole chain governance of over-packaging of goods. Strengthen technological innovation in the packaging, and promote packaging enterprises to provide comprehensive packaging solutions with reasonable design, material conservation, convenient recycling, and economic applicability.

Source: National Development and Reform Commission, State Council of the PRC, public information

Top 10 Behaviors of Enterprises to Increase Consumers' Brand Favorability

Middle and Upstream Trends - Innovative Packaging Materials to Achieve Low Carbonization

Usage Optimization

Corona

Fit Pack

Add a layer of spiral ring on the cover and bottom of the cans, screw the can vertically and mutually to take it away, saving plastic packaging bags.

Coca Cola

Labelless PET Bottle

Improve recyclability by eliminating labels on plastic bottles.

SF Express

π-box Recycled Package

Adopting a single material PP honeycomb board that is easier to recycle, it is easy to clean and has a 100% improvement in puncture resistance. They can be cycled 70 times with 0 tape encapsulation.

Material Low Carbonization

Suntory Group

Plant-based PET Bottle

PET bottles made of 100% plant-based materials. Compared to bottles made from petroleum, it can significantly reduce carbon emissions.

Budweiser

Ultra Low Carbon Aluminum Cans

The carbon footprint of new inert anode aluminum technology and renewable electricity production reduced the carbon footprint by 95% comparing to the ordinary aluminum cans.

Yili Satine

Zero Aluminum Foil Aseptic Paper-based Composite Packaging

A new barrier layer will replace the aluminum foil to greatly reduce the carbon footprint.

Packaging Material Innovation

Empa & Lidl Switzerland

Cellulose Protective Coating for Fruit and Vegetables

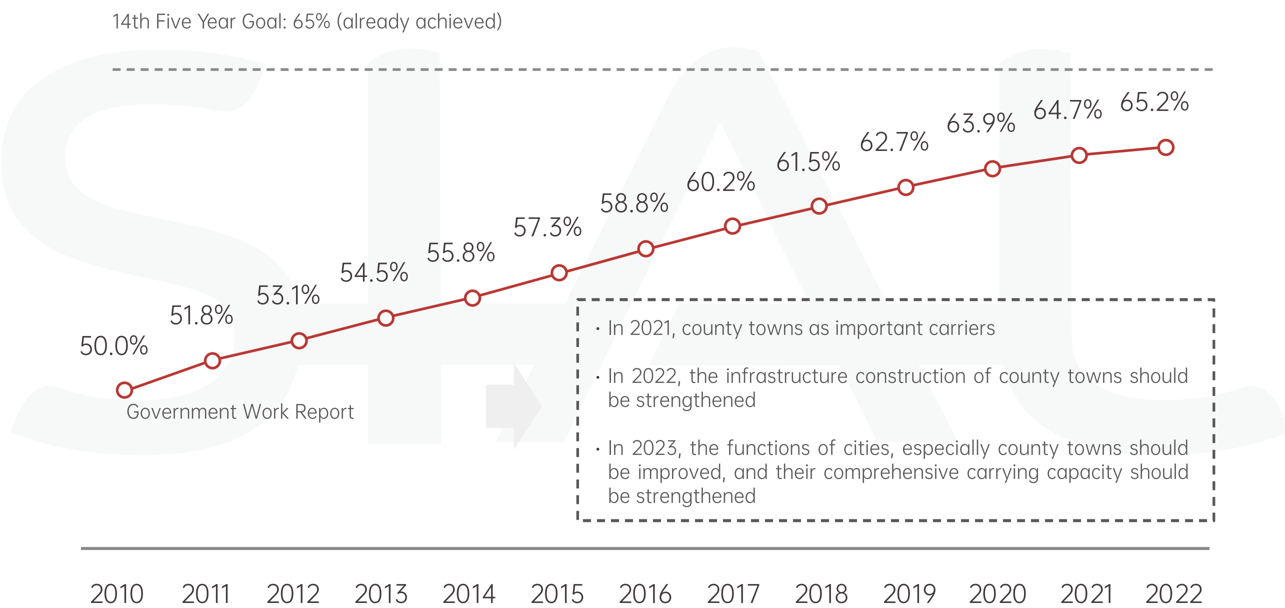
The production of coatings involves processing the solid residue formed by extracting fruit juice from fruits, vegetables, or plants into fibrillated cellulose to avoid plastic packaging and ensure a longer quality guarantee period and freshness. Therefore, the carbon emissions and food waste are greatly reduced.

The development of low-carbon in China mainly focuses on "recycling" and attempts to apply new low-carbon packaging materials, but more efforts should be made for the large-scale application and innovation of packaging technology.

Downstream Trends - County Lower Tier Market Commercial Channel Innovation

The goal of urbanization rate has been achieved ahead of schedule. In the future government work plan, counties are the focus of "high-quality development", and the vast county market is witnessing the gathering of new consumer forces. Nearly one-third of China's recent increase in urbanization rate is concentrated in counties. After the gradual improvement of county-level logistics and infrastructure, the multi-layer distribution dealership system is gradually being replaced by more efficient new models. The traditional supermarket, which previously carried a large amount of food and beverage retail business, is increasingly showing signs of fatigue, with traffic gradually diluted and its overall share decreasing year by year. A new channel model with high turnover and no middleman such as snack shops, will become an important pivot for opening up a vast county market.

China's Urbanization Rate and the Target of the 14th Five-Year Plan from 2010 to 2022



Traditional Channels (Stores, Supermarkets, etc.)	New Channels (Snack Collection Stores, etc.)
• Multi-level dealer network • Traffic is differentiated and share decreased • Insufficient supply of logistics and other services	• Brand-Warehouse-Store (50-150m^2) • Low gross profit and high turnover, reducing markup rates to benefits consumers

Source: Wind, public information

SIAL 西雅展 in China
INSPIRE FOOD BUSINESS

2023.8.28-30
Shenzhen Convention & Exhibition Center

2024.5.28-30
Shanghai New International Expo Center (SNIEC)