

INDUSTRY OVERVIEW

The information and statistics set out in this section and other sections of this document were extracted from different official government publications, available sources from public market research and other sources from independent suppliers, and from the independent industry report prepared by Frost & Sullivan (the “Frost & Sullivan Report”). We engaged Frost & Sullivan to prepare the Frost & Sullivan Report, an independent industry report, in connection with the [REDACTED]. The information from official government sources has not been independently verified by us, the Joint Sponsors, the [REDACTED], the [REDACTED], the [REDACTED], the [REDACTED], any of the [REDACTED], any of their respective directors and advisers, or any other persons or parties involved in the [REDACTED], and no representation is given as to its accuracy.

SOURCES OF THE INDUSTRY INFORMATION

We commissioned Frost & Sullivan to analyse and prepare a report regarding China’s pig breeding and farming market, China’s pig slaughtering and pork processing market, China’s yellow-feathered broilers breeding and farming market, as well as China’s pig and poultry feed market. Frost & Sullivan is an independent global consulting firm founded in 1961 in New York that offers industry research and market strategies and provides growth consulting and corporate training. We agreed to pay a commission fee of RMB1,060,000 to Frost & Sullivan pursuant to a service agreement reached by arm’s length negotiation. Except as otherwise noted, all of the data and forecasts contained in this section are derived from the Frost & Sullivan Report. We have also referred to certain information in the “Summary”, “Risk Factors”, “Business” and “Financial Information” sections to provide a more comprehensive presentation of the industry in which we operate.

In preparing the report, Frost & Sullivan conducted both primary and secondary research and relied on various sources. The primary research was conducted via interviews with key industry experts and leading industry participants. The secondary research involved analysis of market data obtained from several publicly available data sources, such as the National Bureau of Statistics of China and other industrial associations. The market projections in the Frost & Sullivan Report are based on the following key assumptions: (i) the overall social, economic, and political environment in China is expected to remain stable during the forecast period; (ii) China’s economic and industrial development is likely to maintain a steady growth in the forecast period; (iii) related industry key drivers are likely to drive the growth of the pig breeding and farming, pig slaughtering and pork processing, broiler breeding and farming, and pig and poultry feed markets in China in the forecast period; and (iv) there is no extreme force majeure or industry regulation which may affect the market dramatically or fundamentally.

Our Directors confirm that, to the best of their knowledge, after making reasonable inquiries and exercising reasonable care, there is no material adverse change in the market information since the date of the relevant data contained in the Frost & Sullivan Report which may qualify, contradict or have an impact on the information in this section.

OVERVIEW

China has enjoyed steady economic growth over the past five years. One of the changes has been the sustained growth in meat consumption. Despite the impacts of COVID-19 and African Swine Fever, China’s appetite for overall meat consumption is growing steadily, and the meat consumption momentum is expected to continue as disposable income increases.

Driven by the solid growth of China’s economy and disposable income, the Chinese per capita annual expenditure increased from RMB19,853 in 2018 to RMB24,538 in 2022. Although the per capita annual expenditure in China declined slightly by 1.6% in 2020 due to impacts of the COVID-19 pandemic, the overall increase still represented a CAGR of 5.4% from 2018 to 2022. As supported by the growing per capita disposable income in the forecast period, the per capita annual expenditure is expected to reach RMB32,084 in 2027, with a CAGR of 5.5% from 2022.

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According to the Organisation for Economic Co-operation Development and the Food and Agriculture Organization, the major categories of meat consumption in China include pork, poultry, beef, and mutton. Pork is currently the most consumed meat in China, with approximately 28.5 kilograms per capita in 2022, accounting for 55.7% of total major meat consumption per capita. Poultry is the second most commonly consumed meat, with approximately 15.2 kilograms per capita, occupying 29.7% of total major meat consumption per capita in the same year. The third most commonly consumed meat is beef, with approximately 4.2 kilograms per capita, occupying 8.2% of total major meat consumption per capita in 2022. In the future, pork consumption per capita in China is expected to maintain a steady growth, representing a CAGR of 1.6% from 2022 to 2027. By the end of 2027, pork consumption per capita will account for 57.7%, the largest proportion in terms of meat consumption per capita in China. For the per capita consumption of poultry, beef, and mutton, the figures are expected to reach 14.9 kilograms, 4.2 kilograms, and 3.4 kilograms per capita in 2027, respectively, representing a CAGR of -0.4%, 0.0%, and 0.6% from 2022, respectively.

The per capita meat consumption in China maintained a steady growth from 2018 to 2022, increasing from 49.3 kilograms per capita in 2018 to 51.2 kilograms per capita in 2022. The per capita meat consumption in the U.S. represented a CAGR of 0.9% during the same period, rising from 99.3 kilograms per capita in 2018 to 103.0 kilograms per capita in 2022. Compared with the per capita meat consumption in the U.S., the per capita meat consumption in China is far less than that in the U.S., which shows great potential in the future.

China was the world’s largest pork production and consumption country in 2022, accounting for 48.4% and 51.0% of world’s pork production and consumption, respectively. As the most commonly consumed meat worldwide and one of the most important sources of Chinese meat consumption, pork consumption per capita has been relatively stable in the past five years. Due to African Swine Fever, pork consumption in China temporarily declined in 2019 and gradually recovered in 2020. Pork consumption per capita has decreased from 30.3 kilograms in 2018 to 28.5 kilograms in 2022, with a CAGR of -1.5%. The CAGR is expected to reach approximately 1.6% in the next five years, with pork consumption per capita of 30.8 kilograms in 2027. Chicken consumption per capita in China reached only 11.4 kilograms in 2022. However, the chicken consumption per capita in China is expected to experience a faster growth, at a CAGR of 4.6% from 2022 to 2027.

In line with the trend of pork consumption per capita in recent years, the pork production in China was relatively stable at approximately 54.0 million tonnes in 2017 and 2018. Due to the outbreak of African Swine Fever in the PRC since August 2018, the pork production declined sharply by 21.3% to 42.6 million tonnes in 2019 and hit record low of 41.1 million tonnes in 2020 as African Swine Fever continued to impact China’s pig industry. However, the pork production recovered rapidly to 53.0 million tonnes in 2021 as consumer demand for pigs persisted and the impact of African Swine Fever gradually faded and the pork production increased slightly to 55.4 million tonnes in 2022, with a CAGR of 0.6% from 2018 to 2022. The pork production is expected to increase to 56.8 million tonnes in 2027, representing a CAGR of 0.5% from 2022 to 2027.

PIG FARMING INDUSTRY IN CHINA

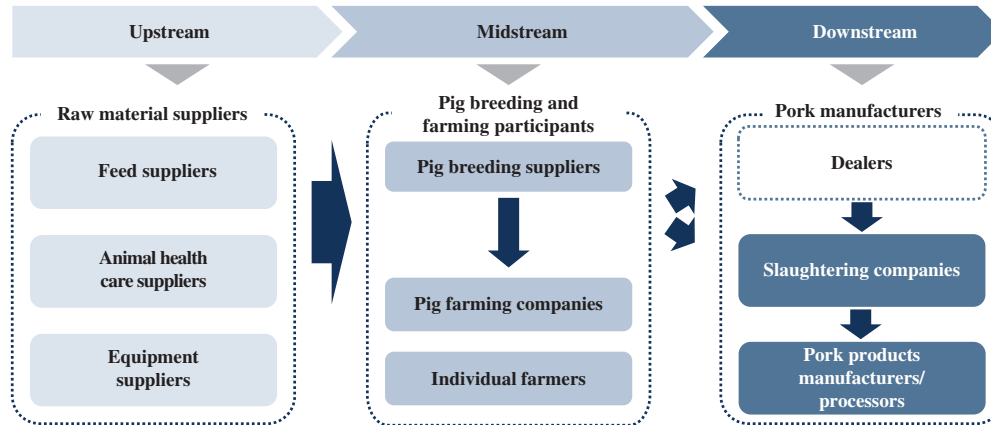
Definition and classification of pigs

Pigs can be primarily divided into two main categories by purpose: breeding pigs and market hogs. Breeding pigs refer to boars and sows exclusively used for breeding production. Market hogs (including market piglets) are pigs primarily held for trading and production of pork products, representing market piglets being small market hogs weighing between six to 25 kilograms.

The pig farming value chain

The upstream and midstream of the pig farming industry include raw material suppliers, which consist of feed suppliers, equipment suppliers, animal health care suppliers, as well as breeding suppliers, farming companies and individual farmers. The downstream consists of dealers, slaughtering companies, and pork products manufacturers and processors.

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Source: Frost & Sullivan

Major Pig Farming Models

China’s pig farming models mainly include individual farming (農戶散養), “Company Farming (公司自營)” and “Company + Farmers (公司+家庭農場)” farming. “Company Farming” is where a company builds a farming base and employs labour force to carry out scaled farming, including breeding, fattening and other related processes. The scaled farming model of “Company + Farmers” can be further divided into “Company + Piglet Fattening Farm” (i.e. the No. 1 Family Farm model) and “Company + Sow Raising and Fattening Farm” (i.e. the No. 2 Family Farm model) according to the type of pigs that the company provides to farmers. The No. 2 Family Farm model is a unique model adopted by the Group in the domestic pig farming industry. Under this model, the Group is able to expand its sow production scale using an asset-light approach as well as safeguard its biological assets of sows through decentralized farming. In 2022, the output volume of scaled farms with an annual output of over 500 heads only accounted for 60.8% of the total output volume in China. The percentage of output volume of scaled farms is expected to further increase to 67.0% in 2027. With increasing market share of scaled farming, the Group can expect potentially milder pig cycles ahead. The Group adopts a combination of “Company Farming,” “Company + Piglet Fattening Farm” and “Company + Sow Raising and Fattening Farm” models. The table below illustrates the details of each type of “Company + Farmers” models:

	Company + Piglet Fattening Farm (The No. 1 Family Farm Model)	Company + Sow Raising and Fattening Farm (The No. 2 Family Farm Model)
Definition	<ul style="list-style-type: none"> Company provides farmers with weaned piglets that cannot be raised as breeding pigs, feed, vaccines and drugs. The farmers fatten the piglets and return the grown pigs to the company for an agreed fee. 	<ul style="list-style-type: none"> Company provides farmers with sows, feed, vaccines and drugs if the farmer meets the standard set by the company. Farmers are responsible for raising the sows receive from the company, as well as producing weaned piglets that are fattened either in the No. 2 Family Farm or nearby No. 1 Family Farms.
Advantage	<ul style="list-style-type: none"> Easy to scale up Scientific management system and unified epidemic prevention standards Relatively low capital requirements 	<ul style="list-style-type: none"> Less capital intensive and more scalable Stronger profitability More conducive to the prevention and control of animal diseases and the protection of biological assets of crossbred sows Higher entry barriers with a more comprehensive training programme for farm owners, which enables farm owners to master more professional farming technologies Generates higher and more stable income for farm owners and therefore provides stronger incentives for qualified farmers
Disadvantage	<ul style="list-style-type: none"> Higher production cost including land, labour, water and electricity costs compared to “Company + Sow Raising and Fattening Farm” model 	<ul style="list-style-type: none"> Requires a more scientific and accurate cooperative model with farmers and management system

Source: Frost & Sullivan

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PIG CYCLE

The “Pig Cycle” refers to the cyclical change in pork price that is impacted by the mismatch of demand and supply of pigs. A full pig cycle usually lasts approximately four to five years in China historically. The pig cycle follows the rule: pork price increases – number of sows increases – market hogs’ supply increases – pork price decreases – number of sows decreases – market hogs’ supply decreases – pork price increases. Obviously, when the pork price increases, more farmers are willing to raise more pigs which, accordingly, increases the supply of market hogs. The increase of market hogs’ supply will cause the pork price to go down.

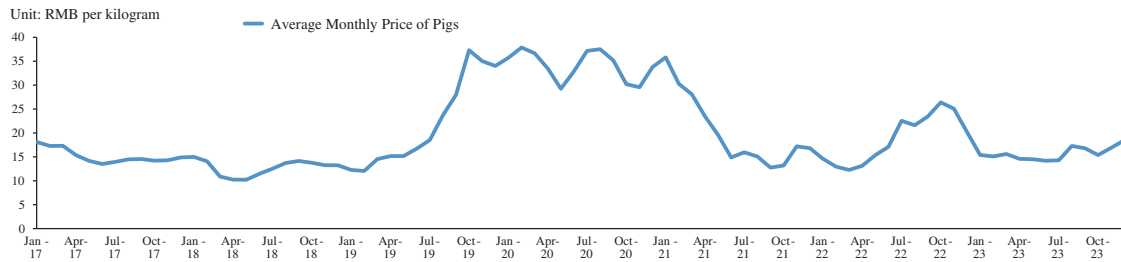
The price of pork is determined by the price of pigs. Accordingly, in 2019, the monthly average pig price rose rapidly in the face of a sharp decline in pig supply due to African Swine Fever, as well as relatively stable downstream demand. In 2019, the average pig price reached RMB21.9 per kilogram. Entering 2020, the average pig price fluctuated at a higher level, with an average price of RMB34.1 per kilogram, much higher than that of the past three pig cycles since 2006. From January 2021 to December 2021, the monthly average pig price declined from RMB35.8 per kilogram to RMB16.8 per kilogram. The average price of pigs generally decreased in 2021 as compared with that in 2020 due to relatively high average price in 2020 driven by the shortage of pigs in 2020 as a result of the outbreak of African Swine Fever. Starting in 2022, the monthly average pig price recovered and peaked at RMB26.4 per kilogram in October 2022 before settling down at RMB20.2 per kilogram in December 2022. With the effective prevention and control of African Swine Fever, the output volume of pigs recovered in 2021 and 2022, resulting in lower average market prices of pigs of RMB20.3 per kilogram in 2021 and RMB18.7 per kilogram in 2022. The average pig price for the first five months of 2023 was RMB15.0 per kilogram. From January 2023 to May 2023, the monthly average pig price declined from RMB15.4 per kilogram to RMB14.5 per kilogram. This was primarily attributable to the interplay of supply and demand factors, influenced by the cyclical nature of the pig industry and weaker demand post-Lunar New Year. Subsequently, as the pig supply gradually stabilises and market confidence is strengthened by the growing central frozen pork reserves, there is an anticipation of a rebound in pig prices during the second half of 2023.

Despite the challenges that the Chinese economy is facing, China’s gross domestic product for the first half of 2023 maintained a year-on-year growth rate of 5.5%. In addition, the consumer price index recorded a modest year-on-year increase of 0.7% during the same period, reflecting the resilience of China’s economic growth. Moreover, demand for pork, which is the preferred meat choice among Chinese consumers, shows remarkable resilience in the face of broader economic factors. Pork has enormous significance in Chinese cuisine and culture, which serves as a stabilising force that mitigates fluctuations in demand due to economic pressures. As national income levels continue to rise in the future, Chinese consumers’ demand for safe animal protein will continue to increase, thus boosting domestic meat consumption generally. In particular, the pork apparent consumption reached 57.2 million tonnes in 2022 and is expected to further increase to 58.4 million tonnes in 2027, with a CAGR of 0.4% from 2022. Given that the demand of pigs in the PRC is expected to remain resilient in the future and the supply of pigs is expected to stabilise at a normal level as the impact from African Swine Fever decreases, the average market price of pigs is expected to be more steady compared to that of previous years, with a modest overall increase from 2023 to 2027.

Fluctuation in the average market price of pigs is correlated with the pig cycle. In the future, with the further development of scaled pig farming and breeding and the increasing concentration of the industry, the operation of pig farms will become more mature, the level of disease prevention and farm management will be improved, and pig farming companies are expected to become less reactive to temporary supply and demand fluctuations. Therefore, the supply and demand of pigs will be better matched, and the pig cycle is expected to gradually smooth out and the output and stock volume of pigs will be more stable, resulting in more moderate fluctuations in pig prices.

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Average Monthly Market Price of Pigs (China), Jan 2017-Dec 2023*

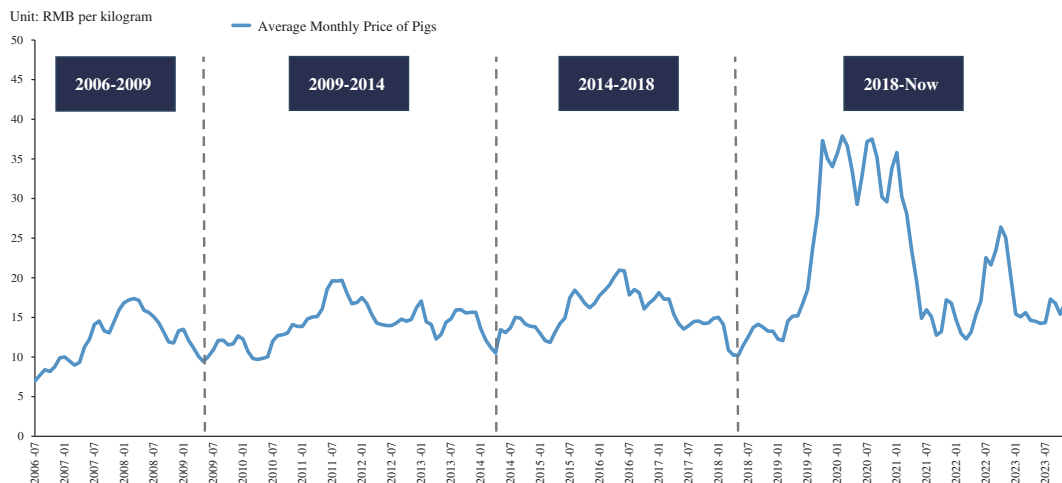


* The average monthly market prices of pigs from November to December 2023 are estimated.

Source: Chinaswine.com (中國種豬信息網), Frost & Sullivan

China has undergone a total of four pig cycles to date: the first cycle lasted from 2006 to 2009, the second cycle spanned from 2009 to 2014, the third cycle covered the years from 2014 to 2018, and we are currently in the midst of the fourth cycle, which began in 2018 and continues to the present.

Historical Pig Cycles (China), Jul 2006-Dec 2023*



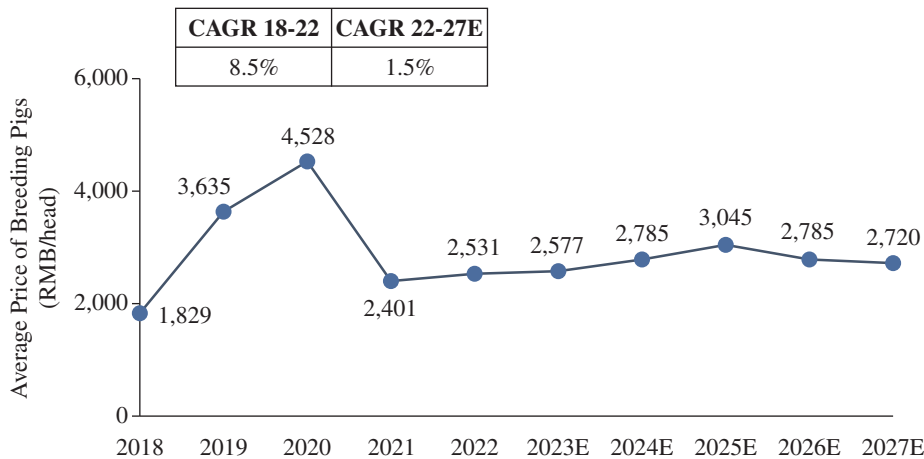
* The average monthly market prices of pigs from November to December 2023 are estimated.

Source: Chinaswine.com (中國種豬信息網), Frost & Sullivan

The price of breeding pigs mainly depends on the pigs’ breed, weight, and supply and demand, and can be affected by the pig cycle as well. The average price of breeding pigs increased significantly from RMB1,829 per head in 2018 to RMB4,528 per head in 2020 and dropped significantly again to RMB2,401 per head in 2021. The average price then remained relatively stable with slight increase, and reached RMB2,531 per head in 2022. It is estimated that the average price of breeding pigs has reached the periodic peak in 2020 and will become more stable in the future with the development of the pig breeding industry. The average price of breeding pigs is expected to reach RMB2,720 per head in 2027, with a CAGR of approximately 1.5% from 2022 to 2027.

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Average Price of Breeding Pigs (China), 2017-2027E



Source: Frost & Sullivan

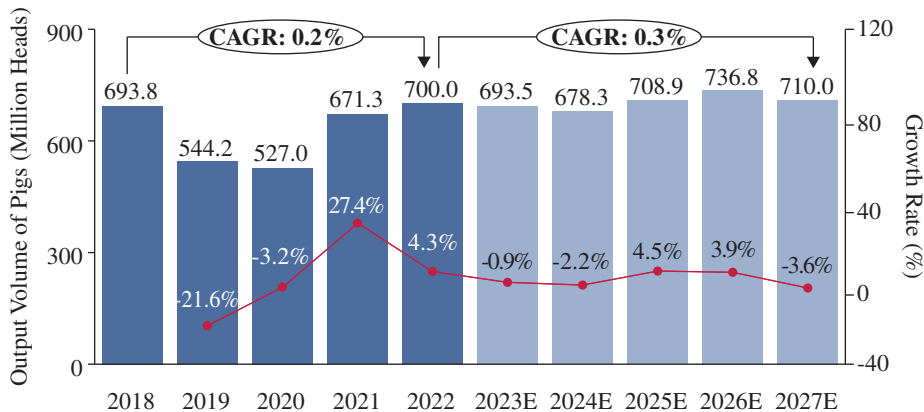
In the future, as scaled pig farming and breeding is further developed, the pig cycle is expected to become smoother and pig price fluctuation is expected to become more moderate. The average price of both pigs and breeding pigs is expected to be more stable.

CHINA'S PIG MARKET

Output and Stock Volume of Pigs

The output volume of pigs, which include breeding pigs and market hogs, remained relatively stable from 2017 to 2018 and decreased from 693.8 million heads in 2018 to 527.0 million heads in 2020, mainly due to the outbreak of African Swine Fever in the PRC since late 2018. As the consumer demand for pigs remains strong in China, the output volume of pigs strongly recovered in 2021 due to the effective prevention and control of African Swine Fever and more pig farming companies expanding their scale of operation. The output volume of pigs is anticipated to increase to 710.0 million heads in 2027, representing a CAGR of 0.3% from 2022. The pig market in China is highly fragmented, where the output volume of scaled farms with an annual output of over 500 heads only accounted for 60.8% of the total output volume in 2022, as compared with over 97.0% in the United States. Looking into the future, the market consolidation is expected to accelerate as the PRC government has made food safety and quality policies a top priority and has continued to adopt and enforce more stringent industry standards for pig production. This will benefit large-scale enterprises with strong core competitiveness.

Output Volume of Pigs (China), 2018-2027E

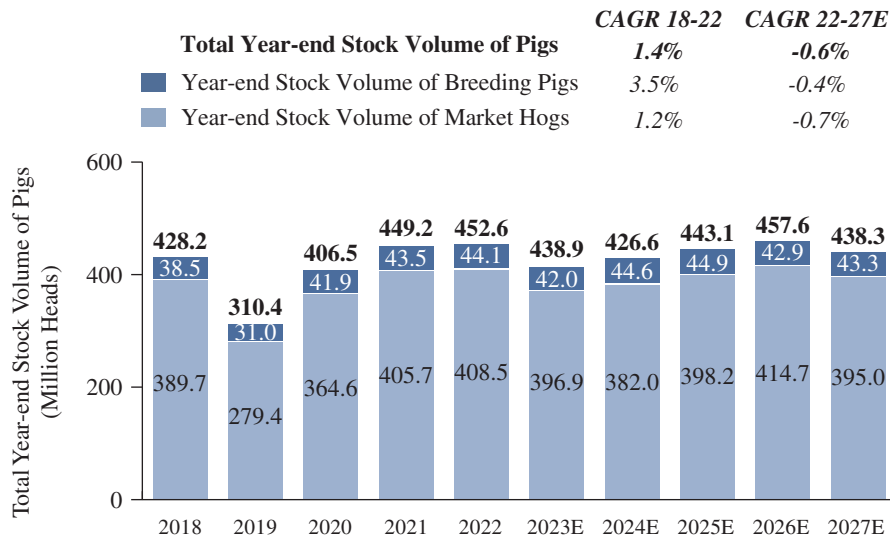


Source: National Bureau of Statistics, Frost & Sullivan

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Similar to the output volume of pigs, the stock volume of pigs in China significantly dropped in 2019 due to the outbreak of African Swine Fever. Driven by market demand and the promotion of favourable policies, the industry resumed production actively and the year-end stock volume of pigs rose sharply to 452.6 million heads by the end of 2022. Looking into the future, with the improvement of scientific and scaled breeding and farming, the stock volume of pigs is expected to remain stable, in line with the output volume of pigs. The stock volume of pigs is anticipated to decrease slightly to 438.3 million heads in 2027, representing a CAGR of -0.6% from 2022.

Year-end Stock Volume of Pigs by Category (China), 2018-2027E



Source: National Bureau of Statistics, Ministry of Agriculture and Rural Affairs of the PRC, Frost & Sullivan

Market Drivers of the Pig Market

Improved operational efficiency. Through increasing adoption of modern management procedures and advanced technologies, pig farms in China have been streamlining and optimising business operations. In addition, the transformation in China’s pig farming industry, featured by the reduction of individual farming and increasing concentration in scaled farming, has further driven economies of scale and operational efficiency in the entire industry.

Stable downstream demand. Along with the rising disposable income and the improvement of living standards, Chinese consumers’ demand for animal-based food continues to grow and China’s pork consumption is increasing steadily. Within meat consumption, the proportion of pork products, especially low temperature pork products, will continue to increase rapidly with the improvement of living standards and the strengthening of healthy eating habits in China. Low-fat, low-salt pork products that are easy-to-consume and well-cooked cater to Chinese consumers who are becoming increasingly health-conscious. Their evolving consumer preferences present abundant market opportunities for participants in the processed pork products market and continue to drive its growth. Due to the outbreak of African Swine Fever in China in late 2018, the production volume of processed pork products declined by 13.3% to 8.9 million tonnes in 2019 and further to 8.8 million tonnes in 2020. In 2021 and 2022, the production volume of processed pork products increased to 10.6 million tonnes and 11.5 million tonnes, respectively, as African Swine Fever was well controlled, representing a CAGR of 3.0% from 2018 to 2022. In the future, the production of processed pork products is expected to steadily increase to 14.1 million tonnes in 2027, with a CAGR of 4.2% from 2022. Generally, the production volume of processed pork products is growing at a faster rate than that of fresh pork. In the future, the proportion of production volume of processed pork products to total pork production is expected to increase from 20.8% in 2022 to 24.8% in 2027. In particular, there is an overall upward trend in the production of low temperature pork products. Production volume of low temperature pork products increased from 3.6 million tonnes in 2018 to 4.4 million tonnes in 2022, representing a CAGR of 5.2%. Although the production volume declined to 3.3 million tonnes in 2019 and 2020 due to the temporary sharp decline in pork production, it then rebounded to 4.0 million tonnes in 2021 and further to 4.4 million tonnes in 2022. In the future, the production of low temperature pork products is expected to increase to 5.7 million tonnes in 2027, with a CAGR of 5.5% from 2022. Overall, the production volume of low temperature pork products is growing at a faster rate than that of high temperature pork products. In the future, the proportion of production volume of low temperature pork products to total processed pork products is expected to increase from 38.1% in 2022 to 40.5% in 2027. Despite the rise in vegan or vegetarian

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population in China, pork has a long-standing cultural significance in Chinese cuisine and tradition and continues to be a staple meat in many traditional Chinese dishes. Cultural factors will thus continue to play a significant role in dietary choices of Chinese consumers. Taking into account the cultural attachment to pork, Chinese consumers’ increasing awareness of healthy eating habits will lead to increased demands for protein, and safe pork products. The Group is capitalising on this trend by expanding into downstream sectors, including pig slaughtering and pork processing, to meet the evolving demands of health-conscious consumers and gain a higher degree of control over food safety and quality across the entire value chain.

Supportive government policies. The PRC government has been a key advocate in promoting the development of the pig farming industry. Since the outbreak of African Swine Fever in late 2018, the PRC government has introduced a series of policies to stabilise pig production and promote scaled and modern farming of pigs. For example, the State Council of the People’s Republic of China promulgated the “Opinions on Stabilising Pig Production and Promoting Transformation and Upgrading” (《關於穩定生豬生產促進轉型升級的意見》), which sets forth specific targets for the development of the pig farming industry. One of the key objectives is to achieve an increase in scaled farming, such that the annual output volume of pig farms having an annual output volume of more than 500 heads will constitute more than 65% of the total annual pig output volume in China by 2025. Additionally, the same policy aims to increase the domestic self-sufficiency rate of pork supply to approximately 95%. The domestic self-sufficiency rate of pork supply refers to the proportion of pork supply produced domestically, which is calculated as the annual domestic pork production volume divided by the annual apparent consumption volume of pork in China. These favourable government policies have laid a solid foundation for the long-term growth of China’s pig farming industry, effectively strengthening the prevention and control of African Swine Fever. The same policy also calls for (1) the provision of subsidies and financial support to pig farmers to encourage investment, (2) modernisation and expansion of pig farming operations, (3) promotion of scientific and technological progress in pig production, (4) implementation of measures such as price controls, subsidies for pig feed, and strategic pork reserves to stabilise pork prices and ensure stable market supply, and (5) enhancement of disease surveillance systems to prevent and control animal diseases that can significantly impact the pig farming industry. In order to implement the Central Government’s guidance, local governments across the country have implemented their own preferential policies. For example, the “Implementation Plan for the Subsidy for Newly Bred Breeding Pigs in Dachuan District of Dazhou City in 2022” (《達州市達川區2022年新增能繁母豬補貼實施方案》) implemented in Dazhou, Sichuan Province, states that a subsidy of RMB300 per pig will be given to pig farms that have 7,500 or more heads of breeding pigs. The “Opinions on Ensuring Stable Pig Production and Supporting Market Supply” (《省人民政府辦公廳關於穩定生豬生產保障市場供應的意見》) issued by the Guizhou Provincial People’s Government Office in 2019 emphasized the importance of guiding industry leaders in expanding their production capacities in the pig farming sector, and subsidies were provided to support such efforts. In relation to tax incentives, the 2021 No.1 document of the Central Government (2021年中央一號文件), “Opinions on Comprehensively Promoting Rural Revitalisation and Accelerating the Modernisation of Agriculture and Rural Areas” (《關於全面推進鄉村振興加快農業農村現代化的意見》) unified the preferential policies on value-added tax, income tax and related local taxes, appropriately relaxed the scope and conditions of tax incentives for the agriculture industry, rural areas and framers, and clarified a unified catalogue of incentives. Specifically, Article 86 of the “Regulations of the People’s Republic of China on the Implementation of the Enterprise Income Tax Law” (《中華人民共和國企業所得稅法實施條例》) provides that livestock and poultry farming companies are entitled to enterprise income tax exemption. In addition, the “Announcement on VAT Issues Related to the Sale of Livestock and Poultry by Taxpayers Adopting the Business Model of ‘Company + Farmer’” (《關於納稅人採取「公司+農戶」經營模式銷售畜禽有關增值稅問題的公告》) also indicates that taxpayers adopting the business model of “company + farmer” are exempted from VAT when re-selling livestock and poultry raised and returned to the taxpayers by the farmers. Such favourable government policies have provided a sound foundation for the development of China’s pig farming industry in the long-term, reducing the risks for biological asset safety and effectively restoring the supply and demand of the pig market. Furthermore, in the Key Points of Rural Industry Work (《鄉村產業工作要點》) published by the MARA in 2020, the MARA encourages cooperation among leading enterprises, family farms, and individual farm owners, thereby establishing in-depth and mutually beneficial cooperation between leading enterprises and farm owners.

Market Trends of the Pig Market

Rising market concentration. The market concentration of the pig farming industry in China has increased rapidly in the past few years but the concentration level is still relatively low. In terms of sales volume of pigs, the CR10 of Chinese pig farming companies has grown rapidly from 8.0% in 2018 to 18.0% in 2022, while that in the United States has reached about 50.6% in 2022, signifying that there is still ample room for growth in the concentration of Chinese scaled pig farming companies. In the coming years, with rising labour costs and the residual impacts of African Swine Fever, the gap between the production scale of individual

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farmers and scaled pig farming companies as well as the output efficiency will continue to gradually widen. Scaled pig farming companies with advanced technology are expected to be able to rapidly and continuously expand their market share with relatively low cost.

Stricter requirement to comply with environmental regulations. In recent years, the PRC Government has stepped up the enforcement of environmental laws and regulations such as the Environmental Protection Law, the Administrative Measures on the Prevention and Cure of Pollution Caused by Livestock and Poultry Farming, the Regulations on the Prevention and Control of Pollution from Large-scale Breeding of Livestock and Poultry and the Action Plan to Control Water Pollution which have led to either reconstruction or closing down of a large number of small-scale market hog farming companies in the country. In 2019, the State Council issued Opinions on Stabilising Hog Production and Promoting Transformation and Upgrading, which regulated a series of hog production requirements.

More scientific operations and management. Scaled business operation makes it possible for scaled pig farming companies in China to adopt more scientific operation and improve efficiency and profitability. In the meantime, these pig farming companies are investing more resources in R&D of cutting-edge technologies and methods, which will allow them to significantly optimise their business operations. The intelligent management of pig farms is expected to provide more comprehensive data and technical support for industry participants, such as the government and pig farming companies, thereby improving operational efficiency in various aspects.

Consumer demand for safe and high-quality products. Food safety and quality has become one of the most important factors in Chinese consumers’ choice of food. Pig farms are using new technology and applying more reasonable management methods in their daily operation. For example, using traceable ear tags enables consumers to track the growth stages of pigs and better ensure the safety of the meat they purchase. The improved application of technology for food safety will drive the industry to pursue safer products and attain higher profit margins.

Entry Barriers to the Pig Market

Technical barriers. With the development of pig farming industry from a traditional scattered mode to a modern scaled mode, the economic benefit of scaled farming depends on the efficiency of various technical capabilities such as breeding and farming management, animal nutrition, biological health, production management and pig pen construction. A technologically advanced scaled pig farming company can efficiently minimise costs and resist market risks although it requires expertise and strict technical standards.

Sales channel. A stable sales channel is important for the development of an enterprise. The coverage and penetration of sales channel determine the development and competitiveness of scaled pig farming companies.

Initial capital investment. It is crucial for new entrants to have sufficient capital for the construction of production sites, the purchase of production equipment and the establishment of epidemic prevention systems. For players who want to achieve sizable scale in the pig market, sufficient startup capital is necessary, which sets a barrier for new entrants.

Talent barriers. Scaled farming utilises professional technologies in various processes, such as breeding, feeding, epidemic prevention, etc.. Therefore, scaled farming especially requires a large number of experienced technical personnel and management personnel who specialise in breeding and disease prevention. A scaled pig farming company can only function well through systematic coordination and collaboration of various talents. It takes time to train technical personnel and accumulate the relevant experience, which imposes barriers for new entrants.

Farming environment. Epidemic prevention is a key part of pig farming, and scaled pig farming companies have higher requirements on the farming environment. Pig farms are generally required to be located in area with high terrain, good isolation conditions, low population density and minimal pollution sources. For scaled pig farming companies, pig farming sites must be located in large spaces that are sufficient to accommodate the scale of farming.

Competitive Landscape of the Pig Market

China’s pig market is highly fragmented. The top ten players accounted for an aggregate market share of 19.9% and 18.0%, respectively, in terms of sales value and sales volume of pigs in 2022, respectively. The Group ranked sixth in terms of both sales value and sales volume of pigs.

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Top Ten Pig Providers in Terms of Sales Value and Sales Volume (China), 2022

Ranking	Pig providers	Sales value of pigs (RMB billion)	Market share (%)
1	Muyuan Foods Co., Ltd.	119.7	9.1%
2	Company B	42.6	3.2%
3	Company C	22.4	1.7%
4	Company D	21.0	1.6%
5	Company E	12.5	1.0%
6	The Group	11.7	0.9%
7	Company F	11.1	0.8%
8	Jiangxi Zhengbang Technology Co., Ltd.	8.6	0.7%
9	Tech-Bank Food Co., Ltd.	6.9	0.5%
10	Company I	5.5	0.4%
	Top ten	262.0	19.9%
	Total	1,311.1	100.0%

Ranking	Pig providers	Sales volume of pigs (million heads)	Market share (%)	CAGR 20-22 (%)
1	Muyuan Foods Co., Ltd.	53.8	7.7%	72.4%
2	Company B	17.9	2.6%	37.0%
3	Company C	12.2	1.7%	32.8%
4	Company D	9.3	1.3%	33.9%
5	Jiangxi Zhengbang Technology Co., Ltd.	8.4	1.2%	-6.0%
6	The Group	5.4	0.8%	99.1%
7	Company J	5.2	0.7%	96.3%
8	Company F	5.1	0.7%	31.0%
9	Company E	4.8	0.7%	49.9%
10	Tech-Bank Food Co., Ltd.	4.4	0.6%	19.9%
	Top ten	126.5	18.0%	
	Total	700.0	100.0%	

Notes:

- Company B is an A-share listed company headquartered in Guangdong. It focuses on livestock raising and food processing.
- Company C is an A-share listed company headquartered in Sichuan. It mainly provides breeding pigs, market hogs, poultry, and feeds.
- Company D is a private company headquartered in Jiangxi. It mainly focusing on feeds, live pig breeding and raising.
- Company E is a private company headquartered in Guangxi. It mainly raising and providing breeding pigs and market hogs.
- Company F is a subsidiary of a Hong Kong-listed company headquartered in Thailand. It mainly provides breeding pigs, market hogs and feeds.
- Company I is an A-share listed company headquartered in Beijing. It mainly provides breeding pigs, market hogs and feeds.

Source: Frost & Sullivan

Note:

- Company J is an A-share listed company headquartered in Fujian. It mainly provides breeding pigs, market hogs, pork, and feeds.

Source: Frost & Sullivan

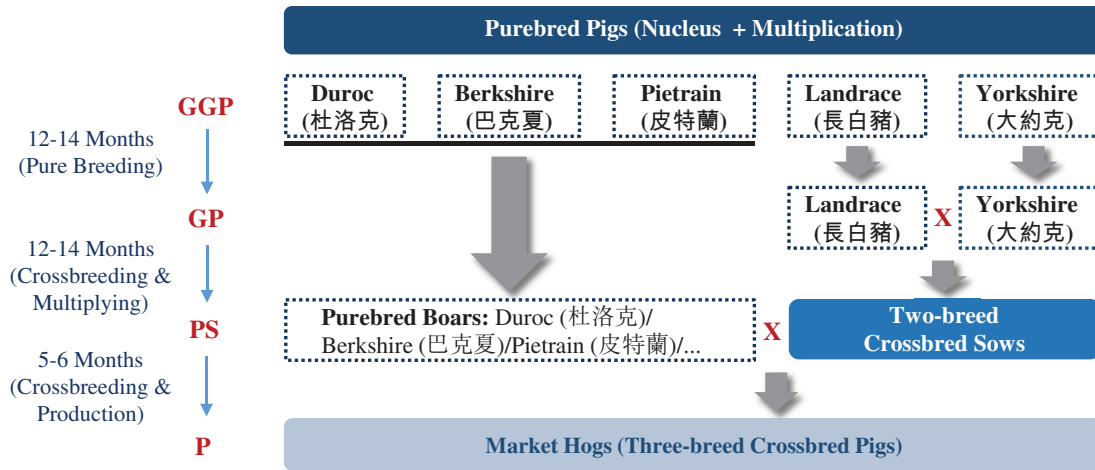
CHINA'S BREEDING PIG MARKET

Overview of the Breeding Pig Market

A pig breeding system includes three generations, namely the Great Grandparent (GGP), the Grand Parent (GP) and the Parent Stock (PS). Breeding pigs mainly include purebred pigs and two-breed crossbred pigs. Purebreds are pigs bred from parents of the same breed. The GGP can further be categorised into nucleus breeding herds and first-level multiplying herds according to their function in the breeding system. The nucleus breeding herds are used for farming and testing in the pig industry to determine the quality of breeding pigs in the breeding system. A first-level multiplying herd consists of breeding pigs selected from a nucleus breeding herd that are responsible for supplying purebred stocks to downstream participants, which increases the scale to support the production of crossbred pigs and market hogs. Two-breed crossbred pigs are breeding pigs produced by crossbred pigs with two different breeds or varieties.

Breeding pig providers focus on finding high-quality genes through introducing high quality GGP and growing GP and PS pigs. Compared with local breeding pigs, imported purebreds have better performance in terms of breeding ability, feed conversion rate and rate of growth. Species of breeding pigs imported into China mainly include Yorkshire (約克), Duroc (杜洛克), Landrace (長白), and Berkshire (巴克夏). It is most popular and commercially valuable to utilise two-breed crossbred pigs in China's breeding pig market. The diagram below illustrates the hybrid breeding model.

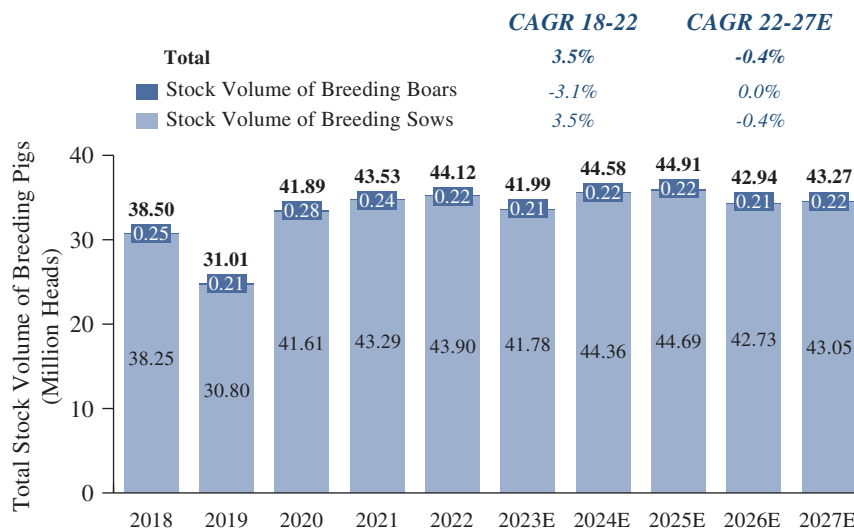
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Source: Frost & Sullivan

Breeding pigs include sows and boars. The pig breeding market in China is cyclical, and the demand for breeding pigs fluctuates along with the demand for downstream products. From 2018 to 2019, the total stock volume of breeding pigs in China experienced a sharp decline caused by African Swine Fever outbreaks in China from August 2018 to July 2019. The total stock volume of breeding pig rebounded back to 44.1 million heads in 2022, representing a CAGR of 3.5% from 2018 to 2022. In 2020, due to the strong demand for pigs from downstream industries and a lack of purebred and two-breed crossbred breeding pig supply, some producers used three-breed crossbred sows with low breeding efficiency for breeding, resulting in lower PSY and higher feed conversion rate. In 2021, the lack of breeding pigs has been notably relieved. In the future, it is estimated that the total stock volume of breeding pigs will experience mild fluctuation and reach 43.3 million heads in 2027, representing a CAGR of -0.4% from 2022 to 2027.

Total Stock Volume of Breeding Pigs (China), 2018-2027E



Source: Ministry of Agriculture and Rural Affairs of the PRC, Frost & Sullivan

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Competitive Landscape of the Breeding Pig Market

As an industry norm, some scaled pig breeding companies adopt the “Company Farming” model (as discussed below), where some breeding pigs are only used internally and are not sold externally. For leading breeding pig providers, the majority of breeding pigs are used internally so as to maintain the farming of market hogs. As a result, China’s breeding pig market is fragmented in terms of external sales.

In 2022, we were one of the top ten breeding pig providers in China in terms of sales volume. We are a leading pig supplier in terms of the stock of Great Grandparent nucleus breeding herds and genetic material in the PRC. The table below shows the details of our major competitors and our ranking in China.

Top Ten Breeding Pig Providers in terms of Sales Volume (China), 2022

Ranking	Breeding pig providers	Sales volume of breeding pigs (thousand)	Market share (%)
1	Muyuan Foods Co., Ltd.	346.0	5.6%
2	Company K	104.0	1.7%
3	Company F	100.0	1.6%
4	Company E	97.3	1.6%
5	Company L	80.0	1.3%
6	Company J	64.0	1.0%
7	Company M	60.0	1.0%
8	Company N	54.7	0.9%
9	Company I	52.0	0.8%
10	The Group	32.6	0.5%
Top ten		990.6	16.0%
Total		6,176.7	100.0%

Notes:

1. Company K is a Hong Kong listed company headquartered in Beijing. It mainly provides breeding pigs, market hogs, pork, and feeds.
2. Company F is a private company headquartered in Beijing. It mainly provides breeding pigs, market hogs, poultry, and feeds.
3. Company E is a private company headquartered in Guangxi. It mainly raising and providing breeding pigs and market hogs.
4. Company L is an A-share listed company headquartered in Sichuan. It mainly provides breeding pigs, market hogs, and feeds.
5. Company J is an A-share listed company headquartered in Fujian. It mainly provides breeding pigs, market hogs, pork, and feeds.
6. Company M is a private company headquartered in Sichuan. It mainly raising and providing breeding pigs and market hogs.
7. Company N is a private company headquartered in Sichuan. It mainly provides breeding pigs, market hogs, poultry, and feeds.
8. Company I is an A-share listed company headquartered in Beijing. It mainly providing feeds, breeding pigs and market hogs.

Source: Frost & Sullivan

CHINA’S PIG SLAUGHTERING AND PORK PROCESSING MARKET

Overview

China’s pig slaughtering market is highly fragmented. The top three players accounted for an aggregate market share of approximately 5.0% in terms of slaughter volume of pigs in 2021. Highly correlated to the output volume of pigs, the slaughter volume of pigs (生豬屠宰量) in

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China was also negatively impacted by African Swine Fever since 2019. Driven by market demand and the promotion of favourable policies, the industry resumed production actively, and the slaughter volume of pigs rose sharply from 460.0 million heads in 2020 to 600.0 million heads in 2021.

The scale rate of the pig slaughtering market, which refers to the percentage of slaughter volume of designated pig slaughtering companies (規模以上生豬定點屠宰企業) with an annual slaughter volume of above 20,000 heads to the total pig slaughter volume, has also grown continuously and increased from 31.6% in 2017 to 44.1% in 2021. Looking into the future, with the improvement of production technology and scale efficiency, the scale rate of the pig slaughtering market is anticipated to further increase to approximately 56.0% in 2026.

In 2022, six out of the top ten pig providers in terms of pig sales volume had businesses in upstream, midstream and downstream of the value chain, including feed processing, pig breeding, pig farming, pig slaughtering and pork processing.

This business model of value chain integration allows a company to control all production processes and gain competitive advantages in food safety, epidemic prevention and control, environmental protection, quality control, scaled operation, cost control, as well as achieve higher margins via business expansion into pork deep processing.

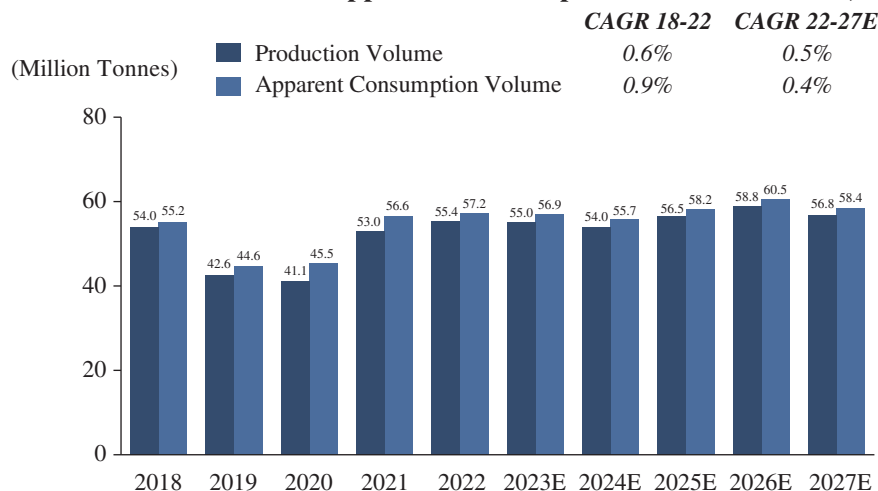
Market Size of Pork Products

China’s pork processing market is highly fragmented. Pork generally consists of (i) fresh pork, which has three main categories according to the storage temperature after slaughtering, namely warm fresh pork, chilled fresh pork and frozen pork, and (ii) pork products, which are processed pork with additives and have different texture from fresh pork.

Pork has traditionally been the primary meat for Chinese consumers. In 2022, China was the world’s largest pork production and consumption country, accounting for 48.4% and 51.0% of world’s pork production and consumption, respectively. The production volume of pork in China was relatively stable in 2017 and 2018, which was around 54.0 million tonnes per year. In late 2018, African Swine Fever broke out in China and pork production declined sharply by 21.3% to 42.6 million tonnes in 2019, and hit a record low of 41.1 million tonnes in 2020. In 2021, as African Swine Fever came to an end, the production volume of pork recovered to 53.0 million tonnes, and increased slightly to 55.4 million tonnes in 2022, with a CAGR of 0.6% from 2018 to 2022. In the future, due to robust slaughtering and consumption, pork production volume is expected to increase to 56.8 million tonnes in 2027, with a CAGR of 0.5% from 2022.

The apparent consumption volume of pork is equal to the domestic pork production volume plus the imported pork volume, minus the exported pork volume. In China, pork is rarely exported to other countries, so the exported volume is very limited; therefore, the gap between production volume and apparent consumption volume of pork is more or less equal to the imported volume. From the demand side, the trend of apparent consumption volume of pork is very similar to that of the production volume. The apparent consumption volume of pork increased slightly from 55.2 million tonnes in 2018 to 57.2 million tonnes in 2022, with a CAGR of 0.9%, and is expected to increase to 58.4 million tonnes in 2027, with a CAGR of 0.4% from 2022.

Pork Production Volume and Pork Apparent Consumption Volume in China, 2018-2027E



Source: National Bureau of Statistics, USDA, Frost & Sullivan

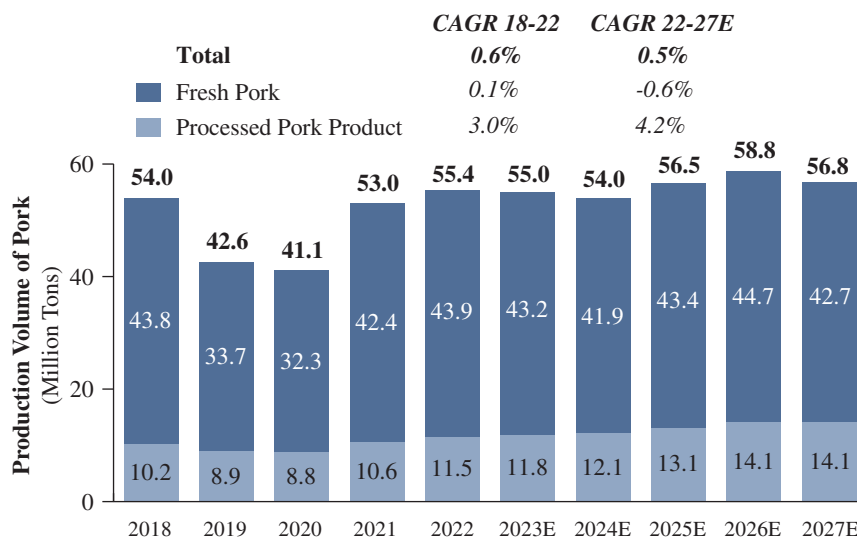
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Pork can be processed into fresh pork and processed pork products. Over the past few years, the production volume of processed pork products has increased steadily from 9.9 million tonnes in 2017 to 10.2 million tonnes in 2018. Due to the outbreak of African Swine Fever in the PRC since late 2018, the production volume of processed pork products declined accordingly by 13.3% to 8.9 million tonnes in 2019 and remained stable at 8.8 million tonnes in 2020. In 2021, the production volume of processed pork products increased to 10.6 million tonnes after recovery from African Swine Fever, and further increased to 11.5 million tonnes in 2022, representing a CAGR of 3.0% from 2018. In the future, the production volume of processed pork products is anticipated to steadily increase to 14.1 million tonnes in 2027, with a CAGR of 4.2% from 2022.

Fresh pork has been dominating China’s pork consumption market. Fresh pork production was stable in 2017 and 2018, with production volume of approximately 44.0 million tonnes per year. In 2019, the fresh pork production volume declined sharply by 23.1% to 33.7 million tonnes due to African Swine Fever and hit a record low of 32.3 million tonnes in 2020. In 2021, as African Swine Fever was well controlled, fresh pork production volume recovered to 42.4 million tonnes, and further increased to 43.9 million tonnes in 2022, representing a CAGR of 0.1% from 2018. In the future, fresh pork production volume is expected to increase to 42.7 million tonnes in 2027, with a CAGR of -0.6% from 2022.

In general, the production volume of processed pork products is growing at a faster rate than that of fresh pork. In the future, processed pork products are expected to account for an increasing share of the total pork production, from 20.8% in 2022 to 24.8% in 2027.

Production Volume of Pork by Category (China), 2018-2027E



Source: National Bureau of Statistics, Frost & Sullivan

Market Drivers of China’s Pork Products Market

Continuous consumption upgrade and demand for product diversity. Chinese consumers’ demand for better-quality and higher-grade foods, such as branded pork products, will become a major driving force in the development of pork products. Due to traditional dietary habit and limited variety of processed pork products, pork consumption in China has been mainly concentrated in fresh pork. In recent years, leading pork products suppliers are committed to developing various pork products with different flavours in order to meet the diverse consumption preferences of different consumer groups, which is expected to drive the consumption of pork products in the near future.

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Increasing concentration in the pig slaughtering industry. The State Council executive meeting passed the “Regulations on the Administration of Pig Slaughter (Revised Draft) 《生豬屠宰管理條例(修訂草案)》 in May 2021. More stringent pig slaughtering regulations restricting the supply of fresh pork will prompt the slaughter industry to upgrade its production capacity, increase industry concentration, reduce disorderly competition and increase food safety.

Transformation brought by the generation Z. The post-80s and post-90s generations, especially generation Z which refers to the generation born in 1995-2009, have gradually become the leading consumer group in China. The young generations desire healthier foods and convenience for direct consumption. Low-fat, low-salt pork products that are easy-to-consume and well-cooked cater to their preferences, which will inject new vitality into the consumption of pork products.

Trends of China’s Pork Products Market

Increasing industrial integration rate. In 2022, six out of the top ten pig providers had businesses in the upstream, midstream and downstream of the value chain including feed production, pig breeding, pig farming, pig slaughtering and pork processing. Leading companies in the industry unified production standards and implement production management throughout the value chain to ensure unified quality of products. The increasing industrial integration rate can also help companies accumulate competitive advantages in food safety, epidemic prevention and control, environmental protection, quality control, scaled operation, cost control, etc.

Continuously growing processed pork products market. Chinese consumers, especially the young generation, have become more health-conscious and place greater importance on balanced diet and diversified nutrients. The demand for processed pork products that are high quality, safe, and nutritional will be increasingly heightened. In the future, the proportion of fresh pork will tend to decrease and the proportion of processed pork products will tend to increase.

OVERVIEW AND MARKET SIZE OF BROILER INDUSTRY IN CHINA

The broiler industry has three segments including yellow-feathered broilers, white-feathered broilers, and 817 broilers (a smaller type of white-feathered broiler). Historically, white-feathered broilers and yellow-feathered broilers have dominated China’s broiler meat production.

The total output volume of broilers in the PRC remained relatively stable from 2017 to 2018 and rose rapidly to 11.4 trillion birds in 2019 due to the decrease in pork supply, and then further increased to 12.5 trillion birds in 2021, representing a CAGR of 5.2% from 2017 to 2021.

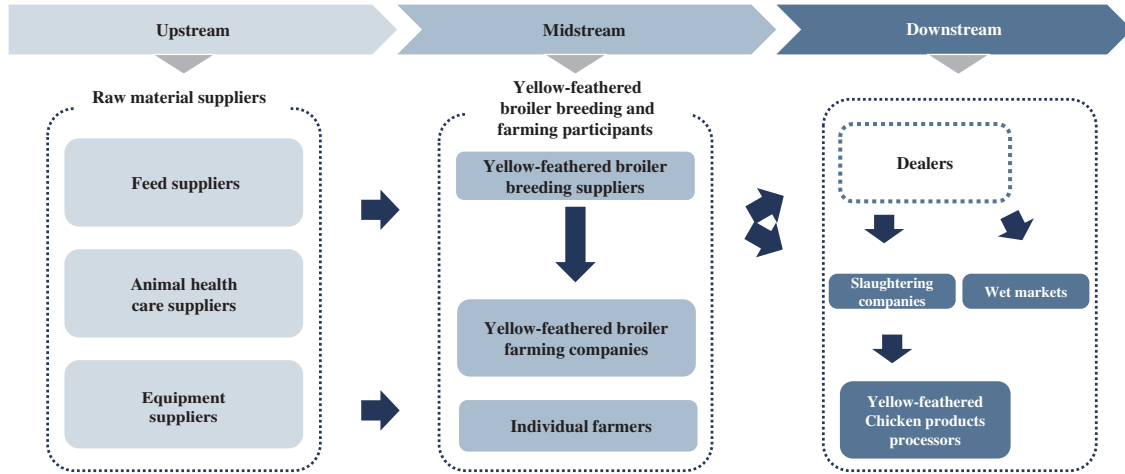
The market size of broilers in terms of revenue has grown rapidly from RMB190.0 billion in 2017 to RMB301.6 billion in 2019, supported by increase in both sales volume and average market price. However, the market size in terms of revenue fell to RMB253.3 billion in 2020, mainly due to lower market prices for broilers as a result of overcapacity, lower revenue from catering services, and COVID-19 restrictions in 2020. Attributable to effective COVID-19 prevention and control and economic development, the market size of broilers rebounded to RMB288.3 billion in 2021, representing a CAGR of 11.0% from 2017 to 2021.

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YELLOW-FEATHERED BROILER FARMING INDUSTRY IN CHINA

The Yellow-feathered Broiler Farming Value Chain

The yellow-feathered broiler farming industry value chain in China is typically divided into three major sectors, namely upstream, midstream and downstream. The upstream and midstream mainly include feed suppliers, animal health care suppliers, equipment suppliers, as well as breeding suppliers, farming companies and individual farmers. The downstream consists of dealers, slaughtering companies, wet markets and chicken products processors.



Source: Frost & Sullivan

Major Broiler Farming Models

China’s broiler farming models mainly include individual farming, the family farm model and the farming base model.

Individual farming is where farmers use their own labour, farming areas, feed, medicines, and vaccines to carry out small-scale farming and are responsible for all aspects of the farming process. The family farm model is the model under which family farms provide the land and facilities and raise the yellow-feathered broilers according to a farming company’s standards, while the farming company provides chicks, feed, medicines, and technical support. The farming base model refers to the model under which a farming company builds the facilities and leases the land and facilities to farmers while the farmers raise the yellow-feathered broilers. The farming base model is the same as the family farm model other than the fact that the company owns the farming base. The Group adopts a combination of the family farm model and the farming base model. The table below illustrates the details of each model:

	Individual farming	Family farm model	Farming base model
⊗	Low capital requirements	Comprehensive supervision and control are relatively difficult	High capital requirements
⊙	<ul style="list-style-type: none"> Primitive breeding method and the technological capability needs to be improved Food safety cannot be effectively guaranteed Dysfunctional animal disease prevention and control system 	<ul style="list-style-type: none"> Low fixed assets investment Broiler farming companies are able to focus on technological breakthroughs, product development and nutritional formula adjustment 	<ul style="list-style-type: none"> Standardised farms and advanced equipment High production efficiency Real-time monitoring of farming process Effective disease prevention

Source: Frost & Sullivan

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CHINA’S YELLOW-FEATHERED CHICKEN BREEDER MARKET

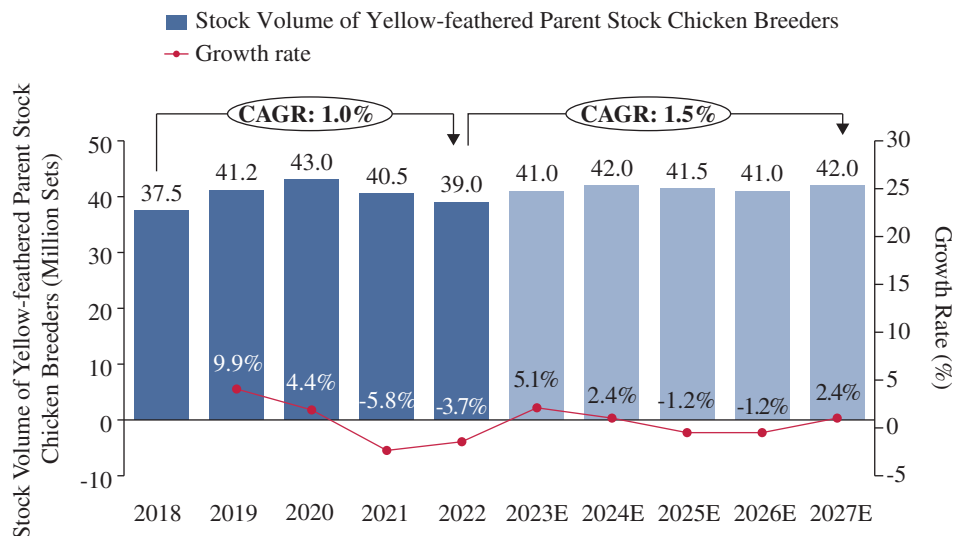
Overview of Yellow-feathered Chicken Breeders

Yellow-feathered chicken breeders are bred to produce yellow-feathered broilers. By the end of 2021, there were 97 yellow-feathered broiler breeds officially identified and registered by the National Livestock and Poultry Genetic Resources Committee. Among them, there are 60 national breeds, 36 local breeds, and 1 breed under breeding. The 60 national breeds are mainly from Guangdong and Guangxi Zhuang Autonomous Region, which accounted for 63.3% of the national breeds. The remaining 36 local breeds are from various provinces in China, demonstrating the long history and rich breeding resources of Chinese yellow-feathered broiler breeding.

Market Size of Yellow-feathered Parent Stock Chicken Breeders

Over the past few years, due to the impact of African Swine Fever on the pig breeding industry, the stock volume of yellow-feathered parent stock chicken breeders in China has achieved stable growth from 37.5 million sets in 2018 to 43.0 million sets in 2020 as consumers considered chicken as an alternative to pork. After a slight decrease in 2021, due to (i) the recovery of the year-end stock volume of pigs and production volume of pigs, and (ii) the continuous rise in the price of poultry feed that year, the stock volume of yellow-feathered parent stock chicken breeders still grew at a CAGR of 1.0% from 2018 to 2022. For the next few years, the stock volume of yellow-feathered parent stock chicken breeders is expected to reach 42.0 million sets in 2027, representing a CAGR of 1.5% from 2022.

Stock Volume of Yellow-Feathered Parent Stock Chicken Breeders (China), 2018-2027E



Source: China Animal Agriculture Association (“CAA”), Frost & Sullivan

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Competitive Landscape of Yellow-feathered Parent Stock Chicken Breeder Market

China’s yellow-feathered parent stock chicken breeder market is highly concentrated. The top three players accounted for an aggregate market share of 51.0% in terms of the sales volume of yellow-feathered parent stock chicken breeders in 2022. We were the second largest yellow-feathered parent stock chicken breeder provider in terms of sales volume of yellow-feathered parent stock chicken breeders, with a market share of 19.3% in 2022.

Top Three Yellow-feathered Parent Stock Chicken Breeder Providers in Terms of Sales Volume (China), 2022

Ranking	Yellow-feathered parent stock broiler breeder providers	Sales volume of yellow-feathered parent stock DOCs (million sets)	Market share (%)
1	Company B	2.9	24.2%
2	The Group	2.3	19.3%
3	Company O	0.9	7.5%
Top three		6.1	51.0%
Total		12.0	100.0%

Note:

- Company O is an A-share listed agriculture company headquartered in Jiangsu. It principally engaged in breeding and raising of yellow-feathered broilers and pigs.

Source: Frost & Sullivan

CHINA’S YELLOW-FEATHERED BROILER MARKET

Overview of Yellow-Feathered Broilers

Broilers are raised to produce chicken meat products for sale. Broilers mainly include yellow-feathered broilers and white-feathered broilers. These two types of broilers have dominated China’s chicken meat production. White-feathered broilers are closely associated with the light meal market due to their higher protein, lower fat, lower cholesterol and lower calorie content, as well as their economical and environmentally-friendly breeding. White-feathered broilers are more suitable for western cooking, and frying is the most common cooking method. Yellow-feathered broilers are a domestically bred species in China. Yellow-feathered chicken meat is preferred in China because it is considered by many Chinese consumers to be more flavourful and tasteful than white-feathered chicken meat, and is more suitable for Chinese cuisine, fit for a variety of cooking methods.

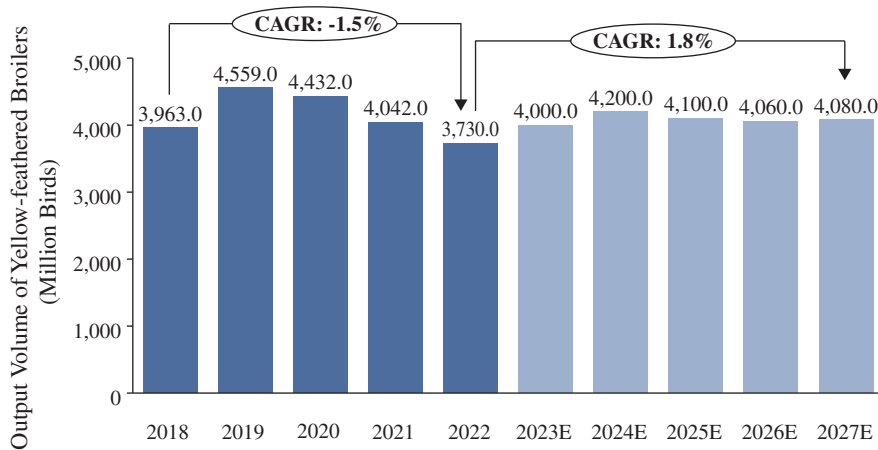
Market Size of Yellow-Feathered Broilers

The yellow-feathered broiler is a traditional poultry breed in China that is well known for its unique meat flavour and great taste. The output volume of yellow-feathered broilers increased rapidly from 3,963.0 million birds in 2018 to 4,559.0 million birds in 2019 due to the decrease in pork supply. The subsequent increased demand for poultry further drove the expansion of the yellow-feathered broiler industry. However, by 2020, this expansion started to slow down due to the recovery of China’s swine herds. In addition, the outbreak of COVID-19 also had an impact on the yellow-feathered broiler industry. Live bird markets and

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wholesale wet markets are the primary sales outlets for yellow-feathered broilers. Since January 2020, many live bird markets have been closed due to COVID-19 concerns, and although most Chinese cities have lifted transportation restrictions, many live bird markets remain closed. As such, the output volume of yellow-feathered broilers declined to 3,730.0 million birds in 2022. With COVID-19 gradually easing and consumers’ rising demand for high-protein and low-fat meat, the output volume of yellow-feathered broilers is expected to recover gradually, reaching a high output volume in 2024. From 2022 to 2027, the output volume of yellow-feathered broilers is predicted to increase from approximately 3,730.0 million birds to approximately 4,080.0 million birds.

Output Volume of Yellow-feathered Broilers (China), 2018-2027E

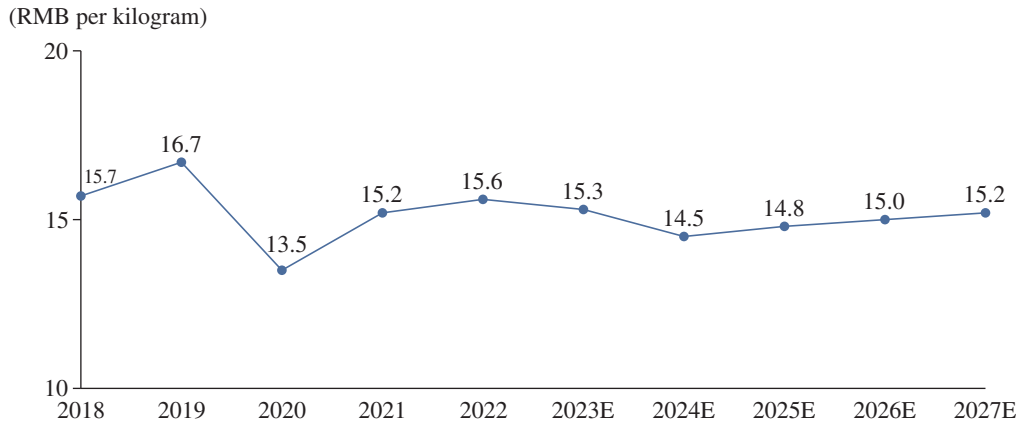


Source: CAAA, Frost & Sullivan

The average wholesale price of yellow-feathered broilers achieved rapid growth from RMB15.7 per kilogram in 2018 to RMB16.7 per kilogram in 2019, primarily attributable to the shortage of swine herds as affected by African Swine Fever outbreak in 2018. In addition, due to overcapacity, decline in catering service revenue, and COVID-19 restrictions in 2020, the average wholesale price of yellow-feathered broilers dropped significantly in 2020. Due to the increase in yellow-feathered broilers’ breeding costs, the average wholesale price of yellow-feathered broilers rose to RMB15.2 per kilogram in 2021, showing a growth rate of 12.6% from 2020. The average wholesale price of three types of yellow-feathered broilers also showed an increasing trend from 2020 to 2021. According to the CAAA, the average wholesale prices of fast-growing, medium-growing, and slow-growing yellow-feathered broilers were RMB11.3 per kilogram, RMB13.6 per kilogram, and RMB17.5 per kilogram in 2021, respectively, showing a growth rate of 14.9%, 18.1%, and 11.2% from 2020, respectively. The average wholesale price of yellow-feathered broilers further increased to RMB15.6 per kilogram in 2022 as compared with that in the same period of 2021 due to the decrease in the output volume of yellow-feathered broilers by individual farmers and farming companies in 2022. The average wholesale price of yellow-feathered broilers is expected to remain relatively stable and reach RMB15.2 per kilogram by the end of 2027, representing a CAGR of -0.5% from 2022.

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Average Wholesale Price of Yellow-feathered Broilers (China), 2018-2027E



Source: CAAA, Frost & Sullivan

Market Drivers

Growth of China’s economy and sustained urbanisation. With the steady growth of China’s economy, continuing urbanisation, and consumption upgrades, Chinese consumers are increasingly willing to consume high-protein and low-fat meat, such as chicken meat. According to the United States Department of Agriculture (“USDA”), the consumption of chicken meat in the PRC increased from 11.6 million tonnes in 2018 to 16.1 million tonnes in 2022, representing a CAGR of 8.5%, and is expected to increase to 20.1 million tonnes in 2027 at a CAGR of 4.6% from 2022.

Thriving new retail models and Chinese cuisine market. Broiler manufacturers leverage the thriving online retail model and China’s fast and convenient delivery network to penetrate regional markets. In recent years, the emergence of new data-driven retail models and efficient supply chain have driven the sales of chilled/frozen chicken products and offered superior customer experience. In addition, Chinese cuisine, as a major consumption scenario for yellow-feathered broilers, accounted for the largest portion of China’s catering market, showed a growing trend during the past several years, and is expected to increase from 2023 to 2027. These have transformed the yellow-feathered broiler industry and are expected to drive chicken consumption in China.

Scale development and industry chain extension. Industrial scaled development helps reduce management costs and facilitates the implementation of new technologies. The integration of the broiler industry is expected to improve the product quality and safety and extend the industry chain to downstream deep processing markets to enhance the value of the products, such as prepared chicken and chicken snacks. Moreover, compared with companies that participate in only part of the value chain, integrated companies engaging in whole value chain business are able to guarantee the supply of upstream raw materials, the stability of raw material prices, and the quality of downstream products.

Diversified chicken products to meet consumers’ various demand. The chicken products on the market are becoming increasingly diversified in terms of variety, such as green-footed chicken and yellow-footed chicken, as well as in terms of ways to serve in order to cater for consumers’ various needs and the dietary habits in different regions. As a result, more consumer groups are expected to be covered in the future.

Changes in consumption structure and nutritional structure. Nowadays, consumers are increasingly pursuing healthy diets, which feature lower fat, lower calories, less sugar as well as rich fibre and nutrition. As a result, the consumption of chicken, which has relatively low fat and high protein, is expected to increase in the future.

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Market Trends

Branding. Since there are only a few well-known chilled products brands, there is still limited brand awareness of the yellow-feathered broiler in the downstream market. Consumers are not familiar with brands of chilled and deep-processed foods, so the consumption volume of these products is relatively small. In the future, with the development of the chilled products and the establishment of downstream deep-processed food brands, it is expected that the consumption of yellow-feathered broilers will gradually increase.

Deep processing and chilled products. Traditionally, over 80% of yellow-feathered broilers are sold live. However, the number of live markets and urban wet markets are shrinking due to the avian influenza outbreak and COVID-19. As a result, an increasingly large number of yellow broilers are being slaughtered outside of populated areas and brought to market chilled. Large poultry producers have introduced new chilled products, including pre-cut packages for convenient at-home preparation. Companies are more willing to develop a wider variety of products. As such, product offerings are more diversified and consumer groups are further expanded. Consumers are becoming increasingly receptive to deep-processed products.

Indoor farming. Indoor farming is one of the trends in the yellow-feathered broiler market in the future. Through indoor farming, automated machines will be deployed to improve the efficiency of yellow-feathered broiler farming and the sanitary conditions of the farming environment, such as temperature, humidity, air quality, and lighting. Indoor farming allows a farmer to monitor and control the production more easily and would help prevent the spread of infectious diseases. Therefore, the indoor farming trend is expected to reduce yellow-feathered broilers’ death rate further and enhance food safety in the downstream market.

Competitive Landscape

China’s yellow-feathered broiler market is relatively concentrated. The top five players accounted for an aggregate market share of 44.5% and 43.8%, respectively, in terms of the sales value and the sales volume of yellow-feathered broilers in 2022. In 2022, the Group ranked third in terms of both sales value and sales volume of yellow-feathered broilers, with a market share of 2.7% and 2.1%, respectively.

Top Five Yellow-feathered Broilers Providers in Terms of Sales Value and Sales Volume (China), 2022

Ranking	Yellow-feathered Broilers Providers	Sales Value of Yellow-feathered Broilers (RMB billion)	Market Share (%)
1	Company B	31.9	28.0%
2	Company O	12.8	11.2%
3	The Group	3.1	2.7%
4	Company P	1.5	1.3%
4	Company Q	1.5	1.3%
	Top five	50.8	44.5%
	Total	114.0	100.0%

Ranking	Yellow-feathered Broilers Providers	Sales Volume of Yellow-feathered Broilers (million birds)	Market Share (%)
1	Company B	1,052.4	28.2%
2	Company O	407.0	10.9%
3	The Group	78.6	2.1%
4	Company P	48.0	1.3%
4	Company Q	48.0	1.3%
	Top five	1,634.0	43.8%
	Total	3,730.0	100.0%

Notes:

- 1 Company P is a private enterprises headquartered in Guangxi. It principally engaged in poultry and pigs breeding and raising, as well as food and feed processing, etc.
- 2 Company Q is a private agriculture company headquartered in Guangxi. It principally engaged in poultry and broiler breeding and raising.

Source: Frost & Sullivan

INDUSTRY OVERVIEW

IMPACT OF AFRICAN SWINE FEVER ON THE PIG AND BROILER FARMING INDUSTRIES

Impact on the Pig Farming Industry

Pig production and price. As African Swine Fever intensified in the second half of 2018, the stock volume of sows and supply of pigs dropped sharply. Therefore, the price of pigs witnessed a rapid increase from 2018 to 2019, rising from RMB12.7 per kilogram to RMB21.9 per kilogram. The average price of pigs continued to increase and reached RMB34.1 per kilogram in 2020. With the effective prevention and control of African Swine Fever, the output volume of pigs recovered in 2021 and 2022, resulting in lower pig prices of RMB20.3 per kilogram in 2021 and RMB18.7 per kilogram in 2022.

Establishment of a pig epidemic prevention system. According to the “Opinions on Strengthening the Prevention and Control of African Swine Fever” (《關於加強非洲豬瘟防控工作的意見》) issued by the State Council in 2019, it is necessary to strengthen the cross-departmental sharing of information systems and implement “Internet+” regulation of all links in the prevention and control of African Swine Fever. The regulation of pig epidemic prevention shall be further improved by using information technology, intelligence technology, and big data to ensure the development of the pig farming industry in the future.

Impact on the Broiler Farming Industry

Promotion of chicken meat consumption. Driven by the protein substitution effect of protein sources impacted by African Swine Fever outbreak in late 2018, the consumption of white-feathered broilers increased. Since demand exceeded supply, the price of white-feathered broilers increased, which gradually shifted the demand to yellow-feathered broilers. Additionally, pigs and broilers are complementary products that are expected to hedge market risks.

Promotion of the cold chain development. Long-distance transportation of live livestock and poultry is an important cause of the spread of animal epidemics. While actively responding to the impact of African Swine Fever on the pig industry chain, China has also strengthened defensive measures in the poultry industry. Live poultry transactions are being gradually cancelled, thereby promoting the development of chilled fresh products. Prompted by African Swine Fever, consumers pay more attention to food safety which further promotes the development of cold chain technology.

CHINA’S PIG AND POULTRY FEED MARKET

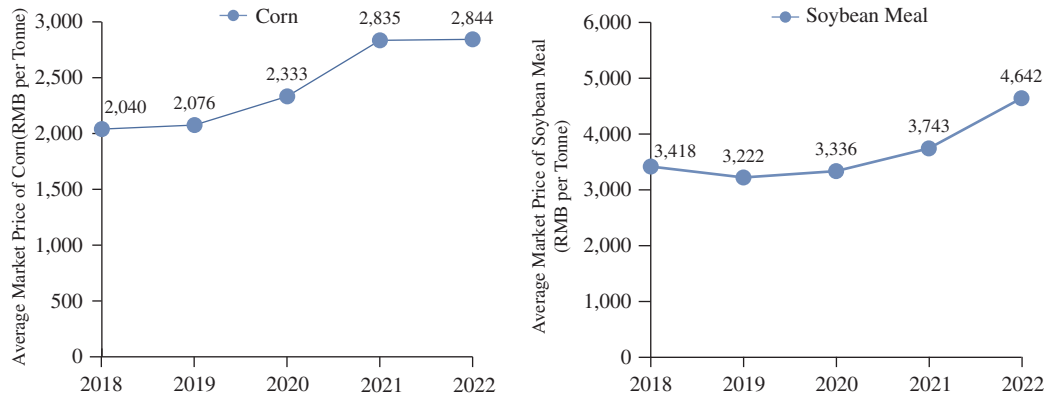
Overview

Feed for pigs and poultry accounts for the majority of the costs for daily farming operation. Feed can be classified into compound feed (配合飼料), concentrate feed (濃縮料), and premix feed (預混料). Feed for pigs and poultry primarily consist of corn and soybean meal. The selling prices for corn and soybean meal are subject to various factors, including demand and supply dynamics, government policies, weather conditions, pests and other acts of nature. The average selling price of corn increased from RMB2,040 per tonne in 2018 to RMB2,844 per tonne in 2022, with a CAGR of 8.7% from 2018 to 2022. For soybean meal, the average selling price remained relatively steady from RMB3,418 per tonne in 2018 to RMB3,743 per tonne in 2021, and rose rapidly to approximately RMB4,642 per tonne in 2022, with a CAGR of 8.0% during the same period. The main drivers for the increase in average selling prices of corn and soybean meal in the PRC from 2018 to 2022 include (i) strong

INDUSTRY OVERVIEW

demand for corn and soybean meal from downstream industries, (ii) restrictions on the supply chain and logistics of corn and soybean meal due to the outbreak of COVID-19, and (iii) deteriorating crop conditions due to extreme weather in China. In the future, the average selling price of corn and soybean meal is expected to slightly increase or keep stable, partly because of the strong downstream demand.

Average Market Price of Corn and Soybean Meal (China), 2018-2022

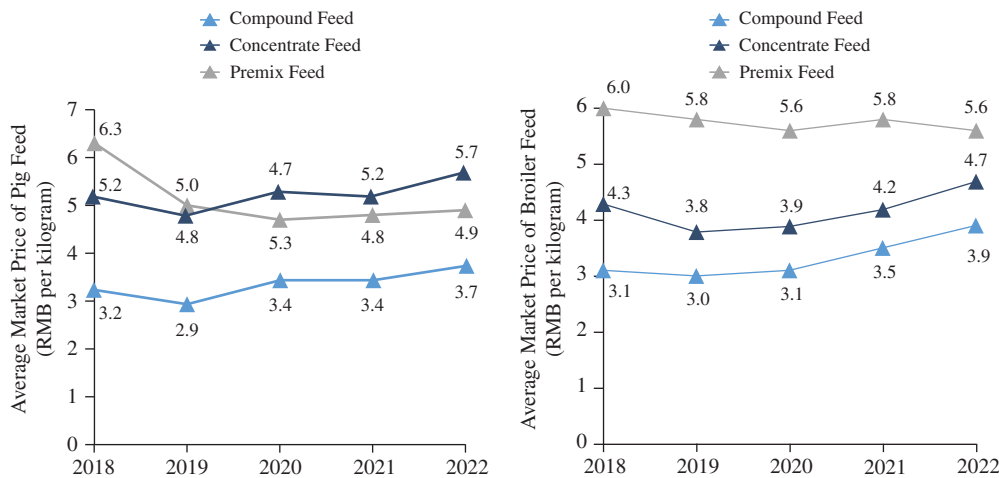


Source: Ministry of Agriculture and Rural Affairs of the PRC

Price of Pig Feed and Broiler Feed in China

For the past few years, the selling prices for both compound feed and concentrate feed for pigs and broilers have been relatively stable with a mild uptrend, and they are expected to remain steady or slightly increase from 2023 to 2027. The selling prices for premix feed for both pigs and broilers witnessed a downward trend from 2018 to 2022.

Average Selling Price of Pig Feed and Broiler Feed (China), 2018-2022



Source: CAAA