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China Food Manufacturing Annual Report

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Food Processing Ingredients

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Raisins

Snack Foods

Tree Nuts

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Report Highlights:

The Chinese economy faced significant challenges in 2011 and 2012. While the food processing industry experienced record sales in 2011, final 2012 numbers are likely to reflect a slowdown, which is expected to continue into 2013. In addition, frequent reports of food adulteration problems continued to erode consumer confidence. In response, food manufacturers are launching new efforts to improve ingredient quality, make use of newer technologies, and generally push greater innovation in their product offerings. This trend bodes well for imported food ingredients.

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EXECUTIVE SUMMARY

This annual report reviews the development of China's food industry in 2011 and the first half of 2012, and examines trends and prospects of the industry from the second half of 2012.

Fueled by various measures following the outbreak of the global financial crisis, including the Four Trillion Stimulus Plan (\$588 billion), China's economy move back to GDP growth rates above 10 percent in 2010, but slipped back below this level in 2011 as the government refocused their efforts to fight inflation. In 2012, early signs indicated a potential downturn, but this was to some extent offset by the release of a number of major public investment projects.

In 2011, China's food industry continued past rapid growth, but while sales increased, the total number of food operations dropped, signaling both a difficult economy and ongoing consolidation of the industry. By 2012, conditions worsened, with a number of food manufacturers reporting growth rates in the range of 10 percent, as compared to an average rate of 30 percent over the past ten years. The decline in growth and continued consolidation is the result of a combination of factors, including high rising food ingredients prices, soaring labor costs, rising entry costs for new companies and tightened bank loan requirements for small sized enterprises. At the same time, rising prices generally, and specifically for food, are leading consumers to economize more than in the past.

In response to these difficulties, many food manufacturers have launched new strategies, including employing high quality ingredients, introducing new technologies, and diversifying product lines, and so on. One quick frozen food market leader for example, has achieved remarkable growth by producing traditional Chinese foods such as dumplings and sticky rice balls. Facing the challenges ahead, it has decided to prioritize new product innovations by exploring western style frozen foods, including frozen cakes and frozen sweets. It is expected this trend of introducing newer technologies, better food ingredients and more creative food innovations will improve the long-term prospects for China's food industry, with increased scale, innovation and profitability, which are likely to also boost the use of imported food ingredients.

Import demand prospects for U.S. food ingredients can be roughly categorized as follows:

- **High demand:** Products that are either not largely produced in China or largely produced in China but the U.S. boasts apparent price advantages;
- Good prospect: Ingredients that are showing or to show price advantages with price gaps between China and the U.S. keeping narrowing;
- **Future prospect:** Products which are shrinking in production but increasing in demand in China;
- Conditional prospect: Products that needs heavy marketing supports in China or efforts in closing price gaps between the two countries.

In general, China is a huge market and able to accommodate more imported food ingredients. Products either not largely produced in China or enjoying potential price advantages are more than welcome and opportunities could emerge at any time; and for products of the last two categories, if suppliers could strengthen their marketing efforts in China and/or focus on narrowing price gaps with China, they should be able to grab their market shares in the not too far away future.

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Note: RMB is $2009, $1 = RM$	converted into U.S. (1B6.83; in 2010, \$1 =	dollars at prevailin RMB6.77; and in	g rates in effect du 2011, \$1 = RMB6.	ring data collection 46.	ı periods. In
SECTION I	MARKET SUMMA	ARY			

1.1 Market Overview

China's food manufacturing industry, although facing challenges, remains strong, as it has been over the past ten years.

Food industry 2011 at a glance:

Gross sales value*: RMB6.9 trillion, or \$1.1trillion

% increase than 2011: 28
% of gross industry output value: 8.2
Number of sized firms**: 32,639
Total number of firms: 400,000
Food exports value***: \$50.5 billion

% increase than 2011: 22.9

Food imports value***: \$28.8 billion

% increase than 2011: 33.3 Number of employee: 6,740,000

1.1.1 Market Growth

Development status of the industry is best illustrated by four indicators, including number of firms, gross sales value, output value growth of food industry versus agriculture, and growth of manufacturing sectors versus processing sector.

^{*.} Not Sales Value, but Gross Industry Output Value, is discussed in the China Statistical Yearbook. Sales Value here equals 98 percent of Gross Industry Output Value based on the indicator of Proportion of Products Sold. All Sales Values hereafter are calculated in this way.

^{**} Firms with annual sales revenue of more than RMB5 million (\$740,000).

^{***} Food and live animals used mainly for food, excluding beverages and tobacco.

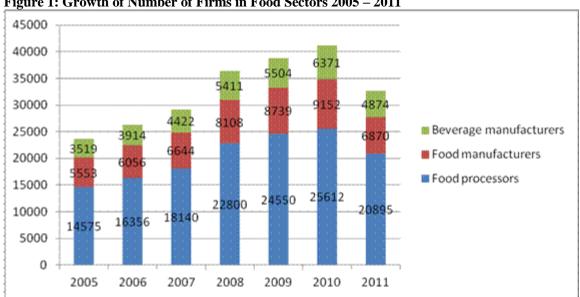


Figure 1: Growth of Number of Firms in Food Sectors 2005 – 2011

Source: China Statistical Yearbook, 2006-2012

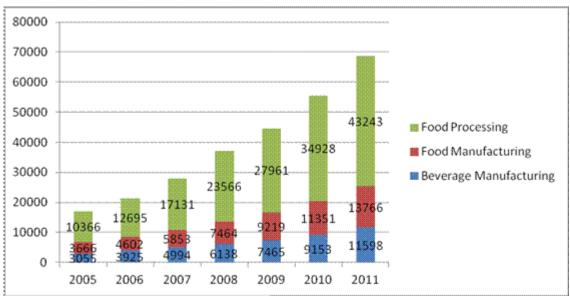
The Food Ingredients and Food Processing Report 2012 predicted that the rapid growth in the number of food firms "is likely to slow down in the coming years." This statement proved both right and wrong: rapid growth came to an end, but even more sharply than forecast. The number of food firms declined to 32,000 from the peak number of 41,000 in 2010, not only ending the steep growth over the past ten years, but also slipping back to the pre-global-financial-crisis levels before 2008.

Reasons for this are multiple. On one hand, higher the government has raised the bar to entry for food companies in order to improve food safety and security. On the other hand, tougher loan policies made it impossible to raise capital, and they subsequently went out of business. Compounding these problems, raw materials prices and labor costs have continued to climb. Smaller food companies have borne the brunt of these problems, causing the number of firms to decline, even as overall sales have grown. This is moving forward the long-expected process of consolidation. In the long term, these developments will help in the Chinese government's efforts to improve food safety and quality by making it easier to monitor industry activity and creating large companies with standardized practices and brand names to protect. This trend will also support increased imports of ingredients, as larger companies seek to distinguish themselves and are able to invest more in product development.

Gross sales value

Figure 2: Growth of Sales Value in Food Sectors 2005- 2011 (RMB100 million)

^{*} Statistics are only available for firms with annual sales revenue in excess of RMB 5 million



In contrast to the number of food operations, food industry sales values continued to increase sharply. 2011 sales values climbed to RMB6.9 trillion, or close to \$1.1 trillion, representing a growth of 28 percent over 2010. This RMB6.9 trillion in sales, it should be noted, does not include firms with annual sales revenue of less than RMB5 million (\$775,000). The contrast between growing sales values and the declining number of firms gives some indication of the true pace of consolidation. This trend is expected to continue in the near future.

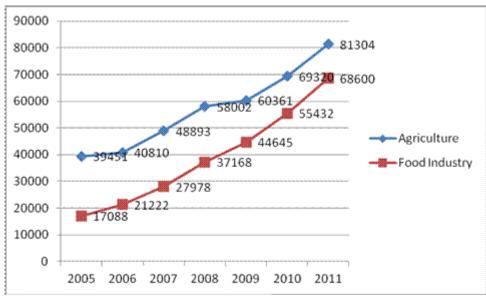
It is important to note, however, that record sales values are somewhat deceptive, as a significant portion of this increase is the result of a sharp spike in food prices, rather than in increased sale of products. A rapid rise in the CPI was a key feature of China's economy in 2011, and the food sector CPI exceeded 12 percent. Controlling for the rapid increase in food prices, overall industry sales may With the factor of high rising food prices taken into consideration, the growth in sales values may actually have been closer to 20 percent.

Growth of food industry versus that of agriculture*

*. Agriculture here refers to agriculture, forestry, animal husbandry and fishery

Figure 3: Growth Rates Comparison between Agriculture and Food Industry 2005- 2011 (RMB100 million)

^{*}Sales value equals to 98 percent (Proportion of Products Sold) of Gross Industry Output Value



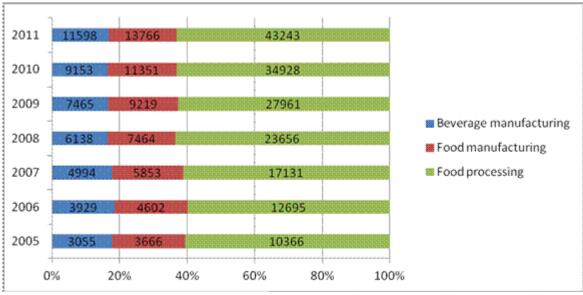
Dating back to 2004, food industry was only about one third of agriculture in total output value. While agriculture has been growing steadily over the past years, food industry has grown even more rapidly, closing the gap between the two. In 2011, food industry generated an output value of RMB6.9 trillion, representing over 80 percent of that of agriculture. Owing to rapidly rising global prices for agricultural products, agriculture generated big output values over the past years, which has slowed the pace at which food industry is catching up, however, given the great potential of food industry in China, the industry is expected to pass the value of agriculture output in the coming two to three years.

Manufacturing sectors versus processing sector

Official Chinese statistics separate its industrial food production into three categories, including:

- **Food processing**, including primary processing activities such as rice milling, flour milling, oil refining, sugar refining, slaughtering, salt processing, feed processing, and aquatic product processing;
- **Food manufacturing**, consisting of packaged food, pastries and confections, dairy products, canned foods, fermented products, and condiments; and
- **Beverage manufacturing**, which is the production of alcoholic beverages (i.e., distilled spirits, beer and wine), soft drinks and tea.

Figure 4: Proportions of Three Sub Sectors of Food Industry in Sales Value 2005- 2011



Despite its huge size and rapid growth, China's food industry has yet to achieve a balanced development. The food processing sector, which is supposed to decline in overall importance with development of the industry, as has happened in developed countries, remains dominant in size compared with the other sectors. The graph above shows output value of manufacturing sectors versus that of processing sector remains 2:3, far behind the average ratio of 3:1 in developed countries.

Of the various causes, the attitude of the central government has played a big role in the continued dominance of food processing. Its emphasis on food security and the strategy of size first have channeled more investments to agricultural production and food processing, rather than to food manufacturing. For instance, over the past two years, plenty of investments from such sectors as coal mining industry and the high technology industry have flowed to swine farming. This has to some degree favored agricultural production and processing and restrained the development of food industry as a whole.

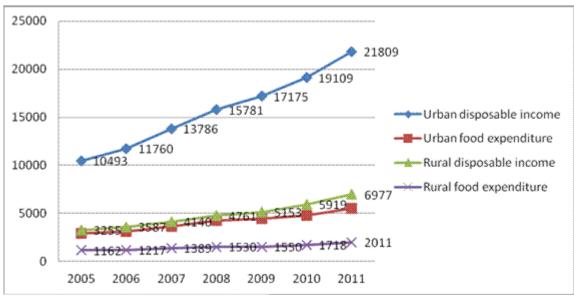
1.1.2 Driving forces

Among all the forces that contribute to the robust development of China's food industry, diposable income and urbanization are the most powerful two. In addition, food safety is playing an ever greater role in building demand for higher for high quality food ingredients and manufactured foods. Changes in the retail environment, and a growing trend toward overseas acquisitions by Chinese food processors are also important factors.

Disposable income

Disposable income is the locomotive pushing the food industry ahead. Thanks to robust economic development in China, disposable income has increased rapidly over the past 30 plus years, in turn fueling expansion of the food industry.

Figure 5: Per Capita Income and Food Expenditure in China 2005-2011 (RMB)



It has been noted that food expenditures have continued to climb along with disposable income, and this trend is expected to continue in coming years.

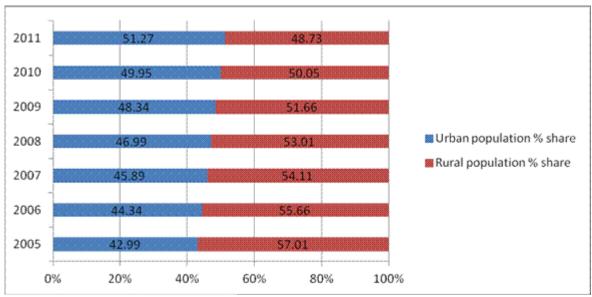
Disposable income growth is also contributing to a middle-income consumer boom in urban areas. This group is starting to seek high quality food, and is a critical market for the expansion of demand for imported food products. The number of urban households earning more than US\$5,000 a year is estimated to grow annually by 24 percent, creating tens of millions of new consumers for high-value and imported food. This income group is also facing greater demand on its time, and turning to more heavily processed foods to save time on food preparation. In November 2011, Xi Jinping, the newly elected Secretary General of the Communist Party, proposed doubling average incomes by 2020. Should that be achieved, expenditure on food is expected to increase hugely.

However, the ability of rising incomes to generate ever-higher food expenditures faces some limiting factors. On one hand, high rising consumer prices over the past two years have effectively reduced the growth of purchasing power to one third of the income growth rate. For instance, actual disposable income in 2010 was pulled down to 8 percent from 11 percent when the increase in the CPI was factored in, and that of 2011 down to 10 percent from 15 percent. Price increases have affected food more than other products: for instance, in 2011, food CPI is as high as 12 percent. Continued runups in food prices are likely to cause consumers to seek more ways to economize in the future.

Urbanization, a long term driving force

The Chinese government has pressed for urbanization for years, in hopes of generating more jobs to absorb surplus rural labor. As a result, the rural population has been declining relative to the urban population.

Figure 6: Urbanization Trends 2005-2011



2011 is symbolic for China as it marks the first time that China's population passed the 50% urbanization mark. Over the past seven years, the rural population has been shrunk by 1.3 percent or by about 10 million a year; meanwhile, the urban population soared by 3 percent or around 15 to 20 million persons a year.

Li Keqiang, the Vice Premier, who is also expected to become Premier in March 2013, has reiterated the importance of urbanization at the National Congress of the Chinese Communist Party in Nov 2012 and on other occasions. Therefore, it is believed urbanization will continue to be the policy in the foreseeable future.

With urbanization deepening, the traditional preference for fresh food and wet markets will keep giving way to processed foods and supermarkets, and this has had profound implications for China's demand for processed foods.

Increasing demand for safer and healthier food

Since the Sanlu melamine scandal in 2008, food safety issues have made daily headlines in China's media outlets. To combat this, the Chinese government has taken all efforts, including establishing the highest level central coordination agency, enacting and strengthening relevant laws and regulations, and setting higher standards to ensure that only qualified food operations remain in business. Despite all of these measures, a safe food environment has not been realized yet, and consumer confidence continues to slide. Particularly distressing has been the involvement of major domestic companies in some of the scandals in 2011 and 2012: Shineway, the biggest meat processor and number one food processor in China; Bright Dairy, one of the top three dairy food manufacturers in China; and Jiugui Liquor, one of the big listed spirits brewers. All were in one way or another implicated.

Over the past years, various surveys made across China, either by survey companies or by portal websites, reveal that Chinese consumers are extremely concerned about food safety and are willing to pay more for safer food when affordable. A good example testifying this is explosion in high-end food

retail stores across China, such as BHG and Ole. These stores sell only or mostly imported products, and are becoming the first options for high income urban consumers. Although prices are relatively high, these chains offer guarantees not available elsewhere. Similarly, food products of foreign brands, even though they can be produced within China, are more favored than domestic brands by consumers.

Propelled by increasing income and awareness of health and nutrition, Chinese are pursuing not only safer food, but also healthier food. Some specific age groups are seeking functional foods. Key demographics include infants, students preparing for their higher education exams, white collar workers, young women, the elderly, and so on. It is worth noting that many of these products are purchased as gifts to be given to people in these demographics, as Chinese consumers will routinely spend more on food to be given to others than they will on themselves. It is reported that functional food alone in 2011 generated a sales value of over RMB260 billion, equivalent to \$40 billion.

Interest in natural foods and ingredients is becoming a trend that powers innovation in Better-for-you (BFY) food and beverages. Affluent consumers are willing to pay premium prices for branded products, and they are receptive to new flavors from overseas. A growing percentage of that amount is spent on imported products and products with imported ingredients, such as dairy products, snack foods, tree nut products and confectionary items. More and more consumers carefully check nutrition labels on packages to find signs to convince them to buy. The wording "no food additives", "no fragrance", "no preservatives", "organic", "green", "no trans-fat acid", "0 cholesterol", "whole-grain" are seen more and more frequently in packages,— low-sugar or sugar-free, low-salt are favored.

Changes in food retail and marketing

Most shelf stable processed food products and beverages are distributed through hypermarkets/ supermarkets and convenience stores. The availability of national-level retailers in a growing number of cities has increased both the channels for sale of manufactured foods, and added some degree of consumer confidence. The major international retail giants, including RT-Mart, Metro, Carrefour, Wal-Mart, Lotus, are present in most of China's first, second and even third-tier cities. Chinese retailers such as Lianhua and Nonggongshang have continued to grow and develop, and regional chains such as Suguo (Nanjing), Hongqi (Chengdu) and voluntary chains such as SPAR and IGA, have all seen substantial growth. Convenience stores such as Kedi, 7-11, and Family Mart have emerged as a strong platform targeting the younger generation with small-packaged snack foods and beverages, whether they are made locally or imported.

Food adulteration scandals have, however, battered many of these chains, as stories of retailers who hold products beyond their best-by dates or who sell counterfeits, receive broad press coverage. A lack of trust has led many Chinese food manufacturers to open their own, branded stores, or to reserve their own space in hypermarkets, in which products are stocked and monitored by their own employees. This is part of the broader trend in which food manufacturers seek to avoid quality issues through vertical integration.

China has the largest internet population in the world. According to the China Internet Network Information Center (CNNIC), internet users in China exceeded 538 million at the end of June 2012. E-commerce users amounted to 193 million by end of 2011, and are forecasted to reach 300 million by 2015-- with sales value of up to USD 350 billion. Of the top 100 retail chains operating in China, 59 had

online stores at the end of 2011. E-commerce has emerged as an important channel that cannot be ignored.

Outward investment by Chinese food processors

Many large-scale Chinese food groups are actively looking for acquisitions overseas to boost its profile and cater to a rapidly growing domestic market. Bright Dairy secured a 51% stake in Synlait Milk, the No.4 largest dairy in New Zealand, and in 2012 launched the infant formula brand Pure Canterbury that is 100% manufactured and packaged in New Zealand, targeting at China's high-end infant formula market. Bright Food Group bought a 75% stake of an Australian branded food business-- Manassen Foods from CHAMP Private Equity in 2012. Manassen Foods, which was acquired by CHAMP in 2006, owns Sunbeam and Angus Park dried fruits and Margaret River Dairy, and an array of brands in the bakery, biscuits, grocery and confectionery segments. In addition, Bright Food has been reportedly in negotiations with private British equity firm Lion Capital, owner of Weetabix, about a possible purchase that would value the maker of ready breakfast cereals at around \$1.61 billion.

Leading Chinese dairy companies have started manufacturing their own branded products in plants overseas, aiming to cater to consumer's strong confidence in imported dairy products, and take advantage of the lower-cost of raw milk in Europe and Oceania. For example, Wahaha has its Edison brand baby formula manufactured in the Netherlands and packaged in Switzerland.

In general, given the huge market that is to feed a population of 1.3 billion and the increasing demand for quicker, safer and healthier food, the food industry is likely to see continued growth in the future.

1.1.3 Impeding Factors

China's overall economic development, which is experiencing difficulty at present, is the paramount factor limiting the development of its food industry. In addition, the following factors may slow industry growth as well:

Rising prices for ingredients

Although rising prices for agricultural and food products is not an issue for China alone, the problem in China appears to be worse. Starting from mung beans, followed by ginger, apple, peanut, pork, and so on, a whole list of agricultural products have experienced price fluctuations ranging from 20 - 30 percent to as high as doubling or even more over the past few years. This has caused serious problems for food manufacturers, particularly the smaller ones that have limited bargaining power with commodity producers or brokers. This has caused some manufacturers to begin investing in their own production facilities in order to secure supplies and reduce the impact of price fluctuations on their manufacturing businesses. The trend toward purchasing supply sources is also being reinforced by food safety concerns. Chinese markets for ingredients tend to be under regulated and it is difficult for a manufacturer to guarantee the quality of ingredients purchased on the market. A large number of the recent food quality scandals have been traced to ingredients that were adulterated by middlemen.

Soaring labor costs

With the gradual decline of China's demographic dividend, labor costs are rising rapidly. The "labor shortage" experienced each year after the Chinese New Year years ago in Guangdong province (a major manufacturing center) has spread now throughout China. Laborers across the country are demanding higher pay, and voting with their feet. Alternatively, many are finding employment closer to home, causing many manufacturers to locate new facilities further inland to traditionally more rural areas. A key limit cited by food manufacturers is the availability of labor.

Rising food safety costs

Over the past years, food safety scandals had made daily headlines in media across China. To reverse this situation, the relevant government agencies have introduced various measures that are driving production costs higher. For instance, the new dairy food sector policy effective from April 1st 2011 has greatly lifted the entry bar. This drove about half of dairy food makers out of the market, and left the survivors bearing an additional RMB1 million per month for costs for quality checks and improvements to inspection equipment. For other food sectors, manufacturers have to be extremely cautious in selecting raw materials, in most cases, purchasing more expensive ingredients than strictly necessary, to make sure their products are safety risk free.

A sharp spike in the CPI was the most noticeable feature of China's economy in 2011, and among all sectors that contribute to the overall CPI, food took the lead. Rising food prices, propelled by increasing food ingredients costs, labor costs and other costs, rather than by newer technology and higher standards, may slow down the robust growth of food industry that has lasted for three decades.

1.2 Snapshot of Selected Food Sectors

Food sectors that may affect export of U.S. agricultural products would involve frozen food, prepared meats, snack food, bakery and dairy products.

1.2.1 Frozen food

Frozen food is potentially a very broad category. Although the category could encompass frozen flour-based foods, prepared meats, ice cream and other diary products, and so on, consumers' first reaction is quick frozen flour-based foods such as dumplings, which is what this report will focus on.

In ten years China's frozen food industry has grown from a small-scale industry dominated by momand-pop stores into a massive, highly modern industry accounting for well over RMB60 billion (over \$10 billion) in annual sales. The industry is centered around the city of Zhengzhou, home to China's two largest frozen food manufacturers, San Quan and Synear. Each company commands close to ¼ of the market, with roughly 500,000 metric tons in current manufacturing capacity and gross sales of RMB3 billion. Both are adding new manufacturing capacity, and San Quan expects to triple its output within the next five years.

These manufacturers are a far cry from their homespun antecedents. They are large corporations whose products are a household name across China, and who have brand names and reputations to protect. San Quan currently exports to twenty different countries, and could easily export more if domestic markets didn't demand their full attention. With famous names and large investments in their product lines,

these companies have a powerful interest in guaranteeing the quality of their products – including the ingredients they use to manufacture them. Laboratory facilities are extensive and include the latest gas chromatography and other equipment. This need to ensure quality and safety, along with the need to innovate in order to stay ahead of me-too manufacturers, is driving a keen interest in new ingredients, including imports.

China's frozen food industry revolves around several traditional foodstuffs: vegetable and meat dumplings that are boiled, and sweet rice flour balls traditionally stuffed with black sesame sauce. Other products include hun dun (won ton) and noodles. The principal ingredients are simple: wheat flour, pork, fresh vegetables. However, as competition grows, manufacturers are seeking ways to distinguish themselves by offering new tastes and varieties. San Quan is already producing a line of fruit-flavored tangyuan (which traditionally use sweet sesame fillings), including one that uses blueberry fillings imported from the United States.

The economic difficulties of the first half of 2012 affected quick frozen food sector. Over the past ten years, frozen food manufacturers had been used to annual growth in excess of 30 percent; however, in June 2012, seeing sales growth suddenly dropped to 10 percent or so, even for sector leaders like San Quan. San Quan has been striving to expand its production capacities in the past years, but is currently limiting its expansion. Like other leading manufacturers, San Quan is re-thinking its strategy. The company has decided to diversify its product lines by heavily exploring western-style frozen foods, such as frozen cakes and frozen sweets. Innovations along these lines are likely to boost demand for imported ingredients that do not have ready equivalents in China.

1.2.2 Prepared meat

Prepared meat is one of the fastest growth sectors for food manufacturing. It is also the sector that is being most heavily impacted by rising ingredient prices and food safety concerns. Like quick frozen food, it is built on consumers' demand for quick and convenient food and greatly fueled by the fast tempo of modern life. Prepared meats can be categorized into three sub sectors, depending on production and preservation, including: fresh prepared meats; prepared meats in vacuum packages; and frozen prepared meats.

Fresh prepared meats have been in existence for hundreds of years. The advantage is freshness. Some foods are still warm when they reach shelf, but the disadvantage is extremely short shelf life, which will restrain products being transported far and thus limit production volume. This industry is generally local in scale, as logistics and short shelf life do not permit broad distribution.

Prepared meat foods in vacuum packages have been in market for about twenty years, with the main products lines being different kinds of sausages. Many of China's largest and most recognizable food manufacturers, such as Shineway (Shuanghui), Topin and Yurun, began with sausage manufacturing, and now boast annual sales of RMB 30-50 billion. However, these companies are generally poor prospects for large volumes of imported ingredients, as most have built their own swine farming and internal supply chains and have little demand for imported meat products. Niche opportunities exist in areas such as flavorings and additives, but are small relative to overall production value.

The third sub sector, frozen prepared meat foods, which holds the best potential for imported

ingredients. This sub sector has only been in existence for roughly ten years, but reached RMB12 billion in sales by 2010. The average growth rate of this sector is 35 percent over the past decade, about 10 percent higher than food industry's average rate during that time, and is expected to maintain this growth in the coming years. The main product type is meat ball or fish ball, for use in hot pot or daily cooking, with some variations in ingredients, sizes, and flavors etc.

The largest production center for frozen prepared meat foods is in Shandong province, which hosts sector leaders like Longda, Huifa and Jiashibo. Huifa, for example, is a company with a history of only 11 years, but reached RMB 1 billion in sales by 2011, boasting an annual increase of 200 percent growth per year over the last 6 years. Jiashibo, Huifa's competitor in the same city, has a similar history of astonishing growth.

This sector is a particularly good prospect for two reasons. First, unlike the major players in the vacuum packed meat sector, these manufacturers have spent their short history focused on building market share and expanding nationwide. As a result, they lack integrated links into the animal farming and processing sectors, instead sourcing ingredients from the market. Their rapid growth, however, leaves them vulnerable to price spikes. In addition, outside of the captive supply chains of major processors noted above, markets for meat remain largely unorganized, leaving large-scale buyers vulnerable to the highly variable quality of products on market.

Second, the meat/fish ball sub sector is specialized in its input requirements, demanding high fat parts like pork collars and bellies, chicken feet, organ meats, etc. These parts are widely used in China, and so tend to be more scarce on the market than in places like the U.S., where such products are not so widely used and tend to sell at a discount. This creates a good match between manufacturers' demand and U.S. supply.

1.2.3 Snack food and chocolate candy

Snack food is a top three sector in terms of growth rate among all food industry sectors, only after frozen food and health food. There are no official statistics on the size of the market, but it is estimated that the market is as large as RMB100 billion, and the annual growth rate is over 25 percent.

The snack food sector is a sector with relatively easy entry, but with a high failure rate, where competition is high, innovation vital, and profit margins thin. Manufacturers try to innovate in shape, color, taste, mouth feel and packaging, but have little desire for imported food ingredients due to high costs relative to their low profit margins. Exceptions exist, however, for snack foods that fit into the healthy foods category, which is less price sensitive.

Generally speaking, the base ingredients for the snack food sector are quite common: wheat flour, rice, seafood, flavorings and seasonings, colorings, fruit, nuts, and other regular agricultural products, most of them domestically supplied. The only major exceptions are foreign nuts and fruits that are hard to source domestically, such as almonds. The sub-sector that makes the greatest use of nuts and dried fruit, besides the nut roasting sector, is the chocolate candy sector. Rather than high-end chocolate candy (which is dominated by multinationals), this sector is dominated by the mid and low-end manufacturers. This group is presently facing a difficult situation, and will need new ideas and products if it is to survive.

Mid to low end chocolate candy manufacturing is largely clustered in Tianjin. Back to about 50 years ago, Tianjin was one of the main production centers of chocolate candy in China, together with Beijing and Shanghai. This didn't change until 1980s. Since then, Beijing and Shanghai, moved toward more high-technological and services industries. Tianjin, viewing this as an opportunity, took over equipment and talent shed by Beijing to become China's largest chocolate candy manufacturer by volume. The entry of international brands like Mars, Hershey and Nestle, however, have driven these manufacturers out of the key first and second tier markets.

Currently, there are still about 70 chocolate candy producers in Tianjin, producing about 80 percent of chocolate in volume in China. They are mostly small to medium in size, and the bigger ones have a sales volume of ranging from RMB20-50 million a year, with the largest reaching about RMB100 million a year. The surviving manufacturers, with limited resources, are seeking new ways to differentiate their products, both from each other and from the international brands. They have indicated a strong interest in sourcing new types of ingredients to help in this effort.

1.2.4 Dairy

Market size and status

According to industry statistics, total dairy sales in China reached RMB 204 billion (USD 32 billion) in 2011, a 16.4% increase from 2010. The dairy industry has continued to enjoy strong growth in 2012. Figure 7: Retail value of dairy markets (million RMB)

right 7. Retain value of dairy markets (minion RVID)					
	2007	2008	2009	2010	2011
Dairy Products	137,705.5	143,821.4	157,944.1	175,235.6	203,904.0
Drinking milk products	112,946.3	116,639.8	126,621.6	139,559.5	162,305.5
Cheese	559.6	668.7	779.8	916.4	1,104.7
Yoghurt & sour milk drinks	22,962.9	25,195.5	29,143.2	33,280.0	38,876.2
Baby milk formula	25,675.1	32,515.7	41,351.6	50,942.9	61,952.4
Other dairy products	1 236 7	1 371 4	1 399 5	1 479 7	1 617 6

Source: Euromonitor (Exchange rate between USD and RMB: 1USD to 6.35RMB) **Drinking milk products include fluid milk, flavored milk drinks and milk powder etc.

Per capita annual consumption of dairy products is around 28 kg in urban areas, but is only around 12 kg in rural areas. There is a large gap between China's rate of consumption and average per capita consumption rates of around 300 kg in developed countries.

Dairy product imports continued to grow rapidly in 2012. China Customs statistics showed that the import of dairy products in Jan-July 2012 amounted to 777,000 metric tons, an increase of 23.3% over the same period in 2011. New Zealand is the biggest exporter of dairy products to China; its share of total imports reached 45.6% during the first half of 2012. New Zealand was followed by France, the Netherlands and the United States.

In an effort to improve the structure of the dairy industry in early 2011, the number of manufacturers issued production permits was slashed to 675 from about 3,000. By early 2012, the number of permitted manufactures rose to 716. Yili, Mengniu and Bright Dairy are the top three manufacturers in terms of annual output. They collectively control more than 50% of the national market. Sanyuan from Beijing, Wonder Sun from Heilongjiang Province, Want Want Group, Jiabao from Shandong Province,

and Huishan from Liaoning Province are also among the top ten dairy manufacturers.

Consumer confidence in milk is still recovering from the 2008 tainted formula scandal and quality problems still plague the Chinese dairy industry from time to time. In mid 2012, aflatoxin, a cancercausing toxin produced by fungus was found in Guangzhou in five batches of Nanshan Bywise brand formula. It was made by Hunan Ava Dairy Industry Co. in Nanshan. Aflatoxin can appear in the milk of animals that eat mildewed feed. It previously has been detected in milk from Mengniu and another company, Changfu.

Distribution channels

Around 80% of dairy products reach consumers via retailers - which have experienced significant consolidation over the past five years. For cheese products, yogurt, and take-home ice cream, the supermarkets' role is even more important.

Major manufacturers of yoghurt and yoghurt drinks also compete in the food service channel with specially designed brands. Although the profit in the food service channel may be higher than that achieved from retail channels, manufacturers face high entrance fees determined by hotels and restaurants and delayed payment in China. Hotels and restaurants normally pay after they sell the products. This has constrained the sales volume of dairy products through food service channels.

It is estimated that there were over 6,000 pizza restaurants in China by mid 2012. The emerging pizza restaurants and western food restaurants have been driving the growth of cheese consumption in HRI sector. According to industry insiders, cheese consumption in the HRI sector is growing at a rate of around 30%, while it is only about 10% in the retail sector.

Yogurt bars are a new restaurant format emerging in first tier cities and popular among the younger consumers. Competing with juice bars and ice-cream bars, yogurt bars offer frozen yogurt and yogurt drinks in various flavors. These bars are generally located in Central Business Districts.

Online stores are emerging as an important distribution channel for dairy products, especially non-temperature-sensitive dairy products, such as UHT milk and infant formula milk powder. Most of them are foreign brands that enjoy higher confidence in Chinese consumers. It is estimated that 10% of infant formula is distributed via online stores, and in 1st tier cities, this percentage is as high as 40%. There were 193 million E-commerce users at the end of 2011, and the number is forecast to reach 300 million by 2015.

In the first tier cities of Beijing, Shanghai and Guangzhou, some consumers still prefer direct delivery of milk to their home every early morning. Milk directly delivered by producers is regarded as a guarantee of freshness and quality although costs can be quite high.

Dairy product trends by category

<u>Fluid Milk:</u> Fluid milk is the largest product segment in this industry, and is sold mainly in cardboard containers and plastic packages. Fierce competition has cut the profitability of fluid milk production to low levels. At the national level, UHT milk has about 80 per cent of the market by volume, thanks to its

availability in markets far from the manufacturing site and comparatively lower retail price. In big cities where the cold chain infrastructure is better established, pasteurized milk occupies more than 70 percent of the market.

Consumer attention to product safety and quality will continue to grow, and manufacturers are competing by introducing "Better-For-You" dairy products. These include calcium-fortified, ironfortified, low-fat or fat-free drinking milk products, organic dairy products, as well as products added with functional ingredients beneficial for certain consumer groups.

Imported UHT milk is an important category. In 2011, China imported 25,800 metric tons of UHT milk. Currently the most available import UHT milk brands are Country Goodness, Anchor and Dairy Hill from New Zealand, Lactel from France, Pauls and Living Planet Organic Dairy from Australia, Suki (with milk sourced from Germany) Borden from United States, and Emmi from Switzerland. The shelf life is normally eight months to one year, and the unit prices per liter are between RMB 20-32. This price scale is only about 10-30% higher than that of their Chinese competitors, making it affordable for local food safety conscious consumers. Online stores are an important distribution channel for import UHT milk.

Flavored milk drinks with fruit juice will continue to register the most dynamic value growth in 2012 and 2013. Thanks to its tasty flavor and nutritional claims, younger generations of Chinese consumers are willing to choose flavored milk drinks with fruit juice as a fashionable and healthy option. Apart from the leading players such as Wahaha Group in this area, new players such as Suntory and Ten Wow are actively developing their portfolio in this line.

<u>Cheese:</u> Continuing its robust growth in 2011, cheese is a star in China's dairy market, with approximate 21% value growth in retail channels and almost 13% volume growth in the foodservice channel, according to Euromonitor.

Not a traditional food in China, Chinese consumers' knowledge regarding cheese's benefits remains low, and, at the retail level, many consumers still have difficulty accepting the taste and smell of cheese. Awareness has increased, however, as a result of TV advertisements, internet, and other promotions. The cheese market is still small, but one with great growth potential. White-collar workers with higher levels of disposable income are the key consumer demographic for cheese, and many parents tend to choose suitable cheese products for their children in an attempt to increase calcium intake and improve nutritional balance. Cheese is widely marketed as a health conscious product to high-income consumers. At the HRI level, demand has grown quickly: Chinese consumers' love of pizza contributes to the consumption of cheese, mostly mozzarella, in pizza restaurant chains and hotels.

Leading domestic dairy companies Bright Dairy, Sanyuan, and Yili have all launched cheese processing lines. They have also run very successful consumer education programs. In 2011, Bright Dairy led cheese sales with 53% of the market, followed by Anchor (20.2%), Pikifou (6.9%), Sanyuan (4.6%) and Suki (3.4%). The top five brands occupy nearly 90% of the cheese market. (Suki is imported, and sources from different countries: currently cream cheese from Australia and Chedder and Monterey Jack from the United States).

Unspreadable processed cheese registered the highest value growth in 2011. The consumption volume ratio between spreadable and unspreadable processed cheese was about 35-65 percent in 2011 in China market, with unspreadable processed cheese slightly outperforming spreadable cheese and slowly increasing its share of the market. Cream cheese dominated the spreadable processed cheese market. For

unspreadable cheese the most frequently available products are Mozzarella, Monterey Jack, Cheddar, and Parmesan cheese. Slice and stick cheese are the most commonly seen unspreadable cheese at retail channels.

Many foreign brands are available in supermarkets in China. Currently there are over 10 U.S. cheese brands in China market such as Leprino, Sargento, Borden and AmeriDairy. Other major import cheese brands are Kraft made in Australia, Mainland from New Zealand, President and Cantorel from France, Suki from the United States, Bega and Laughing Cow from Australia, Emmi from Switzerland, Feta from Germany, Arla from Denmark, and Kerry Gold from Ireland.

Cheese manufacturers launched more innovative flavors including chocolate, tree nuts, strawberry, and banana flavors for children, and cheese products fortified with vitamins and minerals that appeal to Chinese consumers. Many promotions and price discounts were also offered to attract consumers, which lowered the unit price of cheese, and greatly contributed to the sales growth of cheese products.

One value-added ingredient increasingly being used in the production of baked and processed foods is **cheese powder**. This input adds nutritional value (increased protein content) and enhances the flavors of finished products. U.S. cheese powder's low moisture content makes this product affordable to the local bakery chains as there is no need to refrigerate the product before they are cooked. Typical uses of cheese powder includes the production of biscuits, savory snacks, baked products, sauces, dips and dressings, ready meals, and even reconstituted cheese.

Most cheeses found in the retail market are imported from the United States, France, Demark, New Zealand and Australia. A small amount of domestic cheese products are processed cheese slices manufactured locally by Kraft and Shanghai Bright. Some domestic brands either source ingredients from aboard or contract out foreign dairy factories to produce private label cheeses for the Chinese market. This is the case of the *Suki* brand which is a private label *Land O'Lakes* product produced for the Shanghai Gaofu Foods Company. Domestic dairy companies are eying private label cheese production from the United States and this is an opportunity for U.S. dairies to engage China's dairy producers.

China's cheese market will continue to grow rapidly in the next five years, and that growth will spread from first tier city markets to second and third tier markets. Ongoing economic development will increase Chinese consumers' purchasing power, and make high-priced cheese products more acceptable for mass consumers.

<u>Yogurt:</u> The yogurt market maintained its consistently strong growth in China in 2011. Yogurt sales increased by 16 percent in 2011 to exceed RMB 38.7 billion (USD 6.1 billion). The average retail unit price of yogurt products continued increasing in 2011 thanks to ongoing launches of relatively high-end products of fruit-flavored and functional yogurt by key players.

While traditionally yogurt has a very positive image in China, dairy manufacturers are working to transform yogurt into a Super Food with function to improve digestion and control weight. Functional yogurts are frequently further fortified with fiber such as whole grain and fruits, additional levels of calcium or antioxidants to increase their health benefits, so that they can gain more popularity among consumers.

Imported yogurt enjoys a stable but small growth rate, as its loyal consumers are mainly expatriates or returned overseas Chinese. Emmi from Switzerland, Elle & Vive and Milkana from France, Yoplait from Australia and FAGE from Greece are frequently available brands on the shelves of import food supermarkets/stores.

Hangzhou Wahaha Group from Zhejiang Province, Mengniu from Inner Mongolia, Bright Dairy from Shanghai, Yili from Inner Mongolia and Junlebao owned by Sanyuan from Beijing were the top five players in this sector in 2011, taking 50% of the market shares.

Milk Powder: Milk powder remains the biggest import item in 2011-2012, and is still growing. According to China's Customs statistics, import volume during the first eight months in 2012 increased by 20% over same period in 2011, reaching 413,800 metric tons; its import value also increased 14.7%. New Zealand, taking over 80% of the market, is the biggest milk powder exporter to China, followed by United States, Australia and EU. Low consumer confidence in domestic products, coupled with a high level of concern over children's health and nutrition, have helped to boost imports. Infant formula milk powder sales have grown steadily. Baby milk formula sales continued to climb with dynamic value growth of 23% in 2011, reached RMB 62,140.84 million according to Euromonitor statistics.

With on-going growth of disposal incomes, and the one-child-policy within one family in China, parents are willing to pay a premium for high-quality products. China imported 57,919 metric tons of baby formula milk during the first eight months of 2012, up 17.4% year on year. Netherlands (22.5%), New Zealand (18.6%), France (16.1%) and Singapore (17.2%) are the top four baby/toddler formula milk powder exporters to China in first half of 2012.

The high end infant formula milk powder market is nearly monopolized by multinational giants from Europe, the United States, and Australia and New Zealand, thanks to the high consumer confidence, and the branding and channel management they enjoy in China. Top international players include International Nutrition (Dumex), Mead Johnson (Enfamil, Enfagrow, Enfapro, Enfachild, Enfaschool), Abbott Nutrition International (Gain, Similac), Nestle (Lactogen, Neslac), and Wyeth (Promise, S-26, Bright Promil).

There were 119 domestic manufacturers of baby formula milk powder in China by end of 2011. Beingmate (9.9%) from Zhejiang Province, Yili (7.9%) from Inner Mongolia, Yashili (4.1%) from Guangdong Province, Shengyuan (2.7%) from Shandong Province, and Wonder Sun(1.8%) from Heilongjiang Province are the top performing domestic brands in terms of market share.

<u>Whey:</u> Whey's advantage as an efficient protein source positions it for increased use in China's fitness and health care industries. Whey as a nutritional supplement is increasingly sold in gyms and boutique health food stores in first-tier Chinese cities. Meanwhile, whey and lactose ingredients are used in a growing array of baby formulas, functional beverages and yogurt products.

The U.S. is the dominant leading whey and lactose exporter to China. In 2011, the collective value of U.S. whey and lactose exports to China amounted to USD 273.5 million, increased by 81% over 2010 according to USDA statistics. Such products include sweet whey powder, whey protein concentrate (WPC) of 34% and 80% protein contents, and whey protein isolate (WPI).

1.2.5 Healthy food

Market overview

Chinese consumers are more willing to choose nutritional and healthy food to maintain general health and reduce the risk of chronic health problems such as diabetes and obesity. Increased disposable income is making health and nutritional food more affordable. Improved distribution channels, education and marketing campaigns have also contributed to the fast growth of the health and nutrition food market.

China's **State Food and Drug Administration (SFDA)** notes two categories of nutrition and health food products – "Health Food" and "Dietary Supplement". Both must register with SFDA and be evaluated by its authorized facilities before they are launched.

"Health Food" (Bao Jian Shi Pin) refers to a food claiming that it has certain health-improving functions or is able to supply vitamins and minerals. It is good for a particular group of people and able to adjust body functions, but is not used to cure diseases. It will not cause any form of harm whether it is acute or sub-acute or chronic. Currently there are 27 functional claims permitted to be printed on the labels of these products. "Health Food" must register with SFDA so that they can print the logo of "Bao Jian Shi Pin", or the so-called "blue cap" on the label, together with the functional claims.

"Dietary Supplements" refer to products that supply vitamins and minerals instead of energy. Its function is to supplement the routine diet to prevent the deficiency of certain nutrients and lower the risk of certain chronic and degenerative diseases. Dietary Supplements cannot make any functional claims on their labels.

Growing at an average annual rate of 15%, the total sales value of nutrition and health food in China reached an estimated RMB 200 billion (USD 32 billion) in 2011. There are over 16,000 manufacturers of nutrition and health food in China. About 1,300 have the Good Manufacturing Practice (GMP) certification to produce Health Foods defined by SFDA. They have registered products with SFDA, so that they can print the so called "blue cap" with "health food" wording on the label. At the same time, there are around 15,000 manufacturers producing "Better for You" (BFY) food products in China.

According to the statistics from the official website of SFDA, the number of registered domestic health foods with the "blue cap" is 11,653, and registered import health food items were 665 at the end of August 2012. It is estimated that the number of food products with fortified nutrition but without the "blue cap" was around 30,000 in mid 2012.

Apart from health food and dietary supplements, there is a third category of products, the so called "Better for You" (BFY) products. BFY products are manufactured as ordinary food with Quality Safety (QS) certifications, and they claim that the products are "low in", "high in", "fortified" or "free from" on the label. They include lower sugar beverages, vitamin-enhanced fruit juices, probiotics drinks, infant formula, foods for diabetics, organic products, Vitamin A-fortified wheat flour, herbal tea, herbal liquor, and donkey-hide gelatin.

Major players in the market

Domestic nutrition and health food manufacturers are mainly located in east China; 50% of them operate in the top six production bases of Beijing, Guangdong Province, Shandong Province, Zhejiang Province, Shanghai and Jiangsu Province. The rest are spread throughout central China, such as Hubei province and Jiangsi province, and north China, such as Liaoning province and Heilongjiang province.

Real Nutriceutical, By-Health Biotech Co., Ltd., Shandong Dongeejiao Group and Bishengyuan Tea Group are the major health food manufacturers that produce branded products in China. Some large-scale health food and dietary supplement manufacturers have focused on OEM manufacturing for overseas customers.

Leading international players entered China in the 1990s. Amway broke ground for its first plant in Guangdong Province in 1992, and brought the dietary supplement concept into China. Their Nutrilife health food products portfolio has gained high popularity among Chinese consumers. In 2010, Amway China's sales exceeded USD 3.5 billion, making China Amway Group's biggest market. Wyeth introduced Centrum multi-vitamins into China as early as 1993. Since then, its health food products, including infant formula, have achieved huge success and became one of the leading brands in health food and baby food in China. Wyeth has invested over USD 530 million and established state-of-the-art plants to manufacture health food in China.

NBTY landed in China officially in 2006, and established the NBTY China Trading Company which introduced the Nature's Bounty, MET-Rx Engineered Nutrition and American Health portfolios to the China market. GNC entered China and established a trading company in Shanghai in 2011. So far 77 SKUs in 13 categories of GNC health food products, including herbal supplements, vitamins, collagens, proteins, dietary fibers are being imported as ordinary food products, and are available at pharmacies, chained retailers and online food stores. In addition, RICHLIFE from Singapore and DHC from Japan are also expanding aggressively in China.

Consumption trends for nutritional and health food in china

More and more Chinese consumers are regularly consuming nutritious and healthy food. The most important factors that influence the decision-making of Chinese consumers when purchasing health food products are effectiveness and safety, a trustworthy brand, convenience for intake, and pricing. While a large portion is for self use, many buy these products as gifts for their family members, friends and business customers. Therefore packaging is also important to consumers.

<u>Food Safety Concerns Steer Consumers towards Safe Products:</u> A series of food contamination scandals in China have fueled demand for safe processed food and beverages. Imported foods from developed countries have enjoyed robust growth thanks to Chinese consumers' confidence in them. An import food label indicating the products are made in U.S, Europe and Japan sells itself to high-end consumers - especially in first-tier cities. Famous brands and large manufacturers with a long history are regarded as a guarantee of the food safety.

<u>More Consumers Read Labels before They Buy:</u> Although most people learn about health food from media advertisements in television, radio, newspapers, magazines, and the internet, food labels are still

considered the most useful source of health and nutrition information for better educated consumers.

Interest in natural foods and ingredients is becoming a trend that powers innovation in BFY food and beverages. The wording "no food additives", "no fragrance", "no preservatives", "organic", "green", "no trans-fatty acids", "0 cholesterol", "whole-grain" are seen more and more frequently on packages, more and more consumers carefully check nutrition labels on packages to find signs to convince them to buy – low-sugar or sugar-free, low-salt are favored.

<u>Senior Nutrition – the Key Driver in Health Food:</u> According to a survey conducted by the China Health Care Association in 2009, the group aged 56 and higher almost all consume health food regularly. This group of consumers normally pays more attention to their health than other expenditure items such as housing, clothing and dining out. A large portion of their health and wellness food is given by their family members as gifts.

China's population of citizens over the age of 60 exceeded 185 million at the end of 2011, accounting for 13.7% of the total population. It is estimated that the aged population will continue grow and amount to 400 million by 2033. Demand for products that protect the heart, help with high cholesterol, improve bone and joint health, and improve sleep will remain high.

<u>Children's Nutrition – Huge Potential:</u> Children's nutrition is a major growth area – please refer to the following section on Baby Food for analysis.

Distribution channels

There are four main distribution channels for health products in China, and the growth rates of these channels varies. In China, the traditional mass market channel that includes mass merchandisers, drug store chains, supermarkets, convenience stores and club stores still dominates the distribution of Health Foods with the "blue cap" and dietary supplements.

The growth of the direct sales industry (multi-level marketing), which uses the person-to-person mode of communication for elaborating the benefits of supplements, is also driving the growth of nutritional supplement market. The Chinese government issues licenses very cautiously to companies focusing on this distribution channel, but once they procure such licenses, these enterprises can develop rapidly.

Chinese consumers are beginning to seek nutritional advice from professional nutritionists at hospitals. This is driving the development of the health practitioner channel as a new channel for nutritional supplement sales.

1.2.6 Baby food

Although overlapping with the baby formula section of the dairy market profile, baby food merits special attention. Baby food products are the fastest growing product category in China's supermarket retail sector. The country's emerging urban middle-class consumers are willing to pay a premium for high quality imported baby food and nutrient products and are especially leery of domestically produced baby food products even when these have foreign brand names. With a post-2008 melamine tainted milk scandal still lingering in the minds of consumers, global infant product manufacturers are

increasing their share of this promising market. However these products are not limited to infant formula as local baby food producers are anticipating 90-percent growth in the industry by 2014.

Market size

The annual average baby food per household expenditure is around \$800, which means China is a \$40 billion market. Another market research by a recognized investment consulting firm also indicates that disposable expenses spent on infants in 1st and 2nd tier cities run around \$950-\$2,800 per year.

Recent statistics conducted by China Baby Products Industry Research Center show that there has been a steady growth of 15 percent per annum in China's baby products market over the past ten years. Moreover, data from Euromonitor International demonstrates that out of the \$41 billion global baby food market, China accounts for 23 percent of the total.

A market research report on "China Baby Food and Infant Formula Outlook in 2016" illustrates that China's baby food and infant formula milk market retail sales reached \$3.281 million in 2007, while in 2009, the segment grew by 21 percent. Infant formula has marked a growth in sales of 14 percent in 2011 relative to the increase of 14 percent and 16 percent in 2010 and 2009, respectively.

Market Segments

Chinese child-rearing habits vary somewhat from Western practices. Babies roughly between 0-3 years are considered infants when they need to be fed with specifically made infant formula and other baby food. For the children of middle-class Chinese families, feeding of formula continues to a later age than in the West. Homemade baby food is traditionally common in Chinese families where infants are fed rations of rice porridge with mashed fruit and vegetables, and feeding of prepared, bottled baby food is still relatively rare. Instant cereal-based foods have proved considerably more popular, particularly those claiming nutritional supplements or other special qualities. As the market witnesses commercial baby food flying off of retail stores shelves and with dramatic prices difference and gaps based entirely on brand-recognition, these items are being promoted in convenience stores and community stores in every first, second and third tier city in China. More and more Chinese parents tend to purchase a variety of imported baby food, particularly in urban households with rising per capita disposable incomes. Generally speaking, baby formula and instant baby cereal (whey/rice cereal) are the two most widely consumed baby food items in China.

Market Competition

Global baby food manufacturers are striving to consolidate and seize greater market share worldwide. Many are branding their products with their own standards which are backed-up by a particular's country's pediatric associations. According to market research conducted by a popular Chinese food and beverage website (http://news.40777.cn/info_71310.html), the top ten international infant formula manufacturers (in no particular order) that are dominating the China market include:

- Mead Johnson (U.S.)
- Dumex (Europe)
- Nestle (Switzerland)
- Wyeth (U.S.)

- Abbott (U.S.)
- Meiji (Japan)
- Anmum (New Zealand)
- Ausnutria (Australia)
- Morinage (Japan)
- Friso (Holland/Germany)

Some large producers, such as U.S. infant formula group Mead Johnson, the top player with the largest market share in China, remain confident in improved earnings for 2012 amidst a slight decline in the sector's (specific to infant formula) overall growth rate in 2011. Other manufacturers like Nestle, who recently (in 2011) acquired Pfizer Inc.'s baby food unit, now aim to regain momentum in China's baby food market after its untimely departure from the China market in 2005.

Post has conducted market research at four high end supermarkets chains (Ole, Taste, Jusco and Parknshop) in Guangzhou with special sections for baby food. The baby food areas in these four retail stores are teeming with customers and promoters. One supermarket had at least ten in-store promoters recommending infant formulas to consumers and a baby play area so that parents could listen to the promoters shill their particular brand of baby food. Dominant baby food brands are either products imported with original packaging, or foreign brands that import in bulk and package in China. The target buyers of these brands are mostly middle class consumers, both male and female, according to instore staff. According to feedback from supermarket retailers, for baby milk powders, foreign brand names of milk powder manufactured in China such as Mead Johnson, Abbot and Wyeth, are widely accepted because of a perceived reliability by consumers in quality and their affordability in price. The retail price for a tin of milk powder 800gram falls largely between \$27~\$40 (RMB170~RMB250).

On the other hand, directly imported baby milk powder is becoming increasingly popular among Chinese consumers. Most of these products come from Germany, Holland, Switzerland, Australia, New Zealand and Japan. However, of all the retail stores Post visited, none of the directly imported baby milk powder from the United States. Almost every single overseas manufactured milk powder will have the wording of "imported with original package" (原装进口) on the commercial package to catch consumers' attention. Retail prices for these products range from \$46~\$56 (RMB290~RMB350), which are comparably higher yet demand is strong.

Although 90 percent of the infant milk powders are cow milk, some of the competitors from Holland and New Zealand have recently begun to market **goat milk formula**. Studies have shown that mineral substance and protein proportion contained in goat's milk is closer to human milk than bovine milk, and is considered healthier, more nourishing and easier for babies to digest.

Traceability is a value added advantage which reassures parents when they purchase baby formula. One Dutch company established an online traceability system that allows consumers to trace back to the cultivated farmland, raw milk collection, as well as important links of production and transportation in order to improve the customers' confidence and loyalty.

With regard to other supplemented baby food, the most widely available brands are Heinz, Gerber (under Nestle) and Biostime. These three main competitors all have production bases in China. According to retail stores' baby food promoters, Heinz is the considered a reliable brand by most

consumers with the widest variety of baby food in the market. Heinz also established an Institute of Nutrient Science in China which is dedicated to improve nutritional structure. And, the company has already shaped solid consumer loyalty in the market. There is no directly imported baby food available in China. Only one German organic baby food brand can be found in local supermarkets.

Prohibition of colostrum in baby formula

Representatives from China's Ministry of Health claim that colostrum milk powder produced in low quantities is difficult to collect and the quality is unstable, making it an unsuitable ingredient for processed baby formula. This stipulation became effective on September 1, 2012. All legally produced or imported baby formulas with colostrum milk powder within expiry date imported before this time are still allowed for sale.

No colostrum powder is allowed in three product categories inclusive of:

- 1. Infant (0~12 months) formula(definition from the People's Republic of China National Standard(Guobiao) GB10765-2010)
- 2. Older infants (6~12 months) and young children(12~36 months) formula (definition from the People's Republic of China National Standard(Guobiao) GB10767-2010)
- 3. Infant formula with special medical purpose.

Organics

Organic food is also a fast growing sector in China, and an increasing portion of affluent parents feel the need to purchase organic baby food even though the price may be double that of conventional products. Many reports on the internet discuss the development of allergies which are reportedly brought about by chemicals possibly contained in conventional baby food.

Organic baby formula and supplementary foods are emerging in China's 1st tier cities. Products claiming to be organic on the packaging must receive approval from the Chinese government. Since the United States and China do not recognize each others' organic standards, to be labeled organic, U.S. products must pass through an unwieldy approval process. Very few products to date have done so. However, enforcement of the details of this regulation varies, and in some cases imported organics are permitted, provided the Chinese labels do not use the Chinese word for organic. Chinese consumers have learned to identify those products based on their original labels.

For domestic baby formula, organic is seen as desirable as much for the implicit guarantee of quality (as having been more closely inspected), as for any benefits deriving from actual organic production processes. The Chinese organic certification provides assurances that forage for dairy animals was not treated with artificial fertilizers or pesticides, no genetically modified feed products were included, and that no growth hormones were used. In addition, edible food additives are prohibited. Although the retail price for an 800 gram tin of organic baby formula is much higher (around \$73/RMB 460), an increasing number of affluent parents are still willing to pay a premium for the "organic" label.

Consumption patterns

Usually, there are three different types of milk powders: formula for 0-12 months of age, "follow-on" formula for 6-18 months of age and "toddler" formula for 1-3 years age. When mothers choose infant milk powder, they tend to select formulas that are closest to human milk. Many of the well-received brands packages will highlight that their formulas are proximal to breast milk with similar protein proportions to strengthen infants' immunity, 1,3-dioleoyl-2-palmitoyl-glycerol (OPO) to protect babies from enteric infection and allergy, as well as DHA and ARA to improve brain and retina development.

As a part of traditional Chinese medicine, Chinese also believe that excessive "heat" (food that leads to bloating or excessive fluid retention) inside the body generated by the food consumed may trigger disease. Nursing mothers are more inclined to pick formulas without palmitic acid, which has been considered a primary reason to create "heat" (in this case inflation) to the infant's body, and influence babies' nutritional absorptive and digestive functions. Although medical experts have a negative attitude toward this argument, most commercial brands tend to label products "not containing palmitic acid" as a marketing tool when promoting their infant formula products.

In addition to milk powders, a variety of baby food is coming into the market. While choosing ready-to-eat baby food such as whey cereals, colostrum milk powder, vegetable and fruit-based purees, mashed noodles, teething rusks, etc., mothers will select products without edible additives like flavoring essence, sugar, maltodextrin and thickeners. It is also stipulated by Ministry of health of China in the Notice 21 issued in 2008 that no edible flavoring essence should be added to any kind of baby food for infants between 0-6 months.

Following a tradition of gathering information through personal contacts, nursing mothers communicate with each other through the internet when deciding which brand of baby formulas to purchase, and when to start feeding infants for supplementary food. There are several well-known websites in China such as Mama.com (http://www.mamacn.com/) and Pacific Baby (http://www.pcbaby.com.cn/) that provide platforms for parents to share their experience and knowledge. From time to time, these popular parental guidance websites will launch baby food item appraisals through comparisons to offer more "unbiased" reference points to Chinese parents.

Consumer Trends

Although directly imported baby food and infant formula tend to have a higher price, Chinese parents have been shifting to international brands with demand towards higher quality and safer products. Public concern over domestic powdered milk formula still prevails two years after the melamine-tainted milk scandal, which has indirectly enabled sales growth and opportunities for more and more foreign brands of baby food to enter the market and establish credibility over domestic brands. Chinese parents living in South China, particularly those from the region bordering Hong Kong, are streaming across the border for high quality infant formula, particularly as appreciation of China's currency has made Hong Kong products relatively less expensive than those sold in the Mainland market. Many of these baby products carried over from Hong Kong are resold on Taobao, a Chinese website for online shopping similar to eBay. Some overseas Chinese living abroad even purchase baby food on Mainland internet shoppers' behalf and deliver the products directly to China through express mail. Thousands if not close to a million consumers from Mainland China routinely bring milk powder from Hong Kong and sell it to Mainland parents either through internet retailing or other channels. The demand is so great that

Hong Kong retailers have to limit purchases to four per costumer.

1.2.7 Tree nuts & dried fruit

The health and wellness trend is a key development for the local food processing industry. Food processors use tree nut and dried fruit to give consumers the feeling that their products are natural, nutritious and wholesome. 80 percent of tree nuts and dried fruit areconsumed as snack food and the rest are used in bakery, confectionery and in food service. Although China produces a variety of nuts and dried fruit domestically, imported nuts and dried fruit have recently gained a foothold.

The Mid-autumn Festival and Lunar New Year are the two best seasons for the sales of imported tree nuts and dried fruit. Nuts and dried fruit are marketed in adorned gift packages to friends, clients, or other business associates. The first week of May and October are also peak tourist seasons for tourism. Middle class and young adults residing in China's first and second tier cities favor year-round tree nut consumption. Though many still believe the myth that tree nuts are "hot" foods and that eating too much in the warm seasons will hurt one's health, younger consumers as well as the emerging educated middle class lend greater credence to nutritional benefits supported scientific research rather than relying on conventional beliefs.

Pistachios

Last year, the United States exported \$42 million pistachios to China, a 37-percent increase due in part to a temporary low tariff policy effective since 2008, and growing awareness of toxic food bleaching agents in China's food processing sector. In 2011, China's Ministry of Health has tightened the policy of additives and hydrogen peroxide was removed from the additives list. This policy adversely impacted Iranian pistachios, as their darker yellow shell was typically bleached in the past to meet local consumers' preferences. U.S. pistachio exports to China are expected to benefit from this new policy as the naturally whiter shell, larger size, and overall higher quality kernels are favored by local consumers.

Almonds

U.S. shelled almond exports to China reached \$67 million in 2012 due to a favorable price relative to other imported tree nuts. Price sensitivity remains the primary concern in the Chinese market. The Almond Board of California (ABC) has periodic contact with traders and media to ensure the end users and consumers understand the different varieties of the California crop as well as their health and nutritional features. ABC has devoted substantial resources to develop distribution channels and relationships with all of the major national and regional chain stores. A series of marketing promotions were launched during the off-holiday season to strengthen sales and the relationship with retailers.

Walnuts

China's annual domestic consumption of walnuts is largely due to its recognized nutritional and medicinal aspects associated with consuming this tree nut. Locals mainly consume walnuts as snacks via the retail sector and in side dishes or in baking ingredients via the food processing sector. Industrial manufacturers process walnuts into many other forms of food and drinks, such as cakes, biscuits, mixed nuts, walnut-flavored snacks and food, milk, oil, etc.

According to China Customs statistics, in 2011 U.S. walnut exports to China were valued at \$66 million, a 30-percent increase compared to 2010. Walnut consumption will maintain an upward trend, driven mostly by growing demand in the consumer market and food processing industries, with

industrial processing channels accounting for a greater share in total consumption. The California Walnut Commission (CWC) played a strong role in developing the China market in terms of launching a chef competition, media promotion, trader gatherings and trade show participation.

Pecans

Pecans are the fastest growth commodity in the "other nuts" category. Before 2007, pecans were rarely seen China. However, the appetite for pecans exploded in 2007 when the price of walnuts jumped, making pecans a good substitute and a great bargain. China's pecan boom continues, as China's emerging middle-class consumer base, familiar with walnuts, sees pecans as similar, but more nutritious. In 2011, pecan prices stabilized to 2008 levels with large increases in annual import volumes.

Dried Peas

U.S. dried peas are widely consumed in China. According to industry research, the retail market accounted for half of dried pea consumption and foodservice usage accounted for 10 percent of total consumption. Dry peas are mainly used in preparing meals or soups in both sectors. A large proportion, around 40 percent, of dried peas are reserved for industrial processing into canned peas and mixed vegetables, pea flour, and dried pea snacks. Processed and packed peas are consumed as snack foods and are displayed along with tree nut snacks in supermarket store shelves. Retail and foodservice consumption of dried peas is mature with steady growth. The improved living standards in China and increased food consumption have also stimulated demand for pea flour, directly leading to increased industrial usage of dried peas. Therefore, industry sources forecast that the consumption of dried peas will maintain stable with an upward growth trend. Many of the snacks made from U.S. peas that are currently being sold in retail channels are manufactured Malaysia, the Philippines, Vietnam and Thailand. These products enjoy duty free access into the Mainland China market.

Prunes

In 2012 China imported \$7.8 million in U.S. prunes, a 91-percent increase compared to 2011. U.S. prunes are mainly processed in South China's food processing bases of Shantou, Jiangmen, and Foshan. They are imported with pit and manually pitted in China, but as the labor cost increases, local manufactures are substituting workers with machines. Some large food processors have developed new product lines which have helped to expand the U.S. prune usage and remain competitive in the market. For example, U.S. prune moon cakes (pictured above) and prune favor biscuits. Product innovations and development remain the most important factors for this commodity.

Raisins

U.S. dried fruit has been a dominant player in the last three decades of China's import dried fruit market; however, increased competition from South American producers have raised price sensitivity issues that not only impact growth, but threaten market share.

1.3 Advantages and Challenges

Advantages	Challenges
China is the world's largest food market and a	Affected by the economy, industry is likely to
large processor of many food categories that	slow down in the coming years.
supply both domestic and export markets.	

Development of the industry to date has been propelled by sheer market size. Newer technologies and demand for higher quality foods will continue to push the industry forward for years to come. Upscale food makers eagerly look for high quality ingredients that add value to their products, and leading food makers are more likely to use imported ingredients to develop new products. Increasing concerns about food safety and health creates more opportunities for high quality ingredients A large number of emerging city markets offer tremendous opportunities for further growth. Food Slowing down economy is restraining consumer's purchasing wish and power, even on food. Food processing, retail and HRI sector as well as distribution channels in less developed areas lag far behind those in the affluent coastal region, hampering further penetration. Incomplete Chinese standards and discrepancy between Chinese standards and U.S. ones may create technical barriers to trade. Increasing commodity prices and logistics costs offset depreciation of the U.S. dollar.
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tremendous opportunities for further growth. costs offset depreciation of the U.S. dollar.
11
The appreciation of Chinese RMB has made U.S. Increased access for imports has resulted in
products more competitive in this price sensitive greater competition from other exporting
market. countries. TBT and SPS issues impact trade.
A cost advantage makes China a good base for Fragmented markets in a geographically large
value-added processing. nation with underdeveloped logistics and
infrastructure as well as cold chain system.
Various age groups, such as newborns and the Basic agricultural production is not well
elderly are demanding safer and healthier food. integrated with the commercial food processing
sector.
Effectiveness of the Food Safety Law and Chinese consumers are price-sensitive:
establishment of the State Food Safety imported products have difficulty competing
Commission is regulating the food processing with domestic substitutes on price alone and
industry. must offer something different.
Urbanization and changes in living styles favor
consumption of more processed food. remains a serious concern in China.
High-income earners favor products that can High production and ingredient costs are likely
improve their quality of life, and are willing to to slow industry growth.
pay a higher price.
Imported goods and raw materials from the U.S. Political and trade frictions between China and
are generally regarded as high in quality. the U.S. affect trade negatively.

1.4 Regional Development

China's food processing and manufacturing industry is intensively located in the most developed affluent regions along the coast, with Beijing, Shanghai and Guangdong being the centers. Southwest China, which hosts Chengdu and Chongqing, two of the top emerging city markets in China, is also developing rapidly in food industry, while Northeast China is prominent in dairy, meat and beer production.

The regions outlined in this section closely mirror the districts covered by the Foreign Agricultural Service's ATO offices in China, as outlined on the map.



1.4.1 North East China

Northeast China consists of the three provinces of Liaoning, Jilin and Heilongjiang. The heartland of the region is the Northeast China Plain. This region has a population of 109,660,000 people, accounting for over eight percent of China's total population. In 2011, the region's GDP was RMB 4.54 trillion (US\$ 720 million), accounting for 8.15 percent of China's total.

Dumplings are a very popular food in China, especially in north China and northeast China. People used to eat dumplings only at important festivals, such as Chinese New Year, because of their high cost in the past. But nowadays, with the increase of people's income, dumplings are as common as other major staple foods, such as rice, noodles and steamed buns. To save time and avoid the complicated process,

instead of making them personally, people now prefer to buy quick frozen dumplings in hypermarkets and supermarkets.

The bakery industry has been developing drastically in the past ten to fifteen years in this region. Compared with twenty years ago, people here are now consuming more grain-based products, such as bread, for breakfast or snacks.

The changing vegetable, dumplings and bakery product markets all indicate the growing demand for higherend consumer ready processed foods and increased opportunities for US food ingredients.

Northeast China



Liaoning

Liaoning has the largest economy of Northeast China and the 7th largest in China. Its GDP for 2011 was RMB 2.22 trillion (US\$353 billion), and per capita GDP was 50,760 Yuan (US\$8,057). The main <u>agricultural</u> products of Liaoning include corn, rice, beef and vegetables. The region around the city of <u>Dalian</u> produces three-quarters of China's exported <u>apples</u> and <u>peaches</u>.

<u>Beer:</u> Liaoning is a major center for beer production: There are 17 beer breweries in Liaoning and China Resources (Snow Flake) owns ten of them, accounting for 60 percent of the province's production, followed by brands Harbin, Tsingtao, and Yanjing.

<u>Seafood</u>: Seafood processing is one of Liaoning's main food processing industries and is mostly concentrated along the coastal cities of the Bohai Sea, especially in Dalian. Dalian is one of China's top two destinations for imported seafood, the bulk of it destined for further processing. Some processing plants import aquaculture products from US and/or Russia and re-export them to the United States, EU and Japan etc., after processing. Both American Seafood Company and Trident, two of the biggest US seafood companies have offices in Dalian. Liaoning Ocean Fishery Group Corporation, headquartered in Dalian, is one of the largest seafood processors over China. With over 10,000 employees and nine processing plants, its annual seafood processing capacity is over 100,000 metric tons.

<u>Dairy:</u> Liaoning Huishan Group is one of the largest dairy products producers in Northeast China, and fourth largest in the country. Yili, a large national group, set up a liquid milk and yogurt production base in Shenyang, Liaoning in 2011. Yili and Mengniu (an Inner Mongolian brand) hold about 70 percent of the market share in the Northeast and Huishan accounts for about 20 percent. As incomes increase, more imported milk from Australia and New Zealand is consumed here. Some US fluid milk is also trying to come into the market and some progress has been made.

<u>Bakery:</u> Toly Bread, headquartered in Shenyang, is the biggest player in northeast China's bakery industry and has branches and plants in all the big cities in the northeast China, like Shenyang, Dalian, Changchun, and Harbin, and distributes products into North China as well, with a powerful presence in mid-level retail. Its main products are bread and seasonal Moon Cakes and Zongzi (a kind of glutinous rice dumplings). Unlike Holiland, Toly Bread does not have its own stores. It cooperates with various tiers of retailers from big hypermarkets/supermarkets to small grocery stores. In 2011, its sales revenue reached up to RMB 1.4 trillion (US\$ 222.22million).

<u>Meat Processing:</u> Shenyang Lufeng Food Company is one of the biggest beef and lamb producers in Liaoning province. It has a slaughtering capacity of 100,000 heads of cattle and 500,000 sheep. **Jilin**

In 2011, the nominal GDP of Jilin province totaled RMB1056.8 billion (US\$167.75 billion), with per capita nominal GDP of RMB38, 460 Yuan (US\$6,104). Jilin's main crops are corn, rice and sorghum, while the <u>Changbai Mountains</u> are an important source of lumber. Corn is by far the largest crop in Jilin, and Jilin is the largest producer of corn in China. Herding of sheep is an important activity in the western parts. Jilin is home to Haoyue Halal Meat co., which slaughters over 1 million cattle and nearly as many sheep, and is China's largest meat exporter (mainly to the Middle East).

Heilongijang

In 2011, Heilongjiang's nominal GDP was RMB 1258.2 billion (US\$199.71 billion); its per capita GDP

was RMB 32,819(US\$5,209). The <u>agriculture</u> of Heilongjiang, heavily defined by its cold climate, is based upon crops such as <u>soybeans</u>, corn and <u>wheat</u>, with Heilongjiang being China's largest soybean producer. Commercial crops grown include <u>beets</u>, <u>flax</u>, and <u>sunflowers</u>.

<u>Beer:</u> Harbin beer (part of Anheuser-Busch InBev), is the brewery in China (the year of 1900), and one of the dominant brands in northeast China. It has a market share of 66 percent in Harbin and about 5% over China.

<u>Dairy:</u> Heilongjiang ranks second in number of milk cows and milk production in China. Wondersun Dairy Co. Ltd, a subsidiary of Beidahuang Agriculture Co. Ltd, is one of the largest dairy producers in the region, and Beidahuang Agriculture Co. Ltd is at present the largest single agricultural products company in China.

Figure 8: Major Provinces' Food Processing Industry in Northeastern China by Province 2011

Provinces	Categories	Number of Enterprises	Annual Sales (1 billion RMB)
	Food Processors	3763	6597.34
Licanina	Food Manufacturers	1484	341.38
Liaoning	Beverage Manufacturers	213	40.63
	Food Processors	821	216.48
Jilin	Food Manufacturers	155	27.20
	Beverage Manufacturers	202	37.12
	Food Processors	699	163.00
Heilongjiang	Food Manufacturers	143	47.78
	Beverage Manufacturers	116	22.07

Sources: Statistical Yearbooks 2011 of the reported provinces

1.4.2 North China

North China is home to 15 provinces, special municipalities and autonomous regions. The region covers about half of the land size of China, spreading from the east tip facing the Pacific Ocean in Shandong province to the Xinjiang autonomous region, which borders Afghanistan. The provinces within the region vary so much geographically, socially, economically and culturally, and it is hard to talk about them as a whole. Food processing industry is clustered in the east part of the region, namely, Shandong, Hebei, Henan, Beijing and Tianjin. The region's strengths include meat processing, seafood processing, beer, dairy products, and instant noodles and bean noodles.



Figure 9: Major Provinces' Food Processing Industry in North China by Province 2011*

Provinces	Categories	Number of Enterprises 2011/2010	Annual Sales (1 billion RMB) 2011/2010
'	Food Processors	133/213	31.7/27.7
Doiling	Food Manufacturers	122/226	21.9/18.9
Beijing	Beverage Manufacturers	41/65	19.7/16.1
	Food Processors	131/163**	52.2/32.9
Tioniin	Food Manufacturers	100/138**	69.2/23.3
Tianjin	Beverage Manufacturers	37/50**	15.3/9.8
	Food Processors	2040	302.48
Henan**	Food Manufacturers	676	113.2
nenan ·	Beverage Manufacturers	448	67.3
	Food Processors	4445/3781	839/738.0
Chandana	Food Manufacturers	1341/1053	202/185.5
Shandong	Beverage Manufacturers	561/450	107/92.6
	Food Processors	160	18.5
Shaanxi**	Food Manufacturers	101	7.7
Shaanxi	Beverage Manufacturers	66	8.7
	Food Processors	616/754	174.6/137.0
Habai	Food Manufacturers	226/293	62.5/43.0
Hebei	Beverage Manufacturers	142/182	33.3

Sources: Statistical Yearbook 2012 of the reported provinces

^{*} Enterprises refer to those only with an annual sales revenue of exceeding RMB5 million.

^{**} Yearbook 2011.

As with the rest of China, North China saw a decline in the number of food manufacturing establishments, coupled with an increase in sales. This is indicative of ongoing consolidation in the industry as improved logistics and management, coupled with food safety concerns, propel modernization and standardization in this still heavily fragmented industry.

Meat processing

Henan is the largest meat processing province in China. It is estimated that 5 out of 10 packages of ham sausages produced in China are made in Henan province alone. Henan Shineway Group (Shuanghui), the largest meat processor in China, has also been the champion of China's top 100 food processors since 2005. Topin Group (Zhong Pin), listed on the U.S. stock market, is another big meat processor in Henan, also handling frozen and processed vegetables and cold chain. Neighboring **Shandong** province is also home to a number of major meat processors, such as Jinluo, Longda, Delisi and Zhuchengwaimao, etc. Most of these processors, however, own their own meat production facilities, and import opportunities are limited mainly to flavorings and additives.

Frozen food

Henan is also the largest quick frozen food (wheat/rice based) manufacturing province in China, home to well-known brands such as Synear and Sanquan. These two manufactures each produce about 300,000 tons of frozen tangyuan (sweet dumplings), jiaozi (meat and vegetable dumplings), hundun (wonton), etc., at a value of about RMB5 billion. The total market for this type of frozen food is estimated at about \$10 billion.

Over the past 20 years, the sector has developed at breakneck speed, coupled with fierce competition. The survivors, represented by Synear and Sanquan, are seeing profound changes in their product lines, both in products upgrades and product diversification, in order to prepare for the next round of competition.

Shandong hosts a large number of producers of frozen prepared meats products, built around easy availability of seafood and swine byproducts. The manufacturers, including Huifa, Jiashibo, and Longda, produce various meat balls, barbecues, and various prepared seafood products, to supply not only foreign markets like Japan and Korea, but increasingly the growing domestic market for hot-pot and easy-cooking meals.

Instant noodles

The North China Plain, which includes **Henan, Hebei and Shandong**, is a major center for instant noodle production, with most of China's largest manufacturers having a presence. The leaders include Master Kong in **Tianjin**, Baixiang and Union in Henan, and Jinmailang in Hebei. China's production of instant noodles is as high as 50 billion units each year, equal to the production of all other countries combined.

Instant noodles are a budget food product, selling for about \$0.5 per unit. While this makes it difficult

to absorb any expensive food ingredients, the extraordinarily large volume means that even a small inclusion can result in substantial demand. In addition, instant noodle producers are expanding their product lines to include beverages, snack foods, and high end instant foods, which may provide opportunities for U.S. agricultural suppliers. Other noodle manufacturers are carving out a niche by offering specialty, ethnic-style products that may demand specific seasonings or flavorings.

Seafood

Seafood processing is one of North China's major food processing industries and is mostly concentrated along the coastal cities of the Bo and Yellow Seas, especially in Shandong province. **Qingdao**, along with Dalian in Northeast China, is one of the top seafood importers and processors. While in the past the majority of imported seafood products were processed in these areas then re-exported to the U.S., Japan and EU etc., local processors such as Qingdao-based Chang International are finding faster growth in domestic markets, particularly for crab, shrimp and other shellfish.

Beer

Beer production is among the most significant processing industries in the region. Tsingdao and Yanjing, the 2nd and 3rd largest beer brands in production volume in China, are both located in the region, with Tsingdao, one of China's few internationally known food brands, is based in **Qingdao** (Shandong). Yanjing is a powerful regional brewer based in **Beijing**, and has a dominant 90 percent share of the Beijing market and a 50 percent share of the North China market. Tsingdao sources ingredients internationally, and Yanjing has recently worked with the U.S. Hops Growers in developing new products using U.S. hops.

Bakery

Holiland, headquartered in **Beijing**, is one of the biggest cake producers in China. It specializes in birthday cakes and seasonal Moon Cakes, covering almost 100 cities in northern China with about 1,000 direct stores. Its new chain of high-end stores, called Black Swan, target on high-end consumers, providing upscale products. Holiland sources from overseas, particularly for nuts and dried fruit, but is open to further cooperation. Weiduomei is another Beijing-based chain, focusing on a slightly higherend market than Holiland, and sometimes offering other products, such as drinks, in its stores. Weiduomei has established ties with U.S. exporters of dried fruit and nuts.

Snack food

Two of China's three major snack food manufacturing centers are located in North China (the largest is in Fujian province in South China). **Luohe** in Henan is a major center for snack foods manufactured from wheat and rice flour. **Rongcheng** in Shandong province is a major producer of seafood based snacks, including dried squid slices and similar items. This industry tends to be price-driven, sourcing mainly locally.

Apart from Beijing, North China hosts a big group of emerging city markets, including Tianjin, Qingdao, Zhengzhou, Xi'an, Taiyuan, Urumqi, Hohhot and Shijiazhuang etc. These cities have experienced robust development over the past years at an average yearly growth of between 15 and 20

percent, much higher than the national average. Companies that are aiming at expanding their China market should never ignore these markets.

1.4.3 East China

East China is a food processing powerhouse. It has strengths in most every sector of the food processing industry. For purpose of this report the region includes one municipality and five provinces in eastern China upstream along the Yangtze River – Shanghai, Jiangsu Province, Zhejiang Province, Anhui Province, Jiangxi Province, and Hubei Province.



Figure 10: Facts about East China (2010)

City and	Total	% of	Area	Enterprises	Enterprises	GDP	Per
Provinces	Population	National	Squ. km.	with Foreign	with Funds	(billion	Capita
	(year-end)	Total		Investment	from HK,	yuan)	GDP
	(unit:				Macao, and		(yuan)
	million)				Taiwan		
National	1,340.91		9,600,000	118,200	99,000	40,120.2	29,992
Total							
Shanghai	23.03	1.7	6,300	21,600	11,200	1,716.6	76,074
Jiangsu	78.69	5.9	102,600	17,600	11,100	4,142.6	52,840
Zhejiang	54.47	4.0	102,000	11,300	9,400	2,772.2	51,711
Anhui	59.57	4.4	139,700	1,200	900	1,235.9	20,888
Jiangxi	44.62	3.3	167,000	800	1,200	945.1	21,253
Hubei	57.28	4.3	185,900	1,300	1,200	1,596.8	27,906

Source: 2011 China Statistical Year Book

The Yangtze River Delta boasts one of the most vibrant regional economies in China. It's geographic scope includes Shanghai, Zhejiang and Jiangsu provinces, all ranked among the top 10 provinces in terms of economic size. Occupying only 2.2% of China's land area, the region's total GDP accounted for nearly 22% of China's GDP in 2010.

The region's affluence, population, infrastructure, and easy access to seaports all contribute to the growth of its food processing industry. The region's strength is in dairy products, meat products, seafood products, snack foods, baby foods, instant noodles, health foods and drinks & beverages. Many famous brands of packaged food and beverage products were created in this region. It has also attracted many famous multinational food processors, such as Kraft Foods, General Mills, Nestlé, Pepsico, Cargill, and Group Danone.

Anhui Province, Jiangxi Province and Hubei Province, located geographically in inland China, have comparatively weaker economies than the Yangtze River Delta region in terms of income and

consumption level, capability of attracting foreign investment, and food processing technology. However, as the cost of infrastructure, public utilities and labor keep increasing in Yangtze River Delta region, these three provinces are becoming more and more attractive to both Chinese and overseas food manufacturers. International food giants including Unilever and Tyson Foods already started tapping into the opportunities in these emerging markets. They have set up manufacturing facilities in these provinces to take advantage of lower land and labor cost, local markets with high growth potential, and comparatively convenient transportation.

Figure 11: Per Capita Annual Expenditure on Food of Urban Households (2010)

Unit: Yuan

City and	Expenditure	Grains	Meat,	Aquatic	Liquor	Cake	Milk &	Dinning
Provinces	on Food		Poultry &	Products	and		Processed	out
			Processed		beverage		Products	
			products					
National	4804.7	385.5	914.2	326.9	230.4	98.3	198.5	1019.3
Average								
Shanghai	7777.0	614.7	1136.2	817.6	336.5	205.4	410.2	1925.1
Jiangsu	5243.1	373.4	1027.6	421.9	248.7	102.7	234.1	1017.5
Zhejiang	6118.5	364.2	845.3	713.8	257.0	109.3	219.8	1653.3
Anhui	4369.6	337.7	742.1	211.4	359.1	91.6	241.8	782.3
Jiangxi	4195.4	353.1	916.4	254.7	136.8	86.1	171.0	589.1
Hubei	4429.3	516.4	853.3	267.5	177.1	95.3	146.6	697.2

Source: 2011 China Statistical Year Book

Shanghai

Shanghai is the largest city, and the largest market, for processed food & beverages in China. "Made in Shanghai" has become a quality guarantee for Chinese consumers when they choose processed food products and beverages.

Bright Food Group is the biggest food conglomerate in Shanghai, and the second largest in China, only second to COFCO. Its sales revenue reached RMB 75.7 billion (USD 11.9 billion) in 2011, up 20% over 2010. It owns 8 national brands and over 30 regional brands focused on Shanghai. These include Bright Dairy for dairy products, Big White Rabbit for candy, Zheng Guang He for drinks and beverages, Ai Sen for processed meat products, Meilin for canned food products, Guan Sheng Yuan for honey products, and Gold Maple and Shi Ku Men for rice wines. Many other leading brands from Shanghai, including Ten Wow and Lyfen, are distributed nationwide in China.

Shanghai has also attracted investment from major multinational food processors. Nestlé set up a joint venture with Shanghai Bright Food Group to produce drink powders, beverages, and health food products. Shanghai Shenmei is an important bottling plant for Coca-cola. Wanchai Ferry, owned by General Mills, manufactures the top frozen dumpling brand in Shanghai. LOTTE, the largest food group from South Korea also invested in a joint venture with Hershey from United States to produce chocolate products under the LOTTE and Hershey's brands in Shanghai.

Jiangsu Province

Jiangsu Province is strong in meat products and snack foods processing. Yu Run Group, one of China's

biggest processed meat product manufacturers, is headquartered in Nanjing. A private company that started processing meat in 1993, Yurun has grown into one of China's Top 500 enterprises, with 2011 sales hitting RMB 90.7 billion (USD14.3 billion). In recent years, Yurun Group has increased investment in logistics and supply chain integration, and has set up several agricultural products trading centers in various parts of China.

Suzhou is the economic capital of Jiangsu, ranking number 5 in per capita GDP and number 2 in foreign investment. Suzhou has attracted large investments by foreign food manufacturers including Nabisco and Rich Products from U.S., Pokka Four Seas from Japan, Loyal Food Industrial from Canada, President Instant Noodles from Taiwan, and Po Li Foods from Panama. Unilever invested in Taicang (part of Suzhou municipality) to manufacture the Wall's ice cream.

VV Group, headquartered in Xuzhou in northern Jiangsu Province, owns the largest Chinese soya milk brand "VV soymilk". Its sales revenue amounted to RMB 20.2 billion (USD 3.2) in 2011. In addition to soymilk and soymilk powder production, VV Group also launched dairy products, beverages and snack foods.

Wuxi, located in South Jiangsu Province, is home to Jiangnan University, the top Chinese university specializing in food & nutrition. Many famous food groups established R&D centers in Wuxi to take advantage of the food processing talent and the preferential terms offered to food processing companies in the city's economic zone. Danisco, a world leading food ingredients and additives manufacturer from Danmark, invested in a plant in Wuxi to produce enzyme preparations. Amway, a leading health & nutrition food enterprise from U.S. added an investment of RMB 600 million to establish a R&D center for herbal extracts in September, 2011.

Zhejiang Province

Zhejiang Province is home to several top drinks & beverage brands. Headquartered in Hangzhou, Zhong Cui Foods is a strategic global partner of Coca-Cola. It was the first Coca-Cola bottler in China, and was the third largest by sales value among Coca-Cola's twenty five bottlers in China in 2011. China's largest domestic beverage brand, "Wahaha", was also created in Hangzhou. Wahaha's 2011 sales revenue was as high as RMB 67.9 billion (USD 10.7 billion), and it has been honored as China's No.1 enterprise in the beverage industry for thirteen consecutive years. Apart from drinks & beverages, Wahaha also produces infant formula, snack foods, canned congee, and health food products. Also based in Hangzhou, "Nongfu Spring" is a major bottled water brand that is moving into other types of beverages. JDB group from Hong Kong is also manufacturing traditional herbal teas from extract at a plant based in Hangzhou, with sales in the range of \$2.5 billion.

Beingmate, headquartered in Hangzhou, is the biggest Chinese brand specializing in baby food and infant formula. It is one of the few leading local dairy brands proved free from melamine contamination in 2008, and gained market share during the downturn of China's dairy industry. Its sales revenues exceed RMB 10 billion (nearly USD 1.6 billion) in 2010, and in 2011 it was publicly listed on Hong Kong's stock market. Due to frequent personnel changes in its Board of Directors, the performance of Beingmate has fluctuated in 2012.

<u>Lin'an</u> is known as the Capital of Tree Nuts, and has a very competitive processing and distribution

capacity for both local and imported nuts such as American pecans. Mars Foods' investment in the city of <u>Jiaxing</u> made it an important production base of high quality chocolate products. In Aug 2011, Mars invested another RMB 1 billion to expand its manufacturing plant, which produces Dove, M&Ms and Snickers candies.

Anhui Province

Although not traditionally particularly developed, Anhui Province, located west of Jiangsu and Shanghai, is positioned to capture the industrial shift from China's coastal areas. Yili Dairy Group and Huatai Group invested heavily in Anhui province.

Modern Farm Group, which is headquartered in Ma'anshan, is quickly emerging as a new dairy giant in China. It is converting from being a raw milk supplier to Mengniu into a dairy manufacturer with its own brand "Modern Farm". It is emerging as a strong competitor in the fluid milk market. In 2012, it is reported that Modern Farm Group has been selling averagely 300,000 metric tons of dairy products daily. Tyson Foods established its poultry farm and processing facilities in Anhui, and Unilever moved its processing plant of Lipton tea products to Hefei, the capital city of Anhui Province.

Jiangxi Province

Benefiting from its natural resource, the food processing industry in Jiangxi is strong in tea, meat, poultry, Chinese liquor, and fruits. There are also numerous small processors of snack foods made from local produce. Jiangxi has many middle-sized dairy farms, about 50% of them own 20-100 dairy cattle. The leading dairy companies are Jiangxi Bright Hero - the joint venture between Shanghai Bright Dairy and Jiangxi Hero Dairy, Jiangxi Liziyuan Dairy, and Nanchang Sunshine Dairy. The production of local dairy companies can satisfy about 60% of the demand in Jiangxi. Jiangxi Runtian Beverage Company was one of the ten largest beverage manufacturers in China in 2011. It produces various kinds of fruit and sports drinks.

Hubei Province

Hubei Province was the second largest province in central China in terms of food industry output in 2011. Food manufacturing in Hubei grown at a rate of over 30% during the past five years, reaching 60.1% in 2011, with revenues of RMB 352.2 billion (USD 55.9 billion). Food manufacturing is now the second largest industry in Hubei Province, second only to automobile manufacturing.

There were over 2,500 food enterprises of middle and large scale in Hubei Province in 2011. Oil crushing, fruit and vegetable processing, and aquatic product processing are the key business in its food processing industry.

Hubei also enjoys strength in beer and beverage manufacturing. Foreign and Chinese famous brands including Budweiser (beer), Tsingtao (beer), Yanjing (beer), Coca-cola, Pepsi-cola, Wahaha (beverage), President (beverage), Huiyuan (juice), Red Bull (functional drinks), Yinlu (beverage) are manufactured in Hubei province.

Hubei has also benefited from investment by large scale meat processors such as Yurun from Jiangsu

Province and Jinluo from Shandong Province, and dairy processors such as Mengniu and Yili from Inner Mongolia, and Beingmate from Zhejiang Province have also made investments in Hubei.

In addition, Hubei Province is a hub for health and functional food. Jing Brand health care wine, headquartered in Huangshi, is the biggest brand of its kind in China. Health care wine has been growing very fast in China, with its market exceeding RMB 20 billion in 2011.

1.4.4 Southwest China

Southwest China, which includes Sichuan, Yunnan, and Guizhou Provinces, the Chongqing Municipality, and the Tibet Autonomous region, has a population of 207 million - and a regional GDP of more than \$579 billion in 2011. The region lags coastal areas in its level of development, and has been targeted by the Chinese government for increased investment. In-migration of industry as labor costs in coastal areas rise has also led to an industrial boom in this region. Growth rates in regional GDP in the provinces of Southwest China are some of the highest in the country, averaging 17 percent in 2011. Growth in the region's two largest emerging city markets (ECMs), Chengdu and Chongqing, were 23 and 21 percent respectively in 2011. These two cities account for 21 percent of the region's population and 36 percent of the region's GDP.

Annual agricultural production in Sichuan Province averages \$91 billion USD in value and contributes around 28 percent of the region's total GDP. The region is a major center for meat production, as well as citrus; Yunnan province is also a major producer of tea and sugar. There are more than 3,600 food processing companies in the southwest China region alone, but about 50 percent are primary food



processors, while 21 percent are food manufacturers, and 29 percent are beverage manufacturers. Sichuan Province leads the food processing industry in the region, accounting for about 55 percent of the food processors and manufacturers in the southwest region and 48 percent of the region's total GDP.

Figure 12: Food Processing Industry in Southwest China by City and Province 2010*

Provinces & Cities		Number of Enterprises	Gross Output (Million US \$)
Sichuan	Food Processors	1,088	28,714.5
	Food Manufacturers	436	6,989.5
	Beverage Manufacturers	531	21,082.4
Chongqing	Food Processors	437	5,527.6
	Food Manufacturers	175	1,597.3
	Beverage Manufacturers	111	1,732.0
Yunnan	Food Processors	306	3,859.7
	Food Manufacturers	96	1,064.4

	Beverage Manufacturers	146	1,527.0
Guizhou	Food Processors	153	1,307.1
	Food Manufacturers	56	888.8
	Beverage Manufacturers	133	3,569.8
Regional Total		3,668	77,860.1

Source: Sichuan, Chongqing, Yunnan, Guizhou Statistical Year Books 2011* Latest available data, including only those enterprises that realized annual sales over US \$786,163 (RMB 5 million) in FY 2010 * US \$1 = RMB 6.36

Meat Processing

Sichuan is one of the largest meat processing provinces in China. According to Sichuan Food Industry Association published data, meat processing is the second largest pillar industry of the food industry in Sichuan. In 2010, 307 meat processing enterprises within a "designated size" (enterprises with an annual income over five million RMB) achieved an industrial added value of \$1.8 billion RMB, an increase of 22 percent compared with the same period of 2009. These same enterprises had a total industrial output valued at \$7.75 billion RMB, about 22 percent higher than in 2009. New Hope Foods is the largest meat processing enterprise in the southwest and their products account for about 25 percent of total market share in China for processed meat.

Alcoholic Beverages

Thanks to rising demand and per capita disposable income, China's consumption of alcoholic beverages is expected to reach 84.37 billion liters in 2016. That represents an average annual compound growth rate of six percent in 2012. In 2011, output of Chinese liquor was more than 10 million tons and sales reached \$48 million. Southwest China is often referred to as the top liquor production area in China. MaoTai, Wuliangye, Lu Zhou Lao Jiao, Jian Nan Chun, Lang Jiu and Tuo Pai liquor manufacturers in Guizhou and Sichuan Provinces are the leading liquor manufacturers nation-wide.

Seasonings and Food Ingredients

The strong flavors and hot and spicy food of southwest China creates a high demand for seasonings, condiments, spices, sauces, preserved products, and pickled products. Guizhou Nanming Laoganma Flavor Food, Ltd. is the largest domestic enterprise in China, with production capacity of 1.8 million bottles of chili products per day. They mainly produce chili flavored with tempeh, chili oil, fresh ground beef, and fermented bean curd. Those products have been exported to more than 30 countries and regions. Other key manufacturers, such as Sichuan Haoji Food Co. Ltd, Chengdu Jingong Weiye Food Co. Ltd, Sichuan Pixian Bean Paste Co., Ltd., Guiyang Nanming Laoganma Flavoring Food Co. Ltd., Chongqing Zijialu Spice Co., Chongqing Fuling Pickled Product Group, and Chengdu Xinfan Kraut Co. Ltd, are the most popular brand manufacturers and main suppliers to foodservice operators not only in the Southwest but also nation-wide.

1.4.5 South China

Stable economic development and urbanization are the trends fueling booming growth for processed food in the Mainland China market. South China's food processing base reached \$62 billion in profits in 2011, ranking as the top three in the nation. This report provides in market intelligence and analysis

on three food ingredient commodity areas: dairy, tree nuts and dried fruit products.

South China



Figure 13: Food Processing Industry in South China by 2012 Provinces

Provinces	Categories	Number of	Gross Output Value (Billion
		Enterprises	US\$)
Guangdong	Food Processors	792	35.75
	Food Manufacturers	574	20.43
	Beverage	200	13.48
<u> </u>	Manufacturers		
	Total	1,566	69.66
Fujian	Food Processors	123	10.34
	Food Manufacturers	112	6.13
	Beverage	46	4.38
	Manufacturers		
 	Total	281	20.85
Guangxi	Food Processors	518	13.59
	Food Manufacturers	157	1.38
	Beverage	150	2.31
	Manufacturers		
	Total	825	17.28
Hunan	Food Processors	734	6.47
	Food Manufacturers	288	2.69
	Beverage	213	1.31
	Manufacturers		
	Total	1,235	10.47
Hainan	Food Processors	60	1.54
	Food Manufacturers	14	0.69
	Beverage	15	0.25
	Manufacturers		
	Total	89	2.48
	Regional Total	3,996	118.26

Dairy products

Since the melamine crisis, consumers have increasingly opted for products from well-known and

"trusted" manufacturers either international (if these consumers can afford them) which are perceived to offer better quality; or, "neighborhood" brands. For example, the average South and East China middle-class consumer will not only not purchase any type of *Mengnui* (豪牛) or *Yili* (伊利) branded products in the retail sector, but they will boycott purchases in restaurants and other food service outlets. In certain regions of China, there remains a lack of trust and an image of corruption and low-quality associated with these two bands. Smaller "neighborhood" brands such as Guangxi Province's *Huangshi* (皇氏) and Guangdong Province, Shantou City's *Yashili* (雅士利) have capitalized on these lingering negative regional consumer perceptions of the major state-owned dairy manufactures and have launched regional food safety outreach campaigns geared at community residential areas located near their major production facilities and the neighboring suburban enclaves. They have been successful in differentiating there brands from the state-owned dairy manufacturing giants.

In 2011, ATO Guangzhou launched a U.S. cheese media event, and in 2012, organized a South China U.S. dairy buyers' mission to California. Though more consumer education on the nutritional aspects of cheese is widely needed in the China market, traders and end-users could also benefit from greater activities by way of cooking demonstrations, trainings, and chef competitions.

SECTION II: MARKET ENTRY

2.1 Entry Strategy

Being the largest food consumption market and the most dynamic food processing country in the world, China is always one of the top choices for food ingredients suppliers and exporters aiming at expanding their businesses. Apart from the general business rules, it's recommended that those who are interested in the China market should bear the following tips in their minds prior to coming into China.

One, the **China market is immense and opportunities are ample**. People may be hesitant to tap the China market for various reasons, like my products are too expensive for China, or my products are for western food and may not be good for the China market. But keep in mind that the China market is large, and even a small market niche can be quite profitable.

Second, China is not a unified market and thorough market research is critical before trading with China. China is an extraordinarily diverse country, but internal markets are highly fragmented. There are major differences by region, by dialect, by food culture, and by business and official practices, as well as differences between age group, economic and educational background, etc. It is impossible to summarize a single entry strategy applicable to all of them. Hence, exporters are recommended to a) keep the initial focus of their efforts narrow; and b) bring all factors into consideration, such as region, age group, eating preferences and ways of using a product etc., when developing their own entry strategy. Consult with your local ATO – ATO offices work in cities and markets throughout their region, and have a good base of experience that you can tap into.

Three, it is critical to find **good importers and distributors**. Most companies lack the resources to build a permanent marketing presence in China. As a result, your importer/distributor is most likely to take up that task – and will be absolutely critical t your success. Try to find those who have established

wholesale/retail outlets and relationships in the target market. They should not only be able to make orders for a product but also make sure the product is penetrating the market and can grow in the future. The best distributors might have technicians on staff and experience working with other exporters. Most important, take your time and find a distributor that you are comfortable understands your vision and plans for your product, and will work in the same direction. Where possible, it is recommended to visit their facilities and warehouses especially when a product is highly perishable. Frequent interaction will keep you 'in the loop' on developments with the distributor's operation, and also will make them feel that you are vested in their efforts.

Four, **exhibitions** can be a cost effective approach to understanding the market and meeting agents/importers. Some valuable exhibitions in China include FHC (Food & Hotel China), China Fisheries & Seafood Expo, SIAL China, China International Meat Industry Expo, Bakery China Show and FIC (Food Ingredients China) and so on. One could contact ATO offices for more information on these exhibitions.

Five, Chinese business culture matters. The most distinctive aspect of Chinese business culture is the need to cultivate guanxi, or relationships. In a country where contracts can be difficult to enforce, it is guanxi that tends to hold a venture together. Guanxi is built through repeated contact, and a sense of trust built up through friendly interaction. One aspect of guanxi is 'face.' While the notion of 'losing face' is oft discussed, more important to a venture is the concept of 'giving face.' This simply means allowing your Chinese partners to be seen as generous or authoritative. This isn't just about pride: your partner may need the prestige that comes from your support to build his own relations with government officials, regulators or end buyers in order to keep the business flowing. Although the influence of guanxi is slowly declining as China modernizes, it is still very important.

Finally, all of the ATO offices (Beijing, Shanghai, Guangzhou, Chengdu and Shenyang) are prepared to provide assistance to exporters, including providing updated market information, organizing reverse study tours, and attending trade shows. Exporters are welcome to use these information and assistances. In addition, the representative offices of the cooperators in China are another important source for information and assistance.

2.2 Market Structure

2.2.1 Distribution Pattern

Traders/importers

The traditional patter for exporters is to sell to importers. Years ago, only a handful of state owned companies in China were authorized to import. Many of these did not actually import, but 'rented' their import authority out to other companies, perhaps providing some associated services such as clearing customs, facilitating government inspection and certification processes, and remitting payment for the imported products to the real importers. Many of these companies are still in business, acting as large-scale importers who then wholesale to local distribution companies whose scale is too small to warrant direct import.

These traditional importers are now been complemented by a fast-growing cohort of small to medium

sized import specialists. These companies can be very effective. The best of them are importer/distributors who provide full service from Customs clearance all the way to marketing the product. Food ingredients specialists will have good contacts among manufacturers, and can advise on the products most likely to sell. US exporters should be aware, however, that there are a large number of newly established, inexperienced importers, with a low level of awareness of issues such as import documentation and Customs processing. If your importer is inexperienced, or lacks contacts with Customs and Quarantine officials, delays are likely to occur.

Direct distribution

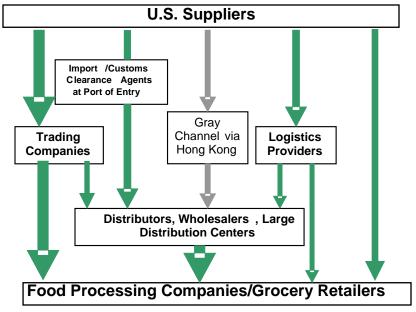
The manufacturers/exporters can establish a sales outlet and sell their products directly in China rather than through a local business organization or person. The advantage is that the manufacturers/exporters can meet the consumers face to face and learn the market condition and trends. They can also have a good control of whom to sell and volume to sell. However, establishment of a presence in China can involve a large investment of both time and money. Partnership arrangements take time to set up and a good deal of maintenance to keep running. Wholly foreign owned operations face long processes and tremendous amounts of red tape to get started.

Direct selling to large sellers/processors/manufactures

Some large sellers/processors/manufacturers have or are considering direct sourcing products from exporting countries to reduce costs. If connections to the supplier can be built, this could be an opportunity for producers/exporters. It was reported some major Beijing hypermarkets and supermarkets are currently sourcing 30 percent of fresh fruit and vegetable products directly from farmers. By doing so, hypermarkets would be able to both enhance traceability of the products purchased and reduce costs by 20-30 percent. Some big hypermarkets such as Carrefour expressed their wish to ATO Beijing to directly source from outside of China, particularly on products like fruits.

The flow chart below is a summarization of the discussions made above.

Figure 14: Distribution Flow Chart



Source: ATO

Note: ATO Beijing does not recommend the use of the gray channel.

2.2.2 Distribution Channel

The reason to raise this issue is, apart from the legal channel, there is a Gray Channel when exporting to China. It refers to shipments via Hong Kong through local import agents that have distribution connections on the mainland. This channel has historically been cheaper than mainland channels. There can be cost savings since goods are often shipped from Hong Kong outside of official channels or using various methods to evade customs and VAT payments. However, the U.S. supplier has little control over their product after it reaches Hong Kong and technical support and supplies are not reliable. Since this channel is illegal, USDA does not encourage its use.

2.2.3 Distribution Flow

China is generally divided into three regions.

North China: including Beijing, Tianjin, Heilongjiang, Jilin, Liaoning, Hebei, Shanxi, Shaanxi, Ningxia, Qinghai, Xinjiang, Gansu, Henan, and Shandong. Imports to these provinces would normally come into China through the major ports including Tianjin, Qingdao, Dalian, and Qinhuangdao.

East China, which includes Shanghai, Jiangsu, Zhejiang, Anhui, Fujian, Jiangxi, Hubei, Hunan, Chongqing, and Sichuan. Ports like Shanghai and Ningbo are the largest.

South China, mostly Guangdong, Guangxi, Guizhou, and Yunnan.

Goods that come into China through the major ports of the three regions will flow to regional distribution centers, such as Shenyang for Northeast, Xi'an for Northwest, Wuhan for Central China, and Chengdu for West China and so on. In these cities, products will be further wholesaled or

distributed to big end users or third tier cites in each region.

Figure 15: Volume of Freight Handled in major Coastal Ports 2008-2011 (10, 000 metric tons)

Seaport	2008	2009	2010	2011
Ningbo-Zhoushan	52048	57684	63300	69393
Shanghai	50808	49467	56320	62432
Tianjin	35593	38111	41325	45338
Guangzhou	34700	36395	41095	43149
Qingdao	30029	31546	35012	37230
Dalian	24588	27203	31399	33691
Qinhuangdao	25231	24942	26297	28770

Source: China Statistical Yearbook, 2012

2.2.4 Cold Chain

Problems with cold chain logistics represent a major barrier to entry for temperature sensitive products, particularly to entry into those second and third tier cities where food manufacturing is growing fastest. Every year, cold chain logistical problems in China result in massive product losses. In 2008, it was estimated that each year China lost \$9.25 billion of food products in transportation. For perishable products such as fruits and vegetables, total losses accounting for about 25 to 30 percent of total fruit and vegetable production.

These losses occur largely because only 15 percent of all perishable products are transported by refrigerated vehicles – compared to nearly 90 percent in developed countries. Currently about 90 percent of meat products, 80 percent of aquatic products and a large amount of dairy products are shipped without cold chain logistics. While frozen food usually has better cold chain logistics, breaks in the cold chain still happen often as products move into markets.

There are three key problems facing China's cold chain system. One is the inadequacy of facilities and equipment. For example, cold storage capacity in China covers only about 25 percent of total output, compared to 70 to 80 percent in developed countries. China currently has 30,000 refrigerated vehicles, which is only 0.3 percent of total cargo transportation. Meanwhile, there are only 6,970 refrigerated railcars, which is only 2 percent of China's total 338,000 railcars. Only about 25 percent of perishable food is transported with the refrigerated railcars, which is only 1 percent of total amount of the total rail transportation. Total cold storage capacity is about 7 million square meters, and is mainly used for the storage of meat and aquatic products. In addition, many cold storage facilities are out of date.

The structure of the trucking industry is another major difficulty. Both food processors and manufacturers have upgraded their cold handling capabilities. Likewise, retailers are improving both facilities and upgrading the expertise of their staff in handling sensitive products. But transportation remains a critical weakness: China has no national trucking industry, cold chain or otherwise. The vast majority of trucking is handled by independent operators with a single truck as their business. Contracted simply to move cargo, many either lack knowledge of proper handling methods, or seek to save on operating costs by turning refrigeration units off while on the road. Many food manufacturers

^{*} from 2006, Ningbo-Zhoushan Port includes the previous Ningbo Port and Zhoushan Port. Statistics prior to 2006 refers to the previous Ningbo Port only.

have responded by establishing their own cold trucking fleets.

Standards and enforcement are a third problem. While China has made impressive progress in the development of cold chain standards, enforcement remains a critical issue. Although draft standards now exist that can be referenced in cases of improper handling, China lacks a self-enforcing mechanism comparable to the U.S. tort system to enforce these standards, and Chinese regulators lack the manpower to monitor cold chain transactions at a meaningful level.

Finally, China's cold supply chain is overseen by a complex mix of authorities, including different government ministries and agencies. China's vast territory and broad differences in climate and temperature are a unique challenge to the long-haul transport of perishable foods. Massive distances also mean that the needs of less developed communities in China's interior generally go unaddressed.

Having realized the urgent needs of a developed cold chain transportation system, the "National Food Industry 11th Five-Year Plan" first raised the concept of establishing a modern food logistics system. It encouraged enterprises to set up modern logistics systems for the food products and actively explore the rural market through improving logistics systems of the rural food market. During the 11th Five-Year period, the government plans to improve food safety by establishing a better food cold chain logistics system.

SECTION III: BEST PRODUCTS PROSPECTS

3.1 Prospects Categories

Generally speaking, prospects of products are determined by a couple of factors. It's our view that a combination of product uniqueness, comparative price advantage, thriving degree of sub food sector, and marketing efforts are the most decisive ones and would largely determine if a product would have a good prospect in China. Depending on different degrees of the four factors, the prospect degrees could be roughly categorized into the following four as the graph below shows.

Figure 16: Product Prospects Categories

Prospect degree	Product	Comparative price	Growth of the	Marketing		
	uniqueness	advantage	sector	investment		
High demand	Products that are either not produced in China or in which the U.S. has a price					
	and quality advantage					
Good prospect	Ingredients in which the US has unique advantages and/or price gaps with local					
	products are narrowing					
Future prospect	Products which are shrinking in production but increasing in demand in China					
Conditional good	Products that may have unique advantages, but need heavy marketing support					
prospect	in China, or an effort to close price gaps					

3.2 Example Products Analysis

To better understand the approach, some example products are provided and analysis made below on

how they fit into the four indicators system.

Figure 17: Example Products into the Prospects Categories Analysis

Prospects	Example	Product	Comparative	Growth of	Heavy
degree	product	uniqueness	price advantage	food sector	marketing
		_			efforts
High demand	Almond,	Yes	Yes	Yes	Yes
Good prospect	Walnut,	No	Yes	Yes	Yes
1 1	pork, peas				
Future	Dry beans	No	Likely Yes in	Likely Yes	Not yet
prospect			future	in future	
Conditional	Black	Yes	No	Yes	No yet
prospect	walnut				

Almonds

Almonds are a good example for category one. Although produced in China's Xinjiang province, quantities are far short of necessary to meet market demand. Chinese consumers recognize U.S. almonds as a special and high quality product, thanks for heavy marketing efforts organized by the Almond Board of California. Taking advantage of the rapid development of China's thriving bakery and snack food sectors, almond exports to China have grown from 900 metric tons in 2006 to 12,972 metric tons in 2011, an increase of 14.4 times in five years.

Walnuts

China is actually the largest walnut producer in the world, but supplies are inadequate to meet domestic demand, and weak production and marketing infrastructure give the U.S. a price advantage to go along with a quality advantage. Growing demand from the beverage and bakery sectors, as well as continuous marketing promotions by the California Walnut Commission helped exports of walnuts from the U.S. to China climb to 18,195 metric tons in 2011 from 3,311 metric tons in 2006, an increase of 5.5 times over five years. Part of the U.S. price advantage comes from the growth in local demand, which caused domestic prices to jump to RMB42,000 - 45,000 per metric ton in the second half of 2011, in comparison with U.S. walnut of only RMB38,500 a metric ton.

Dry beans

Similar to walnuts, dry beans are not unique to the U.S., and China is, again, the largest producer in the world. Neither do dry beans have a specific price advantage. However, supply and demand trends indicate that dry bean production in China is declining, while consumption is growing, thanks to increased interest in dietary health. ATO/Beijing, working with the State of Nebraska, has been cooperating with Chinese food manufacturers to identify new uses for dry beans, with the intent of accelerating this trend. As supply and demand diverge, new market opportunities are likely to appear for U.S. dry beans in China. China's position as a net exporter is expected by industry insiders to reverse with a few years. As a result, efforts to build awareness and industry contacts now, are likely to create opportunities in the future.

Black walnuts

Black walnuts are a good example of category four. It is a distinctive product, and the sectors it belongs to, dairy and bakery, are growing quickly. However, it currently lacks a price advantage, and appreciation of the uniqueness of the product requires education for manufacturers and consumers. In this mixed case, whether or not the product is able to find a foothold in China will largely be determined by marketing efforts.

3.3 Growth of Specific Food Sectors

Following is an informal rating of the growth and prospects of the different food sectors, and the ingredients in greatest demand from each. Ratings are from 1-3, with three experiencing the fastest development, and 1 the slowest. Keep in mind that all sectors are growing.

Figure 18: Food Sectors Thriving Degrees and Products Employed

Food sectors	Thriving degrees (1-3, with 1 indicating average, and 3 implying strong)	Products employed
Prepared meats food	3	Meats and by products, poultry and by products, surimi and seafood wastes, starch
Bakery	3	Nuts, fruits, beans, wheat flour
Frozen food	3	Nuts, fruits, meats, starch
Dairy and ice cream	2	Nuts, fruits, beans**
Confectionary and chocolate	2	Nuts, fruits, beans
Beverage	2	Nuts, fruits
Noodle food, instant and dry	1	Wheat flour, beans

Notes:

In general, China is a huge market and demands all kinds of food ingredients. Products either not produced domestically in China or enjoying a potential price advantage are more than welcome and opportunities can appear at any time: pork and walnuts are cases in point.

SECTION IV: POST CONTACT AND FURTHER INFORMATION

For further information about the China market, please visit our website at www.usdachina.org or contact any of the following USDA offices in China:

Agricultural Trade Office (ATO), Beijing

^{*} Higher ratings for a sector, it do not mean all products will sell well, but rather that the sector as a whole is growing quickly and developing.

^{**} Inclusion of beans in ice cream is not a typo. In China, beans are used in ice cream and other frozen sweets.

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