荷兰亚洲荣誉暑假学校

Opportunities in China's Elderly Care and Economy

From global to local: a study focused on Chengdu, Sichuan

Client contact person: Björn Giesbergen
Economist and country analyst at RaboResearch Global Economics & Markets

Coach Netherlands-Asia Honours Summer School (NAHSS): Fleur Recourt

Authors: Veerle van Engen, Erwin Karsten, Marthijn Kinkel, Marthijn Loermans, Nynke Tack ,Alexander Ulrich, Bo Willemse and Hosang Wu.

Netherlands - Asia
Honours Summer School

Rabobank

Acknowledgement

This project is realized as part of the Netherlands-Asia Honours Summer School (NAHSS), a non-profit, triple-helix network with the aim to invest in the future of excellent Dutch bachelor students by providing them with an opportunity to experience in Asia on a cultural and business oriented level.

The authors of this project bear the responsibility of this project's content. The authors however certify that that have no affiliations with or involvement in any organization or entity with any financial interest. Conclusions and implications made in this project are based on intensive literature research, practical research and experience gained before and during the NAHSS program. However, this project would not be made possible without the aid provided by important people and organizations which have been willing to provide us with their knowledge, insights and experiences on different topics.

First of all, we would like to thank Björn Giesbergen, macro-economist and country specialist at RaboResearch Global Economics & Markets, the Netherlands, for his time, knowledge, critical opinion and above all his constructive feedback on the content and structure of this project.

Secondly, we would like to give our acknowledgement to Arie van den Berg, managing director of Van den Berg Roses and Fred Bunnik, head of concept development of Bunnik Plants. Their opinion and experiences about their business in China have been of great value to our project and provided us with useful insights about practical issues concerning Chinese-Dutch relationships.

Moreover, we would like to express our gratitude for the multiple companies in China and the Netherlands which were willing to receive us and provide us with extensive and useful knowledge and experiences. These companies are known as the Consulate General of the Netherlands in Chongqing, TMF-group in Chengdu, Maxxelli in Chengdu, About Asia in Chengdu, Unilever Food Solutions in Chengdu and Teresa Happy Care in Utrecht.

Last but not least, we will pronounce our special thanks to Dr. Johnny Yang, Vice Director and Senior Research Fellow at the National Interdisciplinary Institute on Aging (NIIA) for his time and the inexhaustible source of information and knowledge he provided to us.

Netherlands - Asia
Honours Summer School

Rabobank

v.d. Berg
ROSES

Bunnik Plants®
VALUE ADDING GROWERS

TERESA
HAPPY
CARE

Kingdom of the Netherlands

TMF
GROUP
Global reach
Local knowledge

Maxxelli

about asia
cross cultural works

Unilever
Food
Solutions

NIIA

Table of Contents

Preface

We are wholeheartedly delighted to present to you our report concerning how Dutch companies and other relevant entities may capitalize on existing and emerging opportunities in Mainland China in the light of demographic change. Due to both the Netherlands and China are forced to face upcoming challenges resulting from an aging population, the topic of this year's Netherlands-Asia Honours Summer School (NAHSS) program as well as our project primarily concerns 'Health and Aging'.

The NAHSS is a program that receives support from four Dutch ministries, over twenty international companies and all Dutch universities and is designed to provide 100 Dutch excellent students with the opportunity to explore Asia firsthand in academic, business-practical and socio-cultural realm. We as a group consisting of eight multidisciplinary students are dedicated to work on a consultancy report for the Rabobank under guidance of the NAHSS and the Rabobank himself and hold the objective to elaborate on how Dutch companies and other relevant entities can capitalize on existing and emerging opportunities in Mainland China in the light of current demographic change.

The process involved with the realization of the project entails desk research prior to departure for Chengdu, China, intensive class attendance at Sichuan University in Chengdu, a short stay in Chongqing and multiple visits to companies and governmental institution located in Chengdu and Chongqing.

NAHSS – Rabobank Group

NAHSS – Rabobank Group

The NAHSS Rabobank Group consists of eight students coming from various educational backgrounds from different universities. Participation in the Netherlands–Asia Honours Summer School program of each individual is motivated the individual's personal drivers. Despite we come from different backgrounds and hold different motivations, we share the common goal in exploring and analyzing our subject of interest: China.

Veerle van Engen

Industrial Design, Eindhoven University of Technology

Designing for vital people is my passion; user-centered innovations make me tick. How to challenge people to be happy and healthy in all stages of life? As an open-minded person I enjoyed performing fieldwork in Chengdu to enrich this report with local views. The differences in lifestyles and mentality surprised me, especially elderly's intrinsic drive to exercise.

Erwin Karsten

Economics and Business Economics, University of Groningen

It has been wonderful to get to know the city of Chengdu and to learn more about the region's potential as an upcoming market. After my studies in Economics I am keen to continue working as a consultant, so the Rabobank project has given me a great introduction to performing consultancy work. For now, I look forward to some exciting weeks of business visits and travel, and hopefully seeing the application of our research.

Marthijn Kinkel

Liberal Arts & Sciences, University of Groningen

The NAHSS allowed me to explore the central country; China for the first time in my life. Throughout my studies I have explored the politics, history and culture of China. I became amazed and inspired by the differences between the West and East. As a future politician I sense that China will play a fundamental rule in world politics and therefore I decided to look into the rich culture of the country.

Marthijn Loermans

Business Economics, Tilburg University

The reason I chose for the consultancy project of the Rabobank was that I can combine my interest in business in one of the fastest growing economies worldwide and my interest in working for an institution in the financial sector. What I appreciate is that our group combines all different insights to find creative solutions together. Besides my studies, I am passionate about the world of investing and capital markets and I like playing poker.

Nynke Tack

Plant Sciences, Wageningen University

The focus of my study lies at agriculture and sustainable development. However, little attention is paid to the international economy and social issues currently present. Therefore, participating in the Rabobank project offers me the perfect opportunity to widen my view and to look at society from a different angle. I am convinced that my time in China positively attributes to my personal development and I am looking forward to the adventures that will come.

Alexander Ulrich

Biotechnology, Wageningen University

Respect and care for elderly is deeply rooted in China's Confucian society, still they hardly can properly take care of them due to tremendous demographic pressure. Solving such issue is not a one dimensional task but requires deep understanding of culture and people. The NAHSS in cooperation with the Rabobank provided a unique platform for my colleagues and me to face this challenge yet also the chance to do so locally on site.

Bo Willemse

Economics & Business, University of Amsterdam

The Rabobank project for the NAHSS gave me some useful insights about the culture and business life in China. It is the first time I visited China and I really hope to come back in the future. I am just graduated from my bachelors in Economics and Business and will start with the master Finance and Investments after this summer. I think it was very interesting to applicate my theoretical knowledge in real-life and this project made me very curious about consultancy.

Hosang Wu

Business Administration, Erasmus University Rotterdam
Chinastudies, Leiden University

For the past years I acquired theoretical as well as practical knowledge and insights in Chinese culture and business. Born between two different cultural paradigms as a Chinese Dutch, it is only natural for me to see a healthy relationship being established between the Netherlands and China. My partaking in the NAHSS program concerns both getting involved and contributing to current linkages between partners at both sides.

Introduction

Our project is set up with the goal to identify opportunities in both Chinese healthcare sector and Chinese economy. Supporting the realization of this goal, we established a structure consisting of six chapters that assess the current situation, address notable developments, gain insight in markets and elaborate on factors of success. Each individual chapter concludes with a summarizing one-pager highlighting the most important findings in that chapter and is included at the end of the chapter.

The first two chapter's primary goal is to create context in which the former elaborates on economic, political and national key developments, while the latter is centralized on elderly Chinese; addresses their characteristics, trends and developments concerning elderly Chinese and the group itself. After establishing an understanding of the current situation in several aspects, chapter three will clarify on notable markets in the healthcare sector and introduce all type of players in the healthcare market. Linking the Chinese context and situation back the to the Netherlands, chapter four aims to briefly assess Dutch top sectors and relate these to China's situation. One of our findings regards Western China showing multiple signs of potential and is currently considered as an unpopular destination for Dutch business activity, as the majority of Dutch and foreign companies is situated in or near China's coastal areas. As we wish to elaborate on these unexploited but rich opportunities, chapter five will demonstrate what major developments occurred in recent times in Sichuan province and Chongqing region. On top of that, chapter six will highlight two most important and easy to identify cultural barriers. Negative effects of these cultural barriers may be reduced by acquiring a greater understanding in certain acts being common in Chinese business and daily culture.

With chapter one to five building up to the point in which we not only identified opportunities in China's healthcare market and economy but also provide advice in increasing success in doing business in China while simultaneously decreasing the likelihood to ruin a relationship with Chinese partners, the section 'Concluding Remarks' will combine this information and formulate our advice to those who wish to conduct business in China. Lastly, under the section 'Contact we included contact information of China experts for those who are interested in entering Chinese tier two cities or Western China.

Chapter 1 Introduction to Contemporary China

In this brief introduction to contemporary China, we will stress out the relevance of China as a destination for commercial activity by highlighting key developments in the Chinese economy and provide new growth sectors within China. The chapter will start with a brief introduction to the recent economic development of China, to provide the reader with an understanding of the status of China's economy. Subsequently the political system and the interrelation between business and politics are highlighted, since political connections are pivotal for doing business in China. Lastly, the economic cluster: Sichuan-Chongqing is introduced. The region has great prospects for economic activity and remained relatively unchartered by foreign companies. Given the great potential, this Sichuan-Chongqing region will play an important role in the remainder of this document.

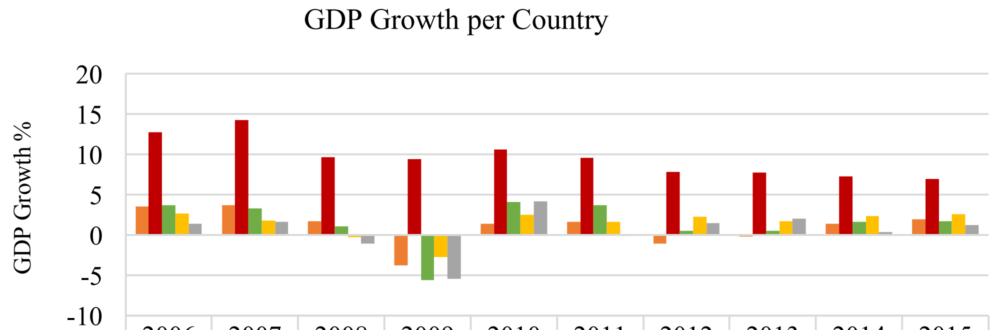
CHINA'S ECONOMIC DEVELOPMENT

Since the economic reform and opening-up of China in 1978, China managed to develop in a rapid pace with GDP growth averaged nearly 10 percent annually between 1978 and 2000 (The World Bank, 2017). The Chinese economy was further ignited when China entered the World Trade Organization in 2001, opening up new paths to the international market. The fact that China managed to catch up 200 years of Western development in roughly three decades is surprisingly remarkable and is often referred to as the Chinese Economic Miracle. During this period, the rapid economic growth led to the establishment of megalopolises, improved infrastructure and new industries but also created huge income disparities. Currently, the Chinese economy stands tall in the international sphere and is widely acknowledged as an economic powerhouse.

During recent years however, China's economy in terms of GDP has seen a gradual decline in growth over time (see Figure 1.1 and 1.2). A notable reason is related to the stagnating growth of the global economy. Due to impact the Global Financial Crisis in 2007-08, export economies faced a deteriorated global demand. China, whose export accounted for roughly one-third of its GDP (see Figure 2) certainly took a hit from deteriorated global demand. Nonetheless, with the objective to maintain a steady growth rate and to diminish negative impacts of decreased exports, the Chinese government took countermeasures by introducing a short-term stimulus package for the period until 2009 (Li, Willett, & Zhang, 2012). China succeeded in maintaining a growth as high as 10 percent on average between 2007 and 2009, while other global players such as the United States and Japan for instance witnessed a shrink. One may arguably conclude that China emerged as one of the winners out of the economic crisis.

A large proportion of China's GDP is generated through exports (see Figure 1.3). The Comprehensive Department of China's Ministry of Commerce reports that the most important trading partners are the European Union, the United States and the Association of Southeast Asian Nations (ASEAN) with a bilateral trade volume of 5.65, 5.58 and 4.72 trillion USD respectively (Ministry of Commerce of the People's Republic of China Comprehensive Department, 2016). China's total exports in 2016 amounted to 2.09 trillion USD and imports to 1.58 trillion USD (see Figure 1.4). Both exports and imports have seen a drop compared to previous years. Additionally, not only are exports declining, but the proportion of export size to GDP size is declining as well (see Figure 1.2). In 2006, exports contributed to 37.2 percent to its GDP, in 2009 24.4 percent and in 2015 22.1 percent, marking a drop of 40.1 percent since 2006. Imports contributed to 28.44, 20.15 and 18.49 percent over 2006, 2009 and 2015 respectively, resulting in a much lower decline of 8.2 percent. No significant changes yet occurred in the proportional spending for import categories (see Figure 1.5).

One factor attributed to the decline in export size to GDP is related to China's shift from an export oriented economy to a more consumer driven economy. According to McKinsey (2012), a group of mainstream consumers is on the rise. Chinese urban consumers are getting richer and richer, as per capita disposable income will double from 4,000 USD to 8,000 USD between 2010 and 2020. Additionally, a specific group within its mainstream consumers is the so-called 'Chinese middle class' and is often related to the positive perspectives of China's growth. This middle class attracted many companies globally to enter the Chinese market. Roughly speaking, the middle class consists of 225 million households with an annual income between 75,000 and 280,000 CNY. The number of households in the middle class is expected to increase with another 50 million until 2020 (The Economist, 2016). While Chinese loans are on the rise and more people gradually join the middle class, the salience of the Chinese economy lies at the heart of its consumer base.



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Netherlands	3.52	3.70	1.70	-3.77	1.40	1.66	-1.06	-0.19	1.42	1.95
China	12.72	14.23	9.65	9.40	10.64	9.54	7.86	7.76	7.30	6.91
Germany	3.70	3.26	1.08	-5.62	4.08	3.66	0.49	0.49	1.60	1.72
United States	2.67	1.78	-0.29	-2.78	2.53	1.60	2.22	1.68	2.37	2.60
Japan	1.42	1.65	-1.09	-5.42	4.19	-0.12	1.50	2.00	0.34	1.22

Figure 1.1 GDP growth for the Netherlands, China, Germany, the United States and Japan. Source: The World Bank. Retrieved on 11 April 2017 from http://data.worldbank.org/country/china.

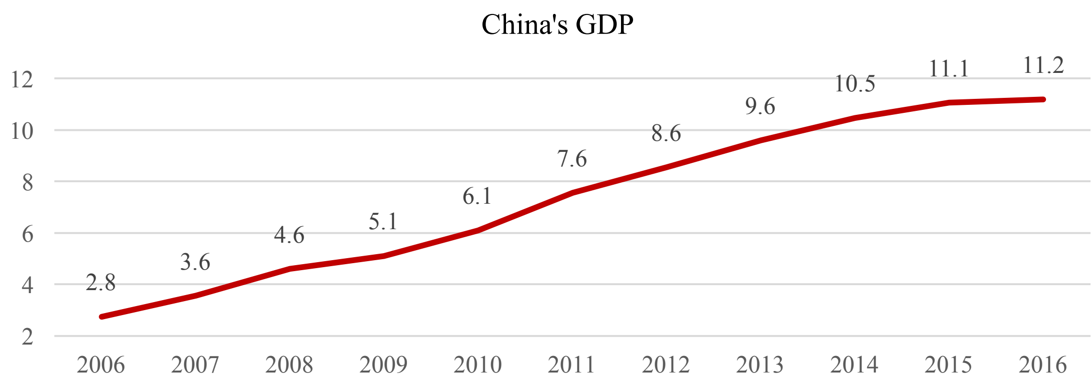


Figure 1.2 China's GDP in trillion USD. Source: The World Bank. Retrieved on 11 July 2017 from http://data.worldbank.org/country/china.

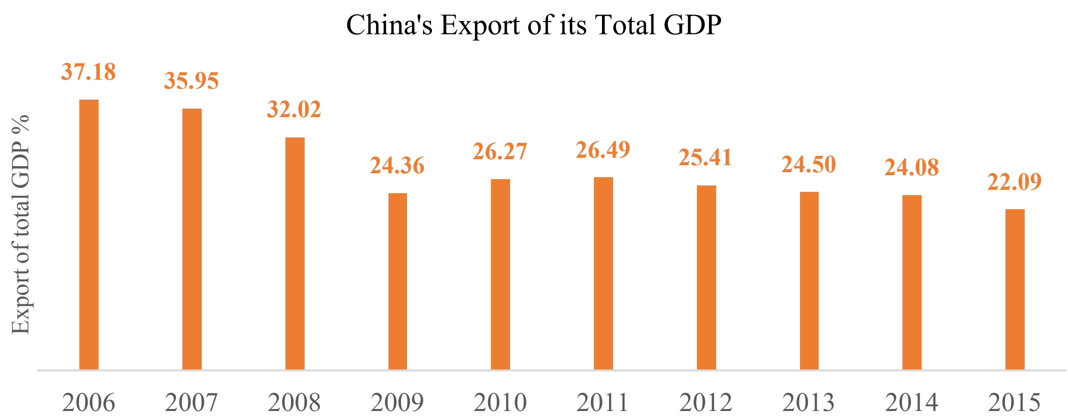


Figure 1.3 China's Export of its total GDP. Source: The World Bank. Retrieved on 11 April 2017 from http://data.worldbank.org/indicator/NE.EXP.GNFS.ZS?locations=CN.

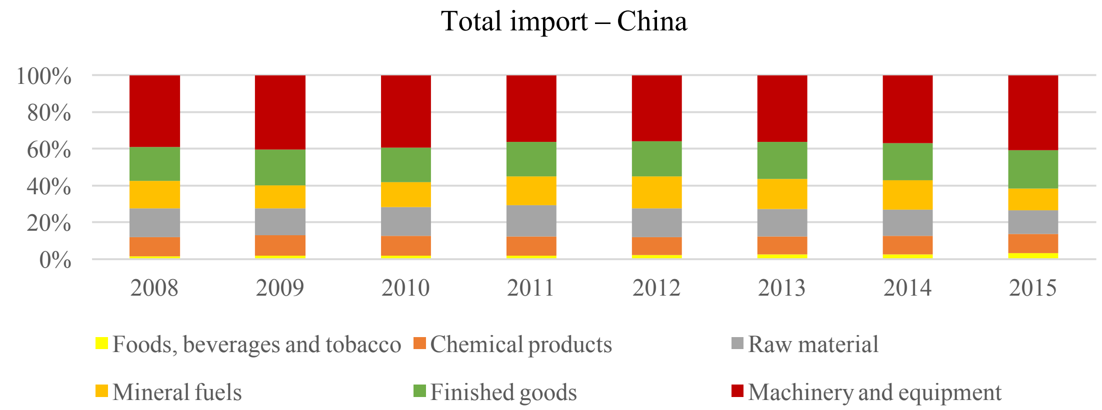


Figure 1.4 Chinese proportional import. Source (edited): Eurostat, UNCTAD. Retrieved on 12 April 2017 from https://www.cbs.nl/nl-nl/achtergrond/2017/10/wat-kopen-de-chinezen-bij-ons-en-onze-buurlanden-.

Region name	Export + Import	Export	Annual export change %	Import	Annual import change %
Guangdong	9555	5989	-6,9	3567	-6
Jiangsu	5095	3193	-5,7	1903	-8
Shanghai	4338	1835	-6,4	2504	-1,2
Zhejiang	3365	2679	-3,1	686	-2,6
Beijing	2820	518	-5,2	2302	-13,1
Shandong	2342	1372	-4,7	971	0,4
Fujian	1569	1037	-8	532	-5,3
Tianjin	1027	443	-13,4	584	-7,5
Liaoning	865	431	-15,1	435	-3,9
Henan	712	428	-0,6	284	-7,6
Chongqing	628	407	-26,3	221	14,5
Sichuan	493	279	-15,6	214	18,2
Guangxi Zhuang AR	478	230	-17,8	249	7,4
Hebei	466	306	-7,2	161	-13,6
Anhui	443	284	-11,9	159	2
Jiangxi	401	298	-10	103	10,5
Hubei	393	260	-10,9	133	-18,5
Shaanxi	299	158	7	141	-10,3
Hunan	263	177	-7,7	86	-15,6
Yunnan	199	115	-30,9	84	6,8
Jilin	185	42	-8,8	142	-0,2
Xinjiang Uygur AR	177	156	-10,8	21	-5,6
Shanxi	166	99	17,9	67	7,2
Heilongjiang	165	50	-37,2	115	-11,4
Inner Mongolia AR	116	44	-22,6	72	2,3
Hainan	113	21	-43,3	92	-10
Gansu	69	41	-29,7	28	30,3
Guizhou	57	47	-52,4	10	-57,9
Ningxia Hui AR	33	25	-15,7	8	0
Qinghai	15	14	-16,8	2	-45,7
Tibet AR	8	5	-19,6	3	-5,1
Total	**36856**	**20982**	-7,7	**15874**	-5,5

All number are given in × 100 million USD AR = Autonomous Region

Figure 1.5 China's import and export per province in 2016. Source: Ministry of Commerce of the PRC Comprehensive Department. Retrieved on 12 April 2017 from http://zhs.mofcom.gov.cn/article/aa/201702/20170202509811.shtml.

The Sichuan Province and Chongqing Region

China's coastal areas have developed rapidly in the last 30 years. As a result, most key markets have saturated (apart from, for example markets related to the silver economy), wages have increased and fierce competition from both foreign and domestic companies makes it difficult to access coastal markets. Therefore, both the Chinese government as well as (foreign) MNEs have shifted their focus Westwards. According to our analysis, the region Sichuan-Chongqing can be seen as the region that will profit the most from China's 'Go West' strategy and thus provides Dutch companies willing to invest in China with the greatest possibilities. Here, the region will be briefly introduced in the last chapter we will return to the region to further outline the business opportunities.

Sichuan

Sichuan is one of the largest provinces in China with a surface of 485,000 square kilometers, roughly twelve times the size of The Netherlands. In recent years, Sichuan province developed into the most important economic corridor that connects the East coast and the hinterland of southwestern China to other countries in South- and Central-Asia and even to Europe via the new Chengdu-Tilburg-Rotterdam railway. Sichuan is dubbed China's newest 'economic powerhouse' due to its economic, development, strategic geographic location and large population. In terms of its population, Sichuan is China's third most populated province with over 80 million inhabitants (Maxxelli, 2017). Most people live in cities, with 14,43 million people living in the province capital Chengdu, making it the fourth largest city in China. The vast amount of inhabitants makes Sichuan Province the largest consumer market in Western China and therefore offers great opportunities for launching new products and services in the West of China.

The development of the Sichuan province can clearly be seen in the economic growth. Since 2014 GDP growth rate averaged around 8,5%, which is among one of the highest GDP growth rates in China's provincial regions. Also the household incomes grow steadily. The per capita disposable income in 2014 for urban residents in Sichuan was 24,381 CNY, an increase of 9% compared to the year before (Huijskens & Koppejan, 2015). For rural residents the income is 8,803 CNY with an average 11.5% yearly increase. While the wages are on the rise, it is still very low compared to coastal regions. This has attracted a vast number of domestic and foreign companies. Between 2008 and 2015 the number of private enterprises in Sichuan more than doubled, from 286,000 to 641,700. In recent years, foreign trade has grown rapidly and FDI has strongly increased. More than 260 of the global Fortune 500 companies have invested in the region, most of which are stationed in the province capital Chengdu. (Maxxelli, 2017). In fact, Sichuan was the first province in western China to attract FDI and has become the leading export base in the region since (Huijskens & Koppejan, 2015). Important reasons for the thriving economy and the fast development are the (labor) cost advantages, skilled labor force and high demand. The labor costs in Sichuan are 30% to 40% lower compared to the coastal areas (Huijskens & Koppejan, 2015). Moreover, the presence of a large talent pool, due to the large population and the national stature of Chengdu's Sichuan University, and the still growing consumer market provide Sichuan province with notable comparative advantages over the other Western provinces of China.

The geographic location of the province is significant, as it is located in a valley surrounded by mountains. The area is rich in waterways and is home to the most fertile ground in China. For more than 2000 years the Dujiangyan irrigation system prevented the area from flood during the raining seasons and has provided the farmers with water in the dry seasons of the year, making the region perfect for agricultural practices. Lastly, the mountainous ridges provide the region with an abundance of natural resources. Overall, Sichuan and especially Chengdu is a region that has a lot to offer.

Chongqing

Chongqing, as the capital of the province with the same name, is the fastest growing city in West China (Maxxelli, 2016). The region is strategically located around the Yangtze and is close to the three gorges dam. The city has attracted numerous Fortune 500 companies and the central district of Chongqing-city is home to many skyscrapers belonging to both foreign and domestic businesses. Also the Dutch government has realized the potential of Chongqing and opened a consulate in 2015. Chongqing's development has been spurred by the national government. Beijing has greatly invested in the development of Chongqing, as part of the migration process concerning the Three gorges dam, issuing infrastructural projects such as high-speed trains and highways, but also stimulates economic development by creating free trade zones, financial and tech districts that are open to foreign investment (Huijskens & Koppejan, 2015). In terms of transportation, the central location of Chongqing and the numerous infrastructural investments have made the city a transportation hub, especially since the heightened water levels as a result of the three gorges dam allow larger cargo vessels to reach Chongqing's Yangtze ports. As a result, Chongqing's nominal GDP in 2011 reached 1001.1 billion CNY (158.9 billion USD) while registering an annual growth of 16.4% (Maxxelli, 2017). Its per capita GDP, however, was 22,909 CNY (3,301 USD), which is below the national average. For foreign investors the low household incomes also mean low labor costs, which makes Chongqing also a viable alternative to coastal areas. To date, heavy industry still is the largest economic sector in Chongqing, but a vast transition towards high-tech industries, electronics and the finance sector is unfolding.

Economic Highlights

China's GDP growth is declining. A large proportion of China's GDP is generated through export. Due to China's transition to a consumer oriented economy:

- The proportion of export size to GDP is declining.
- A main group of consumer is on the rise.

Political Highlights

The most recent five-year plan encompasses China setting sail towards a society of 'moderate prosperity' and include:

- decreasing the societal inequalities between the east coast and western regions. (***Go West-strategy***).
- providing more and better services and facilities in all major cities across China and creating a large Chinese domestic consumers market.
- shifting from being the world's factory of low-end products and move towards high-end and skilled labor.

Sichuan

Since 2014 GDP growth rate averaged around 8.5%.

Labor costs in Sichuan are 30% – 40% **lower** than in coastal areas.

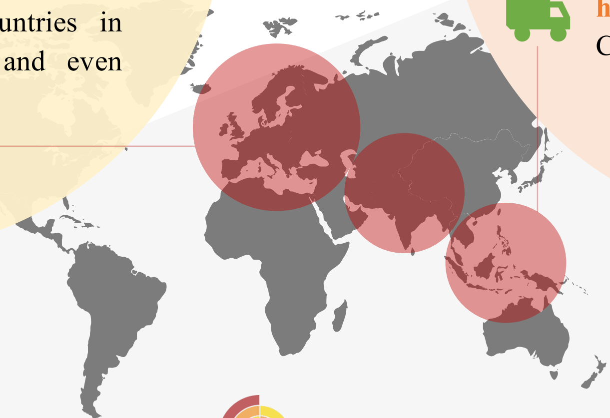
Economic corridor that connects China's coastal areas and the hinterland with other countries in South-Asia, Central-Asia and even Europe.

Chongqing

Fastest growing city in China: GDP growth rate in 2016 was 16.4%.

Labor costs are lower than at the coastal areas.

Chongqing city serves as **transport hub**; consequently, Sichuan and Chongqing are direct competitors.



Chapter 2 China's Elderly Population

With Chinese consumers becoming more rich over time, the country is plagued with the phenomenon of an 'aging society'. Rapid ageing of Chinese citizens could lead to the fearful scenario where the Chinese population will become old before they become wealthy. The large elderly society will then rely on a working class that is too small to maintain the costs and this will eventually lead to a halt of China's unprecedented development. Moreover, there are no pension funds available for the elderly; the number of healthcare beds is alarmingly low and the prospect of the elderly care sector in general is in its infant stage. Considering that such trends affects a society of 1.3 billion, the effects could be disastrous. Chinese leadership and China as a whole are therefore working hard to prevent such a scenario.

The 18th central committee of the Chinese Communist Party stated on 29 October 2015 through an official announcement that Chinese couples will be allowed to have two children. The Chinese government implemented a new law implemented on 1 January 2016 and intended to tackle China's upcoming demographic challenges.

China's ageing society therefore offers great opportunities for Dutch companies. So, this paper will provide insights into the largest trends concerning China's ageing population, favorable political decisions of the latest five-year plan and provide an overview of the most promising markets of China's silver economy and of China's mission to facilitate the ageing society.

Building on the current situation, this section will elaborate on the Chinese elderly population and assess characteristics of elderly Chinese. Next, we will assess on different aspect of elderly Chinese; consumer behavior and developments affecting this particular group consisting of trends in health, social, leisure time, food and e-health.

2.1 The Chinese Population

2.1.1 Population Size

Based on the current UN forecast, the current population size of 1.34 billion is expected to keep on growing until 2030, where it will achieve its highest point. After 2030, China's population will slowly decline as the net reproduction rate is too low. Migration flows are also expected to negatively impact the population of China. The following graph (see Figure 2.1) combines historical data from the world bank and the population forecast data from the United Nations into one graph.

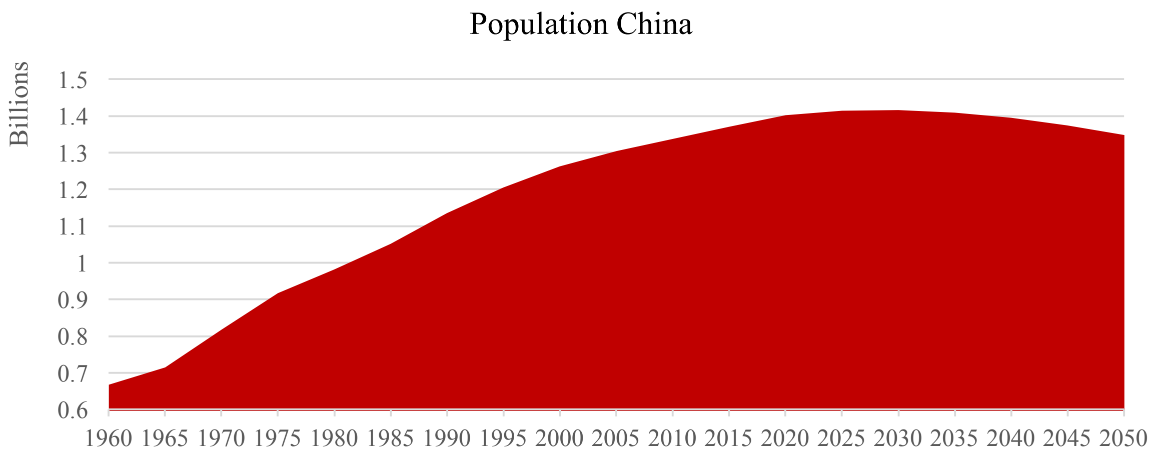


Figure 2.1 China's population size in billions. Source: World Bank and UN data.

2.1.2 Life Expectancy

Life expectancy at birth has also seen a surge in the last years which contributed to China's aging population. Women's life expectancy is higher than men's life expectancy. Based on data from the National Bureau of Statistics of China (2015), women's average life expectancy at birth is 79.43 years, whereas the average life expectancy for men is 73.64 years. The average life expectancy for both men and women is 76.34 years. In 2000, the average for both women and men was 71.40, and in 1981 life expectancy at birth was only 67.77 years on average. Life expectancy at birth increased by more than 9 years over the course of just 36 years. However, it is important to note that life expectancy differs considerably across China. Average life expectancy is highest in the regions of Shanghai (80.26) and Beijing (80.18). Lowest life expectancy is found in the region of Tibet, where newborns will, on average, live for only 68.17 years. These findings suggest that more developed regions have higher life expectancy that less developed regions.

2.1.3 The Elderly Population

Under normal circumstances, men retire at an age of 60 and women retire at an age of 55. People who work directly under the Chinese government as civil servants or indirectly as employees for state-owned enterprises are allowed to retire at an age of 50. Based on data of the United Nations demographic components of future population (2015 revision), by 2020 16.5 percent of men and 18.4 percent of women will be aged 60 or older. In contrast, by 2050 over 34.7 percent of men and 38.4 percent of women will be aged 60 or older. This is a significant increase in the amount of elderly people that will live in China. When compared to a population of over 1.3 billion people, the ageing population is of an immense significance. Population pyramids (see Figure 2.2) are constructed with the aforementioned UN data to demonstrate the significance of China's aging population.

The increase in tendency to have fewer children arises as a consequence of multiple factors. The concept of having multiple children remains strong in underdeveloped rural areas but is fading in developed urban areas. In rural areas, Chinese couples are motivated to have more than one child, as they will have to rely on their children to take care for them when they become old and unable to work. The absence of a strong functional pension mechanism stresses out the importance of having children.

In developed urban regions the dominance of traditional culture and thinking has faded over time. Rapid changes in society accompanied by globalization and modernization accelerated this effect. In contrast to traditional China, a Chinese woman is now able to receive education, earn salaries and work like Chinese men, while remaining socially and economically independent of men. Individual women are thus able to work on their careers and choose whether or not to opt for marriage and having children. Additionally, China's well developed cities are becoming similar to developed countries, implying that modern families share a similar characteristic of having few children.

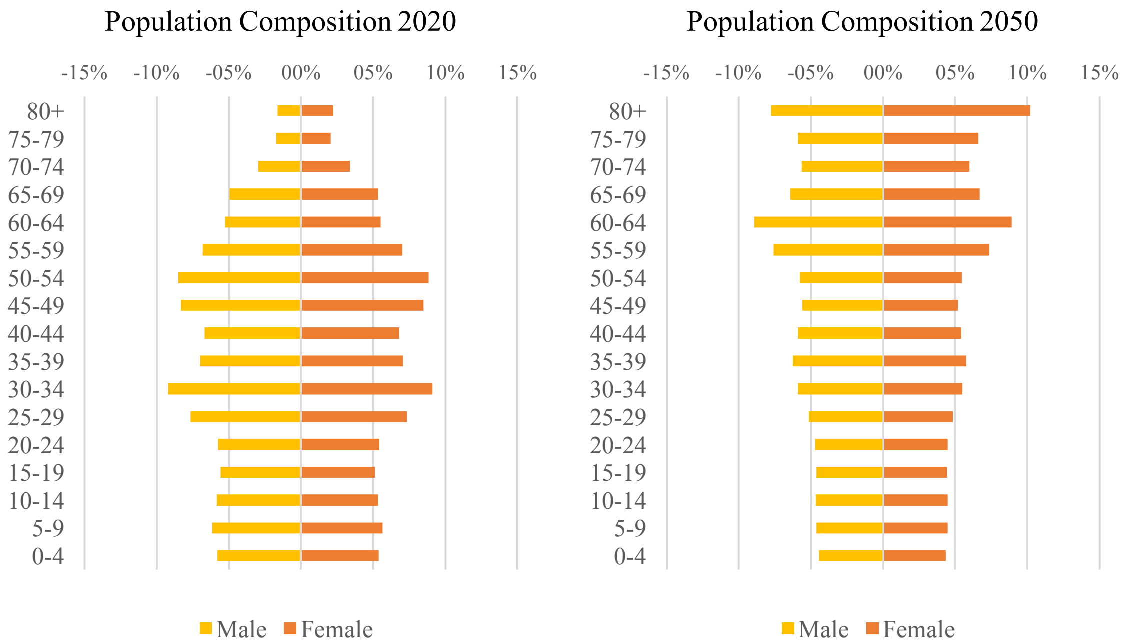


Figure 2.2 China's population composition in 2020 and 2050. Source: United Nations Demographic Components of Future population (2015 revision) data.

2.1.4 Urbanization and its Effect on the Elderly

Urbanization in China is happening at an unprecedented rate. In 1950 only 13 percent of the population was living in cities. This number has increased to 56 percent of the population in 2015. Figure 2.3 shows the forecasted increase in the urbanization rate, based on the UN population forecasts. According to this data, by 2050 over 78 percent of the population will be living in cities. Based on data aggregated by Yang (2015), out of all elderly people 52 percent live in rural areas, and the remaining 48 percent live in urban areas. Furthermore, Yang (2015) finds that average per capita household income of the urban elderly in China averages 24,000 Yuan (3550 USD) and that of the rural elderly only 7600 yuan (1125 USD). Rural elderly, therefore, are significantly poorer on average. The household income for rural elderly is catching up though, as it is growing faster (9.1 percent) than the household income for the urban elderly (5.9 percent). Out of this income, the urban elderly is relatively less dependent on their children and family (about 20.6 percent of income originates from non-pension income, such as e.g. family income). On the contrary, rural elderly on average depend for 64 percent on family transfer and property income.

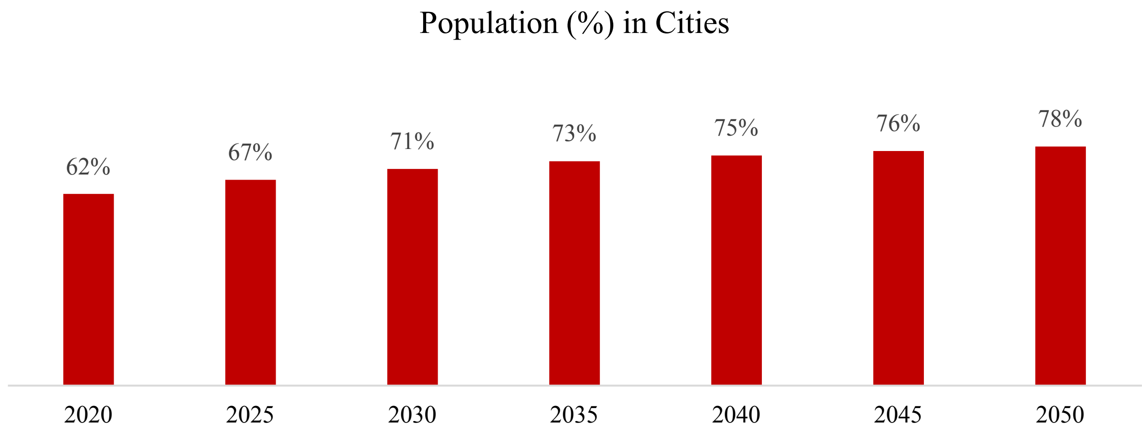


Figure 2.3 Total Population in Chinese Cities. Source: United Nations Demographic Components of Future population (2015 revision) data.

Rapid urbanization is mostly the result of government policy and economic prosperity. Kojima (1995) argues that the rapid surge in urbanization is the result of the abolishment of the intra-country migration ban. Introduced in the second half of 1950, this strict regulation on intra-country migration prohibited citizens from moving from rural areas to urban areas. The regulation began to weaken in the 1980s. Although there are still rules in place, China's urbanization patterns are resembling those of other developed countries. Zhang and Song (2003) find that economic growth explains part of the urbanization. Their study indicates that rural migration into urban areas is driven by an observed gap in income differences. This last result is obviously particularly relevant for members of the labor force (and thus not the elderly).

The rising urbanization rate has consequences for the elderly population in China. According to the World Bank data, 89 cities in China have a population of more than 1 million. One catalyst of mass urbanization is the migration of young people to urban areas. Young people are the most mobile and leave the hometown mainly with the cause of seeking economic benefit. While young people leave their hometowns, elderly people stay behind. Nevertheless, the number of elderly in cities is expected to increase tremendously. The rapid urbanization combined with the aging population is a big issue for public policy makers and urban planners. Views on how to effectively deal with this issue differ substantially across cities and regions (Song and Ding, 2007). It is a massive task for the Chinese government to make sure these cities are livable for elderly people. Due to the large scale and high complexity of the problem, the Chinese government welcomes feasible solutions.

2.1.5 Abolishment of the One-Child policy

The abolishment of the One-Child policy, which was effective for the nearly 40 years, may however not stimulate a significant rise in birthrates. Experts in the fields of demography observed that during the past decades, people's norms, value and lifestyle changed drastically. Yuan Xin, an expert in population studies at Nankai University in Tianjin, observed that the traditional Chinese concept of having multiple children has largely been influenced by rapid developments in China's economy and society. According to the National Health and Family Planning Commission, Beijing residents gave birth to fewer but 'better' children since the 1970s (Liu, 2015).

Even when Chinese couples are allowed to have more children, many remain hesitant in their decision for having a second child. A poll conducted by the National Health and Family Planning Commission in 2015 indicated that 60 percent of families found it unappealing to have a second baby due to financial constraints (Shan, 2017). According to the state-owned newspaper China Daily (Shan, 2017), Wei Pei'an, vice-minister of the National Health and Family Planning Commission revealed in February 2017 that the government is considered to introduce supporting measures to encourage people having a second child. These measures may come in forms of 'birth rewards' and 'subsidies'.

2.2 Trends on Elderly Consumption

Both global and local trends influence the consumption pattern of elderly. This section investigates trends in urban China, as only little data is present for cities in specific regions.

2.2.1 Trends in health

In 2009, a health reform started in China which enabled a higher degree of universal coverage of basic health care. China made extensive growth on the health related Millennium Development Goals (MDGs) which were stated by the United Nations from 2000 to 2015. For the collaboration between the World Health Organization and China, a Country Cooperation Strategy was set up for the years 2016-2020. The goal of the cooperation is strengthening the national-care system and ensuring that quality health services are delivered to all people equally. A second aim is to enrich China's contribution to the global health (World Health organization, 2016). Due to growing number of elderly people and their increased life expectancy, new health and lifestyle, challenges are arising in China. To increase understanding of the ageing society, a study on global AGEing and Adult Health (SAGE) was initiated. This study is initiated by the WHO Multi-Country Studies Unit and is carried out in five other countries besides China across different regions of the world (Ghana, India, Mexico, Russia, and South Africa). In China, SAGE included eight provinces in their study, namely Guangdong, Hubei, Jilin, Shaanxi, Shandong, Shanghai, Yunnan and Zhejiang. In total, SAGE included 10,218 households and 14,813 individual of age 50 or more. Since the study is longitudinal, the information in the chapter is based on the information from 2007 to 2010 (Wave 1). Wave 2 is carried out in 2014-2015 and the results are expected to be published in Mid 2017. Results of wave 1 imply that around 38.6 percent of the older urban residents are likely to use health services, which is strikingly higher than in rural China which consist of 6.1 percent. Additionally, around 49 percent other older urban residents are in need of daily care and assistance and 25 percent needs help with domestic activities (SCDC, 2012).

Health Trend 1: Increased Age-Dependent Chronic (Non-Communicable) Diseases

Chronic, non-communicable diseases have become an increasingly global public health problem. As people become older, age-dependent chronic (non-communicable) diseases such as ischemic heart disease, cancer, stroke, diabetes, arthritis and dementia are likely to increase in terms of numbers of people affected (Prince et al., 2015). SAGE gathered evidence on the following range of diseases: arthritis, stroke, angina, diabetes, asthma, depression, chronic lung disease, hypertension and edentulism. The prevalence of chronic diseases was researched both by symptom reporting and self-report.

Hypertension, also known as abnormally high blood pressure, is the most common chronic disease. 33.8 percent of urban residents self-reported this condition, of whom around 80 percent is participating in therapy. The symptoms reporting method shows that an even bigger group (60 percent) potentially have hypertension (SCDC, 2012). The ‘China country assessment report on ageing and health’ of 2015 stated that the prevalence of hypertension among people aged 60 and over is 66.9 percent in China (World Health Organization, 2015). The second most common disease is Arthritis, a disorder that causes painful inflammation and pain in the joints. The self-reported and the symptom-based prevalence rates were nearly identical and stated 22.0 percent and 20.4 percent (SCDC, 2012). The third most common disease is Angina, a pain in the chest area caused by a shortage of oxygen-rich blood and had a prevalence between 7.9 percent and 10 percent (SCDC, 2012).

Health Trend 2: Unhealthy Lifestyles

The 2010 Chronic Disease Risk Factor Surveillance Survey (Beijing) claims that nearly 84 percent of older people do not engage in regular physical activities. They define ‘Frequent physical exercise’ as at least 10 minutes of exercise for at least three times per week. According to the same research, 49.5 percent of the older urban population lacks macronutrients intake. This group is therefore said to have a poor diet. Moreover, hazardous drinking is present in 9.3 percent of the Chinese elderly population (NCCNDC, 2012). Last, the BMI distribution of elderly aged 50-plus according to the WHO standard shows that 4.3 percent of respondents were underweight, 60.5 percent were normal, 29.6 percent were overweight and 5.7 percent were obese (SCDC, 2012).

Trend 3: Higher Prevalence Depression

The prevalence of depression increased in the last years. In 2015, the total number of people with depression was estimated to exceed 300 million around the world (World Health Organization, 2017). In China the prevalence of depression ranged from 11 percent to 57 percent among people aged over 60 years. However, only 10 percent was being treated for it (Chen et al., 2012).

Trend 4: Environmental Disease & Lower Social Income

According to the 2010 national survey, the prevalence of COPD was 15.5 percent in people older than age 60 years (NCCNDC, 2012). Improvements in air quality improve the lives of COPD patients. Under the existing circumstances regarding air pollution in China, solutions in improving air quality are opportunities for companies to explore.

TREND 5: INCREASE IN OTHER PROBLEMS DUE TO AGEING

In China, 75.5 million people have visual impairment of whom the majority is over 60 years. The urban prevalence is 1.2 percent to 11.4 percent. The major causes of elderly's visual problems are uncorrected refractive error (which is lack of corrective eyeglasses or eye surgery) and cataracts (Pascolini et al., 2012). In addition to visual impairment, a national survey conducted in a representative sample of the urban Chinese population estimated that 25 percent of people aged over 60 years suffer from hearing impairment (CHSI, 2009).

A third disorder is mild cognitive impairment (MCI), being defined as the stage between the cognitive decline of normal ageing and the more severe decline of dementia. The estimated prevalence is 9.6 percent of the elderly population in Chongqing City (Western China). This indicates that there may be a market for products helping elderly in their everyday life and tools for training their mental health.

Other consequences of aging are the often neglected urinary incontinence and the risk of falling. After cardiovascular diseases, cancer and respiratory diseases, the risk falling was ranked at the fourth place of the most common causes of mortality among older people in China. Falling is most likely to occur at home setting, accounting for 49.3 percent of all injuries (CHSI, 2009). This may imply that fall protection equipment and sensors for notification are market opportunities.

2.2.2 Trend in Social Situation

SOCIAL TREND 1: INCREASE OF 'EMPTY NEST ELDERLY'

For many centuries, the traditional concept of 'raising children for the purpose of being looked after in old age' (养儿防老) was dominant in Chinese society. The idea of having multiple children was motivated by the certainty that someone would look after you during old age. This concept was born around 1000 years ago during the Song Dynasty and was then passed from generation to generation. However, this tradition is losing ground in recent times (Yiqian, 2017). ‘Empty nest elderly’ is a term lately introduced to target all homes in which only the elderly remain. The traditional family role of caring for older family members has weakened due to elderly Chinese reaching higher ages and changes in family structure (Liu et al., 2015).

According to the 2010 Chinese Census, the number of empty-nest elderly has been increasing: 31.8 percent of elderly people are not living in families; 15.4 percent of the elderly live with a spouse and 16.4 percent lives alone (n.d., 2010). These elderly people express concerns about where to receive care and who will look after them in their later years. Of China’s urban population, almost half of the elderly do not live together with their children (SCDC, 2012). A survey (N>2000) on the aforementioned concept of raising children for the purpose of being looked after in old age was conducted by the China Youth Daily in 2016. 64.4 percent of the respondents believed that tradition is gradually fading. This data shows that the mindset of elderly is changing as they do not want to be a nuisance for their children and their careers (Yiqian, 2017).

2.2.3 Trend in Leisure Time

LEISURE TIME TREND 1: INCREASE IN SILVER TOURISTS

According to Chinabaogao.com, a statistics and analysis website, more than 5 million elderly Chinese travel each year. This generates a tourism revenue of more than 1.6 billion USD (Tan, 2015). According to the same source, more than 47 percent of elderly Chinese have travelled long distance and 70 percent of this group find tourism a way to improve and enrich their retirement. Company director Han Tie said that without advertisements, more than 70 percent of his travelers to Russia and East Europe are over 60 years old. Moreover, cruise tours became another ‘hotspot’ for elderly in recent years (Tan, 2015). Statistics from Ctrip show that many journeys to Taiwan, tropical islands and European countries such as France, Italy and Switzerland are becoming classic choices for seniors (Su, 2015). However, there is room for improvement in these journeys. A survey conducted by the Gerontological Society of Shanghai and East China University of Science and Technology indicate that many senior customers were dissatisfied with the provided services and products. About 30 percent of the 2,341 seniors complained that *“they felt they had been treated without proper respect* *while travelling"*. As a response, The China Association of Travel Services decided to draft guidelines for traveling services (Su, 2015).

2.2.4 Trends in Food

In China, food plays an important role and dining is seen as an important social activity in which relationships are established and expressed. The majority of the Chinese population has three meals a day, which are breakfast, lunch and dinner. In 70 percent of households, women are responsible for food procurement (Guangsheng, 2015). To our knowledge, information on food purchase and preparation are not published for urban elderly. However, as sources express that the elderly population do not find Western food appetizing, local companies are researching how to make Chinese food more convenient by lowering the preparation time (Nelson, 2011). On average, Chinese people spend two a three hours every day on cooking (Guangsheng, 2015). Food freshness, sanitation and nutrition are considered key factors. Special eating aids entered the market, such as senior chopsticks for people with decreased hand-eye coordination.

2.2.5 Trends in E-health

Franck Le Deu, Senior Partner McKinsey & Company- Head of Greater China Healthcare practice; co-leader of Asia Healthcare practice, presented an analysis on *"Can e-health solve China's Health challenges"* (Le Deu, 2015). The presentation discussed the context for e-health in China, the impact on the healthcare value chain and implications for industry participants.

In 2009, the Chinese government started supporting development of e-health services. A 9.8 billion USD budget plan for standardization of IT systems in major hospitals was implemented in 2012. In 2014, the national health and family planning commission stated in the 'Guideline for remote medical service' to allow online service providers to offer medical suggestions, while treatment was only provided by healthcare institutions. In 2015, five provinces (Ningxia, Yunnan, Inner Mongolia, Guizhou and Tibet) took part in a telemedicine pilot. In the same year, the first 'air hospital' was approved in Guangdong. This change enabled patients to videoconference with two hospitals from village health care centers, pharmacies or other places. Advantages of e-health are improving health literacy, improving access, enhancing healthcare delivery, offering online distribution offerings, creating communities enabling sharing knowledge and empowerment of personal health and wellbeing. Figure 2.4 shows an overview of players present in this field. Interestingly, only few to no Western players were present.

As an illustrative case: Chunyu is the largest 'air hospital', consultation platform, in China with 30 million active users, 40 thousand physicians and 50 thousand daily inquiries. The non-paying users receive free consultation, while the paying users can consult specified physicians. The average response time is three to thirty minutes. Alibaba aims at moving offline hospital activities online, as stated in their 'future hospital plan'.

Current challenges in the field of e-health are: using big data to improve design and offering, offering integrated end-to-end solutions, constructing long-term partnerships with customers and following the rapid change in innovation.

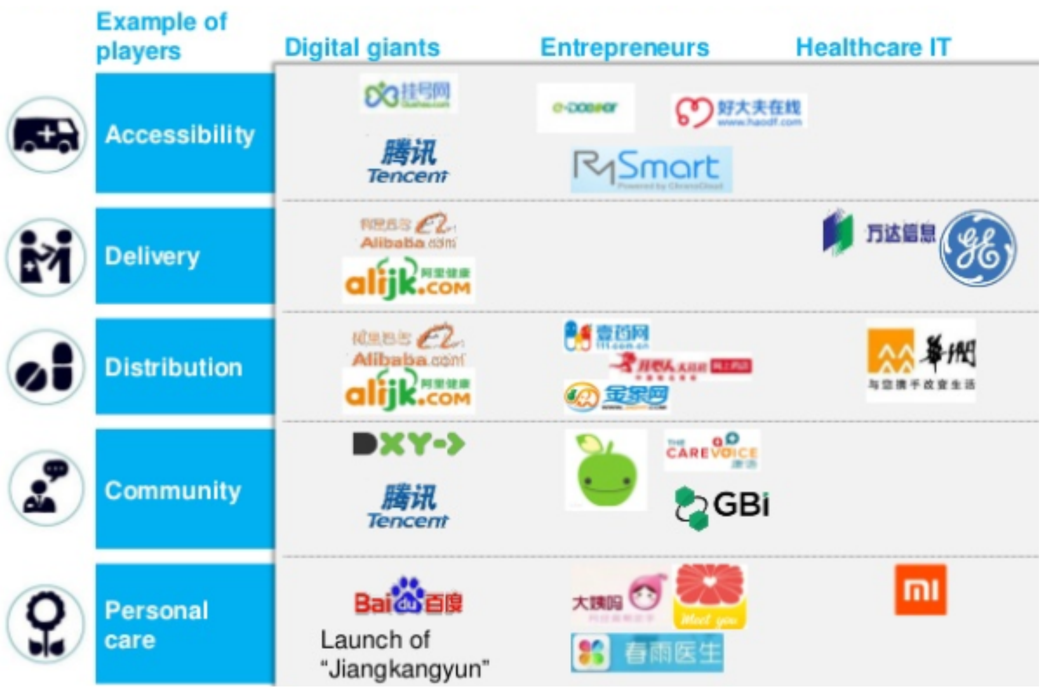


Figure 2.4 An overview of major players in the Chinese e-health market. Source: Le Deu (2015).

SUMMARY CHAPTER 2

FINDINGS ON E-HEALTH TRENDS

There are **few to no foreign competitors** in the e-health sector.

Major **challenges** in the Chinese e-health sector are:

- Big Data
- Integrated end-to-end solutions
- Long-term partnerships with customers

FINDINGS ON SOCIAL TRENDS AND FOOD

The weakening of Chinese tradition increases Empty-nest elderly.

31.8% live **without family**

16.4% live in **solitude**.

Elderly Chinese do **not** find Western food appetizing. *"Dutch companies need to integrate in Chinese food culture."*

Population Trends

- China's total population growth will decline starting from 2030.
- Life expectancy will increase.
- By 2020 16.5% of men and 18.4% of women will be aged 60 or older.
- By 2050 over 34.7% of men and 38.4% of women will become part of the elderly population.

FINDINGS ON HEALTH TRENDS

Prevalence of Chronic diseases increases

1. **Hypertension** (66.9%)
2. **Arthritis** (20.4%)
3. **Angina** (7.9%)

11% – 57% suffer from **Depression** while only 10% is being treated for it.

15.5% of elderly Chinese suffer from **COPD**.

Other notable disorders

1.2% – 11.4% suffer from **visual impairment**

25% suffer from **hearing impairment**

49.3% of all injuries result from **falling at home**

FINDINGS ON LEISURE TIME

More than **5 million** elderly Chinese travel each year.

East Europe is becoming a more attractive travel destination.

"Chinese elderly tourists felt they had been treated without proper respect while traveling."

Chapter 3 Opportunities in Market Segments Relevant to the Chinese Elderly Population

In this section we will assess different market sectors in China. The market sectors will be evaluated on their compositions, values and growth rates. Special attention will be paid to sectors which are important for elderly Chinese based on their predicted and observed needs. Research is drawn from data on tier one cities due to two main reasons. First, research is more abundant and more valid in these areas. Second, when models implemented in tier one cities prove to be successful, lower tier cities often follow models of tier one cities. Models implemented in tier one cities thus provide us with insight in how lower tier cities will develop. For these reasons, we validate our use of data coming from research in tier one cities. Final goal is to identify market sectors which do not live up to demands of Chinese elderly and thus can be considered as potential markets for Dutch companies.

ELDERLY FOCUSED SECTORS

A survey conducted in Beijing, 2012 (Feng et al, 2012) identified sectors with the most mentioned needs among elderly people. These include six sectors: supplements, nursing products, health check, travelling, caring services and financial products. The survey included three types of individuals: officials who work in elderly related sectors, leaders in companies specialized in white and silver industries and residents with the age 50 or older. The survey displayed the characteristics of China's current silver industry which is especially focused on high-income individuals. Products and services are mostly catered towards upper income groups which however accounts for only a small part of the population. Products and services for lower- and middle-income groups are still missing yet in demand especially considering China's fast growing middle class and increase in overall consumption.

Market Sector 1: Supplements

Beijing is considered to be already one of the highest supplement consuming areas in China.

Still in 2012, only 19.9 percent of Beijing's 50+ aged residents used nutritional supplements (OECD report, 2012). Reasons for the relative low consumption rate can be attributed to mostly dissatisfaction with the usefulness of the product. Nevertheless, those who consumed them spent in 2012 about 4,323 CNY (Feng et al, 2012) which reflected an extremely high relative expenditure when comparing it to most elderly yearly expenditure (urban Beijing elderly spent on average in 2011 7,099 CNY according to the OECD report, 2012). Those numbers displayed that demand for supplement was definitely present in China but the dissatisfaction was still too great with the former products on the market. However, the potential for a rising market was still present as only a minor part of the aged population regarded price as their purchase-defining aspect and more than 50 percent stated usefulness as the determining factor (OECD report, 2012). Interestingly, public opinion did actually drastically change over those years as China's estimated 180 billion CNY supplement industry grew to be second largest in the world second only to the US according (U.S.-China Health Products Association, 2017). Moreover, the Hong Kong Trade and Development Council estimates that 50 percent of those consumers indeed are middle aged and elderly Chinese residents (Lau, 2017).

Market Sector 2: Nursing and Personal Care Products

Nursing and personal care products are one most frequently used utensils by the aged population in China. In Beijing, about 93.8 percent were utilizing those in 2012 with an average expenditure of 2,545 CNY. Interestingly enough, the highest amount spends in 2012 on those products reached more than 60,000 CNY. The overall demand is expected to even grow even more in the future due an increase in both personal annual expenditure as well as market share. As given as feedback in the survey, elderly Chinese who desire to purchase nursing products in the distant future will increase about 3 percent, resulting in 96,5 percent of elderly Chinese using nursing and personal care products. More interestingly however is the drastic increase in expected expenditure to 9,394 CNY in the upcoming years. Especially the demand for high-quality and individualized products is very high and currently not satisfied (OECD report, 2012). Moreover, the demand differs greatly between various groups of Beijing's aged population. Especially groups with low income (<10,800

CNY) and groups with high annual income (>38,400 CNY) will have the greatest increase in future demand for nursing products (Feng et al, 2012).

Market Sector 3: Health Check

As a result of continuous age increase all over China, demand for health checks is on steady rise. In 2014, 374 million people in China had a health check. However, health checks are mostly favored by Chinese elderly living in urban areas characterized by those with a higher income and education. Still, 60.3 percent of all 50+ residents in Beijing received health checks and this number is supposed to increase to 84.6 percent in the upcoming years (Feng et al, 2012). Private specialized health check-up centers contributed at that time 13.6 percent to that total, while most people in 2012 (76.9 percent) still used public hospitals for their needs (OECD report, 2012). The low percentage of elderly Chinese who used private institutions is mostly attributed to higher costs and due to the on average lower income of most aged people in China. Public hospitals are still expected to continue to be the most prominent choice for the majority of Chinese elderly. However, the private healthcare sector experienced in the last couple of years a steady increase in total market share (in 2014, already 21.6 percent of China's population utilized private institutions according to the KPMG report 2016), yet the existing facilities are still not up to today's standards and require definite improvement especially for low- and middle-income people. Nevertheless, when asked about their potential budget for individual health checks, the Beijing elderly were willing to pay on average 641 CNY for a single health check. In comparison, the actual average price for a single health check in 2011 was 453 CNY. Those values only include the private expense from the total costs as the rest is substituted from government funds. Altogether, the increase in both demand and expenditure will lead to an increase of the health check market to about 9.1 billion CNY in 2020 solely in Beijing and only the concerning the 50+ population (Feng et al, 2012).

Market Sector 4: Travelling

In recent years, travelling has become more and more important for the elderly as mean to enjoy their retirement. In Beijing in 2011, 40.2 percent of the aged population travelled (Feng et al, 2012) and in 2015 already 70 percent regarded travelling as a mean to enjoy their retirement (Weiyun, 2015). Travelling is mostly divided into either short- and long-distance domestic travelling as well as overseas travels. The short-domestic travelling contributed thereby the greatest margin. The rate of elderly Chinese who utilized travel agency is still relatively low at about 18.1 percent (Feng et al, 2012) as most elderly travel with either the help of friends or family members. Travelling as mean of joy and relaxation is the most common reason among the aged population at 58.7 percent, whereas journeys to seek the knowledge accounts for 25.5 percent of all travels. Additionally, elderly Chinese who travel in order to seek improved family relations and health contribute for 6.1 and 6.6 percent each (Feng et al, 2012). Besides and increasing market share, personal expenditure will also see an increase in the upcoming future as in 2012 Beijing's elderly spent about 5,708 CNY yearly for travel purposes which will expect to increase up to 7,170 CNY in the near future (Feng et al, 2012). In 2015, already 5 million Chinese elderly in total went travelling and thereby generated a total revenue of about 10 billion CNY (Weiyun, 2015).

Residents in urban areas in Beijing will engage in the quickest percentage wise increase in travel rate in the near future from 42.3 to 63.2 percent while elderly between 50 and 60 specifically also increase their travel from former 48.6 to 77.7 percent which is the highest increase upon various age categories (age 50 until 80+) (Feng et al, 2012). The demand is expected to be even if greater the travelling sector will start offering specialized packages designed for aged people which is currently already developing (mostly in form of cruise tours) yet has still not reached its full potential.

Market Sector 5: Caring Service

12.9 percent of Beijing's elderly population were using caring service in 2012. Caring services include practices such as: daily care, recovery care, emergency assistance, mental support, housekeeping and food-delivery. Housekeeping accounted thereby the biggest proportion with 8.4 percent. However, the whole caring service industry is expected reach 65.4 percent in the upcoming years (Feng et al, 2012). Even though the demand for caring services is steadily increasing, the information channels are still insufficiently present. Most elderly Chinese obtain their information from friends/family (22.2 percent), TV (19.3 percent) and their local community (17.7 percent). However, 38.8 percent state that there are no channels at all to gather information concerning caring services (Feng et al, 2012). The aged population regards the effect of the caring services as the most important factor (61.4 percent), while price was only regarded by 13.0 percent of the total aged population in Beijing as the deciding concern whether to acquire caring services (OECD report, 2012). In 2012, the annual expenditure in Beijing among elderly Chinese was 5,323 CNY with an expected increase to 9,102 CNY. According to the *Chinese National Health and Family Planning Commission* did the total revenue of healthcare service grow from 195 billion CNY in 2009 to 375 billion CNY in 2014 (KPMG report, 2016).

Market Sector 6: Financial products

Financial products are still new options and possibilities for many elderly Chinese yet the Chinese government invests a lot of resources to make sure that their senior citizens are quickly catching up. Elderly Chinese mostly obtain their knowledge about possible financial products from friends (7.8 percent), family (6.0 percent), TV advertisements (5.3 percent) as well as other commercials from financial institutions (4.5 percent) (Feng et al, 2012). These figures clearly indicate that insufficient information channels were present which is also reflected in the comment from most elderly Chinese that financial products on the market were often too challenging and complex to understand. This lack of knowledge acted as an incentive to rather not participate in the financial market which is further supported by the crucial lack of suitable financial products specifically for elderly. Bad past memorable performances on the financial market made the aged population additionally insecure which is reflected in reluctant desire to further purchase and hold financial products in the future. Offered financial products ranged from funds, securities to commercial insurance with a total personal possession of about 70,832 CNY on average. As elderly Chinese are living off savings, family and pensions, their risk tolerance is generally regarded as much smaller than younger people's. People willing to buy those products in 2012 accounted for 22.8 percent of Beijing's aged population (Feng et al, 2012), however in 2015, according to the Nielsen's China Financial Tracking Report (Nielsen, 2015), 70 percent of China's elderly have claimed to have purchased investment or wealth management products. About 45 percent also possessed at least one credit card. Reason for this re-gain in trust was the rapid development in e-commerce, especially in the finance sector, which allowed for easy and intuitive access for elderly who were granted the opportunity to learn about those features. Interestingly enough, the most reluctant elderly people were still between 50 and 60, while the group with age between 70 and 80 actually showed an increasing interesting in purchasing financial products. Moreover, concerning different education levels, people with middle school degree showed the largest decrease in financial product purchase while concerning income, the middle class with an income between 24,000 and 30,000 CNY displayed the fastest downturn (OECD report, 2012). Nevertheless, some products such as foreign currency and valuable metals as gold were in demand more than ever from elderlies.

CONSUMER PREFERENCES

To better understand consumer preferences and attitudes of China's elderly Chinese, the Hong Kong Trade Development Council conducted various focus group discussions in four major cities in China (Wong 2015). The survey found out that, especially concerning nursing products, the recommendation of doctors is of great importance. A reason for this phenomenon is the large concern for possible negative outcomes. Due this result orientated focus of China's elderly consumer, brand loyalty is relative low and elderly Chinese are constantly seeking improved products that are more suitable for their specific needs. Most of them are also more than willing to purchase expensive products if the desired effects are present. Especially health care products that are optically well designed and technology-rich are in great demand. Moreover, this consumer preference in high-quality and stylish goods is present in almost all sectors. However, devices that also contain high amount of technology should still remain intuitive for elderly people (e.g. do not contain too many buttons). Especially intelligent equipment that for instance robotic assistance aid that automatize households or devices that monitor and remind their consumer about their health condition are become very popular. Furthermore, are China's elderly consumers still mostly buying their products from physical shops as it makes their potential purchase return easier if necessary. Nevertheless, internet platforms such as *jd.com* or *taobao.com* are more and more frequently used by elderly Chinese (60+). In 2015 alone, 63 percent of all elderly made at least 10 online purchase and consumers over the age of 55 were the most active spenders over the 2015 Chinese New Year (Passport 2017). The survey also displayed the willingness of elderly people to purchase their own daily necessities and health care and nursing products without the help of for example their children.

SERVICES AND ELDERLY CARE

Elderly care services encompass different disciplines. Services as home nursing services, home care services, services coupled to specific products and hardware and E-healthcare services are seen as the highest potential profit markets (Business Sweden, 2016). Besides, institutional based elderly care is seen as a high potential market. The institutional based elderly care can be subdivided in four main types: social welfare institutions funded by government which currently serve 2 percent of the total elderly population (Shira et al., 2016); senior care homes funded by private entrepreneurs and enterprises; senior living communities created by real estate developers; and lastly community service centers providing recreational activities and lunch services to seniors. The division of the institutional based elderly care described above is also recognized by the central government of China. The Ministry of Civil Affairs of China (MCA) announced that in 2020 the division between services provided in own home: community-based services: institutional based services should be 90 percent: 6-7 percent: 3-4 percent (Lam et al., 2016).

As result of the ageing population, the 4:2:1 problem emerged. The 4:2:1 problem entails the burden of one child having to care for two parents and four grandparents. Combined with the changing social view on Chinese society, the elderly market for products and services is growing rapidly. In 2014 the market's turnover revenue amounted to 652 billion USD and according to the 'China Report on the Development of the Silver Hair Industry' this value will increase to 17 trillion USD by 2050 (Roberts, 2014). A large percentage of this increased value is due to the larger demand to elderly care services. In 2020, the total value of the elderly service market is expected to be 260 billion USD which will continue to rise to 1.1 trillion USD in 2050 (DCCC, 2016). Institutions which provide elderly care serve a big part of the total amount of the Chinese elderly population. Therefore, we will provide a broad outline on the aforementioned four different types of institutional based elderly care.

Type 1: Social Welfare Institutions Funded by the Government

The social welfare institutions funded by the government are originally meant to take care of the urban elderly belonging to the three no's: no living children or relatives, little or no income and no physical ability to work in urban areas. Furthermore, the governmental institutions provide the five guarantees: food, clothing, shelter, health care and funeral arrangement for childless and disabled rural elderly (Wang & Zheng, 2013).

Nowadays, demand for beds in government funded institutions is rising due to demographic and social changes. Governmental elderly care services are unable to keep pace with this increasing demand and as a result only 2 percent of the Chinese elderly and 18 percent of the disabled elderly can be served currently (Shira et al., 2016). The gap between demand and supply is partly covered by private institutions. However, Chinese families prefer nursing beds in governmental funded institutions due to the lower prices. Consequently, waiting lists for governmental elderly services are long.

Type 2: Senior Care Homes Funded by Private Entrepreneurs and Enterprises

Due to the increased demand private entrepreneurs and enterprises found their way in modern

China's healthcare system. Biggest problem for private institutes are high costs. Especially land in first tier cities where potential profit is high, is expensive and since elderly Chinese prefer to live no higher than the third floor, buildings needed do not make economic sense in China's major cities (Cooper, 2016). However, moving to smaller cities, where land is cheaper, is often not an opinion. The demand for care in these areas is smaller and the projects become often less attractive for elderly people themselves (Yangpeng, 2016), as they have to move to new areas away from family.

Besides the effect of land costs on total cost, costs are rising as a result of a more specialist medical care needed for the residents. The current average monthly costs for private senior care varies between 1.311 USD to over 5,000 USD. Since the average pension of an urban retiree is around 2,000 USD per month and for a farmer approximately 8.33 USD (Yang, 2014), urban retiree cannot afford long time care in these institutions and retired farmers can afford little to no health care.

Shifting focus from elderly living in coastal tier one cities to elderly people living in western tier two cities may seem at first hand as an unattractive choice due to lower revenues and limited access to educated health workers. However, costs for land and labor are consequently much lower. Aside from lower costs, competition for projects is less fierce. We view Dutch companies conducting business activities in the healthcare in Western China as a plausible strategic option. Sichuan province and Chongqing municipality making a steady growth combined with favorable conditions coming from the central government as we discussed earlier under the One Belt, One Road initiative and the recent established Free Trade Zones, rapid development will follow for both regions. Looking forward to the next chapters, we will see that both regions will become part of a larger logistic network and enjoy financial incentives to spur trade activities. As a result of increased connectivity and business activity, costs (e.g. for land) and competition will likely increase in the near future. Having already established connections will mitigate effects coming from competition and thus increase first mover advantages. Moreover, with Western China being less developed than coastal areas and healthcare workers being less well educated, Western China will be in dire need of healthcare education and training when gradually transforming into a more developed area.

Type 3: Senior living communities created by real estate developers

The elderly housing market in China is a very young market. Most elderly housing that has been developed had a different purpose (i.e. hotel or campus). The reason for this is that *"land for senior housing is classified under land used for medical, healthcare, and welfare (醫衛慈善用地), which makes funding less accessible"* (DBS, 2017). Also the return on investment is relatively low. Research by the DBS group has shown that most operators are not able to fill their residential complexes. The price of land is very high and also the mindset of the Chinese elderly is unfavorable. Elderly in China prefer to stay with family. The majority of elderly people in China prefers keeping their full-life savings for their offspring than paying for senior housing rental or membership. (DBS, 2017) As a result, most operators and investors prefer an asset-light investment model to reduce the risk and the costs.

Type 4: Community service centers

THE STARLIGHT PROGRAM AND HOME-BASED ELDERLY CARE

In the last decades, different initiatives have been developed to initiate and promote community-based services. One of the most famous examples is the 'Starlight Program' in which more than 2.1 billion USD was invested by the Chinese government. The goal of this program was to set up 'Starlight Centers for Seniors' in which elderly people could reside and benefit from emergency aid, day care, health and healing services. The project consisted of three stages. The first stage consists of realizing 'Starlight Centers' in 30 major cities across the country. The aim of the second stage was to build Starlight Centers in 400 medium-sized cities and the target of the third stage was to build Starlight Centers in small cities and towns (China Daily, 2003). With this three-stages approach, the Starlight Program targeted elderly people from different social layers in geographically different parts of China. Besides the centers organized recreational activities prevented elderly people from becoming isolated ("IV. Social services for an ageing society," n.d.). In total 32,000 centers were realized between 2001 and 2004. Unfortunately, the success of the program declined when governmental funding stopped in 2005 and for the time being profitable community service centers remain largely non-existing (Feng, Liu, Guan, & Mor, 2012).

From 2012 onwards the initiatives to create community-based elderly care are restricted to urban areas. This is largely due to challenges community-based elderly care face in rural areas such as limited resources and bad infrastructure. Policy making on elderly care in rural areas is mainly focused on creating large residences were elderly from different villages can reside and where care and health services are centralized. Most of these residences are funded by local governments (Feng et al., 2012).

An alternative to the unsuccessful community based services is the home-based elderly care. This type of care service is most in agreement with Chinese filial piety, since elderly people can remain in their family home. The program 'Virtual Elder Care Home' or 'Elder Care Home without Walls' became very popular after its introduction in China in 2007 (Hsi, 2014). The program connects elderly people with services providers of elderly care. The local government financially support a help desk to which elderly can call when they are in need of a particular service. These services are provided by a range of Chinese personal care companies and paid by the user itself. Moreover, the local government pays care companies to take care of the so-called 'three-no's' elderly (people with no children, income or relatives). The last decade this system proves it viability and is spread widely through China (Feng et al., 2012).

Governmental Action in Combatting Upcoming Challenges

Despite the efforts of the government to create a widely spread elderly care system across China, many challenges are still to be overcome. One of the major challenges is meeting the demand for educated staff. Most of direct caregivers are between 40 and 60 years and will belong to the elderly population in a few years. Moreover, the majority of the care takers only had a junior high-school degree or are even illiterate. The quality standards of the caregivers vary widely among different care institutions and no general standards are provided. Besides, if training is given to the staff it often only focusses on the most important elderly diseases, neglecting special and less-important features of elderly (Song, Anderson, Corazzini, & Wu, 2014). Interesting is also that Chinese graduates in elderly care are difficult to keep in the business (Wong, 2015). Apparently other jobs offer better future perspectives resulting in less rejuvenation in the elderly care sector. All factors mentioned above indicate the importance of a structured education network for care takers. Information from further developed countries can be very useful in the trajectory to create such a network.

Another problem China's elderly care is facing at this moment is to create a combination of affordable daily care and health services. Although the government actively stimulates institutions to combine care activities with health services by reducing the regulation and admission procedures (Xinhua, 2016) and allowing high skilled doctors to work in different clinics, demand remains higher than the supply (Süssmuth-Dyckerhoff & Wang, n.d.). International companies that are able to deliver these combined services are nowadays encouraged by the Chinese government to fill this supply gap.

As denoted earlier, the Chinese state realizes that major changes in the health care system are necessary in order to deal with the ageing population the upcoming decades. Therefore, Chinese regulation and attitudes towards international care companies has changed drastically. Recently, the Chinese state council released a government plan aiming to improve elderly care by 2020. Goals stated in the plan are for example that 90 percent of the elderly population should have a basic old-age insurance and that 95 percent or more should have and keep basic medical insurance by 2020. To achieve this, the government released The New Cooperative Medical Scheme (NCMS) as a pilot in 2003 and expanded this system nationwide. The NCMS particularly focuses on rural China. This is because many farmers cannot pay the average health treatments, the insurance coverage was initially low and 70 percent of the total elderly population of China lives in the rural parts (Liang & Lu, 2014). The program appears to be successful and led to an increase of the health insurance coverage from 20 percent in 2003 to 86 percent in 2007. Moreover, in April 2009 the government announced an investment of 850 billion CNY in the program to improve the healthcare system (Strauss et al., 2012).

The government does not only aim to increase the national health insurance coverage, but it also shows its intention to increase the health care structure itself. Goals to achieve this are among others that governmental elderly homes should cover 30 percent of the nursing beds needed in 2020. This is an ambitious goal with regard to the 3.3 nursing beds per 100 Chinese elderly available in 2015 (Statista, 2015). Besides, every county should have at least 1 or 2 public hospitals. In 2013, China had 24.700 hospitals with 6.2 million beds in total. The total amount of hospitalizations was 191 million and grows with 12 percent annually. As a result, resources were still insufficient in 2015 and hospitals grew very fast without any kind of structure and became too big to manage. Consequently, the 13th five-year plan stated rules about the maximum amount of beds per hospital and the density of hospitals in areas across China to recreate structure in the healthcare supply (Brandwood, 2015).

The already denoted problem of the quality and quantity of nurses and doctors is also addressed in the 13th fifth year plan. In 2015, the average nurse: doctor ratio was 1 :1 and insufficient to deliver quality care to the patients. The government stated that in 2020 this ratio should be increased to 1.25: 1 (Brandwood, 2015). This means that many nurses should be trained and educated the upcoming year. Training and education is also crucial to meet the quality criteria set by China's council. By 2020, the number of qualified doctors and medical assistants should be 2.5 per 1,000 persons and the number of general practice doctors should be 2 per 10,000 persons. Also 500,000 resident doctors should be trained to appropriate standards (Yunwei & Jianwen, 2016).

Besides, the plan promotes the development of the so-called 'Smart Healthcare'. Smart healthcare is a concept which covers a wide range of high-tech care services and products, such as medical facilities, remote medical services and internet-based health care. Its aim is to create the knowledge and know-how of high-tech production in China (Xinhua Finance, 2015). Figure 3.1 displays a slow growth of the smart healthcare devices till 2015, but growth is expected to increase significantly in upcoming years. In 2015, the market volume of smart car devices in China amounted to about 1.1 billion CNY with a forecasted market volume of 15 billion CNY (Statista, 2015). Since knowledge about smart healthcare devices is scarcely present in China, foreign investors with expertise in advanced medical technology and research can likely profit from this extreme growth

(Yunwei & Jianwen, 2016).

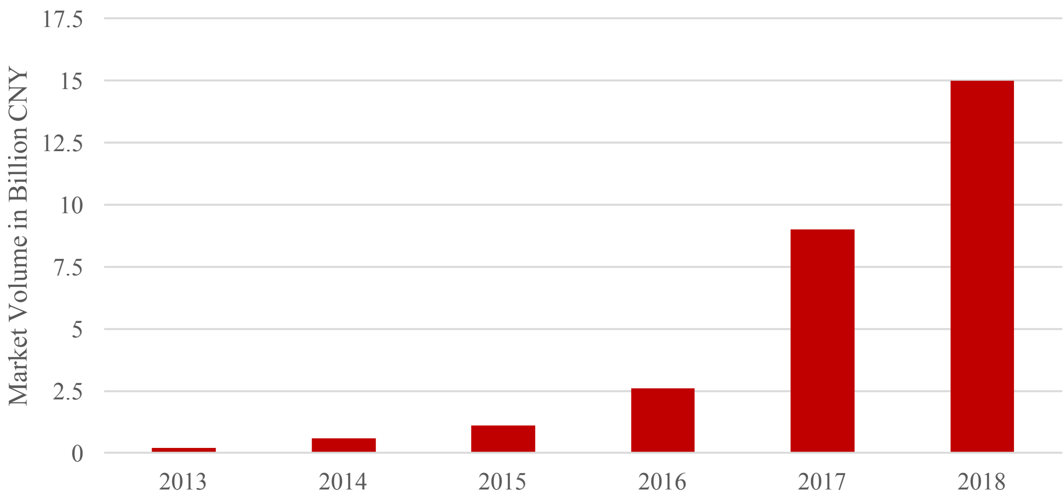


Figure 3.1 Market volume of smart healthcare devices in China from 2013 to 2018 (in billion CNY). Numbers from 2016 until 2018 are speculative. Source: Statista (2015).

Last but not least, the 13th five-year-plan states plans for opening up the domestic market and thus allows foreign investors to invest and set up profit-focused companies ("THE 13TH FIVE-YEAR PLAN FOR ECONOMIC AND SOCIAL DEVELOPMENT OF THE PEOPLE'S REPUBLIC OF CHINA," 2016). A translated part of the plan shows this intention:

"We will open more sectors to foreign investment, relax restrictions on market access, work proactively and effectively to bring in foreign capital and advanced technology, and increase the overall efficacy of foreign capital utilization. We will remove restrictions on market access for foreign capital in service sectors such as child care, architectural design, accounting, and auditing, and expand access to markets in the banking, insurance, securities, elderly care, and other sectors. We will encourage more foreign capital investment in sectors such as advanced manufacturing, new technology, energy conservation and environmental protection, and modern service industries as well as in the central, western, and northeastern regions, and will support the establishment of research and development centers with foreign capital."

The combination of the changing Chinese elderly market together with a more open attitude of China's policy towards foreign investors offer many opportunities for companies willing to invest in the Chinese market. In 2016, 1091 unique Dutch enterprises were present in China, mainly in important economic regions like Shanghai (463), Guangdong (161) and Beijing (113). The amount of Dutch companies located at the province Sichuan in West China shows a steady increase to a number of 27 enterprises in 2016 (De Boer & Keller, 2016). One of the companies that decided to enter the Chinese market is Teresa Happy Care International Group. They offer consultancy about elderly care and senior real estate. In addition to consultancy, they develop protocols, operating and working procedures that fit to the demands of elderly care in China (Teresa Happy Care International Group, 2017). The demand to their products is high and their business is still growing today.

Other companies which are active in China's elderly care market are Avans^{+}, Dutch Health Architects, DMV and iBMG related to the Erasmus Medical Centre. Many of these companies offer high quality training, products and consultancy with the aim to provide knowledge and additional resources to the growing Chinese elderly market. For an extensive list of other companies active on the Chinese elderly market and a description of their activities is referred to the website of Task Force Health Care (TFHC).

SUMMARY CHAPTER 3

ELDERLY FOCUSSED SECTORS

- Supplements
- Nursing and Personal Care Products
- Health Check
- Travelling
- Caring Service
- Financial Products

The healthcare sector's turnover is expected to increase from 652 billion USD in 2014 to 17 trillion USD in 2050.

GOVERNMENTAL ACTION in Combatting Upcoming Challenges

1. China's health sector is instigated to acquire general as well as specific training and schooling for its health workers due to:

- … the lack of general quality standards and expertise.
- … meet the quality criteria set by China's council in the fifth five-year plan.

2. The fifth five-year plan prompts foreign entities to invest in China by opening up its domestic healthcare sector.

3. There is still a shortage in healthcare supply to fulfill the current increasing demand.

CONSUMER PREFERENCES

Advice of Doctors for Nursing Products

Increased Usage and Preference for **Internet Platforms**

Well-designed & Technology-Rich

SERVICES AND ELDERLY CARE IN CHINA

FOUR GROUPS of CARE SERVICES

1 Social Welfare Institutions Funded by the Government

Governmental care services are unable to keep up with the increasing demand, creating room for the private sector.

2 Senior Care Homes by Private Entrepreneurs and Enterprises

First tier cities have turn-over potential but also high costs. Entering the healthcare market in Sichuan and Chongqing is a strategic move at this moment.

3 Senior Living Communities by Real Estate Developers

Most operators are not able to fill their residential complexes in the elderly housing market.

4 Community Service Centers

Despite community service centers prove to be unsuccessful, home-based elderly care is spreading in a fast-pace through China.

Chapter 4 The Dutch Economy and her Connections with China

In order to identify how the Dutch may capitalize on opportunities emerging from the Chinese market, we need to analyze the Dutch market and economy. Then we shortly provide an overview of the Dutch top sectors. Finally, we will assess Dutch companies on the basis of their characteristics, activity and success in the Chinese market.

THE DUTCH MARKET AND ECONOMY

Over the past couple of decades there has been an active capitalization on investment and trading opportunities between China and the Netherlands, which is likely to increase even further in the future. This section will introduce the Dutch market by showing some macro-economic data and provide an overview of the top sectors in the Netherlands. Compared with the Chinese economy, the growth rate of the Dutch economy is stable but relatively lower.

The following data about the Dutch economy are collected from CBS for the year 2016 (Central Bureau for Statistics, 2017a):

Domestic product (GDP)	702,64
Domestic product (GDP) (economic growth)	2.2%
Taxes and social security contributions (% GDP)	38.4%
National saving (net)	87,778
National net lending/net borrowing	59,610

Except for percentage, all numbers are in million EUR.

Table 4.1 Macro-economic data about the Dutch economy.

DUTCH TOP SECTORS

The top sectoral policy is a Dutch company policy to stimulate the knowledge economy in the Netherlands, and is made up by the Dutch government (Rijksoverheid, n.d.-a). The Netherlands must remain competitive to maintain our international top position. At the same time, social issues, such as rapid aging and transition to clean energy and sustainable food, ask for creative solutions. For this reason, the Netherlands needs to innovate, meaning that Dutch companies require new products and services, effective and efficient supply chains and information systems but also new technical skills.

In nine top sectors, companies, researchers, governments and civil society organizations work together to keep innovating with well-trained people. They do this from their talent, expertise and interest. To stimulate the top sectors in the Netherlands, entrepreneurs in those sectors can make use of the following three arrangement provided by the Dutch government: tax benefits; financing and guarantees; and advisory services. The top sectors in the Netherlands consist of the following:

Top Sector 1 Agri & Food

The top sector Agri & Food includes everything concerning food, both primary production, processing, marketing and distribution. To capitalize on both social and economic opportunities, the top sector Agri & Food stimulates the development of new knowledge and innovations. The Dutch Agri & Food sector highlights innovation and productivity. Of the 40 major food and beverage companies in the world, 12 companies have R&D activities or a branch in the Netherlands. The sector wants to maintain and expand this leading position. It is not just about producing sustainable and high-quality food, but it is also about sustainable food chains that focus on animals and nature.

Top Sector 2 Chemistry

The Netherlands has a strong chemical sector and wants to play a leading role in the transition towards green and sustainable chemistry. The chemical industry makes and processes products by changing the chemical composition of existing fabrics. Like other sectors, the chemical industry has to deal with scarcity of raw materials: they are running out or are not easily available. This problem also offers opportunities for the top sector chemistry. For example, using sustainable and environmentally friendly raw materials for smart materials and solutions that are applied in the health, food, energy and transport sectors and reuse of raw materials in the chemical sector.

Top Sector 3 Creative Industries

The top sector Creative Industries is the most dynamic top sector of the Dutch economy. The creative sectors of architecture, fashion, gaming, design, and media and entertainment are pioneers of innovation in other sectors. They deliver creative solutions to social challenges in areas such as health, safety and energy. The Dutch creative industry is internationally a top 10 player. Companies that enjoy international recognition include Endemol, G-star, Guerilla Games and Droog Design. The top sector Creative Industry has the ambition that the Netherlands will be Europe's most creative economy in 2020.

Top Sector 4 Energy

The top sector energy is the driving force behind innovations needed for transition to an affordable, reliable and sustainable energy system. Internationalization of the energy market and CO2 reduction are important themes. The objectives are to reduce the cost of CO2 emissions, develop renewable energy sources and make smarter use of them. Demand for (renewable) energy is growing and offers opportunities for, for example, generation, transport and trade in energy. The Netherlands has a good starting position to take advantage of this, due to its favorable location at the seaside, the strong position of the seaports, the presence of gas and a gas infrastructure.

Top Sector 5 High-Tech Systems and Materials (HTSM)

The Dutch high-tech sector is a strong internationally oriented, knowledge-intensive sector, where a lot of research takes place and high-quality products and services are developed. In addition, in almost all of the products today, there is a piece of technology, which makes the sector's impact even bigger. The sector plays an essential role in designing and realizing solutions for global social challenges in the area of mobility, health, renewable energy, security and climate change, with technologies that are strongly rooted in the Netherlands: micro / nano-electronics, nanotechnology, Photonics, advanced materials and production, and semiconductors. Market opportunities for Dutch high-tech products and services can be widely found abroad. This is a growth market, especially on a global scale. The core ambition of Holland High Tech is to keep the Netherlands at the top of the world through innovation and export growth, and to make a crucial contribution to solving societal challenges worldwide. The Dutch high-tech sector has the ambition to increase exports to 74.6 billion euros in 2025. In comparison, in 2012 the export value from the HTSM sector was 45 billion euros (Rijksoverheid, n.d.-b).

Top Sector 6 Logistics

From origin, the Netherlands has focused on international trade and is thus an important player in the global economy. The top sector logistics is facing the challenge of making the expected growth of the supply of goods sustainable. Logistics wants to contribute to better accessibility and less CO2 emissions. The focus of the logistics team is the international competitiveness of the Netherlands, with international logistics, supply chain management and the contribution of logistics to the business environment for international companies. Of great influence is international accessibility through the main ports of our country: Schiphol airport and the port of Rotterdam.

Top sector 7 Life Sciences & Health

The top sector Life Sciences & Health includes the broad field of medical technology, (bio) pharmacy, regenerative medicine and health infrastructure. The sector contributes to the quality of human and animal health and seeks solutions for social issues, such as aging. The biggest challenge of the top business sector Life Sciences & Health is to increase the quality of life and ensure affordable care.

Top Sector 8 Horticulture & Starting Materials

The Horticultural & Starting Materials sector includes all vegetable chains in the horticultural complex. The top sector is a broad sector with subdivisions ranging from vegetables, fruits and trees to flowers and bulbs. Starting materials are products such as seed and plant products. These include companies in processing, supply, trade and distribution. The world's population is growing, making sustainable solutions even more important. The horticulture & starting materials sector excels in the development of crops which, for example, are less sensitive to the weather or which require less plant protection products. The Netherlands has six Greenport clusters, where growers, auctions, sales organizations, trading companies, exporters and horticultural suppliers are located.

Top Sector 9 Water

The top sector water consists of three clusters: Water, Delta technology and Maritime technology. The sector is concerned with, amongst others, the protection of land, and water recycling technology. The sector also focuses on technological developments in shipping and provides innovation and safety in the maritime sector. The Netherlands is worldwide known for its extensive knowledge of water and water management. Impressive examples are the Delta Works and the second Maasvlakte in the port of Rotterdam. The knowledge that the Netherlands has about protecting land against extreme high tide also creates international interest. For example, the Netherlands was involved in the construction of a storm barrier in St. Petersburg, and the Netherlands was asked for advice after the hurricane 'Sandy' in New York and the flood in Great-Britain.

Analysis of Dutch Businesses Activity in China

The economic growth of China is largely due to partnerships with foreign partners. Foreign trade and investment are vital for the rapid expansion into the Chinese economy. It is important to note that it is not a one-way street: these investments are reciprocal, meaning that at the one hand Dutch companies increase their presence in China and on the other hand Chinese companies are also increasing their presence in the Netherlands. During 2012 China became the number one recipient of foreign direct investment (FDI) worldwide (Rijksdienst voor Ondernemend Nederland, 2013).

A Descriptive Overview of the Netherlands as a Business Partner of China

In this section we elaborate on China as a strategic market and the business climate in China. The Dutch export towards China is growing. China is currently the 9th largest export market for the Netherlands. Germany, Belgium, the UK, French, the US, Italy, Spain and Poland currently are more important export partners for the Netherlands (Central Bureau for Statistics, 2017b).

Because Dutch producers also have to import goods and services to produce export products, the export value is not equal to the added value for the Dutch economy. Dutch products also contain a large foreign component. Therefore, only a fraction of value is added to the Dutch economy when

Dutch products are exported. The 9.8 billion worth of goods and services which the Netherlands exported to China in 2014, gave the Dutch economy 4.4 billion euros, which is 0.7 percent of GDP (Central Bureau for Statistics, 2017b).

Conversely, the Netherlands also produces 'components' to those produced in other countries and ultimately delivered to China. The Netherlands, for example, supplies parts to the German automotive industry. Also some of the export products going to China end up in other parts of the world, because the Chinese may use those products or services into products and services they export. Dutch products which may or may not end up as a component in the Chinese end consumer gave our economy a total of 4 billion euros. This is an alternative way to look to the export figures of a country (Central Bureau for Statistics, 2017b).

In 2016, the Netherlands exported 12.1 billion EUR in goods and services to China. In 2008 this was only 5.2 billion EUR. Remarkably, the majority of the total export to China are goods. In 2016, 9.9 billion EUR of the total export consists of goods and only 2.2 billion EUR of Dutch services are exported to China. That, while the Dutch GDP for 70,4 percent consists of services, and only 17,8 percent of industry and 1,6 percent of agriculture in 2016 (Central Intelligence Agency, n.d.).

From the total Dutch export in 2015, 2,1 percent is exported to China. Our largest export partner is Germany. In 2015, 21 percent of our total export went to Germany. However, compared with other emerging countries, China is a relatively big export partner. The export to countries like Brazil, Romania and India is less than 1 percent (The Observatory of Economic Complexity, n.d.)

Machinery and transport equipment are, nowadays, the most important export products to China (see figure 4.1). Almost one third of Dutch export consists of machinery and transport equipment.

However, compared to other European countries our share of machinery and transport equipment exported to China is very low (see figure 4.2). Only 3,1 percent of the machinery and transport equipment exported from Europe to China comes from the Netherlands (see figure 4.4). Although the Dutch exports of machinery and transportation equipment plays a small role in China compared to the rest of the EU, this category is very important for the Dutch economy (Central Bureau for Statistics, 2017b).

Compared to other European countries, we export a considerable amount of mineral fuels to China, which are probably used for industry related purposes (see figure 4.2).

When we take a look at the Dutch export of services to China we see that the amount of other business services such as Research and Development is significant (see figure 4.4).

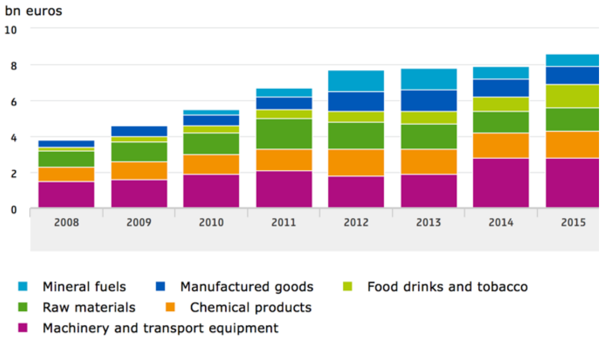


Figure 4.1 Dutch goods exports to China. Source: Central Bureau for Statistics, 2017b

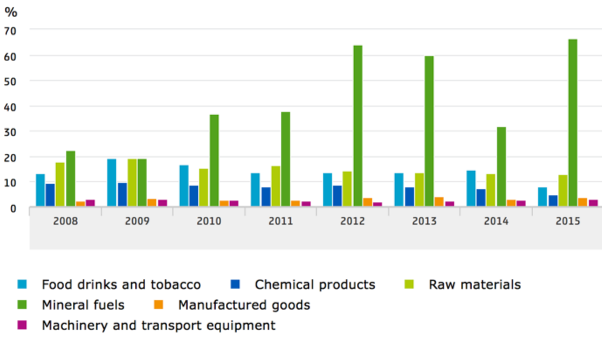


Figure 4.2 Share Dutch goods in EU exports to China, by type of goods.

Source: Central Bureau for Statistics, 2017b

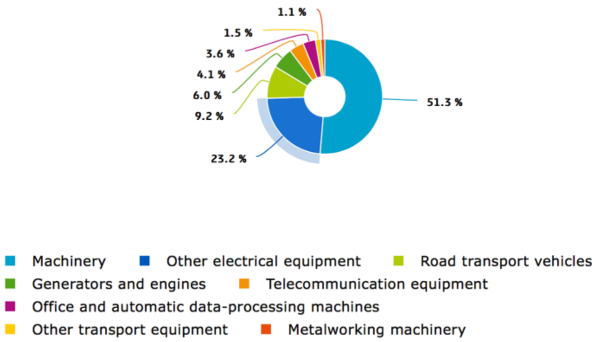


Figure 4.3 Exports Dutch machinery and transport equipment to China in 2015.

Source: Central Bureau for Statistics, 2017b

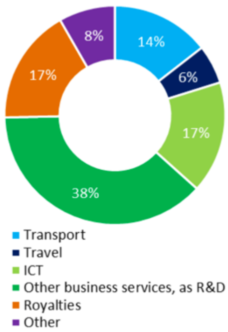


Figure 4.4 Export of Dutch services to China 2014.

Source: Central Bureau for Statistics, 2017b

The Netherlands is the number 8 of the top 10 export trading partners of China worldwide. According to the predictions of ING, the export amount towards the Netherlands will increase even further in 2019. It will still remain its 8th position in the top 10 (David, 2016).

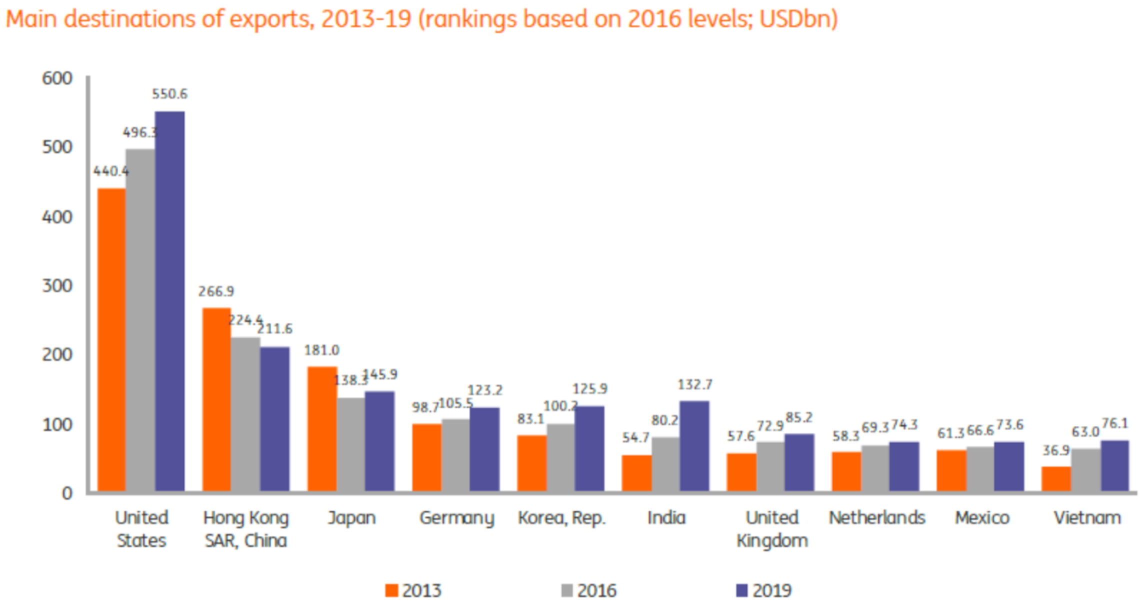


Figure 4.5 Main destinations of exports, 2013-19. Source: David, 2016.

That there exists a positive trend with regard to Dutch investments in China can be seen from the following table (Rijksdienst voor Ondernemend Nederland, 2017):

Dutch investments in China, excluding special financial institutions (SFI) (x millions of EUR)				
Year	2012	2013	2014	2015
Amounts	7.838	8.627	9.786	9.664

Table 4.2 Dutch investments in China. Source: Rijksdienst voor Ondernemend Nederland, 2017

CHARACTERISTICS OF DUTCH FIRMS ACTIVE IN CHINA

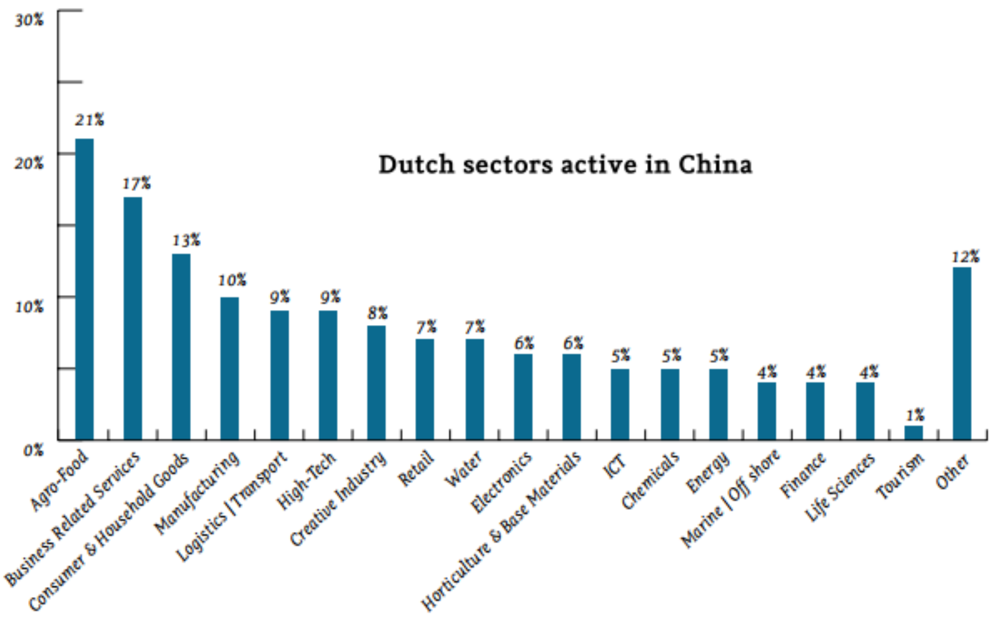


Figure 4.6 Dutch sectors active in China. Source: Rijksdienst voor Ondernemend Nederland, 2013

As you can see from the graph above (figure 4.6), Agro-Food is the leading sector in China. This is due to the growing Chinese economy and the subsequent increase in purchasing power, consumer behavior and food consumption are changing. The following graph (figure 4.7) provides a division of the Agro-Food export to China. More than 50 percent consists of cereal preparations, starch and miscellaneous (Rijksdienst voor Ondernemend Nederland (2013).

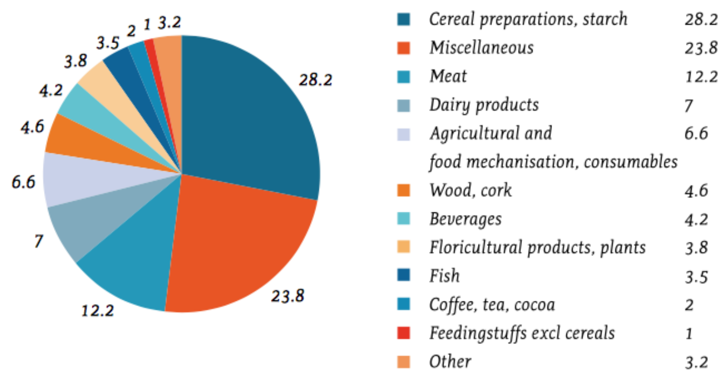


Figure 4.7 Distribution of the Agro-Food export towards China. Source: Rijksdienst voor Ondernemend Nederland (2013).

The agro-food and business related services sectors are the leading sectors in China. The leading sectors coincide with the sectors of which the Dutch government declared it has a competitive advantage. In 2016, large companies performed better than smaller companies and experienced less significant losses compared with the years before. A large company is defined as 250+ employees worldwide. Small companies (<250 employees worldwide) more often report profit repatriation and unfair pricing competition from domestic companies as barriers of doing business and they are also more oriented toward the market in the Netherlands. Characteristics of companies that have a higher probability to break even or are able to make a profit are: having more than 250 employees in China; having at least 4 years of presence in China; using management quality as their competitive edge; have the intention to make use of the trade missions which are being led by the Dutch government; and having knowledge about the regulatory framework of Corporate Social Responsibility (CSR) and have attention for CSR (Ministry of Foreign Affairs of the Netherlands, 2016).

As can be seen from the graph below (figure 4.8), we do not see significant differences in performance over the past couple of years. This means that investing in China as a company is relatively riskless because of the stable business performance over the past years. We expect that this trend will continue during the upcoming years.

With regard to the CSR graph (see figure 4.9), we see that CSR becomes more and more important if you compare the numbers of 2016 with the numbers of 2014. The Netherlands can take advantage of this because Dutch companies and the government focus on CSR and the transition towards clean energy and sustainable food.

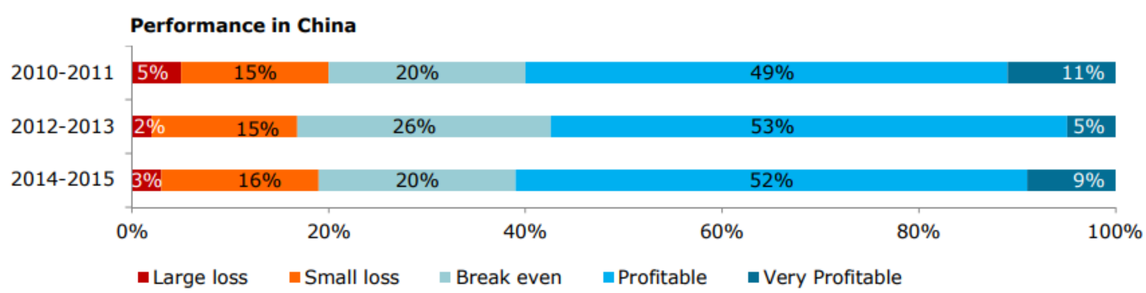


Figure 4.8 Performance of Dutch companies in China. Source: Ministry of Foreign Affairs of the Netherlands (2016).

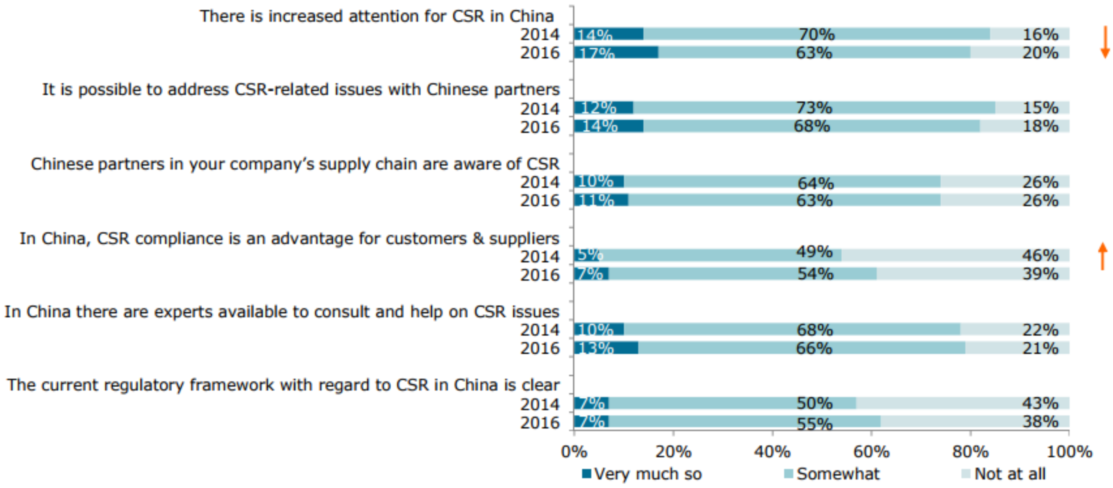
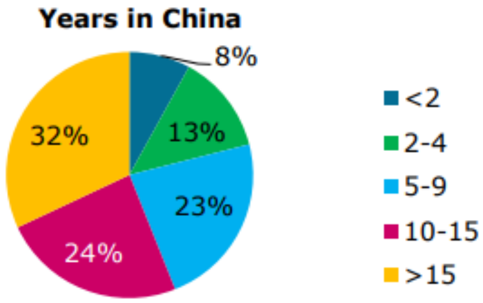


Figure 4.9 CSR in China. Source: Ministry of Foreign Affairs of the Netherlands, 2016

In chapter one we elaborated upon the One Belt, One Road initiative. In a business survey that was sent to 1091 representatives of Dutch businesses in China (Ministry of Foreign Affairs of the Netherlands, 2016), managers gave the following opinions on the question *"How do you assess the chances for your company, as a result of the Chinese 'One Belt, One Road' initiative?"*. From their responses, it turns out that managers are not very positive or are uncertain about the results of this initiative. Examples of reactions are: *"One cannot depend on China government. Our possibilities change every day"*; and *"This is all done with Chinese companies that are either government linked or with close connections to the government. We see very few opportunities here."* However, there are also positive reactions: *"Better distribution and control makes Asia stronger. It's a good thing to have a better balance of powers! Investments in or through the Netherlands will increase."*

The following graphs present information about customers and markets served of the Dutch companies investigated by the survey of the Ministry of Foreign Affairs (2016). The majority of the Dutch companies has been active in China for more than 10 years (56 percent) and almost one-third (32 percent) has been active for more than 15 years (see figure 4.10). Interesting is that the e-commerce sector is growing. In 2016, 14 percent of the customers were served in the e-Business sector (see figure 4.11), compared with 5 percent in 2012.



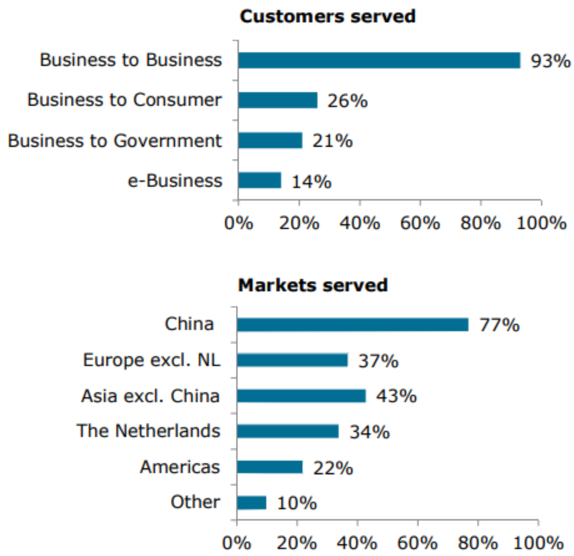


Figure 4.10 Overview of Dutch companies active in China in percentages. Source: Ministry of Foreign Affairs of the Netherlands, 2016.

Figure 4.11 Overview of the customers and markets served in China by Dutch companies in China. Source: Ministry of Foreign Affairs of the Netherlands, 2016

According to the business survey from the Ministry of Foreign Affairs of the Netherlands (2016), the perception of the Chinese Market has decreased compared to 2014. Although the percentage of 'very unfavorable and unfavorable' increased, the majority still thinks that the Chinese business climate is 'favorable / very favorable' (see figure 4.12). This paper will further elaborate on the business opportunities in China and as a result of that on the perception of the Chinese market.

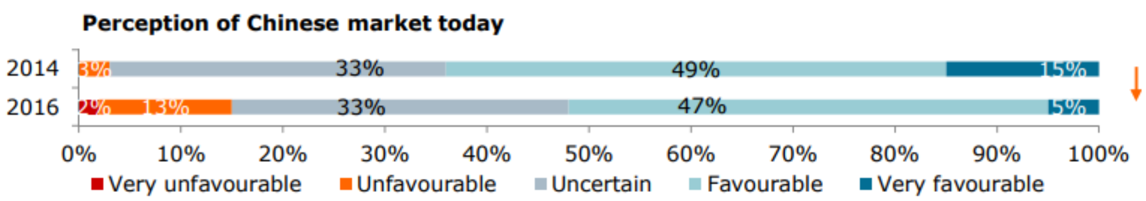


Figure 4.12 Perception of the Chinese market today according to the business survey

Source: Ministry of Foreign Affairs of the Netherlands, 2016.

According to the following graph (Ministry of Foreign Affairs, 2016), the most significant reason for Dutch entrepreneurs to operate in China is the size of China's domestic market and the least significant reasons are low costs and proximity to East-Asian markets. Low costs are one of the least significant reasons since China is becoming more and more expensive. Quite a substantial amount of products, such as clothes, were produced in China a decade ago. However, nowadays, we see a shift towards other countries (e.g. Vietnam) where the production costs are even lower than in China.

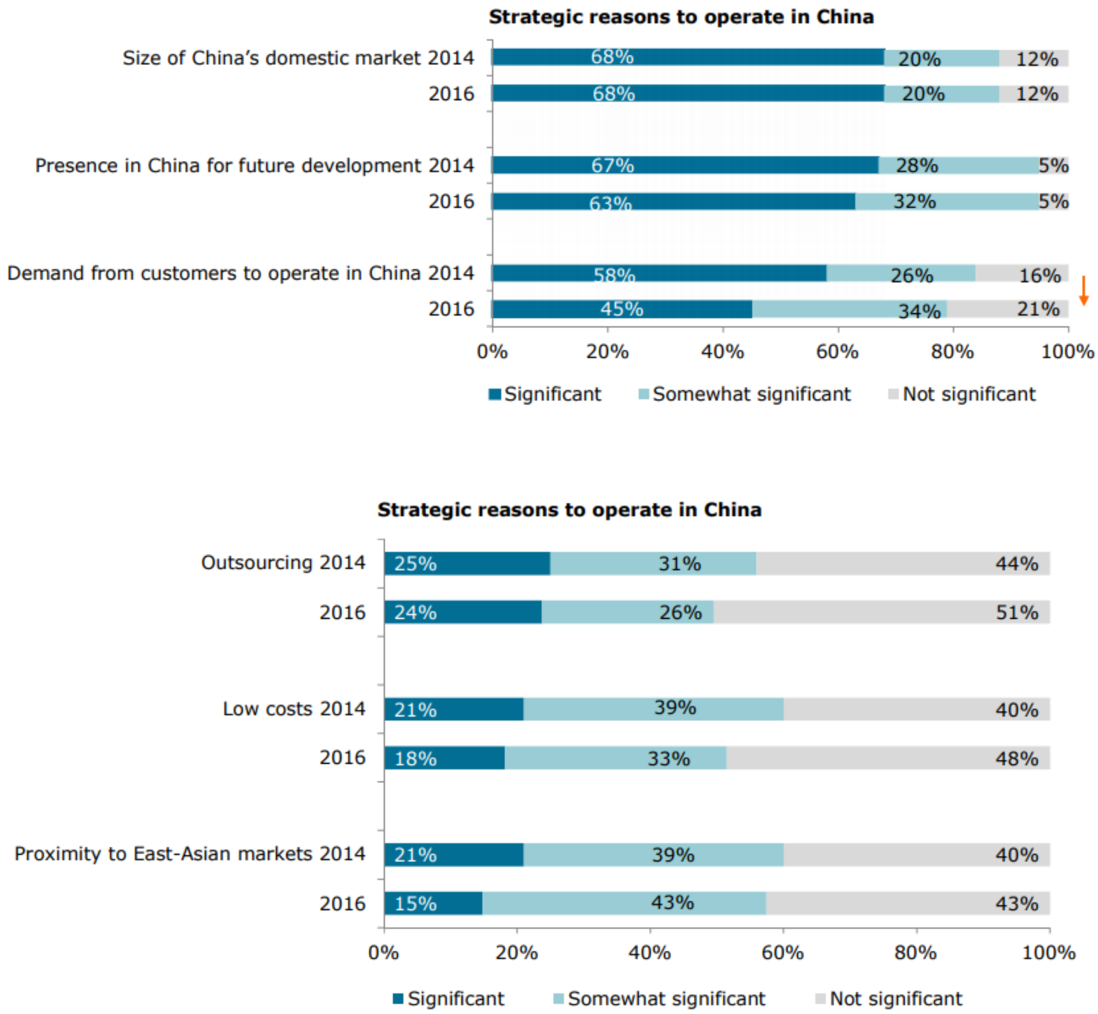


Figure 4.13 Strategic reasons to operate in China Source: Ministry of Foreign Affairs of the Netherlands, 2016.

PROMISING SECTORS FOR THE DUTCH ECONOMY

According to Rijksdienst voor Ondernemend Nederland (n.d.), the following industries are promising in the way that Dutch businesses can exploit their competitive advantages: ICT, automotive, machinery, horticulture, sustainable energy and building, environmental technology, aerospace, shipbuilding, gaming, and creative industries. Promising sector reports related to the industries mentioned above can be found at the website of RvO. In this section we shortly give an overview of 2 promising sectors in China for Dutch businesses, namely shipbuilding and the semiconductor industry.

Shipbuilding

One of the main promising sectors for Dutch companies is the shipbuilding sector. The Holland Marine Equipment (HME) is already active in China. We see a shift towards a high-tech equipment and newer designs. Since the Netherlands is one of the best countries when it comes to ship-building, Dutch companies can take advantage of this new trend.

Two examples of opportunities related to this industry are the following. Firstly, Shanghai being an international port in 2020, just like the one of Rotterdam, is a goal of the Chinese government. Dutch companies can share their expertise with regard to the setup and logistics of such a harbor. Secondly, the 'Blue Shandong Peninsula Economic Zone', which is a 3000 kilometers long coastline with some important harbors such as Qingdao and Rizhao (RVO, 2016). With respect to watersport engineering and harbor layout, there are possibilities for Dutch companies.

Semiconductor industry

Another example of a promising industry for the Netherlands in China is the semiconductor industry. This industry is very important in the Netherlands since Dutch companies have a competitive advantage when it comes to semiconductor equipment manufacturing. The global market for semiconductor equipment sales is more than 30 billion US dollar and about 20 percent of all equipment is delivered from the Netherlands, mostly to Asia. Many universities and institutes are doing research related to semiconductor equipment sector with investments in R&D exceeding 1 billion USD annually.

The Chinese semiconductor industry is very important for us since China accounts for 56 percent of the global semiconductor sales market which totals 330 billion USD and it is still growing. However, the central government set up the China Integrated Circuit Industry Investment Fund, which plans to invest more than 160 billion USD into the Chinese semiconductor industry in the coming 10 years. The target is to reduce reliance on foreign suppliers and domestically produce 40 percent of all chips consumed by Chinese industry in 2020 and 70 percent in 2025. These policies are part of China's 'Made in China 2025 Policy' and align with the thirteenth Five Year Plan's goals to become stronger in high tech and R&D. This policy of support for the domestic semiconductor industry gives particular attention to integrated circuit (IC) design and production. In the complex area of high-end semiconductor equipment, where a high level of knowledge and skills are necessary for development, it will be more challenging and probably take longer to close the technology gap with global leaders (like the Dutch companies: for example, ASML, ASM International, BESI, Boschman Technologies, Bronkhorst High Tech, Jiaco Instruments, Mapper Lithography, NTS Group and Sempro). Therefore, the Chinese semiconductor industry provides huge potential for Dutch semiconductor companies (Bart, 2016).

BUSINESS OPPORTUNITIES IN WEST-CHINA:

The economy of West-China is the fastest growing region of China. Whereas China as a whole experienced an average growth of 6 percent, the province of Chongqing experienced an economic growth of 10 percent in 2016 (Falkenhagen, 2017). A combination of investments in infrastructure, a great location, and relatively low labor costs make cities such as Chengdu and Chongqing a great business opportunity for Dutch companies. According to Koen Sizoo, consul-general of the provinces Chongqing, Sichuan, and Shaanxi, there are four reasons for this phenomenon:

1. The constant movement from the countryside towards the cities.
2. A strong industrial basis.
3. Improving (international) logistics.
4. Active support from the Chinese government.

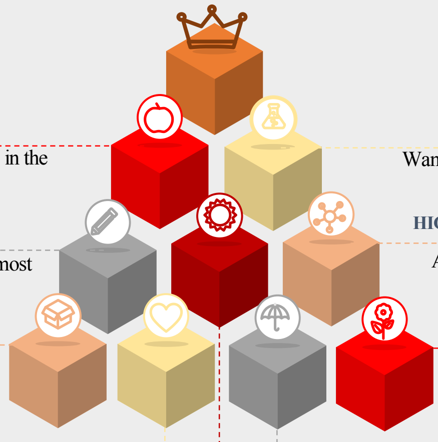
During the past couple of years, the Netherlands opened a Netherlands Business Support Office (NBSO) in Chengdu and a Consulate-General in Chongqing. This was done to help Dutch entrepreneurs doing business in West-China. Example given: they help exploring concrete market opportunities. Doing business abroad is important for the Dutch economy 'at home' as well.

The wages in Chengdu are relatively low and the labor force is relatively well educated and there is great access to commodities.

An example of a Dutch company that provides creative lifestyle products and entertainment, and got help from the NBSO, is Dr. Panda. Founder Thijs Bosma*: "The basic infrastructure increased a lot over the past decade in Chengdu. At the moment, there is more attention for quality and entertainment. People earn more money, which results in an increase in demand."* The business activities of Dr. Panda coincide with two of the most promising sectors for Dutch businesses; namely creative industries and gaming.

The economy of Chongqing is characterized by the automotive (Ford, Hyundai, and Fiat) and IT-industries (HP) with the automotive industry being another promising sector. Moreover, one third of laptops worldwide is produced in Chongqing (Falkenhagen, 2017). Lastly, the city transports its products via the river Yangtze.

SUMMARY CHAPTER 4
DUTCH TOP SECTORS



AGRI & FOOD
12 out of 40 major food and beverage companies in the world have R&D activities or a branch in NL

CREATIVE INDUSTRIES
Ambition that the Netherlands will be Europe's most creative economy in 2020.

LOGISTICS
Aim: contribute to better accessibility and less CO_2 emission.

LIFE SCRIENCES & HEALTH
Challenge: increase the quality of life and ensure affordable care.

CHEMISTRY
Wants to play a leading role in the transition towards green and sustainable chemistry

HIGH-TECH SYSTEMS AND MATERIALS (HTMS)
Ambition to increase exports to 74.6 billion euros in 2025.

HORTICULTURE & STARTING MATERIALS
Aim: excel in the development of crops which are stronger and need less intensive care

WATER
Strengths: protection of land, water recycling technology, shipping, innovation and safety in the maritime sector.

ENERGY
Favorable location, strong position of seaports, presence of gas and a gas infrastructure. Objectives: development and smarter usage of renewable energy sources.

NETHERLANDS AS BUSINESS PARTNER OF CHINA

China is currently the **9th** largest export market for the Netherlands.

Agro-Food is the leading sector in China. **Machinery and transport equipment** account for **one third** of export. Other notable markets are mineral fuels and business services such as Research and Development. Main reason for Dutch entrepreneurs to enter the Chinese market is the size of China's domestic market. **Five** characteristics of companies that have a higher probability of success:
1) having more than 250 employees in China.
2) having at least 4 years of presence in China.
3) using management quality as their competitive edge.
4) having the intention to make use of the trade missions which are being led by the Dutch government.
5) having knowledge about the regulatory framework of Corporate Social Responsibility (CSR) and have attention for CSR.

WHY DO BUSINESS IN WEST CHINA?

The economy of West-China is the fastest growing region of China.

1. The constant movement from the countryside towards the cities.
2. A strong industrial basis.
3. Improving (international) logistics.
4. Active support from the Chinese government.

During the past couple of years, the Netherlands opened a Netherlands Business Support Office (NBSO) in Chengdu and a Consulate-General in Chongqing. The economy of Chongqing is characterized by the automotive industry.

PROMSISING SECTORS FOR THE DUTCH ECONOMY

Shipbuilding

High-tech equipment, newer designs, watersport engineering and harbor layout.

- Harbor Shanghai
- Blue Shandong Peninsula Economic Zone

Semiconductor industry

China accounts for 56% of the global semiconductor sales market. **The central government aims at reducing reliance on foreign suppliers** and domestically produce 40% of all chips consumed by Chinese industry in 2020 and 70% in 2015.

Chapter 5 Update on Sichuan and Chongqing

Chengdu as the New Upcoming Metropolis

Sichuan is certainly considered as an interesting place to invest in or corporate with due to the province is still growing economically and its characterizing features. The cities Chengdu, province Sichuan, and Chongqing, province Chongqing, are accelerating in globalization and are seizing important development opportunities. Statistics show that 271 Fortune Global 500 companies have started business presence in the Chengdu. According to the blueprint, Chengdu will become an international metropolis by 2025 (GoChengdu, 2016). This phenomenon can be partly explained by recent and upcoming developments in logistics. In 2014, China's total value of logistics was 3.5 trillion CNY, with a yearly growth of 9.5 percent (Wang et al., 2016).

Our research took place mainly in Chengdu, the capital of Sichuan province, since that is the place where we stayed during our research. For our research we took our investigation to a further level by visiting companies and governmental entities. We found out that elderly care and logistics are very interesting sectors to take a deeper look at.

Our first subject we wish to elaborate on covers developments in the area of train, water and air transport, respectively the Chengdu-Tilburg-Rotterdam-Express, Yangtze River Economic Belt and Chengdu's new airport. These developments are strengthened by China opening-up its market and accommodating international trade via the establishment of additional Free Trade Zones (FTZ). The information displayed in this case study is gathered both via internet and personal communication with the Dutch Consulate in Chongqing, TMF group, Maxxelli, AboutAsia and Unilever China in Chengdu. As addressed in chapter five, one of the Dutch strengths is logistics, which for example also includes cold chain transport. This strength was also stated by the Dutch consulate in Chongqing as one of the potential business opportunities for Dutch companies.

Our second subject regards the elderly care sector. As already denounced, the elderly care sector is booming in whole China. In total there are 230 million elderly Chinese in China (Valkenburg, T., personal communication, July 28, 2017) which all can be seen as potential users for elderly care related products and services. The total value is estimated at 4 trillion CNY (0.59 trillion

USD) (Flanders, 2016). Especially, the first tier cities at the east-coast have the most developed elderly care system. However, cities in the West of China are developing extremely fast and the demand for elderly care and elderly products is rising. Also in cities such as Chengdu, capital of Sichuan province, the first signs of change in demand and preferences are visible. Those changes open new markets for foreign investors. In the following paragraphs different aspects of the elderly care in both cities will be discussed and practical examples and new initiatives will be explained in order to give a clear picture of the current state of elderly care.

Chengdu-Tilburg-Rotterdam Express

In September 2016, the first railway connection between the Netherlands and China was completed. The 'Chengdu-Tilburg-Rotterdam Express' is now fully operational. In 2013 the railway service was presented as 'the new Silk Road', under the title One Belt, One Road (OBOR) initiative. The Chinese government invested 40 billion USD in realization of the plans. In a timespan of fifteen days, the Chengdu-Tilburg-Rotterdam Express reaches its destination after a journey of 12,000 km, passing Kazakhstan and Moscow (see Figure 5.1). Business manager Peter ten Broek adds that Rotterdam is already the best destination in Europe for Chinese cargo arriving by sea, and that this shuttle offers a quick overland connection (Port of Rotterdam, 2017). Cargo arriving at Rotterdam gains access to the UK, Scandinavia and Portugal through sea transport, while the destination Chengdu offers access to major Chinese cities such as Shanghai, Ningbo, Wuhan, Yiwu, Xiamen, Shenzhen, Nanning and Kunming and further access to Vietnam and South Korea (Port of Rotterdam, 2016).

Figure 5.1 The Chengdu-Tilburg-Rotterdam Express passing various countries in its 12,000 km journey. Source: Port of Rotterdam (2016).

The train can contain 41 containers, which are transferred multiple times between train as China, Western Europe and former Soviet countries have distinct track gauges (Shepard, 2016). According to Roland Verbraak, of logistics services provider GVT, the cargo from China primarily includes electronics and airplane parts, as well as less expensive items if these are needed in Europe on short notice. The train returning to China is packed for 50 to 70 percent of the train's capacity. Since Chinese middle-class consumers have more money to spend, the train is primarily loaded with European products such as wines, powdered milk, cars and even trees. *"The wagons are getting fuller and fuller."* (Port of Rotterdam, 2017). Interesting to note is that during our visits to the Dutch Consulate General in Chongqing, Maxxelli, AboutAsia and Unilever Food Solutions in Chongqing, these partners indicated that the current utility rate of the current train is much lower, as they were indicated as 'coming nearly empty' by our partners.

'Chengdu-Tilburg-Rotterdam Express' is a middle option between ship and air freight. It is one-third faster than shipment, while at a quarter of the costs of air freight (Port of Rotterdam, 2017). The 120 containers that are displaced weekly by train will never replace the 18,000 containers a single ship can carry. However, someone may for example decide to use train transport after production delays to prevent them from arriving too late over water (Port of Rotterdam, 2017). The characteristics and qualities of the train are its punctuality, the transportation in 'one-go' which reduces risk of damage and omit less CO_2 than planes. Although trains are able to run on 100 percent renewable energy, this criterion is not prioritized by the consumer businesses. *"Price is the most important criterion for them, followed by service and reliability. Sustainability is not an important criterion. Sustainability is a deal maker, but not a deal breaker yet."* (Port of Rotterdam authority, 2016). This means that legislation and incentives are needed to ensure sustainability. According to the same source, IT applications can be used to improve efficiency and the load factor of containers and other transports to reduce CO_2 reduction of 5 to 10 percent.

More and more Chinese cities have railways as connection with Europe, which is one of the factors that investors consider in their search for new places to settle. Examples of these railways are Suzhou is now directly connected by rail to Warsaw, Lianyugang to Rotterdam, Chengdu to Lodz, Chongqing to Duisburg, Yiwu to Madrid and Zhengzhou to Hamburg (Shepard, 2016). These railways show the potential and demand, but may also create competition. The first successful train was Chengdu-Lodz (2013) as departure did not depend on the volume of containers, creating consistency. Many of the trains originate from cities like Chengdu, Chongqing, Zhengzhou and Suzhou for their large and kinetic high-tech zones. There are three other reasons for the presence of rail connections in China's Western cities. First, as most of the production is located in the West, it seems redundant to ship products to east coastal cities to ship them to the West again. Second, as China's production shifts towards production of more high-end products, more expensive transport becomes viable. Third, there is an increase in demand for European luxury goods such as cheese and flowers which require faster delivery (Shepard, 2016).

Yangtze River Economic Belt

Since the 12th five-real plan logistics have been developing in areas around the Yangtze River Economic Belt. In mid-2014 the Chinese government unveiled plans for the Yangtze River Economic Belt. The Yangtze River Economic Belt aims to develop city clusters along the Yangtze River with the goal of driving urbanization and creating new economic growth. Premier Li Keqiang stated on 28 April 2014 that a key pattern in the world's economic development is to start in coastal areas and then move inland along rivers to the landlocked regions. The project is in line with the 'Rise of central

China strategy' which started in 2004 and aims to develop Western China and to realize balanced development (Xinhua, 2015). The three dimensional traffic corridor, to which the Yangtze River belongs, accelerates industry transformation, provides upgrades by innovation, advances the new-type urbanization and profits from the complete opening to the external world (Wang et al., 2016). The project includes in total eleven regions: Shanghai, Jiangsu, Zhejiang, Anhui, Jiangxi, Hubei, Hunan, Sichuan, Chongqing, Yunnan and Guizhou in which three blocks are considered as the driving force of the project's growth for more than one-fifth of the Chinese population (see Figure 5.2, Xinhuanet, 2014).

The layered port system is led by Shanghai Port (No. 1 ranking worldwide in terms of container throughput volume). In 2014, the cargo throughput on the mainstream of Yangtze River reached 2.1 billion tons (Wang et al., 2016). Although the initiative may be limited to improving connectivity between the aforementioned Chinese cities only, other regions of China become easier accessible for foreign companies already operating in and with core regions of China. Thus China is indirectly opening-up its market. Development of the Yangtze River Economic belt facilitates industrial upgrading and transfer from Eastern coastal areas to the Central and Western China, which has lower costs yet higher profit. Goods with a large volume, high weight or having safety restrictions are suitable for shipment.

The Guideline Plan of Yangtze River Navigation Development set seven targets for the river navigation in the years 2020 to 2030. These targets include building a smooth and efficient navigation system, improving the navigation and service capability in the hubs, improving the comprehensive hub functions of the ports, enhancing the navigation supporting capability, improving the development of navigation market, upgrading and developing the innovation capacity and lastly building the green and ecological navigation system (Wang et al., 2016). Moreover, to ensure implementation laws, regulations and standards should be improved, mechanisms and institutions reformed, creating HR and cultural support and the support for funding policy (Wang et al., 2016).

Worth mentioning is also the increased speed in fast delivery. The Chinese express delivery business gained 51.9 percent over 2013, taking the first position in the world ranking after the US. High speed trains are used to ship delivery among 65 cities. This phenomenon illustrates the developments in technology-intensive industries including processing operations (Wang et al., 2016). In combination with the move from bulk goods to disparate 'white goods', advancements are required in meeting higher requirements on punctuality, flexibility and reliability of transport services.

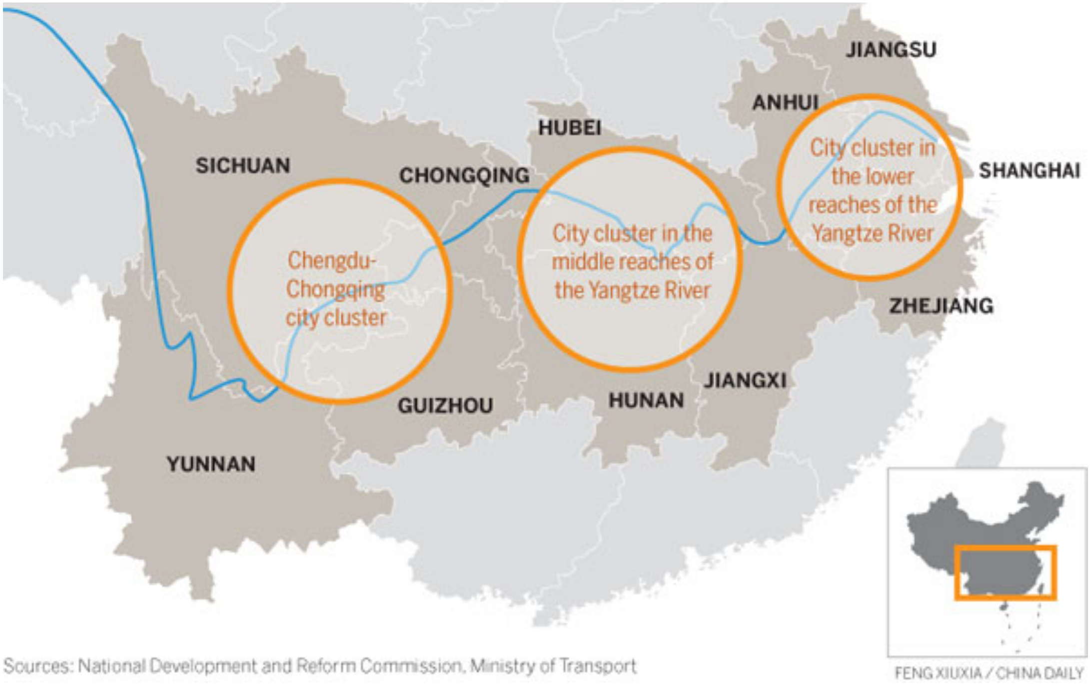


Figure 5.2 The city clusters in the Yangtze Economic Belt. Source: ChinaDaily USA. Retrieved on 20-06-2017 from: http://usa.chinadaily.com.cn/epaper/2014-04/29/content_17473771.htm.

Chengdu's Upcoming Second Airport

After its completion in 2020 Chengdu will become the third city in China, besides Beijing and Shanghai, to obtain a second airport. The new airport is expected to be capable of handling annually 2 million tons of cargo throughput and 90 million passengers made possible by the airport's infrastructure which will contain six runways and four terminals. Chengdu's currently operating airport, Chengdu Shuangliu International Airport, is already China's 4th busiest with an annual handling of 42 million passengers and 0.55 million tons of cargo (GoChengdu, 2016).

To further put those numbers into perspective, the largest airport by passenger traffic (Hartsfield–Jackson Atlanta International Airport) handles annually 104 million passengers while the busiest airport by cargo traffic (Hong Kong International Airport) receives and sends annually about 4.4 million tons of cargo (Airport Traffic Report 2016).

Consequently, with both airports running simultaneously will Chengdu, one of the metropolitan centers of western China, obtain even greater direct economic connections with over 200 nations all around the globe and thereby further promoting western China's integration into the One Belt, One Road initiative as well as the Yangtze River Economic Belt (The State Council, 2015). As stated by the Mayor of Chengdu (Sichuan Province) Tang Liangzhi: *"[The newly constructed airport] will help the province further open up to the outside world and make economic breakthroughs"*, thereby supporting China's goal to further economically develop its western provinces.

Local Dutch Companies' Views

MAXXELLI

According to the consultancy and real estate business Maxxelli (personal communication, July 7, 2017) Chengdu's logistics are lacking behind on the logistical development of for example Chongqing. An examples of a difficulty that is being experienced is cold chain logistics. Therefore, Maxxelli decided to ship the Belgian brand Glacio (desserts) via the harbor of Shanghai before transporting it inlands. However, the quality of the current logistics need to be researched further as other sources indicate that Chengdu has a well-built infrastructure for logistics (GoChengdu, 2016).

ABOUT ASIA

The Dutch firm AboutAsia integrated the new Silver Line in their business plan for future shipping German consumer goods to West China. Although the exact advantageous of this transport method were not yet clarified and visible, they had several arguments for this choice. First of all, the railway connection is heavily promoted by Chinese government and cities. Second, usage of the railroad is perceived promising by their stakeholders and partners. Third, since fully equipped trains are leaving for Europe, the trains are less packed on their way back. The railway company promotes European businesses to make use of the transport by offering them advantages such as free promotion of their product in China. On top of that, AboutAsia expressed the hope to receive subsidy or other benefits for using the rail connection. Although AboutAsia is currently shipping beer and juices through Hong Kong and Shenzhen, they see opportunities for certain goods to be transported through railway such as car components.

Unilever Food Solutions China

Unilever China produces products for inland usage as well as for Myanmar and some African countries. Their supply chain consists of manufacturing, planning, purchase, customer service and logistics. Their logistics in Chengdu are outsourced. Yet, Mr. Liang (Director Wholesale Marketing West China) at Unilever China, mentioned some advantages arising with the development of the Yangtze River Economic Belt and railroad connections to Europe. The cities around these connections take advantage of the new possibilities and develop quickly. For Unilever specifically, the Yangtze River improved their connection with a province where many Muslims are living. This connection allows Unilever to start developing special halal products in 2017. In conversation with a junior employee who studied chain logistics in the US, we acquired the following information. In comparison to China, the US has a better developed and faster logistics system. China can achieve improvements in the fields of raw material supply, forecasting and overall planning. An important factor that plays a role in fast delivery is having distribution centers well spread over the country. According to this employee, the development of the new roads of transport are currently at the start of their growth and development. Based on these findings, we may derive that China's fast logistics is still in its early stages. Products that are quite fragile or which are in need of specific conditions such as cold logistics are thus advised to be transported by plane or boat as these ways of transport are more mature and thus less risky. Product which are quite robust and do not require transportation under specific temperatures are advised to use the railway especially when the firm wishes to raise service quality by reducing transportation time.

Elderly Healthcare

Elderly care in Sichuan Province

In the capital of Sichuan province, Chengdu, there's a relative small amount of care houses, compared to the total amount of elderly present. In total 20.38 percent of the total population is above the age of 60 years, which accounts up to an amount of 16.72 million people (CBBC, 2016). In total 110 elderly homes which include government-run social welfare homes, collectively runned homes and private institutions were established in Chengdu in 2015. The basic services provided by those institutions includes personal care, basic medical care and help with daily tasks. The turnover rate in personnel is high and the received education, if present, is often of poor quality (Qiukui Hao *et al*., 2012).

The poor education of nurses and doctors is mainly due to the fact that there are only three universities in China were elderly care related courses are offered. One of those is situated in Chengdu. This college, Chengdu University College of Medicine (school of Nursing) provides courses mainly focus on nursing activities and all other activities which are accompanied with those activities. Students are taught basic medical knowledge, skills and competencies, such as among others clinical nursing, community nursing, management and nursing education (Chengdu University College of Medicine, 2016). The Chengdu nursing school is the only nursing school in the Southern part of China and therefore the demand to graduates is higher than the supply. Moreover, many graduates leaf the Southern provinces since they can get a higher salary in the cities of China more to the East coast (Schiavenza, 2013). As a result, good educated nurses are scarce in Sichuan province, hampering to development to a more institutional based elderly care system.

The awareness that something should happen to be able to deal with the growing elderly population in Sichuan province is growing. In 2016, the Sichuan Provincial Party Committee and the People's Government announced that the silver industry and aging health services are one of the five emerging pilot service industries of the province. As a result, the focus of the province will be to develop and emphasize the industry and put more effort and money in it (CBBC, 2016). This awareness offers changes for foreign investors and companies.

In general, there are three development trends visible in Sichuan province. First of all, the elderly care service sector is becoming more mercerized and socialized. In general, elderly have a higher income, compared to several years ago, especially in the urban area. This higher income allows them to spend more money but also increase the demand for a more individualistic and diversified approach of elderly care services. Companies which are willing to enter the market are therefore advised to offer a diverse amount of services which elderly can adapt according to their preferences.

Besides, a contrary development can be seen in Sichuan as well. Large-scale and industrialized care services are booming. Those projects are focused on providing high-quality services and housing for elderly for reasonable prices. However, these projects are often accompanied with large initial investment, long return cycle, low profit and high risks. Therefore, these projects are maybe less suitable for foreign investors, although successful joint-ventures can be an option.

Last, the elderly service industry of Sichuan will be professionalized and standardized. Elderly care will develop from simple daily care to a more integrated form with a combination of general service and personalized service. To make this conversion successful a higher educated service team will be needed to be able to provide and maintain an advance service standard (Collaborative Innovation Center of Sichuan for Elderly Care and Health, 2015). Again, the importance of good medical education is stressed. Companies as 'Theresa Happy Care' and other education and management tasks providing companies are suitable companies to take advantage of this lack of educative expertise and are therefore recommended to invest their opportunities in the Southern part of China.

Digitalization and Technology

Besides the booming elderly care industry, there is a great trend in digitalization and technology. Technological equipment, such as devices and mobile applications, are used to challenge elderly care problems in China. Two different examples are Taotiao and Grapefruit. However, there are many more problems which can be challenged through technology which could be interesting for Dutch companies.

Due to the social stigma over living in a nursing home, many senior citizens with dementia and other problems are not receiving adequate care at home, which results thousands of elderly people that go missing every year. The Ministry of Civil Affairs and the media company Taotiao co-released a report which revealed that every year around 300,000 elderly people get lost in China. To challenge this problem and to help them to find their way home, the government and NGOs have released a tool via Taotiao, the leading news application for smartphones in China. Through estimating where the missing senior might be, Taotiao sends targeted alerts to their users in these areas (Global Times, 2016).

Another nice example of the appliance of new technology in the elderly care is the robot called ‘Grapefruit’, developed by Chongqing Youban Home Technology Co Ltd from the Liangjiang New Area, which will be used in the Chongqing elderly health care soon. This robot is able to measure blood pressure, heart rate and glucose concentration of the blood. Besides it provides animation which is an important part of daily elderly care in China which can also be seen the many outdoor social activities which are organized throughout the city (Dye, 2017).

SUMMARY CHAPTER 5

1 TRANSPORT

CHENGDU AS THE NEW UPCOMING METROPOLIS IN 2025
CHONGQING ACCELARATING IN GLOBALIZATION

Yangtze River Economic Belt

Development of city clusters along the Yangtze River to drive urbanization and create new economic growth.

Targets for 2020-2030:
Building a smooth and efficient navigation system, improving navigation and service capability in hubs, improving comprehensive hub functions of ports, enhancing navigation supporting capability, improving development of the navigation market, upgrading and developing innovation capacity and building a green and ecological navigation system.

Chengdu's Upcoming Second Airport

After its completion in 2020 Chengdu will become the **third city** in China to obtain a **second airport** and is expected to be capable of handling annually 2 million tons of cargo throughput and 90 million passengers.

Chengdu-Tilburg-Rotterdam Express

First railway connection between the Netherlands and China: the new Silk Road.

Arguments for connection West China
1) large kinetic zones
2) primary location production
3) More expensive transport becomes viable due to shift to more high-end products
4) increase demand European luxury goods, which require faster delivery.

Developments are strengthened by China opening-up its market and accommodating international trade via the establishment of additional Free Trade Zones (FTZ).

2 ELDERLY CARE

20.4% of the total population in Chengdu is **above the age of 60 years**, which translates to **16.7 million** people.

Yet, **only few care houses** compared to the total amount of elderly present.

One of China's three universities were elderly care related courses are offered is situated in **Chengdu**.

The Sichuan Provincial Party Committee and the People's Government announced that the silver industry and aging health services are one of the five **emerging pilot service** industries of the province.

Trends
1) Elderly care becomes more mercerized and socialized.
2) Large-scale and industrialized care services are booming.
3) Care is professionalizing and standardizing.

Chapter 6 Barriers for Dutch Companies Entering the Chinese Market

Although it is clear that there are opportunities in China coming from an economic, political or societal perspective, it remains a salient matter to address factors hampering Dutch firms in conducting trade in or with China. The key to success does not only rely on acting on the right time in the right sector, as the importance of Chinese partners who aid you in accessing the local market, aid you with governmental paperwork and help you with positioning yourself in the Chinese market cannot be overseen. Therefore, a good way of knowing how to interact with Chinese partners is of utmost importance. This section will elaborate on the two foremost woes in doing business in China: problems arising from communication and hierarchy. We wish to stress out that these findings are not universal applicable and decisive for all partnerships between foreign and Chinese companies but are rather known etiquettes among Chinese managers. By acquiring a greater understanding in Chinese managerial context, you will gain an advantage over those who lack such an understanding; meaning you will increase your chances to establish a healthy relationship, while avoiding or limiting problems arising from different thinking patterns.

FACTORS HAMPERING DUTCH FIRMS IN CONDUCTING TRADE ACTIVITIES IN OR WITH CHINA

Supported by the advice of a variety of speakers during the NAHSS-meetings and our interview with Fred Bunnik Director Innovation at Bunnik Plants, a Dutch plant nursery with over 15 years of experience in China, we found that language is the most apparent and frequent form of barrier for Dutch firms. Problems with language are not limited to merely knowing what the other party said, but concerns rather understanding the greater meaning behind the spoken words and why the other expressed themselves in the manner they did. As Fred Bunnik stated during the interview *"one of the most important differences to take into account is the language […] Understanding [the Chinese] way of thinking is important as well"*. Differences in the way of thinking or mental models reside not in the fields of language, but are manifested in cultural differences. A lack of a shared mental model hampers the effectiveness and efficiency by consuming large amounts of time for simple matters and causing frustration or even distrust to both parties.

Knowing that communication issues emerge rather from cultural differences than from language barriers alone, the question at relevance concern how to mitigate cultural misunderstandings? First we need to learn about differences in cultures and understand how mental models were constructed. In order to illustrate differences managers or leaders should be aware of, we draw upon several pictograms created by designer Yang Liu (Saleme, 2013). The pictograms Yang Liu designed display general differences between *Western* and *Eastern* cultures, with a particular focus on German and Chinese characteristics. We further reinforce our arguments with logic and information acquired during the NAHSS business visits as well as during NAHSS courses prior to our departure. Before continuing to the next part, we wish to emphasize that these findings are based on the middle line of business etiquettes; meaning that the etiquettes we discuss represent what is 'normal' in Chinese business context. These rules do not apply to all Chinese managers, as they may personally deviate from standard etiquettes. However, fact remains that Chinese managers are familiar with these standards as they are embedded in daily life and business culture. Dutch managers who show more concern or familiarity with Chinese culture gain an advantage in establishing relationships with their Chinese counterparts.

Communication

A common mistake may arise from unawareness of the way in which people express themselves. The Dutch approach is however rather direct. In the Dutch culture, people tell you exactly what, why and how they think. Such an open and direct approach is considered as an act of being involved and contributing through providing open and sincere feedback. Chinese ways of self-expression especially in the business context is anything but direct (see Figure 6.1). In Dutch culture, this may be perceived as unclear or even to the extent of showing irresponsibility or incapability. An elaboration on the latter case: in the context of a superior with a direct communication style demanding an explanation from his or her subordinate, he or she would like to receive a short explanation containing only relevant details. An indirect longer explanation would give the superior the impression that the subordinate is either not capable or not willing to provide an explanation.

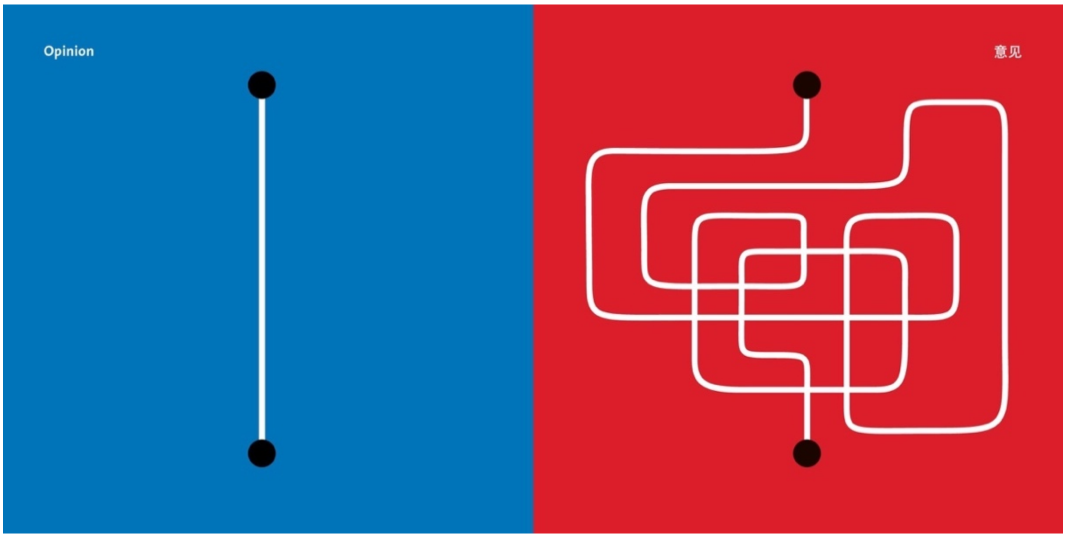


Figure 6.1 Communication. Source: https://qz.com/567479/the-cultural-differences-between-east-and-west-according-to-one-artist/.

The problem regarding directness in Dutch culture move beyond the borders of self-expression as we can see from the example above. Having a direct communication style encourages one to adapt a direct way of thinking on both the expressing and receiving end during the communication process. An example provided during the NAHSS visit at AboutAsia illustrates this problem very well. In this example, a Dutch partner successfully completed a project with its Chinese counterpart. During the ending ceremony, the Chinese partner expressed his feelings by stating that he and his company enjoyed the Sino-Dutch cooperation and that he is looking forward to a healthy long-term relationship with multiple projects in the feature. Upon hearing this, the Dutch partner expressed his thoughts by stating that the cooperation had no greater meaning than that of a single project and stressed out not willing to develop a long-term relationship with its Chinese partner.

Building upon this example, we address three reasons why the reaction of the Dutch partner was not optimal in Chinese business contexts. First of all, the rejection was rather direct and expressed during the ending ceremony. In Chinese business context, an open rejection is considered as an insult and a loss of face. In order to understand why open rejections leads to such a result, one must think about the greater meaning of a rejection. A reaction in front of other people, encourages them to think of the reason why someone was rejected. Logically speaking, being rejected often indicates that things did not go well and is thus related to negative outcomes. One may thus be rejected due to not living up to quality standards, not being able to fulfill deadlines, having a bad temper which abstained the cooperation etc. As the beholders of an open rejection do not know what the real reason is, negative speculations of other people give form to a possible bad image and thus lead to a loss of face to the person being rejected. Being familiar with this thinking process concerning open rejections and knowing that open rejections definitely lead to negative outcomes of one's image, open rejections are considered as insults.

Secondly, although the Chinese partner spoke of a healthy long-term relationship with multiple projects, it does not necessarily imply that the Chinese partner really had the intention to establish such a long-term relationship right away. The message of the Chinese partner rather highlights his intentions to maintain a healthy relationship and holding possibilities for the future. Consider the following: doing business is like crossing a river. Relationships are like boats and bridges. One can reach the other side by boat or attempt to cross a bridge. Having multiple relationships equals to having access to different ways of reaching the other side. However, when one is left without relationship, he is left unable to cross the river. On top of that, if one had reached the other side but upset the owner of the boat or bridge, he may not be able to cross the same bridge or use the same boat on his way back in the future. This scenario provides a clear image to as why Chinese businessmen severely emphasize a good relationship in a long-term view.

Third and lastly, spoiling the relationship with one Chinese partner may potentially limit future opportunities with other Chinese partners. Chinese business networks are built on personal connections. In China these personal connections are referred to as *guanxi* (关系). Someone with a lot of guanxi is regarded as a person who is able to get something done through having connections with capable people, government(s) and other entities, while someone with no guanxi is very limited in getting something done due to the lack of connections. In the Chinese context, having connections empowers one another to reach key people holding a high position in the hierarchy. Reaching someone holding a key position in governmental institutions in a natural manner require a lot of time due to the bureaucratic and hierarchical nature of Chinese governmental entities. Without connections in China, it becomes increasingly harder to get things done in a limited time span. These personal connections thus increase accessibility and speed. Returning to the argument made at the start of this paragraph, the relevance of guanxi takes the form of word-to-mouth marketing. Leaving good impressions encourages positive word-of-mouth and will increase the likelihood of acquiring project, while cutting off relationships or offending others is likely followed by no or negative word-of-mouth and will decrease the likelihood of acquiring projects.

Based on these three factors, for those who wish to conduct business activities with China and increase their chances on capitalizing on future projects, the response of the Dutch partner was harmful in anyway. Specific advice for managers who are inexperience with dealing with Chinese counterparts in a formal business setting include avoiding open rejections to the Chinese partner with whom you wish to develop a healthy relationship. Even small things such as presents should not be rejected. Rejecting a present sends signs to your Chinese partner that you *"have no intention to accept anything from him"*, implicitly stating that you do not wish to nourish a relationship with him. This does not mean that being eager to accept any presents will communicate to your Chinese counterparts that you are very willing to cooperating. In line with Dutch culture, it would rather leave a rapacious impression behind.

Although Chinese partners do not appreciate open rejections, there are many ways to make rejections while preserving a healthy relationship and simultaneously avoiding the other from losing face. The key to make a rejection is to be indirect. Provided with the scenario above, the Dutch partner could start with a story addressing positive points of the partnership and build up to the part where one does not say 'yes' to their request. By using words and phrases like *"in the future when our paths may cross again"* and *"if the circumstances allow us to work together one more time, we would be no less than willing to cooperate"*, one neither accepts nor rejects the request. This will allow you to maintain access to a bridge or boat when in need to cross the river. To conclude on this part, one ought to avoid openly rejecting Chinese compliments and gifts, but must stay humble and modest when accepting them.

Hierarchy

During one of our NAHSS meetings prior to our departure to China, the importance of hierarchy in China was emphasized during one of the presentations showing CEO of HEMA Ronald van Zetten visiting one of their main suppliers which happened to be a Chinese partner. We will first emphasize the difference in Dutch hierarchy and Chinese hierarchy. Then we highlight the importance of hierarchy by reproducing findings on errors related to hierarchy of Ronald van Zetten during his visit. Finally, we elaborate on with during our visits to Chinese management in Chengdu.

In this paper 'Dutch hierarchy' refers to a ranking system in which the position of the boss may differ a lot from its employees on formal basis, while in social terms this difference is relative small (see Figure 6.2). For instance, in a Dutch hierarchy it is quite normal to speak to the boss directly or even address him with his first name. In this sense, the position of the boss and its employees is rather social equal. We yet wish to address that the term Dutch hierarchy does not universally include all Dutch companies, but rather focuses on specific characteristics of the state of affairs under Dutch companies. Moving to the term 'Chinese hierarchy', this hierarchy emphasizes large differences in position and status in both social and formal aspects (see Figure 6.2). Behavior towards people with a higher position must remain within the boundaries of the social norms. Addressing your boss by his first name would lack respect and cross these boundaries.

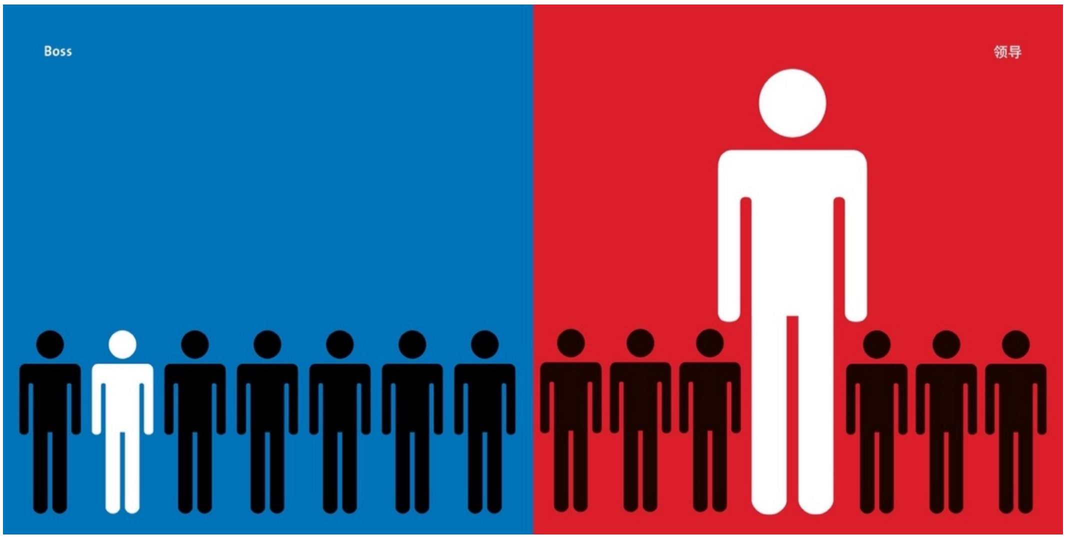


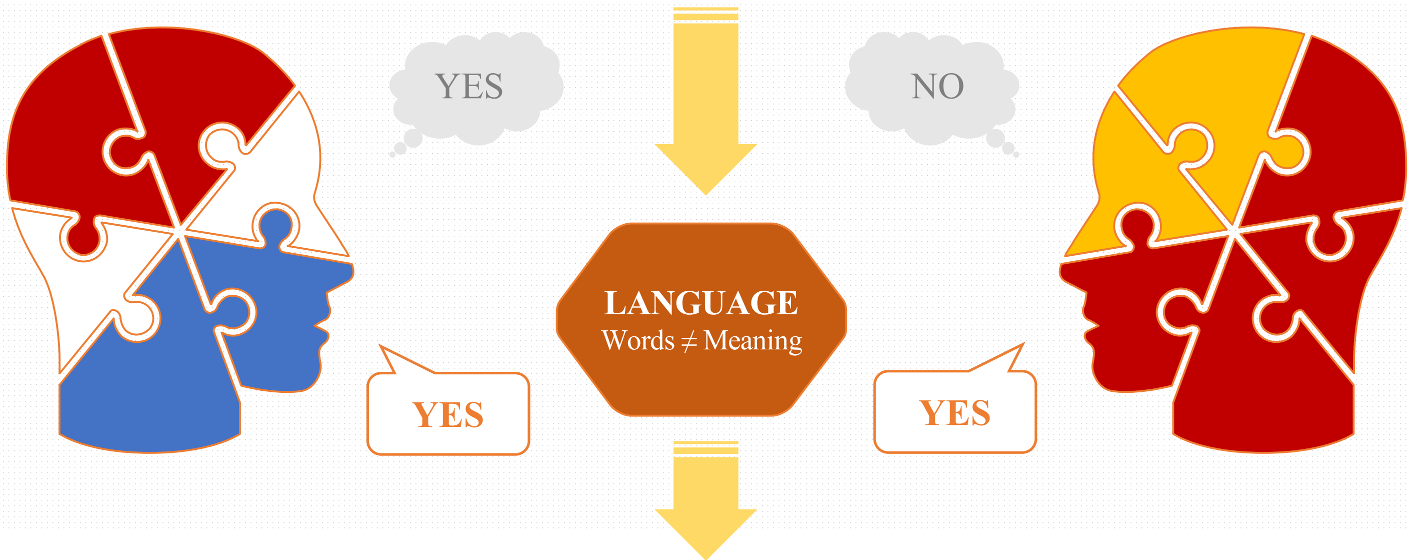
Figure 6.2 Hierarchy. Source: https://qz.com/567479/the-cultural-differences-between-east-and-west-according-to-one-artist/.

During HEMA CEO Ronald van Zetten's visit to their Chinese supplier, there are two notable errors we wish to address. The first error concerns gifting customs. In both Dutch and Chinese cultures, a gift represents a degree of the importance of one to another. For instance, in both cultures people are likely to invest more resources into a present of gift for a close friend than a stranger. The emphasis on the value of the present is however stronger present than in Dutch culture. Meaning that giving a present with a low value may indicate that you do not value this relationship as of high importance. There are however exceptions for the informal setting, but as we wish to limit the scope to practical relevance for Dutch managers, we will limit it to a rather formal business setting. Returning to Ronald van Zetten's error, HEMA's mistake was to bring several presents of equal perceived value. Meaning that the boss, employees and translator-assistant would receive the same presents. In the position of an employee or translator-assistant, you would be very satisfied as you would receive the same present as your boss. In the positions of the boss, this would lead to a loss of face as the partner who wishes to cooperate with you does not value you more than your employees or assistants. The way of treating people differently in accordance to their positions is not totally absent in Dutch culture. The gap between different ranking positions is however relatively smaller in Dutch cultures than in Chinese culture. In Dutch cultures it is normal to present similar gifts to the frontline manager and frontline employee, but giving a much nicer gift to the cleaning lady than to the CEO would encourage the CEO to rethink the relationship. Due to the strong presence of hierarchy in Chinese culture, we advise managers to be aware of ranking difference and take more time in preparing gifts for their Chinese counterparts.

The second error concerns to whom one should address his words when having a conversation through the means of a translator. HEMA CEO Ronald van Zetten erroneously directed his words solely to the translator and even got to the extent to address the Chinese boss in third person. Although this mistake might have been a relative small mistake, the Chinese partner might have felt locked out of the conversation which in turn may negatively influence the relationship between the two bosses. Advise for managers is thus to direct your words to the Chinese partner in presence of a translator. Although your partner may not understand your words himself, your conversation is with the boss and not with the translator. It is also hierarchy that enables you to prioritize the boss over the translator. Despite the fact that in Dutch cultures we prefer to look the person in the eyes to who we talk with, in such a situation one should refrain from having a conversation with the translator and ought to focus on the person of interest.

Fred Bunnik, Director Innovation at Bunnik Plants with over 14 years of experience in cooperating with Chinese partners.

"One of the most important differences to take into account is the ***language****. Understanding their* ***way of thinking*** *is important as well."*



CULTURAL ASPECTS

Culture makes people use the same words differently.

Communication

- Avoid making open rejections to the Chinese partner with whom you wish to develop a healthy relationship.
- Stay humble and modest in accepting gifts and presents.
- The key to make a rejection is to be indirect.

Hierarchy

Due to the strong presence of hierarchy in Chinese culture:

- Take heed of ranking differences and reflect this properly in gifting.
- Prioritizing people at the top of the hierarchy.

ADVANTAGE

Acquiring greater understanding of Chinese managerial context and culture will increase your chances to establish a healthy relationship, while avoiding and limiting problems arising from different thinking patterns.

Concluding Remarks

China is in the midst of a transition from a low-skilled labor export-driven economy towards an economy driven by domestic consumption and high-skilled industries. In coastal areas, this trend is clearly visible. An affluent and continuously growing middle class is spending eagerly, preferring high-quality and personalized products. Consequently, markets in coastal areas are saturated, labor and renting costs are high and competition is fierce. For Dutch companies wishing to enter the Chinese coastal markets now, chances for success are slim. In the coastal areas, only markets of the silver economy show high potential for Dutch companies. The need for affordable high-quality elderly care is high in all regions, from tier one to tier four cities.

While chances in coastal regions for Dutch companies are small, West-China offers ample opportunities. Due to governmental investments as part of the Go-West-strategy, Chongqing and Sichuan provinces have seen tremendous developments in the past five years. Benefitting from the political direction under current Chinese leadership, an abundant amount of incentives has been initiated. Infrastructural projects have further opened the region to both the domestic and global economy and the strong industry together with comparative advantages in labor costs over the coastal areas have already bolstered the economy of said provinces, and this is unlikely to stop. The main reasons for the region's perpetually development is that a large middle class is emerging in Sichuan province and Chongqing region. Governmental support is likewise unlikely to stop, because the 'Go-West strategy' is one of the key ideas of Chairman Xi, who is likely to be re-elected for another term. Moreover, as part of this same strategy, free trade zones have been allocated making the region more open and accessible to foreign investment.

Combine these factors with China's ageing society and consumer's demand for quality products and services, we can conclude that ample opportunities arise for Dutch companies in Sichuan province and Chongqing region. Domestic supply of products and services for China's healthcare market inadequately meets growing demands, creating a mismatch in the Chinese healthcare market. In addition, as the Chinese population becomes richer over time, indirectly raising personal demands for higher quality products and services, and governmental policy raising minimal quality standards for healthcare products and services, Dutch companies gain an advantage over local companies in aspects of experience and quality. Only the lack of local customs as in how to approach and to deal with elderly Chinese as well as local knowledge with specific regard to governmental paperwork withhold Dutch firms from successfully operating in China's healthcare sector.

Admittedly, the situation is bound to change, but given the current political, economic and social trends West-China sees the highest potential for Dutch companies to profit. If Dutch companies were to make the decision to invest in West China, access to local knowledge is crucial, careful assessment of cultural differences is necessary (see chapter 5) and appropriate measures (e.g., hiring Chinese staff) will be essential.

Potential Partner for those who wish to enter West China

As it becomes clear that acquiring success in China requires more than entering the right market with the right business model at the right time, we wish to augment our project's value by introducing a possible bridge for those who are interested to enter China's inland regions and specifically Sichuan province and Chongqing region. Considering the difficulty to navigate through China's lesser known inland regions, having a partner possessing knowledge about the local region and sharing a similar way of thinking is essential for entering the market, 'getting things done' and establishing connections with local suppliers and customers. Therefore, we included a brief introduction to a potential partner for those who seek guidance or advice.

ABOUT ASIA

ABOUT ASIA DEVELOPS CROSS-CULTURAL PROJECTS WITH GLOBALIZING ORGANIZATIONS IN EUROPE AND CHINA SINCE 2009

Consultancy - Events - Translations - Trade

About Asia develops cross-cultural creative projects between China and Europe. We initiate, manage and execute projects with a new generation of global organizations. About Asia works as cultural consultant, event organizer and project manager in China and Europe for a wide range of companies and governments. We constantly look for innovations, services, products and missions which are interesting to take across borders. Most of our projects circle around the creative industries. Since the foundation of About Asia in 2009, we have executed over a hundred international exchange projects.

Contact: Michiel Roosjen

Phone: +8615802880934

Email: info@aboutasia.nl

Web: www.aboutasia.nl

Bibliography

Ash, R. & Holbig, H. (2013). *China's accession to the World Trade Organization: national and international perspectives*. Routledge.

Bart (2016, March 29). *Opportunities for Dutch semiconductor equipment companies in China*. Retrieved from: http://news.nost.org.cn/opportunities-for-dutch-semiconductor-equipment-companies-in-china/

Boer de, H. & Keller, R. (September, 2016). *Dutch Business in China, Business survey 2016*. Retrieved from https://www.niyuhelan.nl/binaries/zh-netherlandsandyou/%E6%96%87%E4%BB%B6/%E5%87%BA%E7%89%88%E5%93%81/2016/09/07/business-survey-2016/business-survey-china-2016.pdf

Brandwood, A. (2015). *China's Health Care 5 Year Plan focuses on expanding hospital sector – Brandwood Biomedical.* Retrieved May 27, 2017, from http://brandwoodbiomedical.com/chinas-health-care-5-year-plan-focuses-on-expanding-hospital-sector/

Business survey: http://china.nlambassade.org/binaries/content/assets/postenweb/c/china/zaken-doen-in-china/2013/01/business-survey-2012.pdf

Business Sweden. (2016). *Opportunities in the Chinese elderly market.* Retrieved from: http://www.business-sweden.se/contentassets/9385356ddd88499badd69e23d80a09f0/elderly-care-in-china.pdf

CBBC. (2016). *4th Sichuan International Silver Industry Expo (Chengdu)*. Retrieved from http://www.britishchamber.cn/content/4th-sichuan-international-silver-industry-expo-chengdu

Center for Health Statistics and Information (CHSI), Ministry of Health. (2009). *National Health Service survey analysis report on the Fourth Family Health Interview Survey, Beijing*. Beijing: State Council Information Office.

Central Bureau for Statistics. (2017a, July 17). *National accounts of the Netherlands 2016*. Retrieved from: https://www.cbs.nl/en-gb/publication/2017/28/national-accounts-2016

Central Bureau for Statistics. (2017b, March 15). *What does China buy from us and our neighbours?* Retrieved from: https://www.cbs.nl/en-gb/background/2017/10/what-does-china-buy-from-us-and-our-neighbours-

Central Intelligence Agency (n.d.). *The World Factbook; GDP- Composition, by sector of origin*. Retreived from: https://www.cia.gov/library/publications/the-world-factbook/fields/2012.html

Chen Y, Hicks A, While AE. (2012). *Depression and related factors in older people in China: a systematic review*. Rev Clin Gerontol. 22(01):52–67.

Chengdu University College of Medicine (Nursing college). (2016). *General Introduction: Introduction of the Medical & Nursing school*. Retrieved from: http://yhxy.cdu.edu.cn/english/list.php

China Daily. (2003). *Project Lights Up Elderly Lives*. Retrieved May 27, 2017, from http://www.china.org.cn/english/China/64958.htm

Collaborative Innovation Center of Sichuan for Elderly Care and Health. (June 03, 2015). *Advancing Plan for Health Service Development in Sichuan Province*. Retrieved from http://xtcx.cmc.edu.cn/en_home/en_regulation/6/

David. (2016, August 23). *The Top 10 Export and Import Partners of China*. Retrieved from: http://topforeignstocks.com/2016/08/23/the-top-10-export-and-import-partners-of-china/

DCCC. (2016). *The elderly care industry and market in China 2016-2019*. Retrieved from: https://www.dccchina.org/2016/08/the-elderly-care-industry-and-market-in-china-2016-2019/

Dye, Z. (May 19, 2017). *Robots provide elder care in Chongqing*. Retrieved from http://www.chinadaily.com.cn/regional/chongqing/liangjiang/2017-05/19/content_29422358.htm

Falkenhagen, T. (2017, March). *Kansen in China: West-China*. Retrieved from: http://www.fenedex.nl/content_db/fenedexpress/item/kansen-in-china-west-china.html?src=%2Fcontent_db%2Ffenedexpress%2F3.html%3Fchannel%3D36810&limit=3&limitstart=6

Feng et al. (2012). *Beijing Silver Industry Research Report*. CDRF.

Flanders Investment & Trade. (2016). *Elderly Care in China: Flanders investment & trade market survey.* Retrieved from https://www.flandersinvestmentandtrade.com/export/sites/trade/files/market_studies/ElderlyCareChina.pdf

GoChengdu. (2016). *Dynamic Chengdu Opening Economic Powerhouse in Inland China*. Retrieved from: http://www.gochengdu.cn/news/special-reports/g20-finance-ministers-and-central-bank-governors-meeting/dynamic-chengdu-opening-economic-powerhouse-in-inland-china-a3342.html

Guangsheng, M. (2015). *Food, eating behavior, and culture in Chinese society*. Retrieved May 28, 2017, from: http://www.journalofethnicfoods.net/article/S2352-6181(15)00065-7/abstract

Huijskens, F. & Koppejan, F., (2015) *Economic Overview Of Sichuan Province*.

Netherlands Business Support Office Chengdu. Ministry of Foreign Affairs

Kojima, R. (1995). *Urbanization in China*. Developing Economies, 33(2), 121-154.

KPMG. (October 2016). *Commercial Opportunities in the Primary Care Market in China*.

Lau & Windy. (May 2017). *5 reasons why China's health supplement market will continue to rise.* Retrieved from http://www.godigitalchina.com/5-reasons- why-chinas- health-supplement-market-will-continue- to-rise/.

Le Deu, F. (2015). *Can ehealth solve China's Healthcare challenges (McKinsey presentation)*. Retrieved May 28, 2017 from: https://www.slideshare.net/fle864/20150402-chic-mc-k-e-health-in-china-vf

Li, L., Willett, T. D., & Zhang, N. (2012). *The Effects of the Global Financial Crisis on China's Financial Market and Macroeconomy.* Economics Research International, 2012, 1–6. https://doi.org/10.1155/2012/961694

Liang, Y., & Lu, P. (2014). *Medical insurance policy organized by Chinese government and the health inequity of the elderly: longitudinal comparison based on effect of New Cooperative*

Medical Scheme on health of rural elderly in 22 provinces and cities. International Journal for Equity in Health, 13, 37. https://doi.org/10.1186/1475-9276-13-37

Liu, Jun E., Tian, Jun Ye., Yue, Peng., Wang, Yong Li., Du, Xue Ping., Chen, Shuang Qin. (2015). *Living experience and care needs of Chinese empty-nest elderly people in urban communities in Beijing, China: A qualitative study*. International Journal of Nursing Sciences.

Liu, L. (2015). *Abolishing China's one-child policy won't help.* Retrieved June 4, 2017, from http://www.eastasiaforum.org/2015/11/20/abolishing-chinas-one-child-policy-wont-help/

Maxxelli Consulting. (2017). *China International City Index 2017*. Retrieved from: http://www.maxxelli-consulting.com/2017-china- international-city- index-cici/

McKinsey Global Institute. (2012). *Debt and (not much) deleveraging*.(February), 1–136.

Ministry of Commerce of the People's Republic of China Comprehensive Department. (2016). 2015 年中国对外贸易发展情况. Retrieved June 4, 2017, from http://zhs.mofcom.gov.cn/article/Nocategory/201605/20160501314688.shtml

Ministry of Foreign Affairs of the Netherlands. (2016, September). *Dutch business in China; Business survey 2016*. Retrieved from: https://www.niyuhelan.nl/.../business-survey-china-2016.pdf

n.d. (2010). *The main data bulletin from the sixth national people census of China in 2010 (No.1).* Retrieved May 16, 2017 from: http://www.gov.cn/test/2012-04/20/content_2118413.html

National Bureau of Statistics of China (NBS). (2010). *Life expectancy at birth*. Retrieved May 31, 2017 from http://data.stats.gov.cn/english/easyquery.htm?cn=E0103

National Center for Chronic and Noncommunicable Disease Control (NCCNDC), Center for Disease Control and Prevention (China CDC). (2012). *Chronic Disease Risk Factor Surveillance Survey, 2010*. Beijing: NCCNDC, China CDC.

Naughton, B. (1993). *The China Quarterly, No. 135, Special Issue: Deng Xiaoping: An*

Assessment (Sep., 1993), pp. 491-514

Nelson, C., (2011). *Understanding Chinese consumers*. Retrieved May 28, 2017 from: https://www.chinabusinessreview.com/understanding-chinese-consumers/

Nielsen (January 2015). *Three Key Trends in China's Finance Industry*. Retrieved from http://www.nielsen.com/cn/en/insights/reports/2015/Three-Key-Trends-in-China-Finance-Industry.html-

OECD China Report. (2012). *The Silver and White Economy: The Chinese Demographic Challenge*.

OECD-data. (2016). *Meat consumption*. Retrieved from https://data.oecd.org/agroutput/meat-consumption.htm

OECD. (2017). *OECD Economic Surveys: China.* Retrieved from http://www.oecd.org/eco/surveys/china-2017-OECD-economic-survey-overview.pdf

OECD/FAO. (2013). *OECD-FAO Agricultural outlook 2013-2022*. Retrieved from http://www.oecd.org/berlin/OECD-FAO%20Highlights_FINAL_with_Covers%20(3).pdf

OECD/FAO. (2016). *Meat*. Retrieved from http://www.fao.org/3/a-BO100e.pdf

Pascolini D, Mariotti S P. (2012). *Global estimates of visual impairment: 2010*. Br J Ophthalmol. 96(5):614–8.

Passport (2017). *Consumer Lifestyles in China*. Euromonitor International.

Port of Rotterdam. (2016). *First rail service China-Netherlands launched*. Retrieved June 4, 2017, from about:reader?url=https%3A%2F%2Fwww.portofrotterdam.com%2Fen%2Fnews-and-press-releases%2Ffirst-rail-service-china-netherlands-launched

Port of Rotterdam. (2017). *Chengdu-Tilburg-Rotterdam-Express has been making three trips per week since September.* Retrieved July 5, 2017, from: https://www.portofrotterdam.com/en/news-and-press-releases/chengdu-tilburg-rotterdam-express-has-been-making-three-trips-per-week-since

Prince, M.J., Wu, F., Guo, Y., Gutierrez Robledo, L.M., O'Donnell, M., Sullivan, R., et al. (2015). *The burden of disease in older people and implications for health policy and practice.* Lancet. 385(9967):549–62.

Qingdoa, NBSO. (April 6, 2016). *Sector fishery*. Retrieved from http://china.nlambassade.org/binaries/content/assets/postenweb/c/china/zaken-doen-in-china/sectoren/overige-kansen/shandong-fishery-report-2016.pdf

Qiukui Hao M.D., Shiying Wu, M.M., Li Ying M.D., Li Luo M.D., Dingwen Dong M.M. & Birong Dong M.D. (May, 2012). *Current Dilemmas of Nursing Homes in Chengdu: A Cross-Sectional Survey.* Journal of the American Medical Directors Association, 13(4).

Relations between the Netherlands and China: https://www.government.nl/topics/international-relations/contents/china

Rijksdienst voor Ondernemend Nederland. (2013). *Trade and Investment Relations between the Netherlands and China.* Retrieved from: http://china.nlambassade.org/binaries/content/assets/postenweb/c/china/zaken-doen-in-china/trade-relations-nl-and-cn-may-2013.pdf

Rijksdienst voor Ondernemend Nederland (2016, october). *Opportunity report Shandong Marine*. Retrieved from: https://www.rvo.nl/sites/default/files/2016/10/Opportunity-Report-Shandong-Marine-2016.pdf

Rijksdienst voor Ondernemend Nederland (2017, may). *Handels- en investeringscijfers China-Nederland.* Retrieved from: https://www.rvo.nl/sites/default/files/2017/05/Dossier-china-mei-2017.pdf

Rijksdienst voor Ondernemend Nederland (n.d.). *Sectorinformatie China*. Retrieved from: http://www.rvo.nl/onderwerpen/internationaal-ondernemen/landenoverzicht/china/sectorinformatie

Rijksoverheid (n.d.-a). *De negen topsectoren*. Retrieved from: https://www.topsectoren.nl/topsectoren

Rijksoverheid (n.d.-b). *Quick facts and figures about the High Tech industry*. Retrieved from: https://www.hollandtradeandinvest.com/key-sectors/high-tech-industries/high-tech-facts-and-figures

Saleme, S. (2013). *East Meets West: An Infographic Portrait by Yang Liu.* Retrieved June 4, 2017, from https://www.visualnews.com/2013/10/02/east-meets-west-infographic-portrait-yang-liu/

Schiavenza, M. (13 September, 2013). *Mapping China's income inequality*. Retrieved from: https://www.theatlantic.com/china/archive/2013/09/mapping-chinas-income-inequality/279637/

Shan, J. (2017). *Incentives for second child considered*. Retrieved June 4, 2017, from http://www.chinadaily.com.cn/china/2017-02/28/content_28370400.htm

Shanghai Municipal Center for Disease Control & Prevention (SCDC). (2012). *Study on global AGEing and adult health (SAGE) Wave 1: China national report*. Geneva: World Health Organization. Retriever May 14, 2017 from http://www.who.int/healthinfo/sage/national_reports/en

Shepard, W. (2016). *Why The China-Europe 'Silk Road' Rail Network Is Growing Fast*. Retrieved July 6, 2017 from: https://www.forbes.com/sites/wadeshepard/2016/01/28/why-china-europe-silk-road-rail-transport-is-growing-fast/4/#109e04681c51

Shira et al. (June 01, 2016). *An overview of China's Elderly Care Industry*. Retrieved from http://www.china-briefing.com/news/2016/06/01/overview-chinas-elderly-care-industry.html

Sino-Dutch research overview (2017): https://www.rvo.nl/sites/default/files/2017/01/Sino-Dutch-Research-Overview.pdf

Song, Y., & Ding, C. (2007). *Urbanization in China.* Lincoln Institute of Land Policy, Cambridge, Massachusetts.

Statista. (2016). *China: Composition of GDP (gross domestic product) across economic sectors from 2006 to 2016*. Retrieved from https://www.statista.com/statistics/270325/distribution-of-gross-domestic-product-gdp-across-economic-sectors-in-china/

Statista. (2015). *China: smart healthcare device market volume 2013-2018* | Statistic. Retrieved May 27, 2017, from https://www.statista.com/statistics/641413/china-smart-healthcare-device-market-volume/

Strauss, J., Hong, H., Lei, X., Li, L., Park, A., Yang, L., & Zhao, Y. (2012). *Healthcare and Insurance Among the Elderly in China: Evidence from the CHARLS Pilot*. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK109212/

Süssmuth-Dyckerhoff, C. & Wang J. (n.d.). *China's healthcare reforms*. Retrieved from

Annual report: Dutch central bank: https://www.dnb.nl/en/binaries/Jaarverslag_ENG_web_tcm47-339389.pdf

Su Zhou. (2015). *Silver Tourists may become travel goldmine*. Retrieved 16 May, 2017 form: http://www.telegraph.co.uk/sponsored/china-watch/travel/11883784/senior-travellers-boost-china-tourism.html

Tan Weiyun. (2015). *China's elderly on the move*. Retrieved 16 May, 2017 from: http://www.shanghaidaily.com/feature/Chinas-elderly-on-the-move/shdaily.shtm

THE 13TH FIVE-YEAR PLAN FOR ECONOMIC AND SOCIAL DEVELOPMENT OF THE PEOPLE'S REPUBLIC OF CHINA. (2016). Retrieved from http://en.ndrc.gov.cn/policyrelease/201612/P020161207645766966662.pdf

The Economist. (2016). *The new class war.* Retrieved June 4, 2017, from http://www.economist.com/news/special-report/21701653-chinas-middle-class-larger-richer-and-more-vocal-ever-threatens

The Port Authority of NY & NJ. (2016). Airport Traffic Report.

The World Bank. (2017). *World Bank Open Data*. Retrieved June 4, 2017, from http://data.worldbank.org/

The World Bank. *United Nations Population Division, World Population Prospects. Population, total.* Retrieved April 18, 2017 from: http://data.worldbank.org/indicator/SP.POP.TOTL?locations=CN

Trade and investment relations: http://china.nlambassade.org/binaries/content/assets/postenweb/c/china/zaken-doen-in-china/trade-relations-nl-and-cn-may-2013.pdf

United Nations: Department of economic and social affairs. *Demographic components of future population growth* (2015 revision). Retrieved from: https://esa.un.org/unpd/wpp/Download/Standard/Population/

Wang et al. (2016). *Sediment budget of the Yangtze River.* Retrieved from: http://his.irtces.org/isi/WebNews_View-en2.asp?WebNewsID=564

Wang, L., Lee, S., Chen, P., Jiang, X., Liu, B. (2016). *Contemporary Logistics in China: New Horizon and New Blueprint*. Retrieved July 11, 2017, from: https://books.google.ro/books?id=Xvx6DAAAQBAJ&pg=PA138&lpg=PA138&dq=Yangtze+River+Economic+Belt+chengdu&source=bl&ots=S7Vm1FTUkf&sig=TKax8pSUico81VrPcQscXQ7wK1Q&hl=nl&sa=X&redir_esc=y#v=onepage&q=Yangtze%20River%20Economic%20Belt%20chengdu&f=false

Weiyun, Tan. (November 2015). *China's elderly on the move.* Shanghai Daily. Retrieved from

http://www.shanghaidaily.com/feature/Chinas-elderly- on-the- move/shdaily.shtml

Wong, Billy. (2015). *Targetting China's Seniors: Consumer Preferences*. Retrieved from http://economists-pick-research.hktdc.com/business-news/article/Research-Articles/Targetting-China-s-Seniors-Consumer-Preferences/rp/en/1/1X32LK39/1X0A2Z8V.htm.

World Health Organization. (2016). *Country Cooperation Strategy 2016–2020*. (http://apps.who.int/iris/bitstream/10665/206614/1/WPRO_2016_DPM_003_eng.pdf?ua=1, accessed 14 may 2017).

World Health Organization. (2017). *Depression and Other Common Mental Disorders Global Health Estimates*. (http://apps.who.int/iris/bitstream/10665/254610/1/WHO-MSD-MER-2017.2-eng.pdf, accessed 14 may 2017).

World Health Organization. (2015). *China country assessment report on ageing and health*.

Xinhua Finance. (2015). *Top 10 goals of 13th five-year plan unveiled_Xinhua Finance Agency.* Retrieved May 27, 2017, from http://en.xfafinance.com/html/Policy/2015/157349.shtml

Xinhua. (2015). *China to develop city clusters along middle reaches of Yangtze*. Retrieved June 4, 2017, from http://usa.chinadaily.com.cn/china/2015-04/05/content_20006073.htm

Xinhua. (2016). *Vietnam spends $10.7b on Chinese imports in Q1: statistics - Business - Chinadaily.com.cn.* Retrieved June 4, 2017, from http://www.chinadaily.com.cn/business/2016-04/20/content_24688632.htm

Xinhuanet. (2014). *Chinese premier urges building Yangtze River economic belt.* Retrieved June 4, 2017, from http://news.xinhuanet.com/english/china/2014-04/28/c_133296262.htm

Yang, J. (2015). *The basic situation of Chinese aging society development. Academy of International Aging Science NIAA Yang Yifan*. 2015 edition. Retrieved from Prof. Dr. Jonny Yang.

Yiqian, Z. (2017). *With fading of centuries-old tradition, Chinese elderly can no longer depend on their children for care*. Retrieved 17 May, 2017 from: http://www.globaltimes.cn/content/1044448.shtml

Yunwei, Z., & Jianwen, H. (2016). KWM | *China's 13th Five Year Plan: Health and aged care*. Retrieved May 27, 2017 from http://www.kwm.com/en/cn/knowledge/insights/china-13th-5-year-plan-healthcare-aged-care-opportunities-20160414

Zhang, K. H., & Song, S. (2003). Rural–urban migration and urbanization in China: Evidence from time-series and cross-section analyses. China Economic Review, 14(4), 386-400.

Zhu, Y. & Webber, M. (2016). The impact of Western Economics on China's reforms from the late 1970s to the present. The Diffusion of Western Economic Ideas in East Asia, 137, 348.