China Pharmaceutical Market Outlook

Government Incentives, Healthcare Reform and a Rapidly Ageing Population Provide Strong Stimulus for Growth

GBI Research
Global Business Intelligence

GBI Research Report Guidance

- Chapter three offers a macroeconomic analysis of China, firstly by evaluating general economic indicators such as GDP and trade balance, then by looking at demographic details such as population size and population breakdown by age demographic and gender, before finally covering market-specific indicators such as healthcare expenditure.
- Chapter four covers the market segments of the Chinese pharmaceutical market: branded and generic drugs, prescribed and OTC drugs, and biopharmaceuticals.
- Chapter five offers an overview of the industry landscape. This includes information on pharmaceutical pricing policies and the pharmaceutical supply chain, as well as drug regulations and a look at the recent healthcare reforms.
- Chapter six covers the competitive landscape, looking at the top foreign and domestic companies in the country, in addition to any major deals in recent years and any trends that can be noted from this.
- Chapter seven summarizes the main drivers and barriers of the Chinese pharmaceutical market.

China Pharmaceutical Market Outlook – Executive Summary

China Remains an Attractive Target for Research and Manufacture Outsourcing Despite Poor Intellectual Property Protection and Drug Quality

China has a history of poor intellectual property protection and drug quality, and this has not changed much in recent years despite attempts by the Chinese government to improve regulatory standards. These issues, in addition to problems with communication due to a lack of English-speaking citizens in China and increasing labor costs, can act as a major restraint for companies conducting business there.

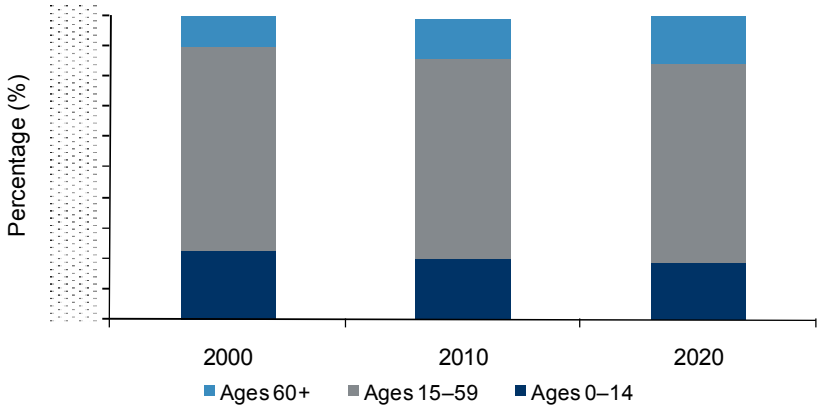
However, in spite of these growth restrictors, the Chinese market is flourishing as a result of a number of factors. In 2011, China overtook Germany to become the third largest pharmaceutical market in the world, and is predicted to overtake Japan by 2015 to become the second largest.

Aging Population, Rising Obesity and Increased Urbanization Driving Market Growth

This shift in population distribution is occurring as a result of both the one-child policy reducing the number of children and the increased access to healthcare, leading to a longer life expectancy

As China emerges, it is becoming more Westernized. This is resulting in a number of trends that are changing the population demographics, which in turn is driving the pharmaceutical market in the country. One of these trends is the change in age distribution.

Population Distribution by Age, China, Percentage (%), 2000–2020



Source: GBI Research; Riley, 2004; UN Statistics Division, 2012

China's population is rapidly aging. The number of youths in the population is decreasing, down from XX% in 2000 to XX% in 2020. Meanwhile, the number of elderly people in the population is increasing, with the number of people aged 60 and over up from XX% in 2000 to XX% in 2020. This shift in population distribution is occurring as a result of both the one-child policy reducing the number of children and the increased access to healthcare, leading to a longer life expectancy.

Another trend is the increasing urbanization in China. For the first time, in 2012 the percentage of the population living in urban areas was greater than those living in rural areas. The urban population will continue to increase at a Compound Annual Growth Rate (CAGR) of about XX% between 2011 and 2017, while the rural population will decrease at a negative CAGR of XX% during the same period (World Bank, 2012; UN Statistics Division, 2012).

Increasing Westernization is also resulting in a number of unhealthy behaviors. The number of obese and overweight people in China is increasing, with the number of overweight people expected to be up from XX% of men in 2005 to XX% of men in 2015 (WHO, 2012a). Smoking is also a major issue, with XX% of men in China regularly smoking tobacco, and alcohol is also a problem, with an estimated XX% of men binge drinking (WHO 2012b; Li et al., 2011).

These factors are combining to result in a high number of health problems requiring medical help and pharmaceutical aid, driving the pharmaceutical market in China.

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1 Table of Contents

1.1 List of Tables

1.2 List of Figures

In 2011, China overtook Germany to become the third largest pharmaceutical market in the world, and is predicted to overtake Japan by 2015 to become the second largest

2 China Pharmaceutical Market Outlook – Introduction

China is currently one of the most important markets in the pharmaceutical industry. It is the most populous country in the world, with a recorded population of over XX billion as of 2011. The country has the second-largest economy after the US with a Gross Domestic Product (GDP) of $XX trillion as of 2011, and its economy is one of the fastest growing in the world, with an average growth of XX% over the last decade (World Bank, 2012). China is the world's largest exporter and second-largest importer of goods.

In 2011, China overtook Germany to become the third largest pharmaceutical market in the world, and is predicted to overtake Japan by 2015 to become the second largest. In 2011, its estimated value was approximately $XX billion. The size of China's pharmaceutical market is primarily a result of its large population rather than its maturity, as it is still an emerging market. It has the world's largest manufacturing capabilities, producing more than XX drugs and exporting various pharmaceutical products such as acetylsalicylic acid and metamizole to the global market.

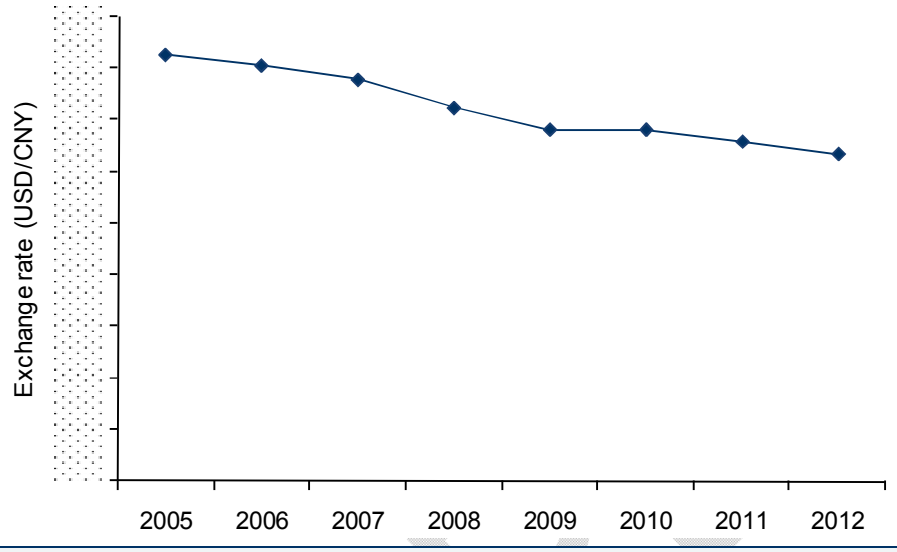
Recent healthcare reforms have been driving the pharmaceutical market by increasing public access to drugs. In addition, recent population changes such as a majority move from rural to urban China, a rapidly aging community and an increasing overweight population are driving the value of the Chinese pharmaceutical market. Conversely, China poor intellectual property protection and incidences of poor drug quality are acting as market growth barriers, leaving investors wary of placing their money in the market.

This report covers a breakdown of the Chinese pharmaceutical market. It details the macroeconomic environment of China, providing a background of the financial and demographic situations in the country, as well as identifying key demographics. It covers the pharmaceutical market broken down by market segment, first examining the status of branded and generic drugs in China, then the use of prescription and Over-The-Counter (OTC) drugs, and finally the popularity of biosimilars and biologics, identifying where the strongest market potentials lie. It includes information on regulatory guidelines for the manufacture, development and distribution of pharmaceuticals. The report also covers information on the competitive landscape in the pharmaceutical market, identifying market leaders and key trends in investment. It also includes the key drivers and barriers of the pharmaceutical market in more detail.

3.1.3 Exchange Rate

The exchange rate is the rate at which one currency can be exchanged for another; it represents the value of one currency against another. Below is a graph showing the historic exchanges rates of the US Dollar (USD) against the Chinese Yuan (CNY).

Figure 5: Exchange Rate (USD/CNY), China, 2005–2012



Source: Oanda, 2012

The graph indicates how many Chinese yuan can be bought for one US dollar. The trend in recent years is declining, indicating the growing strength of the yuan against the dollar.

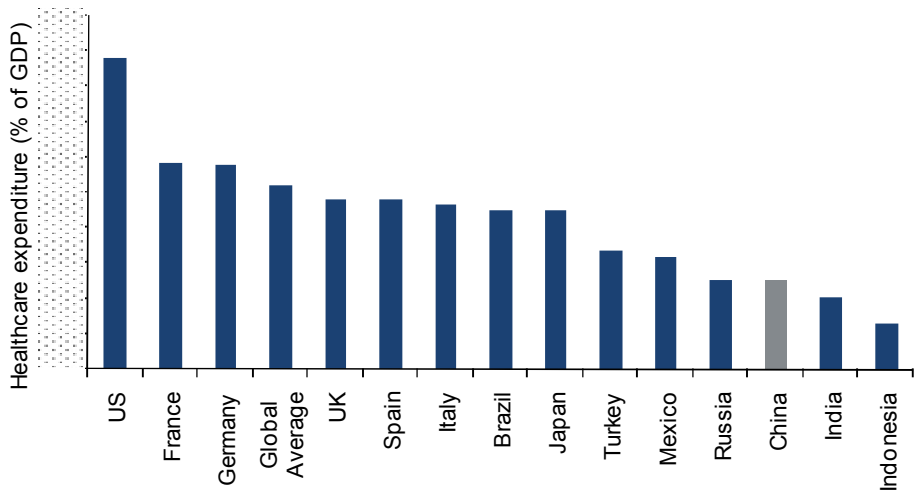
It is clear that not only is China significantly below the world average in terms of healthcare expenditure, it also has relatively low expenditure compared to other emerging markets

3.3 Health and Healthcare

3.3.1 Healthcare Expenditure

Healthcare expenditure is defined as the resources spent by a country on healthcare services and goods, including administration and insurance. The following figure shows the healthcare expenditure as a percentage of GDP of the seven major markets (the US, Japan, France, Germany, Italy, Spain and the UK) and the top seven emerging markets (China, Brazil, Russia, India, Mexico, Indonesia and Turkey) for 2010. The global average for the same year has also been included. China has been highlighted for comparative purposes.

Figure 21: Healthcare Expenditure (% of GDP), Global, 2010



Source: GBI Research; OECD, 2012; World Bank, 2012

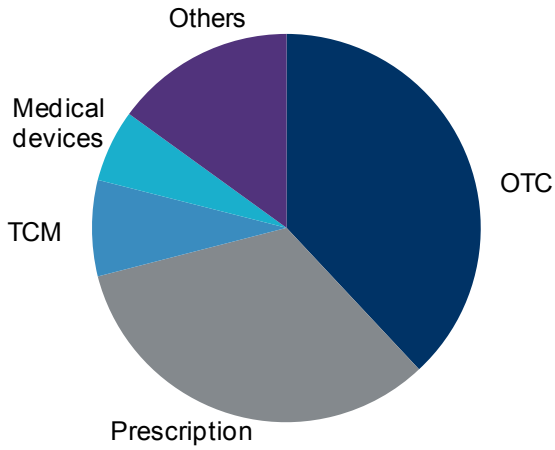
From the above graph it is clear that not only is China significantly below the world average in terms of healthcare expenditure, it also has relatively low expenditure compared to other emerging markets. The figure below shows the healthcare expenditure (both as a value and as a percentage of GDP) for the historic period in China.

China's OTC drugs market became the second largest in the world after it overtook Japan in 2009

4.2 Over-the-Counter and Prescription Drugs

China's OTC drugs market became the second largest in the world after it overtook Japan in 2009, second only to the US (CCPIE, 2011a). In addition, it has the third largest prescription drug market. Both markets are growing with some pace, although the OTC market is growing slightly slower than the prescription market. In 2009, the OTC market grew at a CAGR of XX%, while the prescription market grew at a rate of XX%. The figure below shows a breakdown of the pharmaceutical market by segment.

Figure 42: Pharmaceutical Market, China, Breakdown by Market Segment (%), 2009



TCM: Traditional Chinese Medicine

Source: GBI Research

The above figure indicates that OTC products dominate the market more the prescription products, although this does not take into account non-medicine TCM. TCM comes in two forms: prepared medicine TCM, which are standardized formulas in pill-form and the more traditional 'raw' TCM. OTC products have previously been very popular in China, largely due to the poor healthcare system making self-medication popular. However, as the healthcare system and insurance provision are improving, members of the public are more likely to visit the doctors for any health conditions, particularly to receive reimbursement on any prescribed medication they received. This is the main driver for the prescription drug market, and the reason it is expected to see high growth.

Although OTC products will cease to dominate the market in the future, the market will nevertheless continue to grow, driven by factors such as the increasing aging population (the over-60 age group buys the most OTC products), a large population of smokers that are more susceptible to health conditions and may purchase smoking cessation OTC products, the increasing levels of obesity in the country that will lead to greater levels of health complaints and will drive the sale of OTC weight loss products, and the densely populated cities that are becoming further populated, leading to the easy spread of illnesses such as colds and flu.

8 China Pharmaceutical Market Outlook – Appendix

8.1 Market Definitions

- GDP: GDP is the market value of all final goods and services made in a country in one year.
- Healthcare expenditure: Healthcare expenditure is the amount of money spent on healthcare services, drugs or procedures.
- Out-of-pocket healthcare expenditure: Out-of-pocket healthcare expenditure refers to costs that are not covered by insurance such as deductibles, coinsurance, co-payments, and non-covered expenses.
- Essential drugs: Essential drugs are those that satisfy the primary healthcare needs of the population.

8.2 Abbreviations

API: Active Pharmaceutical Ingredient

BMI: Basic Medical Insurance

CAGR: Compound Annual Growth Rate

CDE: Center for Drug Evaluation

CHC: Community Health Center

CMC: Chemistry, Manufacturing and Controls

DPT: Diphtheria, Polio and Tetanus

EDL: Essential Drugs List

FDA: Food and Drug Administration

FDI: Foreign Direct Investment

GDP: Gross Domestic Product

GSK: GlaxoSmithKline

HPGC: Harbin Pharmaceutical Group Co. Ltd.

IND: Investigational New Drug

NDRC: National Development and Reform Commission

NRCMS: New Rural Cooperative Medical System

NRDL: National Reimbursement Drug List

OTC: Over the Counter

PDA: Provincial Drug Administration

SFDA: State Food and Drug Administration

TCM: Traditional Chinese Medicine

UEBMI: Urban Employee Basic Medical Insurance

URBMI: Urban Resident Basic Medical Insurance

WHO: World Health Organization

WTO: World Trade Organization

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8.4 Research Methodology

GBI Research's dedicated research and analysis teams consist of experienced professionals with a pedigree in marketing, market research, consulting backgrounds in the medical devices industry and advanced statistical expertise.

GBI Research adheres to the codes of practice of the Market Research Society (www.mrs.org.uk) and the Strategic and Competitive Intelligence Professionals (www.scip.org).

All GBI Research databases are continuously updated and revised. The following research methodology is followed for all databases and reports.

8.4.1 Coverage

The objective of updating GBI Research's coverage is to ensure that it represents the most up-to-date vision of the industry possible.

Changes to the industry taxonomy are built on the basis of extensive research of company, association and competitor sources.

GBI Research aims to cover all major news events and deals in the medical industry, updated on a daily basis. The coverage is further streamlined and strengthened with additional inputs from GBI Research's expert panel (see below).

8.4.2 Secondary Research

Secondary research was carried out on internal and external sources to obtain qualitative and quantitative information in the report.

The secondary research sources that are referred to in this report include but are not limited to:

- Company websites, annual reports, financial reports, investor presentations and SEC Securities and Exchanges Commission filings.
- Industry trade journals, scientific journals and other technical literature.
- Relevant patent and regulatory databases.
- National government documents, statistical databases and market reports.
- News articles, press releases and webcasts specific to the companies operating in the market.

8.4.3 Primary Research

GBI Research conducts hundreds of primary interviews each year with industry participants and commentators in order to validate its data and analysis. A typical research interview fulfills the following functions:

- It provides first-hand information on the market size, market trends, growth trends, competitive landscape, future outlook
- Helps in validating and strengthening the secondary research findings; and
- Further develops the analysis team's expertise and market understanding.
- Primary research involves email correspondence and telephone interviews, as well as face-to-face interviews for each market, category, segment and sub-segment across geographies.

The participants who typically take part in such a process include, but are not limited to:

- Industry participants: CEOs, VPs, marketing/product managers, market intelligence managers and national sales managers;
- Hospital stores, laboratories, pharmacies, distributors and paramedics;
- Outside experts: investment bankers, valuation experts, research analysts specializing in specific medical equipment markets; and

- Key Opinion Leaders: physicians and surgeons specializing in different therapeutic areas corresponding to different kinds of pharmaceutical drugs.

8.4.4 Expert Panel Validation

GBI Research uses a panel of experts to cross-verify its databases and forecasts.

GBI Research's expert panel comprises marketing managers, product specialists, international sales managers from medical device companies, academics from research universities, KOLs from hospitals, consultants from venture capital funds and distributors/suppliers of medical equipment and supplies.

Historic data and forecasts are relayed to GBI Research's expert panel for feedback and adjusted in accordance with their feedback.

8.6 Disclaimer