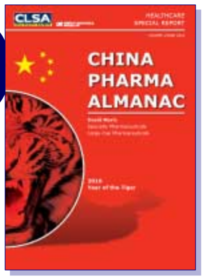
CLSA ASIA-PACIFIC MARKETS

Produced by CRÉDIT AGRICOLE SECURITIES

CIO notes

Summary of full-length report

Click to read full report



David Maris
david.maris@clsa.com
(212) 261 7268

Kim Vukhac
(212) 261 7148

Milind Parate
(212) 408 5828

10 June 2010

USA

Pharmaceuticals

China pharma almanac

Special report

Sustainable defensive growth

About six months ago, we began work on an overview of the Chinese healthcare market, taking the approach of someone learning about it for the first time. The end result is our 300+ page report – an unprecedented comprehensive look at the Chinese healthcare market. We share our discussions with leading industry executive and results of interviews with hundreds of consumers, physicians, and hospital purchasers – the result is a very favourable outlook for the healthcare sector in China.

Unprecedented look into China Pharma

- Together with China Reality Research (CRR), we interviewed over 500 middle class consumers, hospital drug purchasers, pharmacies, physicians and cosmetic surgery centers on several key fronts.
- We include interviews with key industry sources at Pfizer, Sinovac, mdInfo, and Allergan to understand their respective company's views on healthcare in China.
- We profile over 200 Chinese healthcare companies.

Economic growth and demographics to drive utilization

- In 2006 China spent approximately US$125bn on healthcare and by 2014 this could easily reach US$340bn, growing 20% per annum.
- Increasing life expectancy, broader immunization programs, shift to urbanization, and increasing wealth contribute to a rise in prevalence of life-style diseases.

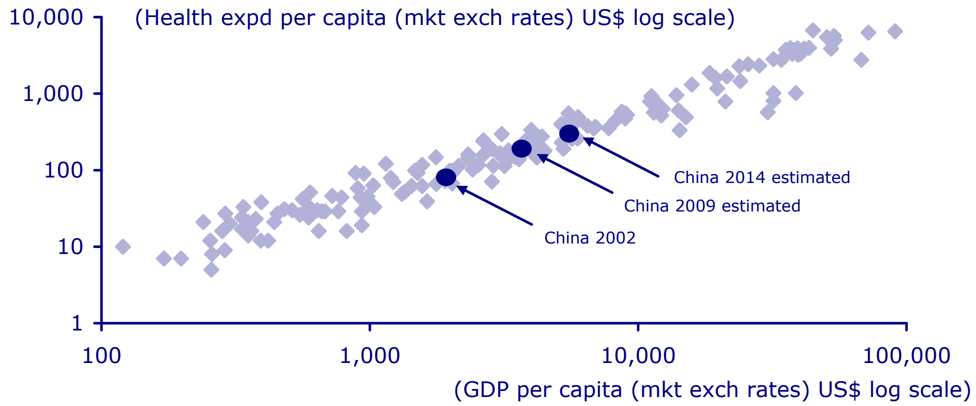
Hospitals at the center of healthcare

- Almost all healthcare is provided in hospitals, as the single-physician and physician-group model is not common at all.
- Hospitals derive 40-50% of income from medicine sales. As such, pharmaceutical companies strive to keep good relations with key decision makers in hospitals.
- We survey hospital buyers to find out what brands they prefer and how spending looks going forward.

Corporate brand equity power rankings show who is on top

- The top-five best-quality brands ranked by hospital drug purchasers and physicians are dominated by Western pharmaceutical companies. Pfizer tops the list.
- Among consumers, local producer Beijing Tongrengtang, maker of traditional Chinese medicines, comes out on top – as do several other local brands.

Per-capita GDP and per-capita spending on healthcare



Source: Credit Agricole Securities (USA)

For important disclosure information please refer to page 5.

China pharma almanac

About six months ago, we began work on an overview of the Chinese healthcare market, taking the approach of someone learning about it for the first time.

The most comprehensive look at the Chinese healthcare market to date

The end result is a 300+ page report that we have published that we believe is the most comprehensive look at the Chinese healthcare market to date.

Our report reviews China's healthcare market from different perspectives including insights from our groundbreaking China Reality Research (CRR) survey. Together with CRR, we interviewed over 500 middle-class consumers, hospital drug purchasers, pharmacies, physicians and cosmetic surgery centers on several key fronts - corporate costs, utilization, and their use of traditional Chinese medicine.

Unique insight into what consumers, hospital drug purchasers, pharmacists and physicians think

One of the most important parts of this report is CLSA's Pharma Corporate Brand Equity Ranking, which provides unique insight into what consumers, hospital drug purchasers, pharmacists and physicians think about pharmaceutical companies on the basis of quality, innovation and value.

Finally, we reached out to key industry sources to elicit their perspectives.

- Jean-Michel Halfon, Pfizer's head of Emerging Markets provided insight into Pfizer's goals and views for China healthcare. Pfizer ranked No. 1 for corporate brand equity in China among physicians, hospital drug purchasers, and pharmacists.
- Mr. Weidong Yin, general manager of Sinovac, provided us his thoughts on the Chinese vaccine market. Sinovac was the first company - Western or Eastern - with an approved H1N1 vaccine during the swine flu epidemic.
- Jeremy Bloom, co-founder of mdinfo.com, a healthcare website with more than one million unique Chinese visitors per month, provided his insight into the use of new media and healthcare in China.
- Michael Ball, Allergan's president, provided us his insight into Allergan's expansion into China and the rest of Asia and the rise of cosmetic surgery in China. The maker of Botox, breast implants, and ophthalmics is seeing its business grow dramatically in emerging markets.

More than 20 companies with market values in excess of US$2bn

We also decided to profile each Chinese healthcare company with an enterprise value above US$25m. Few investors realize that there are more than 55 companies in healthcare in China with market values above US$1bn and more than 20 companies with market values in excess of US$2bn.

This report is the beginning of a great journey and the first step has been exciting. We hope you share our excitement.

david.maris@clsa.com

Top 10 takeaways

We present a summary of our Top 10 takeaways

Recognizing that there is significant ground to cover when trying to present investors with a primer on the China healthcare and pharmaceutical landscape, below we present a summary of our Top 10 takeaways:

1) ***As China's GDP grows, so will its expenditures on healthcare.*** Typically, as countries grow richer, they tend to spend more money on healthcare, and China's current healthcare reform reflects it best. In April 2009, China's government announced a massive healthcare reform plan, with the primary objective of providing universal healthcare to its entire population (1.3 billion people). China has planned to invest US$124bn from 2009 to 2011. In 2009 gross domestic product (GDP) per capita was US$3,700 compared to US$2,000 in 2006. In 2006 China spent approximately US$125bn on healthcare. Assuming that health spending scales linearly with GDP, this number is likely approaching US$226bn today and by 2014 could easily reach US$340bn at current exchange rates, or slightly more than 20% per year.

We expect healthcare spending to rise more than 20% per year

2) ***Urbanization driving healthcare utilization*.** Forty-three percent of China's population is living in urban areas, up 15 percentage points and a 54% increase over the last 17 years. Cities allow for greater access to developed technologies and healthcare services. In China almost all healthcare is provided in hospitals, as the single-physician and physician-group model is not common at all.

A recent study showed cardiovascular disease and death rates in China will increase by as much as 73% by 2030

3) ***Obesity - has China's next generation caught up with the US?*** With increasing affluence and lifestyle changes, China is increasingly seeing diseases that resemble Western countries. Obesity in China has become a health concern of increasing proportions. The rate of China's citizens aged 18-plus years, who have grown to be overweight, has more than doubled from 1991 to 2006. While the prevalence of obesity in China is still relatively low compared to Western countries, it is the rapid increase of the condition which is alarming. Looking at children under five years – China has more overweight children at a rate of 9.2% than the US at 8%. A recent cardiovascular study showed cardiovascular disease and death rates in China will increase by as much as 73% by 2030.

4) ***Vaccines poised to grow dramatically.*** The prevalence of tuberculosis (TB) and other infectious diseases remains an incredibly large problem in China and other emerging markets. This leaves room for vaccine companies to prosper. China has been making a concerted effort to improve vaccine safety and quality. *On page 44 we interview Mr. Weidong Yin, general manager of Sinovac Biotech, vaccine manufacturer based in China, for his insights on the vaccine opportunity in China.*

5) ***Double-digit increases in patient traffic boosting drug purchasing budgets.*** We surveyed 35 major hospitals in China and found that patient traffic increased by approximately 12% YoY in 2009, which led to a 17% increase in their average drug purchasing budget in 2010. Thirty-nine drug stores we surveyed said that average sales are expected to grow at a faster rate (10%) in 2010 than 2009. Medicines for the treatment of chronic diseases including heart disease, cerebrovascular disease (or stroke), diabetes and hypertension are in greatest demand.

About 40-50% of a general hospital's income derives from medicine sales

6) ***Hospitals play a pivotal role in China's pharmaceutical market.*** About 40-50% of a general hospital's income derives from medicine sales, i.e., prescriptions by doctors who usually have a decisive influence on a patient's choice of medicines. Pharmaceutical companies try to keep a good relationship with key decision-makers in hospitals - often via incentive payments - in order to increase market share.

7) ***Pfizer ranks among the top pharma brands in China.*** Beijing Tongrentang (8069.HK), Pfizer and Yunnan Baiyao (000538.CH) are ranked as the top three pharmaceutical brands among all respondents of our survey. The top five brands by quality are all foreign - Pfizer, Glaxo (GSK.US), Novartis (NVS.US), Astra-Zeneca (AZN.US) and Johnson & Johnson - and they are also among the top six in innovation. On page 95 we share our interview with Pfizer's Jean-Michel Halfon, President and General Manager of the Emerging Markets Business Unit.

Demographic data points suggest a rapid and sustained rise in healthcare demand

8) ***Western companies have mindshare of healthcare consumers.*** We asked consumers, hospital drug purchasers and physicians to rank the countries/regions that produced the highest-quality products (among the US, Europe, China, Japan, and India). The US was ranked No. 1 among all three groups, India was ranked last, and Japan was ranked No. 4. As a close neighbor geographically, we are surprised that Japan ranked near the bottom and wonder if this related to a cultural bias or an underinvestment by Japanese pharma.

9) ***Rising interest in cosmetic surgery.*** The 37 cosmetic surgery departments and hospitals we surveyed visited saw patient visits grow 15% YoY in 2009 on average and expect revenue in 2010 to grow 18% YoY. Twenty-one percent of sampled consumers have expressed interest in plastic surgery, with liposuction, wrinkle removal and blepharoplasty (eyelid surgery) being the most desired procedures.

10) ***Traditional Chinese medicines still revered by patients, less so by physicians.*** In general 62% of the 508 middle-class consumers we spoke to prefer traditional Chinese medicines (TCMs) over Western drugs as they believe TCM addresses the "root causes" of a disease whereas western medicines only suppress symptoms. However, physicians and hospital drug purchasers prefer western pharmaceuticals. Among the five drug manufacturers our consumer panel trusts most, four are producers of TCMs.

In our review of World Health Organization statistics, every demographic data point suggests a rapid and sustained rise in healthcare demand. For pharmaceuticals alone, IMS Health's Global Pharmaceutical Market Forecast calls for 2010-14 Cagr in excess of 20%, following 2009 growth of more than 25%.

The opportunity in China for healthcare is significant, as we hope investors will realize after reviewing our findings in this report.

If you believe in the Chinese economy, then you should invest in Chinese healthcare

Simply put, if you believe in the Chinese economy, then you should invest in Chinese healthcare. In addition, healthcare is not like any other spending program; once the benefit is provided, it is not easily taken away. We believe that Chinese healthcare has all the characteristics of a high-growth defensive investment sector.

Important disclosures

Analyst certification

I, **David Maris**, hereby certify that the views expressed in this research report accurately reflect my own personal views about the securities and/or the issuers and that no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this research report. In addition, the analysts included herein attest that they were not in possession of any material, non-public information regarding the subject company at the time of publication of the report.

"CL" in charts and tables stands for Credit Agricole Securities (USA) Inc estimates unless otherwise noted in the Source.

Credit Agricole Securities (USA) Inc does and seeks to do business with companies in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

EVA is a registered trademark of Stern, Stewart & Co.

CREDIT AGRICOLE SECURITIES (USA) INC POLICY: Credit Agricole Securities (USA) Inc's policy is to only publish research that is impartial, independent, clear, fair, and not misleading. Analysts may not receive compensation from the companies they cover. Neither analysts nor members of their households may have a financial interest in, or be an officer, director or advisory board member of companies covered by the analyst.

ADDITIONAL INFORMATION on the securities mentioned herein is available upon request.

DISCLAIMER: The information and statistical data herein have been obtained from sources we believe to be reliable but in no way are warranted by us as to accuracy or completeness. We do not undertake to advise you as to any change in our views. This is not a solicitation or any offer to buy or sell. We, our affiliates, and any officer director or stockholder, or any member of their families may have a position in, and may from time to time purchase or sell any of the above mentioned or related securities. This material has been prepared for and by Credit Agricole Securities (USA) Inc. This publication is for institutional client distribution only. This report or portions thereof cannot be copied or reproduced without the prior written consent of Credit Agricole Securities (USA) Inc. In the UK, this document is directed only at Investment Professionals who are Market Counterparties or Intermediate Customers (as defined by the FSA). This document is not for distribution to, nor should be relied upon by, Private Customers (as defined by the FSA). This publication/communication is distributed for and on behalf of Credit Agricole Securities (USA) Inc in Australia by CLSA Limited; in Hong Kong by CLSA Research Ltd.; in India by CLSA India Ltd.; in Indonesia by PT CLSA Indonesia; in Japan by Credit Agricole Securities Japan, a member of the JSDA licensed to use the "CLSA" logo in Japan; in Korea by CLSA Securities Korea Ltd.; in Malaysia by CLSA Securities Malaysia Sdn Bhd; in the Philippines by CLSA Philippines Inc.; in Thailand by CLSA Securities (Thailand) Limited; and in Taiwan by CLSA Limited, Taipei Branch. Singapore: This publication/communication is distributed for and on behalf of Credit Agricole Securities (USA) Inc in Singapore through CLSA Singapore Pte Ltd solely to persons who qualify as Institutional, Accredited and Expert Investors only, as defined in s.4A(1) of the Securities and Futures Act. Pursuant to Paragraphs 33, 34, 35 and 36 of the Financial Advisers (Amendment) Regulations 2005 with regards to an Accredited Investor, Expert Investor or Overseas Investor, sections 25, 27 and 36 of the Financial Adviser Act shall not apply to CLSA Singapore Pte Ltd. Please contact CLSA Singapore Pte Ltd in connection with queries on the report. MICA (P) 168/12/2009 File Ref. No.: 931318. This publication/communication is also subject to and incorporates the terms and conditions of use set out on the www.clsa.com website. Neither the publication/ communication nor any portion hereof may be reprinted, sold or redistributed without the written consent of CLSA Limited and Credit Agricole Securities (USA) Inc.