# All Roads Lead to China

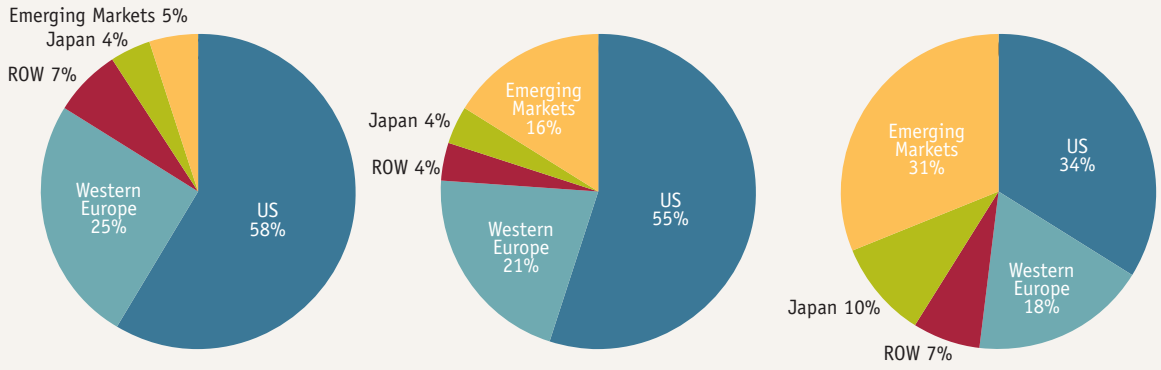
## TRAVERSING THE NEXT FRONTIER

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**IMS Global Consulting**

While growth in the global pharmaceutical market remains anemic, rising just six to seven percent in 2006, emerging economies are galloping ahead to outpace growth in mature markets like the United States and major European nations. Pharmaceutical companies are finding bright spots outside of these traditional markets to compensate for increasingly flat global growth. Within the last five years, the emerging markets' share of growth in the global pharmaceutical market has grown from 5 percent to 31 percent. The most stellar opportunity lies in China, which continues to emerge as a significant healthcare market. To look at growth in China is to see that all roads lead to this awakening giant that will dominate as the world's largest economy by 2040.

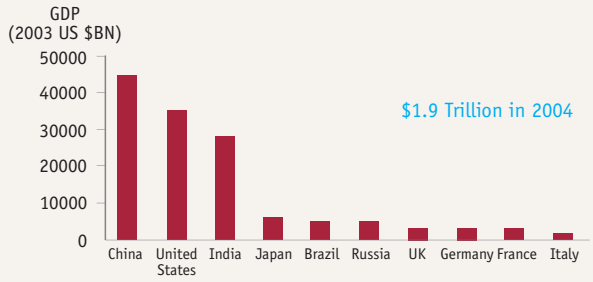
Growth in China's pharmaceutical market will remain robust at 17 to 18 percent with market size reaching up to $14 billion in 2006. During the next five years, the China market has the potential to double in size, becoming the seventh largest pharmaceutical market by 2010. Longer term, China is projected to be the largest economy globally with GDP growth steadily rising faster than other emerging countries like Brazil, India and Russia. Behind this healthy

### GLOBAL PHARMA MARKET CONTRIBUTION TO GROWTH



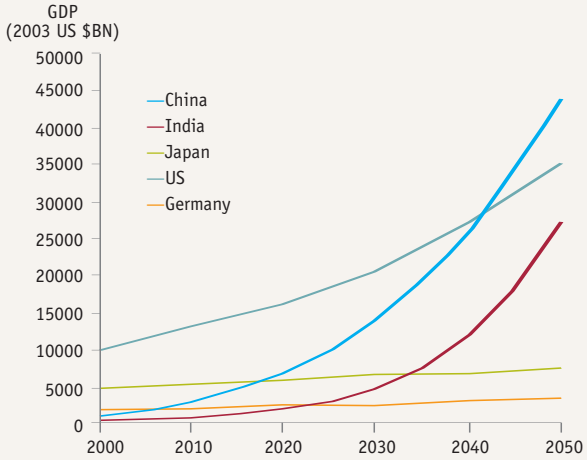

*Source: IMS Health: MIDAS, MAT Dec 2005 Includes IMS audited figures.*

## CHINA DOMINATES THE WORLD ECONOMY BY 2050...




*Source: Goldman Sachs*

## ...AND IS CURRENTLY ON COURSE TO OVERTAKE THE G3




growth is China's sustained high GDP growth, projected to increase by an average of eight percent over the next five years, fueling the population's ability to spend more on healthcare and drugs and, as affluence and chronic disease among China's citizenry grows, feeding greater need for innovative drugs.

Yes, opportunity abounds in China, but so do complex challenges that can sorely inhibit success and make penetration of this vast market extremely difficult. How can pharmaceutical companies successfully traverse this new frontier? Just what are the challenges unique to China and how can they be addressed? What nuances characterize this burgeoning market? How can they be exploited for growth and to improve the overall health of drug provisioning in China?

### COMPLEX, INTERCONNECTED WEB

Fundamental flaws persist in China's healthcare system, representing roadblocks to any company entering this market — multinational corporation or otherwise. These are a complex, interconnected web of problems unlikely to be solved quickly and impeding the delivery of quality medical care. Indeed, these very issues are characterized as "problems" by the country's own Ministry of Health.

First, financial support from the Chinese government is insufficient along with government management of health-care administration. Deficits in funding and administration heighten healthcare costs and reduce the quality of care. Inadequate funding from the government forces hospitals to become self-sufficient. Profit is driven from over-utilization of the hospital and dispensing medicine is the means of maintaining profitability. More than 40 percent of hospital income derives from the sale of medicine and services. In fact, 80 percent of all drugs in China are dispensed through hospitals versus 20 percent from independent, retail pharmacies. Corruption becomes endemic to the system as doctors and hospital executives receive unethical prescribing incentives from wholesalers and drug manufacturers, subsidizing salaries that are too low.

A complex, multi-tiered supply chain also contributes to an overall increase in prices at the hospital and patient level. *Case in point:* The retail price of medicine may be 20 times higher than it is at the factory gate after mark ups by hospitals and distributors. The Chinese government concedes that ex-manufacturer pricing in only 45 percent of the final retail price, and somewhat paradoxically, seeks to eliminate this inefficiency before increasing funding to resolve issues around the distribution system.

Moreover, the healthcare system is skewed toward large hospitals in major urban areas. Primary care community clinics, a less expensive and potentially more ubiquitous alternative, are underdeveloped in China. This concentrates healthcare provision to densely populated, top-tier cities like Beijing, Shanghai and Guangzhou. The bulk of China's population still resides in rural areas, including villages and towns. But the trend toward urbanization is accelerating with rural populations migrating into cities and industry replacing agriculture. The collapse of state subsidized healthcare has left many of these citizens unable to afford even the most basic treatment — and, limits physical access to care.

Add to this the fact that insurance — both privately funded and government subsidized — is not developing quickly enough to abate healthcare costs shouldered by private citizens and the hurdles seem insurmountable — as overwhelming as the opportunity is compelling.

While reforms are taking place in China, the pace seems glacial. Yet, a slower, careful approach may be well-advised in contrast to healthcare reforms in other countries in the region. Consider Korea. Physicians almost destroyed reform efforts through an organized, nationwide strike that paralyzed the healthcare system. In order to reduce drug abuse and misuse in Korea, the government introduced — and too quickly executed — a plan that drew a well-defined line between the roles of doctors and pharmacists. Doctors were banned from selling drugs to outpatients, while pharmacists were prohibited from randomly dispensing drugs without prescriptions. Mass chaos ensued as a result, victimizing patients and creating havoc in the drug-dispensing system that ultimately delayed benefits of reform.

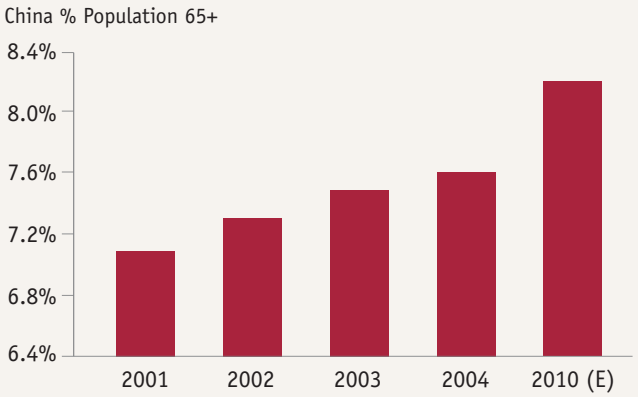
## RESHAPING THE LANDSCAPE

But the debate in favor of more radical changes in China's healthcare system is intensifying, fueled by a government think tank report that declared medical reforms a failure. In particular, the government is challenged to provide basic healthcare to the population in a way that is affordable and comprehensive, without resorting to unilateral price control. The number of persons covered and the depth of the coverage in the government insurance — LIS and GIS — and more recently, the new consolidated Basic Medical Insurance (BMI) scheme — has declined over the last year.

Some global health experts see the unraveling of the healthcare system as a real threat to domestic tranquility in the country. And, as Asia begins to play a more prominent role on the world health stage with diseases like severe acute respiratory syndrome (SARS) and avian flu taking flight, pressure on China will mount from the world health community to address failings in the country's healthcare infrastructure.

The pharmaceutical industry is well-positioned to help support necessary reform in China, leveraging global experience in developing sound, successful cost containment strategies. In lending this expertise, companies can hope to gain a foothold in this vast, complex market — a kind of quid pro quo. There are six key areas where pharmaceutical companies can play a significant advocacy role and help reshape the landscape of this new frontier.

### CHRONIC DISEASE IS FUELED BY RAPIDLY AGING POPULATION — PROJECTED AT 111 MM BY 2010




*Source: Economist Intelligence Unit 2004*

**Private insurance**
Private insurance funded by member premiums should be developed with appropriate government support. Only three percent of the population is covered by private insurance funded by employers. Pharmaceutical companies can lead by example, providing employees with private health insurance in addition to the Basic Medical Insurance. Moreover, the private health insurance market can be expanded by connecting local companies with key foreign and local health insurance providers. The major challenge will be to address market failures such as adverse risk selection and moral hazard.

**Amicable separation**
Gradually, drug dispensing and prescribing must be separated to eliminate perverse, profit-driven prescribing of medicines. Physicians and pharmacists must be involved in this divorce and a pilot program should be designed to ensure an amicable separation from the outset. Economic incentives can fuel the growth of drug-dispensing entities independent from hospitals. Retail pharmacies, for instance, have begun selling drugs at a lower price than the cost charged at hospital pharmacies.

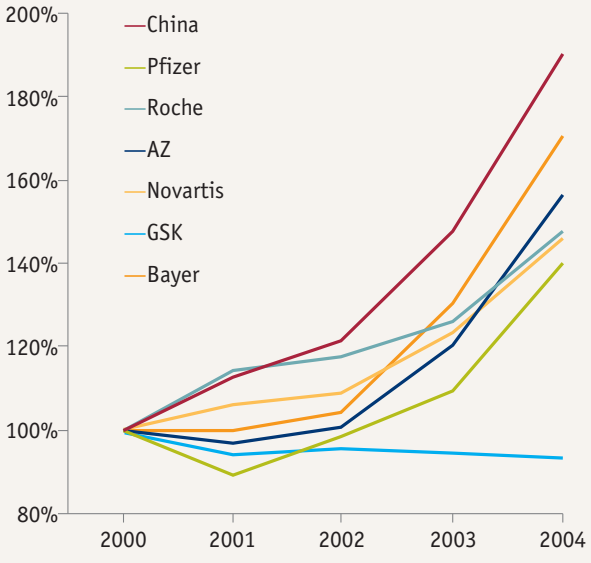
**Market pricing**
Market access through the Pricing and Reimbursement Hospital Listing is one of the key success factors for multinationals. Developing relationships with government is a key strategy for many top players. A restructured Pfizer in China recently announced that its government relations operation received the biggest share of investment.

Market pricing must be combined with health economics to promote value and industry growth. An independent agency could be established by the government to perform health technology assessments (HTA) on new drugs to ensure that actual value is created. This can help focus the industry on innovative products and restrict "me-too" drugs that add no new value to the society. This is especially important as more chronic disease emerges in China as the population ages, affluence increases, and urban life becomes more prevalent.

Market pricing encourages the development of a strong, innovative industry focused on bringing new products to market that fill new needs or represent novel therapies. Conversely, significant pricing regulation risks are driving the industry to a low-cost manufacturing model, which diminishes value and inhibits innovation.

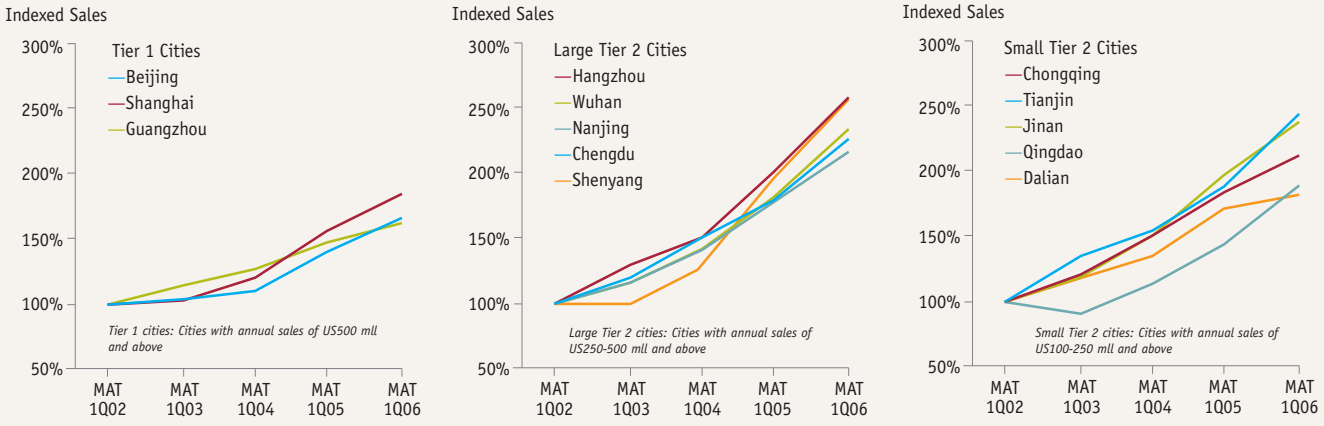
**Improving transparency and speed**
Regulatory and reimbursement processes must be overhauled to improve transparency for new product approval and speed to market. Currently, the application and approval process for imported drug registration is extremely complex. Administrative regulations are not only Byzantine, but variable, making it a challenge for any company to gain access to the China market in a timely manner and, ultimately, encumbering the population's access to innovative drugs. Decision-making must be centralized and the frequency of updates to the national reimbursement list (NRL) should be increased.

## INDEXED GROWTH IN SALES OF SELECT MULTI-NATIONAL COMPANIES




*Source: IMS Health*

## TIER 2 CITIES DOUBLED IN SIZE IN THE PAST FIVE YEARS




*Source: IMS CHPA 1Q06*

Pharmaceutical companies can help the government identify and execute ways to streamline and improve these processes in a fail-safe manner. Standard dossier formats used in the U.S., and European Union, for instance, can be adjusted to streamline data requirements and process.

**Improving disease management**

Global clinical diagnosis and treatment guidelines should be adopted and the decision-making process surrounding disease management should be streamlined for physicians and payers. Tax breaks for the pharmaceutical industry could fund and encourage greater disease awareness programs in key urban areas. The pharmaceutical industry could play an important role in this education endeavor, deploying sales teams to communicate guidelines and help instruct physicians.

**Profiting from partnership**

Government-industry partnerships can bring new technology and greater self-sufficiency to China, accelerating the growth of indigenous pharmaceutical companies. Moreover, a mentoring relationship can help increase employment and lower costs in manufacturing and research and development.

In exchange for pricing or volume concessions on innovative products, pharmaceutical companies can transfer technology and knowledge, sharing with the government best practices in manufacturing. Muscle can be flexed in the area of research and development, too, where companies can involve government labs, local innovators and medical institutions in early-phase product development. This strategy leverages China's developing strengths in early, pre-clinical research and focuses on less competitively intense research activities that are not as time-sensitive as later-stage development.

## UNLOCKING GROWTH

While working with the government can help inspire much-needed reforms in China's healthcare environment, there are other critical paths pharmaceutical companies must take to unlock growth in this market. Investing in China is one road many foreign multinational companies are choosing as they seek to create a localized infrastructure to ensure new avenues of growth and to create competitive advantage.

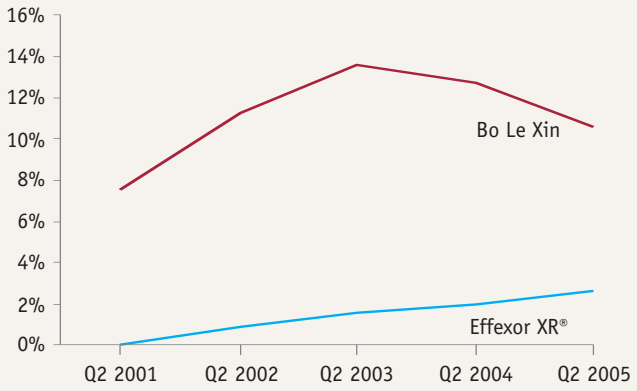
*Case in point:* AstraZeneca has made significant investments in its sales force in preparation for expansion into new city markets. An estimated 2,000 hospitals in 120 cities are being covered by a growing army of sales representatives, costing an industry average of $30,000 (USD) per year, per person. Investments such as this are offset by the additional revenue generated each year per rep. In larger cities this could be as high as $200,000 (USD) per person or as low as $50,000 (USD) in smaller urban areas. The company also intends to

invest $100 million in research and development in China, opening the doors of the AstraZeneca Innovation Center China in 2009. This is on top of $134 million invested in a manufacturing plant in Wuxi and a clinical research unit in Shanghai created in 2002.

Similarly, Roche has unveiled its fifth global research and development center on the outskirts of Shanghai. Novartis is collaborating with a leading Chinese research and development institute and is establishing an alliance with another Chinese biotech on other projects. In an effort to make its products more accessible to local residents, Pfizer has established a regional headquarters in Shanghai and is considering its own R&D center in China.

Investments like these become even more critical and the market opportunity more compelling as chronic disease rates rise in China with the increase of affluence. Greater prosperity often leads to lifestyle changes — for example, richer, less healthy diets — and a consequent increase in chronic diseases such as diabetes, cancer and heart disease. By 2025, for instance, China will have 46 million diabetes patients, almost double what is projected for the United States, and about 13 percent of the global diabetic population. Add to this the dynamics of an aging population and a move from rural to urban centers — where more sedentary lives are lead — and chronic disease growth seems certain.

**SHARE OF ANTIDEPRESSANTS MARKET IN CHINA**




*Source: IMS Health*

Another road companies must consider taking is the less traveled path — that is, focusing efforts outside of large, tier one cities such as Beijing, Shanghai and Guangzhou. Today, 80 percent of the hospital market in China can be targeted by focusing on just 120 cities (out of 665 cities). However, this dynamic is changing rapidly, so first steps must be taken toward China's future markets by understanding the shift from tier one to tiers two and three.

The real future growth will occur in cities in tiers two and three where the population is migrating and economies are prospering. In fact, 86 percent of the Chinese market will be outside the larger cities by 2008. Pharmaceutical sales in tier two cities like Hangzhou, Shenyang, Jinan and Tianjin, for instance, have grown by 2.5 times since 2000 and are likely to continue on this trajectory until 2010.

This population shift has a significant strategic impact on how pharmaceutical companies can access the opportunity to be mined in China. Sales penetration and productivity in these markets is one of the leading growth drivers, but also a significant investment. Companies must expand field sales forces and extend their reach into new geographic markets and new areas where drug coverage is needed and the market is not saturated. Consider the case of Bo Le Xin, a generic of the anti-depressant Effexor®. The drug maker has outdistanced its branded competitor by targeting tier two and tier three cities, exclusively. In so doing, head-to-head competition was avoided with Effexor® and the market leaders, Seroxat® and Prozac®.

There is also considerable opportunity for driving growth by improving customer base segmentation and daily call rates. With sufficient investment in field forces, single product line teams could be established in tiers one and two cities. Significant growth can be driven from minimum frequency rates of one call per week on very high value targets and one call every two weeks on high value targets.

## Now is the time to move swiftly to build competitive advantage on this exciting new frontier.

Developing better, more targeted promotional messages, and targeting new channels and alliances is also key. Knowing what hospitals and doctors to target can have a huge impact on return on investment, especially since significant additional investment is still required to staff up the sales force. Profiling and targeting retail pharmacies with a rigor similar to what is applied to hospitals can also be effective, along with private clinics, hypermarkets and retail chains. This will be especially fruitful with reform to the country's current drug-dispensing model.

Successful companies have well-planned, well-executed message strategies based on accurate customer segmentation. These companies craft effective promotional messages and deliver them to the right doctors in the right format. Doctors who according to segmentation data are more responsive to arguments about efficacy or patient compliance do not receive promotions targeted around low cost.

All of this leads to the single biggest challenge that companies face in China: Execution. A high level of turnover in field sales forces and difficulty in attracting and retaining talent are obstacles for even the most sophisticated and experienced companies in the market. The talent pool from which companies draw must be expanded beyond urban areas to include rural environs. Investment must be made in competitive salaries, training and increased benefits, which can inspire greater loyalty among employees already accustomed to annual salary increases of up to 20 percent. One multinational company seeking to attract and retain top-flight talent, for instance, offers employees housing benefits through which homes can be purchased. Advanced training and education such as MBA programs are also helping to lure and retain talent.

Companies with well thought-out human resources programs that attract and retain top-shelf talent are better positioned to accelerate market penetration. Those that succeed in this market will not necessarily be the companies with the best products. They will be companies that have finessed execution by going to market with a consistent, cohesive plan and with ground forces in place to execute that plan. Senior management will be stable and the strategy informed by market-specific intelligence and guidance, and a willingness to forge alliances with the government.

### THE NEXT STEP

There is no doubt that China is the future pharmaceutical market. Companies that are successful in China will achieve higher growth rates than those operating in more mature markets around the world. Industry leaders are already investing significantly in China. Now is the time to move swiftly to build competitive advantage on this exciting new frontier. Is the market rife with challenge? Most definitely. Is it rich in opportunity? More than any other market on the globe. ●

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