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# China

by David M. Darst, CFA

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## About the Author

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David appears frequently on CNBC, Bloomberg, FOX, PBS, and other television channels, and has contributed numerous articles to *Barron's*, *Euromoney*, *The Money Manager*, *Forbes.com*, *The Yale Economic Review*, and other publications. He broadcasts and writes extensively on asset allocation in the firm's biweekly *Investment Strategy and Asset Allocation Commentary* and in the Morgan Stanley Wealth Management monthly publication, *Asset Allocation and Investment Strategy Digest*, the predecessors of which he launched in 1997.

David graduated from Phillips Exeter Academy, was awarded a BA degree in economics from Yale University, and earned his MBA from Harvard Business School. David has lectured extensively at Wharton, Columbia, INSEAD, and New York University business schools, and for nine years, he served as a visiting faculty member at Yale College, Yale School of Management, and Harvard Business School. David is a CFA Charterholder and a member of the New York Society of Security Analysts and the CFA Institute.



# Introduction

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As of early 2013, China had more people, more mega-cities, more skyscrapers, more Internet users, more millionaires, and more greenhouse gas emissions than any country in the world. And despite significant differences in history, cultures, mores, and political evolution, China shares much in common with the West.



# 1

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## China at a Glance<sup>1</sup>

China is the world's most populated country, and also the world's fourth-largest country by geographic area, approximately the size of the United States.<sup>2</sup> It has undergone a significant transformation since it began moving toward a free market economy in 1976–1978. This transformation has been marked by substantial growth in China's real gross domestic product (GDP), close to 10 percent per year for 30 years.

China's development has important implications for world trade, economic growth, global prices, capital flows, and geopolitics. Recent developments in China's financial markets may open it further to foreign investment. These include:

- Since 1976, China's real GDP growth has averaged 9.5 percent per year, three times the average of major industrialized countries. The combination of one of the lowest-cost labor forces in the world, enlightened economic policies, and increasing technological prowess has contributed to China's economic rise.
- China's transition from a centrally planned economy to a free market economy, which began in 1976 after the death of Mao Zedong, has transformed China into an important force in the global markets for trade and investment.
- While China's growth path in recent decades resembles Japan's development from 1950 to 1990, due to the country's large population and geographic size, the global ramifications of China's growth are especially profound and include China's effects on world trade, economic growth, global prices, capital flows, and geopolitics.

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<sup>1</sup>Bridgewater Associates; Bloomberg, LLC; Morgan Stanley & Co. Inc. Research; Global Insight.

<sup>2</sup>CIA World Factbook (June 2011).

- Since the 1990s, China has sustained positive trade and current account balances. China is an important participant in global financial markets through the investment of its substantial foreign reserves.
- China's total exports exceeded those of the United States in July 2006 and have continued to do so through 2012.

And more recently:

- China's GDP growth rate has decelerated somewhat and may continue to slow as China experiences: a gradual, not-sharp decline in GDP growth to more long-term sustainable rates. China's GDP growth in 2011 and 2012 was approximately +9.0 percent and +9.0 percent, respectively.
- Authorities in China have been asked by other developing countries to strengthen the renminbi. On June 19, 2010, China discontinued its fixed exchange rate of 6.83 renminbi per U.S. dollar. From June through December 2010, the renminbi appreciated +3.3 percent. As of May 2013, Morgan Stanley Research expected the renminbi to appreciate, with a period-end renminbi per U.S. dollar exchange rate of 5.82 in 2013.
- On October 18, 2010, China appointed Vice President Xi Jinping as Vice Chairman of the Central Military Commission, and on November 15, 2012, Mr. Xi succeeded Hu Jintao.
- As of May 2013, China held the world's largest foreign exchange reserves, worth US\$3.4 trillion, or 32 percent of the world's total; Japan was second, with its equivalent of US\$1.0 trillion representing 11 percent of the world's total.

## Getting to Know the Chinese Language

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The origin of the word *China* dates to the Qin dynasty (pronounced Ch'in), which extended for 14 years, from 221 through 207 B.C. The Qin dynasty established the first centralized imperial government in China.

The word *Cathay*, a literary term for China, can be traced to the Khitan ethnic group, an ancient nomadic tribe that lived in Northern China. Khitan, Khitai, and Khitay are all variant spellings for the name of the people of this tribe. The word *Cathay* evolved as a European naming of Khitay.

The word *Sino* means "Chinese." This word is derived from the Latin word for China, "Sinae." The official language of China is Mandarin. Other important Chinese dialects include Cantonese, Hakka, Hsiang, Wu, Min, and Kan.



## Confucianism, the Cornerstone of Traditional Chinese Culture<sup>3</sup>

---

Confucius (551–479 B.C.) is considered one of the world’s greatest philosophers. He was born in the feudal state of Lu, in the modern-day Shandong Province. Distressed by the constant warfare between the Chinese states and by the venality and tyranny of their rulers, he urged a system of morality and statecraft that would preserve peace and provide people with a stable and just government. Later tradition depicts Confucius as a person who made special study of ancient books, in an effort to restore an earlier social order. Among the many sayings attributed to Confucius, two of the most widely known are:

Everything has beauty, but not everyone sees it.<sup>4</sup>

and

A journey of a thousand miles begins with a step.<sup>5</sup>

A cornerstone of traditional Chinese culture, Confucianism is a belief system based on the Chinese cultures of the Xia, Shang, and Zhou dynasties. Confucianism was developed and elaborated by the Chinese philosopher Confucius.

Confucianism was further developed by the great Chinese philosophers Mencius (372–289 B.C.) and Xun Zi (313–238 B.C.). During the Han dynasty, the first of China’s four greatest dynasties, Emperor Wu made Confucianism the orthodox doctrine of Chinese society. Throughout the Han dynasty, Confucianism was recognized as the “Han State Cult,” adopting religious and ceremonial elements such as sacrifices to Confucius.

Confucianism struggled to coexist with Buddhism and Taoism during the Sui and Tang dynasties, but was restored as the official philosophy of China and flourished throughout the Song and Ming dynasties. Throughout those two dynasties and the Republic of China, Confucianism abandoned the religious and ceremonial elements established in the Han dynasty and focused entirely on the teachings of Confucius.

A revival of Confucian thought in the tenth century produced “Neo-Confucianism,” a major influence in Korea during the Choson dynasty and in Japan during the Tokugawa period.

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<sup>3</sup> www.religionfacts.com, www.travelchinaguide.com.

<sup>4</sup> Encyclopedia.com.

<sup>5</sup> Ibid.

The five principles that embody Confucianism are:

1. *Ren*, humaneness or benevolence
2. *Li*, ritual norms
3. *Zhong*, loyalty to one's true nature
4. *Shu*, reciprocity
5. *Xiao*, filial piety

The Five Classics are a collection of writings that represent the core of Confucianism education. They include:

1. *Shu Ching* (Classic of History), a collection of documents and speeches dating from the later Han dynasty.
2. *Shih Ching* (Classic of Odes), a collection of 300 poems and songs from the early Zhou dynasty.
3. *I Ching* (Classic of Changes), a collection of texts on divination based on a set of 64 hexagrams that reflect the relationship between yin and yang in nature and society.
4. *Chu'un Ching* (Spring and Autumn Annals), extracts from the history of the state of Lu, said to be compiled by Confucius.
5. *Li Ching* (Classic of Rites), a collection of three books on Li (ritual norms or rites of propriety).

## Religion in China

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The five recognized religions in China are Buddhism, Islam, Taoism, and Christianity, which in China is treated as two faiths, Catholicism and Protestantism. Each of the five has a central organization headquartered in Beijing and staffed with officials loyal to the Communist Party. All report to the State Administration for Religious Affairs, which in turn is under the central government's State Council, or cabinet. This form of religious control has a long history in China. For hundreds of years, emperors sought to define orthodox belief and appointed many senior religious leaders.

Buddhism was introduced to China from India around the first century A.D., gaining popularity and becoming the most influential religion in China after the fourth century. In the years after 2000, China had approximately 13,000 Buddhist temples.

Islam is estimated to have reached China in the mid-seventh century. The Yuan dynasty (1280–1368) witnessed the height of influence of Islam. By the year 2000, China had more than 30,000 mosques.

Catholicism was introduced into China after the seventh century, and Protestantism was introduced into China in the early nineteenth century. After 2000, there were more than 4,600 Catholic churches, 12,000 Protestant churches, and 25,000 other Christian places of worship in China.

Taoism took shape as a religion during the second century, based on the philosophy of Laozi and his work, *Dao De Jing*. As of early 2013, China had more than 5,000 Taoist temples, up from 1,500 in 1997.

Religion has long played a central role in Chinese life, but for much of the twentieth century, reformers and revolutionaries saw it as a hindrance holding the country back and a key reason for China's "century of humiliation."

In the first two decades of the 21st century, many Chinese appear to be experiencing an awakening of religious belief. In cities, young urban professionals have been turning to Christianity. Buddhism attracts the middle class, while Taoism has rebounded in small towns and the countryside. Islam is also on the rise, not only in troubled minority areas but also among tens of millions elsewhere in China.

A survey in early 2011 showed that an estimated 300 million people in China claim a faith. A broader question in another poll showed that 85 percent of the population believes in religion of the supernatural.

In 2007, then-President Hu Jintao endorsed religious charities and their usefulness in solving social problems. The central government has also sponsored international conferences on Buddhism and Taoism.

As China's only indigenous religion, Taoism's influence extends from calligraphy and politics to medicine and poetry. The religion is loosely based on the writings of a mythical person named Laozi and calls for returning to the Dao, or Tao, the mystical way that unites all of creation. As in many other religions, Taoism encompasses a broad swath of practice, from Laozi's high philosophy to a pantheon of deities: emperors, officials, thunder gods, wealth gods, and terrifying demons that punish the wicked.

For much of the past two millennia, Taoism's counterpart has been Confucianism, the ideology of China's ruling elite and the closest China has to a second homegrown religion. Whereas Confucianism emphasizes moderation, harmony, and social structure, Taoism offers a refuge from society and the trappings of material success.<sup>6</sup>

## Overview of the Chinese Calendar

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The Chinese calendar dates back to 2637 B.C. and has been an important influence on China's dynasties and culture through the ages. In the twenty-first century, the Gregorian calendar is used in the People's Republic of China for civil purposes, but the traditional Chinese calendar is still used for celebrating festivals and timing agricultural activities.

The Chinese calendar is a combination of two cycles, the Ten Celestial Stems and the Twelve Terrestrial Branches. Combining two characters from each of these cycles, years are enumerated and make up a cycle of 60 years.

<sup>6</sup>Ian Johnson, "The Rise of the Tao." *The New Yorker*, November 7, 2010; China.org.

Every year correlates with one of 12 animals (e.g., 2012 was the year of the dragon, and the next year of the dragon will take place in 2024). The character of the animal is considered to have an influence on the character of people born during that year. (See Figure 1.)

Sixty-Year Cycle of the Chinese Calendar

1 甲子 jiazi	2 乙丑 yichou	3 丙寅 bingyin	4 丁卯 dingmao	5 戊辰 wuchen	6 己巳 jisi	7 庚午 gengwu	8 辛未 xinwei	9 壬申 renshen	10 癸酉 guiyou
11 甲戌 jiaxu	12 乙亥 yihai	13 丙子 bingzi	14 丁丑 dingchou	15 戊寅 wuyin	16 己卯 jimao	17 庚辰 gengchen	18 辛巳 xinsi	19 壬午 renwu	20 癸未 guiwei
21 甲申 jiashen	22 乙酉 yiyou	23 丙戌 bingxu	24 丁亥 dinghai	25 戊子 wuzi	26 己丑 jichou	27 庚寅 gengyin	28 辛卯 xinmao	29 壬辰 renchen	30 癸巳 guisi
31 甲午 jiawu	32 乙未 yiwei	33 丙申 bingshen	34 丁酉 dingyou	35 戊戌 wuxu	36 己亥 jihai	37 庚子 gengzi	38 辛丑 xinchou	39 壬寅 renyin	40 癸卯 guimao
41 甲辰 jiachen	42 乙巳 yisi	43 丙午 bingwu	44 丁未 dingwei	45 戊申 wushen	46 己酉 jiyou	47 庚戌 gengxu	48 辛亥 xinhai	49 壬子 renzi	50 癸丑 guichou
51 甲寅 jiayin	52 乙卯 yimao	53 丙辰 bingchen	54 丁巳 dingsi	55 戊午 wuwu	56 己未 jiwei	57 庚申 gengshen	58 辛酉 xinyou	59 壬戌 renxu	60 癸亥 guihai

Figure 1 60 Year Cycle of the Chinese Calendar

Chinese Year	Zodiac Animal	Gregorian Calendar
<b>4709</b>	<b>Hare/Rabbit</b>	<b>3-Feb-11</b>
4710	Dragon	23-Jan-12
4711	Snake	10-Feb-13
4712	Horse	31-Jan-14
4713	Ram/Sheep	18-Feb-15
4714	Monkey	8-Feb-16
4715	Rooster	28-Jan-17
4716	Dog	15-Feb-18
4717	Boar	5-Feb-19
4718	Rat	25-Jan-20
4719	Ox	12-Feb-21
4720	Tiger	1-Feb-22
<b>4721</b>	<b>Hare/Rabbit</b>	<b>22-Jan-23</b>
4722	Dragon	10-Feb-24
4723	Snake	29-Jan-25
4724	Horse	17-Feb-26
4725	Ram/Sheep	6-Feb-27
4726	Monkey	26-Jan-28
4727	Rooster	13-Feb-29
4728	Dog	3-Feb-30

## Historical Chinese Cities<sup>7</sup>

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In Heaven, there is paradise; on earth, Hangzhou and Suzhou.

Marco Polo (1254–1324)

For centuries, the cities of Hangzhou and Suzhou have loomed large in the affections and travel plans of the Chinese citizenry.

### Hangzhou

Founded approximately 2,200 years ago during the Qing dynasty and through the centuries a center of meditative, poetic, and spiritual significance, Hangzhou is one of the Seven Ancient Capitals of China. Hangzhou, whose city walls were not built until the Sui dynasty in 591 A.D., sits at the southern end of China's Grand Canal, the world's longest canal. It was the capital of several kingdoms, including the Wuyue Kingdom during the Five Dynasties and Ten Kingdoms Period, and the Southern Song dynasty.

With its tea and silk industries, and its temples and pagodas adorning quiet hilltops, Hangzhou remained an important port through the middle of the Ming dynasty.



Figure 2 Location of Hangzhou

<sup>7</sup>[www.travelchinaguide.com](http://www.travelchinaguide.com), <http://rightsitesite.asia/en>.



**Figure 3 Skyline of Modern Hangzhou**

Courtesy of Andy Brandl.

Hangzhou remains relevant today:

- Hangzhou is a major city located in the Yangtze River Delta region, and it is the capital of Zhejiang province in eastern China.
- In 2013, Hangzhou had a population of 8,700,000.
- In 1993, the Chinese government established the Hangzhou Economic and Technological Development Zone to encourage industries including electronic information, biological medicine, machinery manufacturing, and food processing.
- Hangzhou operates an international airport, the Hangzhou Xiaoshan International Airport and a thriving river port, the Hangzhou Port.
- Possessing near mythical status in Chinese cultures, Hangzhou is a popular tourist destination and it has been frequently ranked as one of China's 10 most scenic cities.

### **Suzhou**

Dubbed the “Venice of the East,” or the “Venice of China,” Suzhou is one of the oldest towns in the Yangtze Basin.

Suzhou dates back 2,500 years, to the late Zhou dynasty, and was established by the Wu, who formed villages along the edges of hills above the wetlands surrounding Lake Tai. In 514 B.C., during the Spring and Autumn Period of the Zhou dynasty, King Helu named Suzhou the “Great City of Helu,” and established it as his kingdom's capital city. Since then, historic Suzhou has largely remained unchanged.

Known as “Wu County” throughout the Qin dynasty, Suzhou served as the location of Xiang Yu's historical uprising that contributed to the overthrow of the Qin regime. Suzhou's name was later restored during the Sui dynasty in 589 A.D.

Upon completion of the Grand Canal, Suzhou found itself strategically located on a major trade route, making Suzhou a hub of industry, trade, and commerce.



**Figure 4** Location of Suzhou

A city within the Yangtze River Delta region, Suzhou has modernized while maintaining its cultural and historical significance in Chinese history.

- In 2013, Suzhou had a population of 10,549,100.
- In the 1990s, the Chinese partnered with Singapore to establish several economic development projects, including the Suzhou Hi-Tech Industrial Development Zone, which as of early 2013 hosted over 1,500 foreign companies, 40 of which are Fortune 500 companies.
- Suzhou is a popular tourist destination and receives many visitors each year.

### The First Five Special Economic Zones of China<sup>8</sup>

Following the end of the Mao era in 1978, Deng Xiaoping became the Paramount Leader of China and initiated broad economic reforms. He envisioned China as a country more open to the outside world and economically robust. He encouraged foreign trade and investment through joint ventures and aimed to increase foreign investment.

<sup>8</sup>“Quick Guide: China’s Economic Reform,” BBC News, November 3, 2006, [www.china.org.cn](http://www.china.org.cn).



Figure 5 Location of Five Special Economic Zones

To accomplish this goal, he created special economic zones (SEZs) in southern China on September 6, 1980. The SEZs were Shenzhen, Xiamen, Shantou, Zhuhai, and the entire province of Hainan. Deng Xiaoping envisioned these SEZs as incubators of capitalism.

The key benefit of the SEZs to foreign investors was favorable tax advantages and government regulations. In 2010 at the 30th Anniversary of the SEZ, then-President Hu Jintao noted that “China will always support the SEZs and remember their roles as ‘first movers.’”

### **Shenzhen, “The City of Ambition”<sup>9</sup>**

Literally meaning “deep drains,” Shenzhen was a nondescript fishing village located alongside several rivers and streams until Paramount Leader Deng Xiaoping declared the city an SEZ on September 6, 1980.

Shenzhen, a Pearl River Delta city whose roots trace back to the Ming dynasty, was selected by Deng Xiaoping as an SEZ because of its close proximity to Hong Kong, a then-prosperous British territory. Since 1980, Shenzhen has blossomed into one of China’s burgeoning economic power

<sup>9</sup>[www.szse.cn](http://www.szse.cn), [www.world-exchanges.org](http://www.world-exchanges.org), [www.ship.gov.cn](http://www.ship.gov.cn), <http://english.sz.gov.cn>, [www.scmp.com](http://www.scmp.com), [www.trueknowledge.com](http://www.trueknowledge.com).



centers and has been called the “City of Ambition.” In 2012, Shenzhen had an estimated population of approximately 12.5 million and a gross domestic product of 1.3 trillion yuan (US\$210 billion).

Shenzhen has evolved from a small fishing community into one of China’s most vibrant economic zones. Among several prominent economic developments, two of the most notable are:

- **Shenzhen Stock Exchange (SZSE).** Founded on December 1, 1990, 10 years after Shenzhen was declared an SEZ, the Shenzhen Stock Exchange is one of China’s three stock exchanges and has ranked as the seventh-largest exchange by market capitalization out of the 16 major exchanges in the Asia-Pacific region. As of December 31, 2011, the SZSE had 1,420 companies listed on its exchange, with a stock market value of US\$1.0 trillion. The SZSE also operates the SME Board and ChiNext, two subexchanges catering to specific securities.
- **Shenzhen Hi-Tech Industrial Park (SHIP).** Founded in September 1996, the Shenzhen Hi-Tech Industrial Park covers an area of 11.5 square kilometers and encourages the biotechnology/pharmaceutical, building and construction, chemicals, medical equipment, telecommunications, and electronics industries. SHIP also established the Shenzhen Software Park to encourage the software industry. SHIP has attracted high-tech, multinational companies including IBM, Philips, Olympus, Epson, Lucent, Harris, and Thomson.

## Other Notable Chinese Cities<sup>10</sup>

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The cities described in the following sections have been chosen because of their size, economic vibrancy, and/or historical and cultural significance.

### ***Chengdu (Sichuan Province)***

- Population (2011): 14.0 million.
- Dating back to the fourth century B.C., Chengdu was the capital of several ancient dynastic kingdoms.
- In 1279, the Mongols sacked the city, killing 1.4 million inhabitants.
- Chengdu was the birthplace of the first widely used paper money in the world.
- Chengdu is the home of the Chengdu Research Base of Giant Panda Breeding.
- Chengdu’s main industries include food, medicine, machinery, and information technology.
- Chengdu is one of the preferred cities for investment in western China; 135 of the world’s 500 largest companies multinational enterprises had subsidiaries or branch offices in Chengdu as of 2013.

<sup>10</sup>ChinaToday; wikipedia.org.

***Chongqing (Direct-Controlled Municipality)***

- Population (2012): 29.8 million.
- Chongqing served as China's wartime capital during the Second Sino-Japanese War.
- In 1997, Chongqing was named one of China's four directly controlled municipalities (the highest ranking level for cities in China; the other three directly-controlled municipalities are Beijing, Shanghai, and Tianjin).
- In 2005, Chongqing was named one of China's Five National Central Cities, the others being Beijing, Guangzhou, Shanghai, and Tianjin.
- Chongqing serves as a manufacturing center and transportation hub for Southwest China, with its main industries including iron, steel, and aluminum production, motor vehicle production, and mining.

***Dalian (Liaoning Province)***

- Population (2011): 6.8 million.
- Dalian has been controlled by several countries, including Britain in 1858, China in the 1880s, Japan in 1895 during the first Sino-Japanese War, and the Soviet Union following World War II.
- One of China's key ports located in Dalian is Port Arthur (now named Lushun), named after Prince Arthur, Queen Victoria's son.
- Dalian Beach is 31 kilometers (18 miles) in length and serves as a popular summer destination.
- Dalian's main industries include machine manufacturing, petrochemicals, oil refining, and electronics.

***Nanjing (Jiangsu Province)***

- Population (2012): 8.2 million.
- Meaning "Southern Capital," Nanjing served as China's economic, cultural, and political capital through several modern historical periods, including the period up to the Chinese Civil War in 1949.
- Surrounded by the Yangtze River (a strategic trade gateway) and mountains, Nanjing boasts beautiful natural scenery.
- During the Tang and Song dynasties, Nanjing was a place where poets gathered and composed poems.
- Nanjing's main industries include electronic information, machinery, materials, biopharmaceuticals, and pharmaceuticals.

***Harbin (Heilongjiang Province)***

- Population (2012): 11.3 million.
- An extension of Russia's Trans-Siberian Railway, the Chinese Eastern Railway (constructed in 1898) connected Harbin to other port cities,

transforming Harbin from a small fishing village into an industrial metropolis.

- Harbin became a major center of émigrés following the Russian Civil War and during Nazi Germany.
- Known for its long winters, which usually last seven months, from October to April, Harbin hosts the annual Harbin International Ice and Snow Sculpture Festival.
- Called “black earth,” the soil of Harbin is among the most nutrient-rich in China.
- Harbin’s main industries include textile-related crops, commodity grain production, and agricultural businesses.

#### ***Hohhot (Inner Mongolia)***

- Population (2012): 3.0 million.
- Hohhot serves as the capital of the Inner Mongolia Autonomous Region.
- The majority of Hohhot residents speak the Hohhot dialect and understand Mandarin.
- Tongdao Road, a major street in the old town area, is decorated with Islamic and Mongol exterior designs on many of the buildings.
- Naadam, a Mongolian summer festival held annually in mid-August, features traditional Mongolian sports including wrestling, horse racing, camel racing, and archery.
- Hohhot’s main industries include wool and leather goods, building materials, iron and steel products, and fertilizer.

#### ***Qingdao (Shandong Province)***

- Population (2012): 9.4 million.
- Due to its location on the Shandong Peninsula, Qingdao is a major industrial city and foreign trade port. It is also a popular location for health resorts, due to its mild climate, beaches, and verdant green hills.
- Identified as a strategic port, Qingdao was a German colonial concession from 1898 to 1914, following a brief political conflict.
- Upon gaining control of the area, the Germans outfitted the fishing village with wide streets, electrification, a sewer system, and safe drinking water supplies.
- Qingdao’s main industries include mineral water, wine, and Tsingtao beer.

#### ***Xiamen (Fujian Province)***

- Population (2012): 3.6 million.
- Also known as Amoy, Xiamen and the surrounding countryside are famous for being an ancestral home to many overseas Chinese.

- Xiamen was China’s main port for exporting tea in the nineteenth century.
- The local dialect is Amoy, also known as Hokkien, and has had a major influence on how certain Chinese terms were translated into Western languages: *tê* became known as “tea” and *kiô-chap* became known as “ketchup,” in English.
- In 1980, Xiamen was named one of the five SEZs in China by the then Paramount Leader Deng Xiaoping.
- As a result of being named an SEZ in 1980, Xiamen has built up a highly developed banking sector, with the presence of over 600 financial institutions.
- Xiamen’s main industries include financial services, fishing, shipbuilding, food processing, tanning, textiles, machine tool manufacturing, and telecommunications.

### China’s Five National Central Cities, Emerging Cities, and Growing Middle Class

In 2005, the Ministry of Housing and Urban-Rural Development designated Beijing, Chongqing, Guangzhou, Shanghai, and Tianjin as China’s Five National Central Cities (see Table 1). These cities are charged with leading and developing China economically, politically, and culturally.

The Global Urban Competitiveness Project, a partnership among professors and scholars in the United States, Canada, China, Britain, the Netherlands, Mexico, Italy, and Japan, among other countries, published the “Global Competitiveness Report 2009–2010” in July 2010, ranking the world’s top 500 cities in terms of competitiveness. Their metrics included the size and growth of a city’s economy, output per person and per square kilometer, international patent applications, and the presence of multinational corporations. The top three cities were New York, London, and Tokyo, respectively. Of the 500 cities ranked, 65 were Chinese. As shown in Table 2, Chinese cities have been increasing in global competitiveness.

In their study of emerging market cities in November 2010, “Winning in Emerging Market Cities,” the Boston Consulting Group (BCG) reported that in 2005, a company had to have operations in 60 Chinese cities to reach 80 percent

**Table 1 China’s Five National Central Cities**

City	2009 GDP (US\$ Bn)	2009 Population (Million)	Area (km <sup>2</sup> )	Region
Beijing	173.7	16.3	16,808	North
Chongqing	95.6	28.2	82,300	Southwest
Guangzhou	133.4	7.8	7,434	South Central
Shanghai	218.2	18.6	6,340	East
Tianjin	109.8	11.2	11,303	North

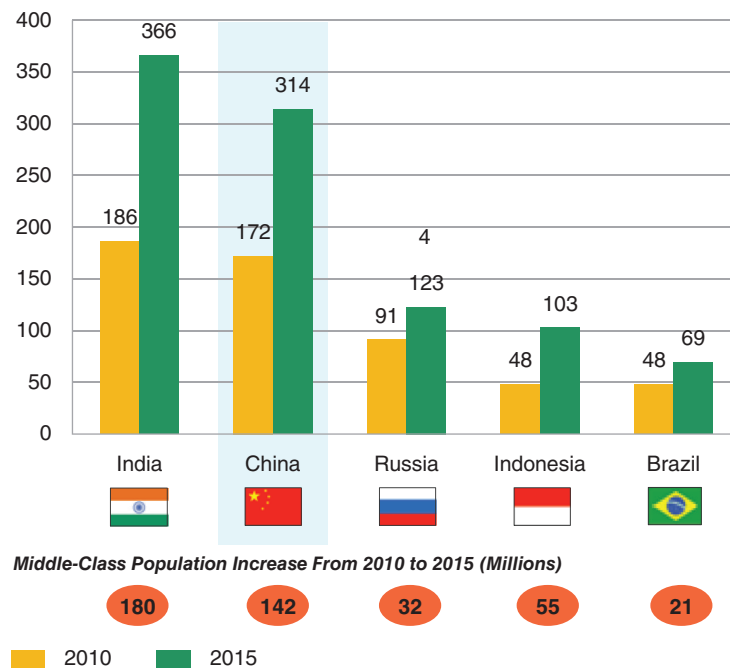
Source: Economist Intelligence Unit.

**Table 2 The Most Competitive Cities in the World**

City	2009–2010 Ranking	2007–2008 Ranking
Hong Kong	10	11
Shanghai	37	46
Beijing	59	68
Shenzhen	71	69
Macao	93	98
Guangzhou	120	119
Tianjin	165	185
Dongguan	195	214
Dalian	218	234
Foshan	219	223
Suzhou	221	243
Chengdu	222	236
Hangzhou	223	222

Source: *Global Urban Competitiveness Report (2009–2010)*, www.gucp.org.cn.

of China’s middle class, but by 2020, a company will have to have operations in 212 cities to reach 80 percent of China’s middle class. According to BCG, income levels of the residents living in these emerging cities will likely rise, leading to a growing middle class through 2015 and beyond (see Figure 6).



**Figure 6 Middle-Class and Above-Middle-Class Populations (Millions)**

Sources: Economist Intelligence Unit; Brazilian Institute of Geography and Statistics (IBGE); Instituto Nacional de Estadística y Geografía (INEGI); BCG China 2010 population and income forecast database; National Council of Applied Economic Research (NCAER); “The Great Indian Middle Class,” 2004 BCG Analysis.

## Transportation in China

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Among the factors catalyzing China's economic growth over the past three decades have been the century's significant investments in its rail and air transportation infrastructure, continuing an emphasis that in earlier centuries found expression in China's Grand Canal undertaking.

### *The Grand Canal*<sup>11</sup>

The Grand Canal in China is the longest canal or artificial river in the world. Beginning in Beijing, it passes through Tianjin and the provinces of Hebei, Shandong, Jiangsu, and Zhejiang to the city of Hangzhou. The Grand Canal was built during the Sui dynasty (581–618 A.D.), with various earlier sections dating back to the fifth century B.C. The Grand Canal's total length is 1,776 km (1,103 miles). The canal's highest elevation is 42 meters (138 feet), located in the mountains of Shandong province.

According to historians, the development of the Grand Canal during the Sui dynasty was attributed to the migration of China's core economic and agricultural region, which moved from the Yellow River Valley to the present-day Jiangsu and Zhejiang provinces. As such, the Grand Canal's main role throughout the Sui dynasty was the transport of grain from the agricultural region in southern China to the capital-city region in northern China. With the recorded labor of five million men and women under the supervision of Ma Shumou, the first major section of the Grand Canal was completed in the year 605 A.D. The Grand Canal was fully completed under the second Sui emperor, from 604 to 609 A.D. Post offices supporting a courier system and an imperial roadway ran alongside the Grand Canal.

Located near the Grand Canal, Yangzhou (Jiangsu province) remained a vibrant economic zone through the Tang dynasty (618–907 A.D.), despite Chang'an serving as the dynasty's capital city.

From the Tang to the Qing dynasties, the Grand Canal transported mainly grain, among other commodities. As it served as the main artery between northern and southern China, the Grand Canal facilitated the development of an economic belt from the northern part of the country to its southern regions. From the founding of the People's Republic of China (1949) to early 2013, the Grand Canal transported primarily bulk goods including bricks, gravel, sand, diesel fuel, and coal.

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<sup>11</sup> Encarta Encyclopedia; Patricia Buckley Ebrey, *The Cambridge Illustrated History of China* (Cambridge, UK: Cambridge University Press, 1999); John King Fairbank and Merle Goldman, *China: A New History; Second Enlarged Edition* (Cambridge, MA: Harvard University Press, 2006); Charles Benn, *China's Golden Age: Everyday Life in the Tang Dynasty* (Oxford, UK: Oxford University Press, 2011); Joseph Needham, *Science and Civilization in China: Vol. 4. Physicals and Physical Technology, Part 3, Civil Engineering and Nautics* (Caves Books, 1986).

The Grand Canal has also facilitated cultural exchange and political integration between northern and southern China.

### **China's High-Speed Rail Passenger System<sup>12</sup>**

China's high-speed rail network (HSR) is considered the world's most ambitious public-works project, a twenty-first-century equivalent of America's Interstate Highway System.

Defined as a train traveling with an average speed of at least 200 km/h (124 mph), high-speed rail systems are used as means of faster travel, mainly throughout Europe, most notably in Spain, France, Germany, and Italy; and in Asia, most notably in China, Japan, and Taiwan.

- In 2008, China had only 649 km (403 miles) of high-speed railways; as of April 2011, China had 8,400 km (5,220 miles), four times as much as the next-largest work (Japan). By 2012, China had expanded the network to cover 9,356 km (5,813 miles), and planned further expansion to 50,000 km (31,069 miles) by 2020.
- As of May 2011, China operated the world's fastest high-speed rail train, reaching 350 km/h (217 mph) on parts of the country's rail network.
- In December 2010, China's high-speed rail passenger train established a new world record, traveling at 486 km/h (302 mph) during a test run of the link between Beijing and Shanghai.
- China's network links Shanghai, China's economic hub, to Hangzhou, the capital of East China's Zhejiang Province, among other connections between cities. As of early 2011, the nine-stop trip from Shanghai to Hangzhou took 45 minutes and cost 98 yuan (US\$14.73) for coach, and 156 yuan (US\$23.45) for first class.
- The Beijing-Shanghai line, a 1,318-km rail line that cost 220.9 billion yuan (US\$33.2 billion) was opened in 2012.
- Although the network provides affordable travel for some Chinese, tens of millions of poor migrants who work far afield and flock home for the Chinese New Year cannot afford to travel via the rail system and instead use the bus system.

On May 15, 2011, Morgan Stanley Research published a 63-page report, "China High-Speed Rail: On the Economic Fast Track," which provided an

<sup>12</sup>Morgan Stanley & Co. Inc. Research, "China High-Speed Rail: On the Economic Fast Track," May 15, 2011; "Off the Rails?" *The Economist*, April 2, 2011; *Time Magazine*, www.time.com; "High Speed Around the World Maps," *International Union of Railways*, December 2010, www.uic.org; "China Unveils Shanghai-Hangzhou High-Speed Railway; Eyes Network Extension," *Xinhua News Agency*, October 26, 2010; "China Unveils World's Fastest High Speed Train," *Huffington Post*, December 3, 2010.

overview of the largest transportation infrastructure project in history and the implications for 12 industries within China: tourism, restaurants, hotels, budget hotels, consumer staples, consumer discretionary, property, railway rolling stock, railway infrastructure, toll roads, aviation, and car rental.

China's HSR Highlights	
Railway Network	7,431 km (4,617 miles)
Operating Speed	350 km/h (217 mph)
Test Speed	486 km/h (302 mph)
Network in 2012	13,000 km (8,078 miles)
Network by 2020	16,000 km (9,942 miles)

### China's Airports<sup>13</sup>

As of early 2013, China had approximately 500 airports, over 440 of which were paved. Table 3 compares this to other countries.

- In 2011, China ranked 15th in the world in the number of airports.
- Ranked the second-busiest airport in the world as of May 2011, the Beijing Capital International Airport served 11 domestic and 55 foreign airline companies.
- In 2011, Beijing Capital International Airport's traffic was 78 million passengers. In 2009, it accommodated 65.3 million passengers, six years ahead of schedule. In 2012, the airport accommodated more than 90 million passengers.

**Table 3 Country Comparison: Airports**

Rank	Country	# of Airports
1	United States	15,079
2	Brazil	4,072
3	Mexico	1,819
4	Canada	1,404
5	Russia	1,213
6	Argentina	1,141
7	Colombia	990
8	Bolivia	881
9	Paraguay	800
10	Indonesia	684

Source: CIA World Factbook (June 2011). Data are as of 2010.

<sup>13</sup> CIA World Factbook (June 2011); www.chinahighlights.com, *Airports Council International*: "Final Airport Traffic Results for 2009," March 2010; "Year to Date Passenger Traffic August 2010," November 2010; www.travelchinaguide.com.



- Beijing Capital International Airport has operated since 1958 and as of May 2012 offered over 5,000 scheduled flights to 88 cities in China and 69 cities abroad.
- The airport has three terminals: Terminal 1, opened in 1958; Terminal 2, in 1999; and Terminal 3, in 2008.
- As of mid-2013, Beijing Capital International Airport was one of the world's most technologically advanced airports, equipped with state-of-the-art systems, security, and baggage-handling facilities.

### Evolution of Modern Chinese Paper Currency<sup>14</sup>

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The first series of the renminbi was introduced on December 1, 1948, the day the People's Bank of China was established in Shijiazhuang, Hebei Province. The renminbi was titled "the People's Currency."

The second series of the renminbi was introduced on March 1, 1955, bringing an end to the first series of the renminbi. With the introduction of the second series, the Chinese moved the decimal point of its currency four places to the left; as a result, a first series ¥10,000 note became equivalent to a second series ¥1 note.

The third series of the renminbi was introduced in 1962. Unlike the second-series renminbi, the third series did not replace its predecessor, as the second-series renminbi continued to be used. The third series used vivid colors, was smaller in size than the second series, and had distinct national themes, an unconventional border design, and embroidered Zhuang text.

The fourth series of the renminbi was introduced on April 27, 1987. The fourth series circulated alongside the third series, and its exchange rate with the third series was 1:1. It included security features such as watermarks, magnetic ink, and fluorescent ink.

The fifth series of the renminbi was introduced on October 1, 1999. Initiated by Prime Minister Zhu Rongji, the introduction of the fifth series of the renminbi aimed to facilitate economic growth, provide better security, and commemorate the 50th anniversary of the People's Republic of China. As of early 2013, the fifth series of the renminbi was the current currency in circulation throughout China.

### China's Political System<sup>15</sup>

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China's 34 provincial-level governments include 23 provinces, 5 autonomous regions, 4 municipalities, and 2 special administrative regions.

<sup>14</sup>Show China, [www.showchina.org](http://www.showchina.org).

<sup>15</sup>Morgan Stanley Wealth Management Investment Strategy; Michael F. Martin, "Understanding China's Political System," *Congressional Research Archive*, April 14, 2010; US-China Business Council; the China Business Review; People's Daily Online.

***The Communist Party of China (CPC)***

Formally established on July 20, 1921, in Shanghai, the CPC began as a Marxist-Leninist party organized into small groups that operated on the principle of “democratic centralism.”

The contemporary CPC is organized into a hierarchal network of organizations that reaches into many aspects of Chinese society. The CPC has affiliations with universities and schools, think tanks, state-owned enterprises, private corporations, and foreign-owned companies, among other institutions.

The CPC’s most powerful policy and decision-making entity is the Political Bureau (Politburo). The Politburo Standing Committee consists of a smaller group of elite party members that wields much of the political power in China. The president and vice president preside over China’s government. As of mid-2013, the president and vice president were Xi Jinping and Li Yuanchao, respectively. The general secretary has historically been the highest position in the CPC; generally, the general secretary of the CPC is also the president of China.

***The State Council (Chinese Government)***

The State Council, along with its ministries, bureaus, commissions, and agencies, serves as the administrator and regulator of China’s day-to-day government functions. The Premier of the CPC runs the State Council. The Premier is also a member of the Politburo Standing Committee, emphasizing the interconnection between the CPC and the Chinese government. As of mid-2013, the Premier was Li Keqiang.

China’s government is essentially divided into two parts: a system of ministerial organizations, including the Ministry of Foreign Affairs and the Ministry of Commerce, among others; and a system of geographic organizations, including provincial, municipal, county, and township and village governments.

As of mid-2013, China had 34 provincial-level governments; over 300 prefecture-level governments; over 3,000 county-level governments; and over 40,000 township-level governments. Although China’s constitution does not outline the division of power among the various tiers of government, each tier of government reports to the tier of government above it.

***Other Institutions (Interconnected with the CPC and the State Council)*****The People’s Liberation Army (PLA)**

Established on August 1, 1927, the People’s Liberation Army (PLA) is China’s unified military organization, responsible for all air, land, and naval forces. As of early 2011, the PLA was the largest military force in the world, with over two million citizens on active duty. The two Central Military Commissions

(CMCs), a state entity and a party entity, are responsible for military policy and decisions. The party CMC is chaired by the CPC general secretary, symbolizing the prerogative of military leadership.

#### **The National People's Congress (NPC)**

The National People's Congress (NPC) is China's unicameral legislative body. The NPC meets annually for about two weeks to officially set government policy and select China's leadership.

As of early 2013, the NPC had approximately 3,000 members, 70 percent of whom were in the CPC and 30 percent of whom were in other parties, including the United Front Democratic Party. As of early 2013, the NPC had a standing committee of approximately 150 members.

The CPC approves all selected, not popularly elected, NPC candidates and oversees the election process.

#### **The Supreme People's Court**

The Supreme People's Court is responsible for civil, criminal, and administrative cases, as well as appeals. It reports to the NPC and the NPC Standing Committee.

The chief justice (also named the president) of the Supreme People's Court is appointed by the NPC and can remain in office for no more than two successive terms, each of which is five years. Other deputy presidents and judges are appointed by the NPC Standing Committee.

Another judicial body, the Supreme People's Procuratorate, supervises the application and enforcement of the law.

### ***The Legacy of Deng Xiaoping*<sup>16</sup>**

The Maoist Who Reinvented Himself, Transformed a Nation, and Changed the World

*Time magazine*

Mr. Deng was the paramount leader of the People's Republic of China from 1978 to 1992, and he is credited with steering China away from its Lenin-like, Maoist organizational philosophy into a wider world of technological growth and international trade.

Mr. Deng's rise as a political figure in China was a long and trying one: he was purged twice by the CPC during the Cultural Revolution for promoting economic policies that differed from those of Chairman Mao Zedong; and he later regained prominence when he was appointed the Paramount Leader of the CPC in 1978 by outmaneuvering Mao's chosen successor, Hua Guofeng.

<sup>16</sup>"60 Years of Asian Heroes," *Time*, November 13, 2006.

Despite serving as the paramount leader, Mr. Deng never held office as the head of state, head of government, or general secretary of the CPC (historically the highest position in Communist China).

Mr. Deng believed that China needed to separate from its Maoist mold of state control, that China needed to encourage its long-dormant entrepreneurial spirit, and that China needed to open up to capitalism, whatever the political fallout. He often said, “It does not matter if a cat is black or white, so long as it catches mice.”

Under his leadership, China focused on the “Four Modernizations” set forth by Zhou Enlai in 1963: agriculture, industry, national defense, and science and technology. In addition to his policy changes in economics, Mr. Deng loosened the controls placed by Mao Zedong on filmmaking, fashion, music, and the visual arts.

### **Former Leaders of the Communist Party of China<sup>17</sup>**

#### **Former President Hu Jintao**

Born in December 1942, President Hu Jintao, an ethnic Han native of Jixi, Anhui Province, joined the CPC in April 1964 and until late 2012 was the paramount leader of the People’s Republic of China.

Mr. Hu’s political philosophy can be summarized by two phrases: “harmonious society” and “peaceful development.” To achieve the former, Mr. Hu established the “Scientific Development Concept,” China’s official socioeconomic ideology that aims to solve its economic, environmental, and social problems.

Mr. Hu also developed China’s core value system, called “Eight Honors and Eight Shames.” This moral code is used as a guideline for the Chinese, and slightly differs from the ones established by Mao Zedong and Deng Xiaoping, in that for the first time it focuses on codifying moral standards as opposed to setting social or economic goals.

One of Mr. Hu’s power bases has been the Communist Youth League of China.

Mr. Hu studied engineering at the Water Conservancy Engineering Department of Tsinghua University. He is married to Liu Yongqing and they have two children together.

#### **Former Prime Minister Wen Jiabao**

Born in September 1942, Prime Minister Wen Jiabao, an ethnic Han native of Tianjin, joined the CPC in September 1967 and until late 2012 was the

<sup>17</sup>Photos of Hu Jintao and Wen Jiabao, <http://english.peopledaily.com>; Geoff Dyer, “Who Will Be China’s Next Leaders?” *Financial Times*, March 5–6, 2011; China Internet Information Center; [www.china.org.cn](http://www.china.org.cn); Robert Lawrence Kuhn, *Hu’s Political Philosophies*, by March 13, 2010.

sixth premier of the State Council of the People's Republic of China. Mr. Wen has been regarded as China's leading figure behind its economic policy, as a member of the Politburo Standing Committee of the CPC.

Soft-spoken and known for his strong work ethic, Mr. Wen has advocated for a more balanced approach in developing China's hinterland regions, and he played a key role in China's response to the 2007–2009 global financial crisis and its subsequent stimulus programs.

Mr. Wen accompanied former General Secretary Zhao Ziyang to Tiananmen Square during the 1989 Tiananmen Square protests, and unlike Mr. Zhao, who was punished by house arrest for the rest of his life, Mr. Wen was later promoted to vice premier under his mentor, Zhu Rongji.

Of the senior CPC leaders, Mr. Wen has been very popular with the public. He has consistently spent time over the New Year holidays in poor, rural areas, referring to himself as “Grandpa Wen.”

Mr. Wen studied geological surveying and prospecting at the Beijing Institute of Geology. He is married to Zhang Peili, a jewelry expert and investor, and they have a son together.

### China's Transition of Party Leaders

	2012	2013
<b>President Hu Jintao's Transition Timeframe</b>	Stepped down as Communist Party Chief late in the year	Presidential term ended in March
	2012	2013
<b>Prime Minister Wen Jiabao's Transition Timeframe</b>	Stepped down from the Communist Party's Politburo Standing Committee	End of Premiership term

#### Leaders of the Communist Party of China<sup>18</sup>

##### President Xi Jinping

Born in June 1953, President Xi Jinping, son of a former revolutionary leader imprisoned by Mao Zedong, joined the CPC in 1974. In October 2010, Vice President Xi Jinping was appointed vice chairman of the Central Military Commission of the CPC, signaling that Mr. Xi would be the likely successor of the then party chief, President Hu Jintao.

President Xi Jinping has been viewed as a moderate who appears to be particularly engaged on key economic and strategic issues involving China

<sup>18</sup> Geoff Dyer, “Who Will Be China's Next Leaders?” *Financial Times*, March 5–6, 2011; “China Grooms a New Leader, Politically Deft, if Little Known,” *Wall Street Journal*, January 24, 2011; “China Anoints Its Next Leader,” *Wall Street Journal*, October 17, 2010; “Xi's Career Gives Few Clues to His Beliefs,” *Wall Street Journal*, October 19, 2010; “China's Li Delivers A Polished Future,” *Forbes*, January 28, 2010.

and the world. At age 15, he was sent to work among peasants in the yellow hills of Shaanxi province. He stayed seven years in the village of Liangjiahe, which eventually named him party secretary.

As party secretary in Guangdong province during the 1980s, he was instrumental in the development of the SEZ in Shenzhen, the city near Hong Kong that became the symbol of China's economic take-off.

A self-confessed fan of American movies, particularly World War II movies, Mr. Xi was named one of the most influential people in the world in the 2009 Time 100 list.

Mr. Xi Jinping studied chemical engineering at Beijing's prestigious Tsinghua University. Mr. Xi is a so-called princeling, a descendant of a member of the revolutionary party elite, and his second marriage is to a celebrity folk singer and army major general, Pen Liyuan. Mr. Xi was first married to Ke Xiaoming, the daughter of China's ambassador to the United Kingdom in the late 1970s. They have a daughter enrolled at Harvard University as of early 2013.

#### **Premier Li Keqiang**

Born in July 1955, Premier Li Keqiang, an ethnic Han native of Dingyuan, Anhui Province, joined the CPC in March 1974. As Premier Wen Jiabao's top lieutenant, Mr. Li's official portfolio included responsibility for development, price controls, finance, climate change, and macroeconomic management.

Mr. Xi made his first major appearance internationally at the 2010 World Economic Forum in Davos, Switzerland. At the Forum, Mr. Xi briefed the audience on China's commitment to sustainable development, green energy, a decrease in the income gap, the modernization of key strategic industries, and peaceful development.

The son of a low-level official from the poor, rural province of Anhui, he was sent to work for four years as a farmer during the Cultural Revolution. During that time, China's universities admitted only those with a suitable proletarian class background, but in 1977, the competitive entrance exam was restored. A total of 11.6 million people applied. Li was one of 401,000 admitted, making him a member of the famous "Class of 1982."

Mr. Li earned an LLB and PhD in economics from Peking University (colloquially known as Beida University). Mr. Li is married to Cheng Hong, a professor at the Capital University of Economics and Business in Beijing, and his father-in-law is a former vice secretary of the Communist Youth League Central Committee.

## **Five-Year Plans of the People's Republic of China**

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The Five-Year Plans of the People's Republic of China (PRC), displayed in Table 4, represent a series of economic development initiatives. The Chinese economy

has been influenced by the CPC through the plenary session of the Central Committee and national congresses. The party plays a leading role in establishing the foundations and principles of Chinese communism, mapping strategies for economic development, setting growth targets, and launching reforms.

Planning is a key characteristic of centralized economies, and one plan established for the entire country normally includes detailed economic development guidelines for all its regions. In order to more accurately reflect China's transition from a Soviet-style planned economy to a socialist market economy, the name of the 11th five-year program was changed to "guideline" from "plan."

**Table 4 Five-Year Plans and Guidelines of the PRC**

Plan or Guideline	Years Covered	Theme	Key Features
First	1953–1957	Stalinist Central Plan	Industrialization and agricultural producers' cooperatives
Second	1958–1962	Great Leap Forward	Capital construction and heavy Industry expansion
Third	1966–1970	Agricultural Push	Agricultural development and basic needs
Fourth	1971–1975	Cultural Revolution	Infrastructure construction and agriculture
Fifth	1976–1980	Post-Mao (Reforms and Opening Up)	Infrastructure construction, and expansion of the steel, petroleum, and agriculture industries
Sixth	1981–1985	Readjustment and Recovery	National defense industry, energy conservation and environmental protection, foreign trade and investment, technological innovation, and cultural life improvement
Seventh	1986–1990	Socialism with Chinese Characteristics	Economic reform, openness to the outside world, construction of a socialist ideological civilization, development of science and education, and development of the energy, communications, telecommunications, and raw materials industries
Eighth	1991–1995	Technical Development	Expansion of economic development zones, foreign reserves growth, imports and exports growth, and the construction and development of transportation infrastructure, including ports, airports, railways, and highways
Ninth	1996–2000	Reform of State-Owned Enterprises	Socialist market economy, modernization, population control, and reduction of poverty
Tenth	2001–2005	Strategic Restructuring	National economy, social IT, infrastructure, population control, forest area coverage, high school and higher education enrollment, and medical and health services
Eleventh	2006–2010	Rebalancing Alert	Development of the services industry, research and development, urbanization, energy conservation, water conservation, pollution control, pensions, and a rural cooperative medical care system
Twelfth	2011–2015	Pro-Consumption	Higher wages, a social safety net, domestic consumption, large-scale transactions-intensive industries including wholesale and retail trade, domestic transport and supply-chain logistics, health care, and leisure and hospitality

Sources: [www.china.org.cn](http://www.china.org.cn); Morgan Stanley Wealth Management Investment Strategy; Morgan Stanley & Co. Incorporated Research, "China's 12th Five-Year Plan," March 21, 2011.

In October 2010, China held its Fifth Plenum of the 17th CPC Central Committee. The Committee discussed China's 12th Five-Year Plan, which was officially released in two annual meetings in March 2011.<sup>19</sup>

The March 2011 draft focused on social and economic development, emphasizing the transformation of China into a consumer-driven, capital-intensive economy. Under the March 2011 draft of the 12th Five-Year Plan, China intended to provide 4 trillion yuan (US\$600 billion) to emerging industries, including energy and environmental protection, information technology (IT), biotechnology, advanced manufacturing, alternative energy, new materials, and new-energy automobiles. China projected that the added value of these industries would reach 8 percent of GDP by 2015 and 15 percent by 2020.

China remained focused on closing the income disparity between rich and poor, between urban and rural populations, and between coastal and interior regions and provinces.

Other priorities in the 12th Five-Year Plan included preparing for an aging population, improving medical services, stabilizing property prices, maintaining prosperity and stability in Hong Kong, modernizing rural areas, improving labor rights, boosting domestic demand, reforming the financial system, and opening up further to the outside world.

## China and Rare Earth Elements<sup>20</sup>

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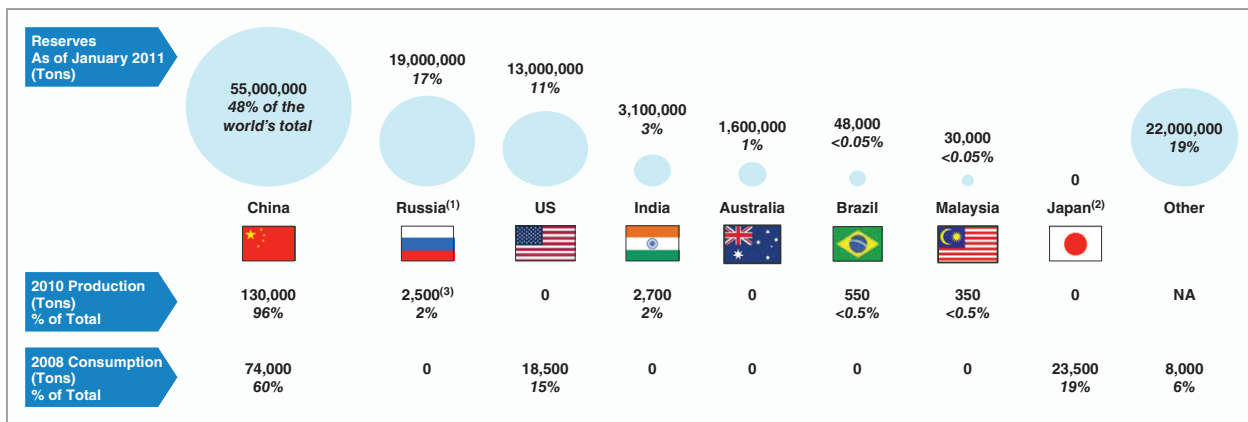
As defined by the International Union of Pure Applied Chemistry (IUPAC), rare earth elements or rare earth metals represent a collection of 17 chemical elements in the periodic table. Because of their geochemical properties, rare earth elements are not often found in concentrated and economically exploitable forms. Until 1948, most of the world's rare earths were sourced from placer sand deposits in India and Brazil. Through the 1950s, South Africa emerged as the world's primary rare earth source. Through the 1960s until the 1980s, the Mountain Pass rare earth mine in California was the leading producer. Beginning in 2011, concerns arose over a potential shortage of rare earths. Over the 2010–2020 time period, worldwide demand for rare earth elements was expected to exceed supply by 40,000 tonnes annually unless major new sources were developed.

As of January 2012, China produced over 95 percent of the world's rare earth supply, mostly in Inner Mongolia, with only 48 percent of the world's

<sup>19</sup>“China Underlines Emerging Industries in 12th Five-Year Plan,” *International Business Times*, October 18, 2010; China Economic Net, <http://en.ce.cn/>.

<sup>20</sup>IUPAC; [www.iupac.org](http://www.iupac.org); “After China's Rare Earth Embargo,” *New York Times*, October 29, 2010; “Many Want Rare Earths, but Few Are Mining Them,” *New York Times*, February 6, 2011; United States Geological Survey, [www.usgs.gov](http://www.usgs.gov); U.S. Department of Energy, Molycorp Minerals; Riedel Research.



**Notes:**

1. Data are for the Commonwealth of Independent States, which include: Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan, and Ukraine.
2. The Japan category shown here includes Southeast Asia.
3. This total reflects 2009 Data.

**Figure 7 China and Rare Earth Elements**

Sources: IUPAC; [www.iupac.org](http://www.iupac.org); the "After China's Rare Earth Embargo," *New York Times*, October 29, 2010; "Many Want Rare Earths, but Few Are Mining Them," *New York Times*, February 6, 2011; United States Geological Survey, [www.usgs.gov](http://www.usgs.gov); US Department of Energy, Molycorp Minerals; Riedel Research.

proven reserves, as shown in Figure 7. Rare earth metals are essential components of smartphones, electric cars, many computer parts, clean energy applications, and a range of military hardware. Uncertainty over supply disruptions, rule changes, export quotas, export taxes, and in some cases, targeted embargoes has raised concerns for countries and companies facing supply shortages and rising prices, and led to research and development into substitutes and plans to expand rare earths production outside China. China has also exerted important influence over the global supply of other elements, including antimony, bismuth, germanium, indium, magnesium, silicon, tin tungsten, and vanadium.

**The 17 Rare Earth Elements**

The 17 rare earth elements listed in Table 5 include the lanthanoids (elements 57 to 71), plus scandium and yttrium. Some versions of the periodic table often label the lanthanoids and actinoids (elements 90 to 103) as "rare earth metals," not to be confused with the 17 rare earth elements, which, according to IUPAC, include only the lanthanoids, scandium, and yttrium.

**China's Nuclear Energy Industry<sup>21</sup>**

As of early 2013, almost half the nuclear reactors under construction in the world were in China. The Chinese utilize reactor designs from Russia, the United

<sup>21</sup>Morgan Stanley Wealth Management Investment Strategy; "China Wants Nuclear Reactors—Fast," *Bloomberg Businessweek*, December 2, 2010.

**Table 5 The 17 Rare Earth Elements**

Atomic Number	Symbol	Name	Selected Usages
21	Sc	Scandium	Light aluminium-scandium alloy for aerospace components, and additive in mercury-vapor lamps
39	Y	Yttrium	Yttrium-aluminum garnet (YAG) laser, and YBCO high-temperature superconductors
57	La	Lanthanum	High-refractive index glass, flint, hydrogen storage, battery electrodes, and camera lenses
58	Ce	Cerium	Chemical oxidizing agents, polishing powder, and yellow colors in glass and ceramics
59	Pr	Praseodymium	Rare-earth magnets, lasers, core materials for carbon-arc lighting, and colorants in glasses and enamels
60	Nd	Neodymium	Rare-earth magnets, lasers, violet colors in glass and ceramics, and ceramic capacitors
61	Pm	Promethium	Nuclear batteries
62	Sm	Samarium	Rare-earth magnets, lasers, neutron capture, and masers
63	Eu	Europium	Red and blue phosphors, lasers, and mercury-vapor lamps
64	Gd	Gadolinium	Rare-earth magnets, high-refractive index glass or garnets, lasers, X-ray tubes, and computer memories
65	Tb	Terbium	Green phosphors, lasers, and fluorescent lamps
66	Dy	Dysprosium	Rare-earth magnets and lasers
67	Ho	Holmium	Lasers
68	Er	Erbium	Lasers and vanadium steel
69	Tm	Thulium	Portable X-ray machines
70	Yb	Ytterbium	Infrared lasers and chemical reducing agents
71	Lu	Lutetium	PET scan detectors and high-refractive index glass

Sources: IUPAC, [www.iupac.org](http://www.iupac.org); "After China's Rare Earth Embargo," *New York Times*, October 29, 2010; United States Geological Survey, [www.usgs.gov](http://www.usgs.gov); [www.periodictable.com](http://www.periodictable.com).

States, France, and China itself. A key issue is whether foreign suppliers will be able to keep pace with Chinese demand for critical and scarce components.

Prior to Japan's Sendai Earthquake of March 11, 2011 (measuring 9.0 on the Richter Scale), the Chinese were prepared to spend US\$511 billion to build up to 245 reactors, according to Arthur D. Little, a management consulting firm.

The Chinese have been rapidly developing self-sufficiency in reactor design and construction. They plan to use several suppliers, with the goal of becoming a developer themselves.

As of December 2010, China operated 12 nuclear plants, having built one to two reactors per decade; by late 2012, 27 facilities were under

**Table 6 Top 10 Producers of Nuclear Energy by 2020**

Estimates are as of March 2011

	Country	2010			2020E		
		Reactor Units	Net Capacity (MWe)	% of World	Reactor Units	Net Capacity (MWe)	% of World
1	China	12	9,706	3%	96	112,270	20%
2	United States	104	100,367	27%	111	109,183	19%
3	France	58	63,130	17%	60	66,370	12%
4	Japan	54	46,824	12%	59	53,589	9%
5	Russia	31	21,743	6%	43	32,289	6%
6	South Korea	21	18,460	5%	30	29,380	5%
7	Germany	17	20,379	5%	17	20,379	4%
8	India	20	4,388	1%	36	18,092	3%
9	Canada	18	12,652	3%	21	15,237	3%
10	Ukraine	15	13,230	4%	17	15,130	3%
	<b>Global Total</b>	<b>442</b>	<b>374,806</b>		<b>606</b>	<b>568,973</b>	

Source: Ux Consulting Company; Morgan Stanley & Co. Inc. Research, "Global CleanTech: Tohoku Quake: Implications for Clean Technology," March 22, 2011.

construction. As of early 2011, China's energy planners aimed to have 96 reactors by 2020 (see Table 6), and by 2030, enough additional reactors to generate more power than all 104 reactors in the United States, the 2010 leader in nuclear reactor units.

The Chinese have also planned for non-fossil fuels to produce 15 percent of China's energy by 2020; although the Chinese have invested significant amounts on wind turbines and solar panels, nuclear power needs to be built up to reach that target.

## China Investment Corporation<sup>22</sup>

China Investment Corporation (CIC) is an investment institution established as a wholly state-owned company under the Company Law of the People's Republic of China. The CIC is headquartered in Beijing and was established on September 29, 2007, with the issuance of special bonds worth Rmb 1.55 trillion by the Ministry of Finance. The issued bonds were used to acquire approximately US\$200 billion of China's foreign exchange reserves, forming the foundation of its registered capital.

CIC's overseas investment portfolio is mainly composed of equity, fixed income, and alternative investments, in developed and emerging markets.

<sup>22</sup>China Investment Corp, [www.china-inv.cn](http://www.china-inv.cn); Sovereign Wealth Fund Institute, [www.swfinstitute.org](http://www.swfinstitute.org).

Its alternative investments include hedge funds, private equity, commodities, and real estate, among other asset classes.

CIC is one of four Chinese sovereign wealth funds, the others being the State Administration of Foreign Exchange (SAFE) Investment Company, the National Council for the Social Security Fund, and the China-Africa Development Fund. As of March 2011, CIC had US\$332 billion in assets under management, making it the fifth-largest sovereign wealth fund in the world.

SAFE, which is primarily responsible for managing China's foreign exchange reserves, had an estimated US\$568 billion in assets as of March 2013, making it the third-largest sovereign wealth fund in the world. As of March 2013, the National Social Security Fund and the China-Africa Development Fund had an estimated US\$161 billion and US\$5 billion in assets under management, respectively. Aggregated together, China's four sovereign wealth funds were worth an estimated US\$1,216 billion as of March 2013.

For information on CIC's U.S. securities holdings, please go to [www.sec.gov](http://www.sec.gov).

#### CIC's Four Investing Principles

1. Select investments based on economic and financial objectives and an assessment of the commercial return.
2. Allocate capital and assets within the given risk tolerance of the owner to maximize shareholder value.
3. Seek an inactive, passivist role in investing in companies.
4. Seek long-term, stable, sustainable, and risk-adjusted return.

#### CIC's Executive Team

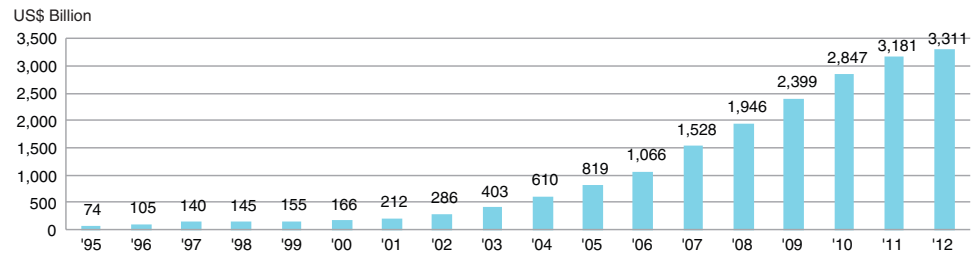
- Lou Jiwei, chairman and CEO
- Gao Xiqing, president and CIO
- Jin Liqun, chairman of Board of Supervisors

## China's Foreign Exchange Reserves

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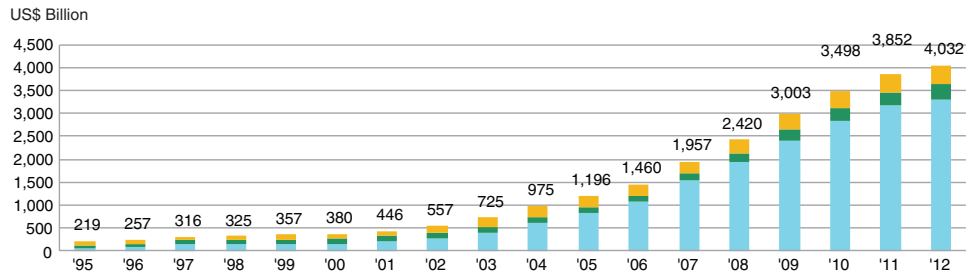
As of April 2013, China had US\$3.4 trillion in foreign exchange reserves, ranking number one with over 30 percent of the world's total.

- From 1995 through 2010, China's foreign exchange reserves grew at a compound annual growth rate (CAGR) of 28 percent (see Figure 8).
- The foreign exchange reserves of China, Hong Kong, and Taiwan have more than quadrupled from 2003 through 2009 (see Figure 9).



**Figure 8 China's Foreign Exchange Reserves**

Source: Bloomberg, LLC. Data are as of December 31, 2012.



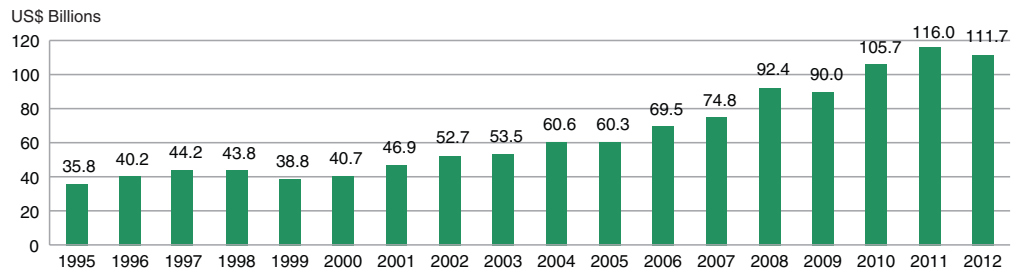
**Figure 9 Combined Foreign Exchange Reserves of China, Hong Kong, and Taiwan**

Source: Bloomberg, LLC. Data are as of December 31, 2012.

## Foreign Direct Investment Flows

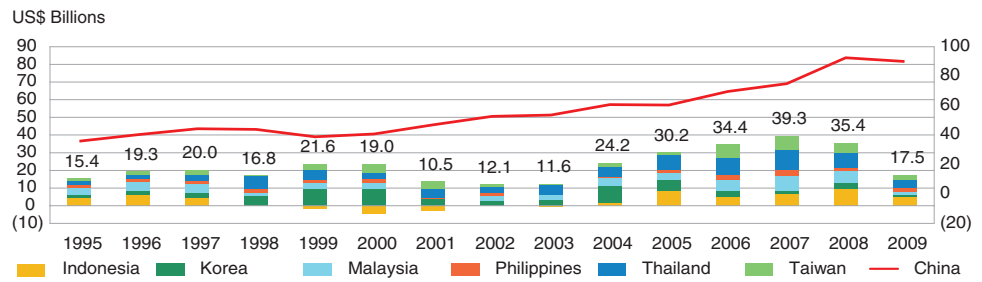
Annual Foreign Direct Investment in China has more than doubled over the 1999–2009 time frame (see Figure 10).

In the post-millennium era, investment flows into China have exceeded the combined flows into six other Asian emerging market economies (see Figure 11).



**Figure 10 Annual Foreign Direct Investment Flows into China, 1995–2012**

Sources: People's Republic of China Ministry of Commerce; People's Republic of China National Bureau of Statistics; *China Statistical Yearbook 2009*. Data are as of December 31, 2012.



**Figure 11 Foreign Direct Investment in China Compared with Six Other Asian Nations**

Sources: Morgan Stanley & Co. Inc. Research; People’s Republic of China Ministry of Commerce; People’s Republic of China National Bureau of Statistics; *China Statistical Yearbook 2009*. Data are as of December 31, 2009.

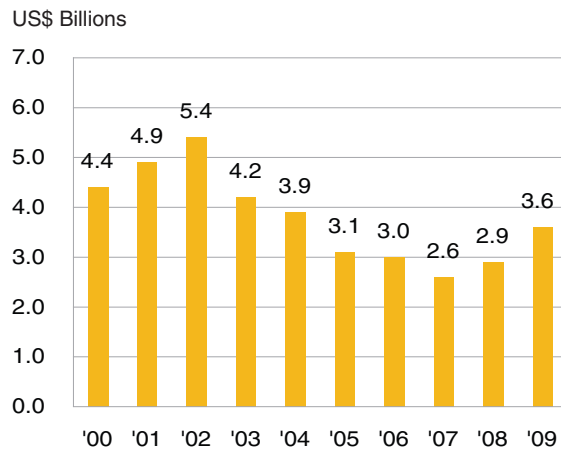
U.S. direct investment in China has been significant in the 1990s and 2000s decades (see Figure 12).

### China’s Trade Activity with the United States

In 2010, China was the United States’ top trading partner, in part due to its fixed-currency rate pegged to the U.S. dollar for the first half of the year (see Table 7).

From 2001 to 2010, China’s total trade activity grew at a CAGR of 15.9 percent.

From 2001 through 2010, China’s total bilateral trade with the U.S. grew from \$121.5 billion to 456.8 billion. In 2010, America’s top exports to China were electrical machinery and power generation equipment (see Table 8) and America’s top imports from China were in the same categories (see Table 9).



**Figure 12 U.S. Direct Investment in China**

Source: People’s Republic of China Ministry of Commerce. Data are as of December 31, 2009.

**Table 7 China's Trade with the United States, 2001–2011**

<b>(US \$ Billion ) or percentage change as indicated</b>											
<b>Year</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
US exports	19.2	22.1	28.4	34.7	41.8	55.2	65.2	71.5	69.6	91.9	103.9
% change YoY	18.3%	14.7%	28.9%	22.2%	20.5%	32.0%	18.1%	9.5%	(2.7%)	32.1%	13.1%
US imports	102.3	125.2	152.4	196.7	243.5	287.8	321.5	337.8	296.4	364.9	399.3
% change YoY	2.2%	22.4%	21.7%	29.1%	23.8%	18.2%	11.7%	51.0%	(12.3%)	23.1%	94.0%
<b>Total Bilateral Trade</b>	<b>121.5</b>	<b>147.3</b>	<b>180.8</b>	<b>231.4</b>	<b>285.3</b>	<b>343.0</b>	<b>386.7</b>	<b>409.3</b>	<b>366.0</b>	<b>456.8</b>	<b>503.2</b>
<b>US balance</b>	<b>(83.0)</b>	<b>(103.1)</b>	<b>(124.0)</b>	<b>(162.0)</b>	<b>(201.6)</b>	<b>(232.5)</b>	<b>(256.3)</b>	<b>(266.3)</b>	<b>(226.8)</b>	<b>(273.1)</b>	<b>(295.5)</b>

Sources: U.S. Department of Commerce; U.S. International Trade Commission. Data are as of December 31, 2011.

**Table 8 Top U.S. Exports to China**

<b>2010 (US\$ Billion)</b>			
<b>Description</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Electrical Machinery	9.4	11.5	7.2
Power Generation Equipment	8.4	11.2	10.8
Oil Seeds and Oleaginous Fruits	9.3	11.0	10.7
Air and Spacecraft	5.4	5.8	6.3
Optics and Medical Equipment	4.0	5.2	5.2
Plastics	4.3	4.8	5.0
Inorganic and Organic Chemicals	3.4	4.5	3.5
Vehicles (Excluding Railway)	1.9	4.5	6.4
Pulp and Paperboard	2.5	3.0	3.8
Copper	1.8	2.9	3.7

Sources: U.S. International Trade Commission; The U.S.-China Business Council. Data are as of December 31, 2011.

**Table 9 Top U.S. Imports from China**

<b>2010 (US\$ Billion)</b>			
<b>Description</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Electrical Machinery	72.9	90.8	98.7
Power Generation Equipment	62.4	82.7	94.9
Apparel	24.4	28.8	30.1
Toys and Games	23.2	25.0	22.6
Furniture	16.1	20.0	20.5
Footwear	13.3	15.9	16.7
Plastics	8.0	9.6	10.9
Iron and Steel	8.0	8.4	8.6
Leather and Travel Goods	6.0	7.5	-
Optics and Medical Equipment	5.6	7.0	-

Sources: U.S. International Trade Commission; The U.S.-China Business Council. Data are as of December 31, 2011.

## China's Trade Activity with the World

China's global trade has increased dramatically in recent years, as shown in Table 10. From 2001 to 2010, China's total trade activity grew at a compound annual growth rate of 26.2 percent.

**Table 10 China's Trade with the World**

(US \$ Billion) or percentage Change as indicated

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Exports	266.1	325.6	438.2	593.3	762.0	968.9	1,217.8	1,430.7	1,201.7	1,577.9	1,898.6
%Change YoY	6.8%	22.4%	34.6%	35.4%	28.4%	27.2%	25.7%	17.5%	(16.0%)	31.3%	20.3%
Imports	243.6	295.2	412.8	561.2	660.0	791.5	956.0	1,132.6	1,005.9	1,394.8	1,743.5
%Change YoY	8.2%	21.2%	39.8%	36.0%	17.6%	19.9%	20.8%	18.5%	(11.2%)	38.7%	25.0%
Total Trade	509.7	620.8	851.0	1,154.6	1,422.0	1,760.4	2,173.8	2,563.3	2,207.6	2,972.7	3,642.1
Balance	22.6	30.4	25.5	32.1	102.0	177.4	261.8	298.1	195.8	183.1	155.1

Sources: People's Republic of China National Bureau of Statistics; Morgan Stanley & Co. Inc. Research. Data are as of December 31, 2010.

**Table 11 Tariff Rates in China**

Weighted Avg. of All Products

Year	Tariff (%)
1992	32.2
1993	30.3
1994	27.9
1995	NA
1996	19.8
1997	15.8
1998	15.6
1999	14.5
2000	14.6
2001	14.1
2002	NA
2003	6.5
2004	6.0
2005	4.8
2006	4.3
2007	5.1
2010	4.0
2011	4.1

Source: World Bank. Data are as of December 31, 2011.



With imports up an estimated 39 percent in 2010, China became an important source of growth for its neighbors in Asia and elsewhere.

- Table 11 shows China's weighted average tariff rates for all products.
- Table 12 shows China's leading import and export products.
- Table 13 shows China's leading import-supplying countries and export destination countries.

**Table 12 China's Leading Import and Export Products**

2010 (US\$ Billion)			
Description	2009	2010	% Change
<b>Leading Imports</b>			
Electrical Machinery	244	314	29.0%
Minerals, Fuels, and Oil	124	189	52.1%
Power Generation Equipment	124	172	39.4%
Ores, Slag, and Ash	70	109	54.9%
Optics and Medical Equipment	67	90	34.1%
<b>Leading Exports</b>			
Electrical Machinery	301	389	29.1%
Power Generation Equipment	236	310	31.4%
Apparel	100	121	20.5%
Iron and Steel	47	68	44.1%
Furniture	39	52	34.0%

Source: People's Republic of China General Administration of Customs, "China's Customs Statistics." Data are as of December 31, 2010.

**Table 13 China's Leading Import Suppliers and Export Destinations**

2010 (US\$ Billion)			
Economy	2009	2010	% Change
<b>Leading Import Suppliers</b>			
Japan	131	177	35.0%
South Korea	103	138	35.0%
Taiwan	86	116	35.0%
United States	70	92	32.0%
Germany	56	74	33.4%
<b>Leading Export Destinations</b>			
United States	296	365	23.1%
Hong Kong	166	218	31.3%
Japan	98	121	23.7%
South Korea	54	69	28.1%
Germany	50	68	36.3%

Source: People's Republic of China General Administration of Customs, "China's Customs Statistics." Data are as of December 31, 2010.



# 2

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## Issues for Consideration

As set forth in Figure 13, among the key forces expected to affect China's securities prices over the near-to-intermediate term are:

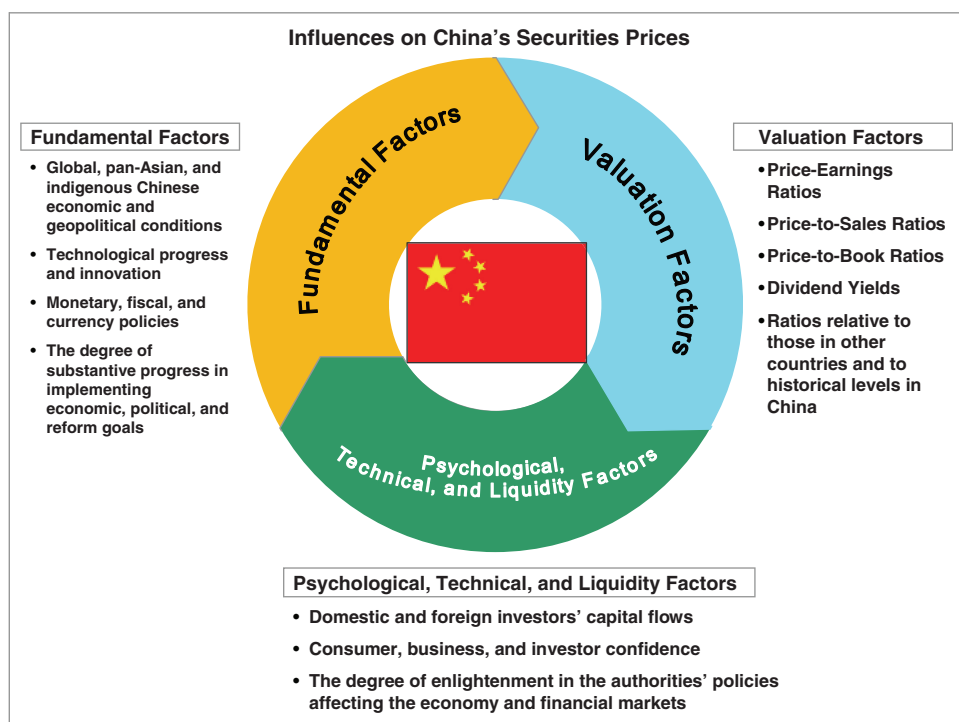
- Fundamental factors
- Valuation factors
- Psychological, technical, and liquidity factors (See Figure 13.)

Important inputs to the Chinese investment outlook include<sup>23</sup>:

- Investors may consider China as in a positive secular long-term trend that is also subject to short-term cycles.
- As of mid-2013, China had over US\$3.4 trillion in foreign exchange reserves, the highest in the world and representing 30.2 percent of global reserves; “greater China” (including China, Hong Kong, and Taiwan) possessed foreign exchange reserves of over US\$4.2 trillion.
- China's real GDP has grown and is projected to grow rapidly: 2007, +13.0 percent; 2008, +9.6 percent; 2009, +9.1 percent; 2010, +10.3 percent; 2012, +9.3 percent; and 2012, +7.8 percent; 2013E, +8.2 percent; and 2014E, +7.9 percent.
- Broad and narrow money supply growth in China was 25 percent, 26 percent, 28 percent, and 20 percent per annum for 2007, 2008, 2009, and 2010, respectively.
- China's economic growth has been largely driven by foreign direct investment, exports, capital inflows by overseas Chinese, and savings

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<sup>23</sup>Morgan Stanley Wealth Management Investment Strategy; Bloomberg, LCC; The Economist Intelligence Unit; “China Underlines Emerging Industries in 12th Five-Year Plan,” *International Business Times*, October 18, 2010; China Economic Net, <http://en.ce.cn/>.



**Figure 13 Influences on China's Securities Prices**

Source: Morgan Stanley Wealth Management Investment Strategy.

rates as high as 52 percent; domestic private consumption grew at 26.6 percent in 2008 and 11.4 percent in 2009.

- As part of its 12th Five-Year Plan, officially released in March 2011, China laid out plans to provide 4 trillion yuan (US\$600 billion) to financially support key emerging industries, including energy conservation and environmental protection, information technology, biology, advanced manufacturing, new energy, new materials, and new-energy automobiles.
- China has continued as a significant consumer of the world's basic materials: in 2009, China surpassed India and the European Union in coal imports, and accounted for 47 percent of the world's steel consumption. China's efforts to improve energy conservation has brought about and may lead to a further slowdown in imports of certain materials.
- China's fixed asset investment-to-GDP ratio amounted to 46 percent in 2009.
- Employment in China rose by 5.9 million jobs in 2007, 4.9 million in 2008, and 5.2 million in 2009.
- The *industrial* sector's share of Chinese GDP rose from 41 percent in 1990 to 46 percent in 2009, accounting for 47 percent of the cumulative increase in China's GDP over that same period. By comparison, in India the *services* sector's share of GDP increased from 40 percent in

1990 to 55 percent in 2009, accounting for 60 percent of the cumulative increase in Indian GDP growth over that same period.

## Investment Trends<sup>24</sup>

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The Chinese economy has expanded at a rapid pace due primarily to export growth, foreign direct investment, and state-sponsored infrastructure investment. The Chinese government has continued its strong commitment to economic reforms.

Chinese companies increasingly focus on penetrating global markets. The Chinese economy has been among the fastest growing major economies in the world. This growth has primarily been driven by three sources:

1. Export activity, which has grown on average at approximately 22 percent per annum from 2001 through 2010, with exports growing 31 percent in 2010.
2. Foreign direct investment (FDI), which totaled over US\$600 billion from 2000 through 2009, including US\$90 billion in 2009.
3. State-sponsored infrastructure spending, which has dramatically increased fixed investment.

The Chinese government has renewed its commitment to reforms, many of which may also promote significant economic growth. These reforms include:

- The restructuring of state-owned enterprises (SOEs) through improved corporate governance and privatization.
- The continued restructuring of SOEs' nonperforming loans.
- The gradual opening of certain industries to foreign investment.
- The agreement by the China Securities Regulatory Commission (CSRC) to allow private and foreign investors in appropriate cases to acquire controlling stakes in domestically listed companies.

Unlike many other developing countries, China has not been materially affected by low capital intensity, and has entered high-value-added industries, driven by three primary forces:

1. China's savings rate is exceptionally high for both demographic and historical reasons.

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<sup>24</sup>Morgan Stanley Wealth Management Investment Strategy; Morgan Stanley & Co. Inc. Research; "Surge in Exports from China Hits Global Industry," *Wall Street Journal*, October 10, 2012; "Real Trading Depends on Big Agenda for Change," *Financial Times*, December 12, 2012; US-China Business Council.

2. China can produce many investment goods at its own low cost.
3. China has embraced globalization on both the supply and demand sides.

Long-term investment themes in China include a focus on:

- Household consumption, culture and leisure, and health care.
- The materials sector, mainly agrichemicals, chemicals, and shipping.
- A continued industrial upgrade, mainly in aerospace and defense, industrials, and machinery.

Chinese companies have gained market share from their non-Chinese competitors in China and continue to move into the global marketplace. As part of the trend toward increasing globalization and global labor arbitrage, China's export-led growth has had deflationary implications for certain non-Chinese companies, sectors, and countries.

To continue growing, China has begun to focus on increasing domestic demand, drawing somewhat less support from externally driven demand, and improving the efficiency of its capital allocation mechanisms.

### Intermediate-Term Strengths and Hindrances in China<sup>25</sup>

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In the intermediate term, strengths include:

- China's economic development has been driven by several decades of steadfast commitment to wide-ranging reforms, as China continues its transition from a state-owned to a market-driven economy.
- China has demonstrated prowess as a world-class and large-scale manufacturer. This reflects a judicious combination of high national saving, improvements in infrastructure, and large inflows of FDI.
- China's competitiveness has also drawn successfully on its large reserves of inexpensive labor who are willing to learn and work hard.
- China has invested significant sums in large infrastructure projects including roads, highways, port facilities, airports, and telecommunications/Internet resources.
- China has ample financial resources: a 54.3 percent savings rate, one of the highest of any nation in the world, and (as of mid-2013) US\$3.4 trillion in foreign exchange reserves.
- Economically progressive and intelligent leadership in China appears desirous of supporting growth. The mentality, pride, purposefulness,

<sup>25</sup>Morgan Stanley Wealth Management Investment Strategy; Bloomberg, LCC, March 2011; World Bank, March 2013.

and sense of China's past and future place in history are important motivators of the Chinese population.

- China is one of the world's leading buyers of raw materials and suppliers of manufactured products, and is becoming an increasingly important investor in and contributor to Asian and global trade and economic development.
- Overseas Chinese, along with Chinese returnees who have a strong desire to see China succeed, are making important contributions to China's economy and financial markets.

Conversely, hindrances include:

- China needs to continue reducing the wide income and wealth gaps between: rich and poor, urban and rural populations, and coastal and interior regions and provinces.
- China's banking system and nonperforming loans (NPLs) may present obstacles to balanced growth in the Chinese economy.
- As in many countries, issues of transparency, censorship, governance, and the rule of law need to be properly addressed.
- Beginning in the second half of the first decade of the twenty-first century, signs of a potential residential property bubble emerged in certain Chinese cities.
- Ecological, environmental, and health challenges remain, including China's growing needs for food, oil, clean air, and clean water; such factors may hold growth below China's potential.
- China has a relatively undeveloped services sector, representing a source of future job creation.
- As it eliminates millions of jobs due to reforms, China needs to create jobs for displaced workers.

## Potential Risks<sup>26</sup>

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Several of the potential risks associated with investing in Chinese securities are set forth below:

- Some publicly traded companies may lack transparency because of their ties to state-owned parent companies. In some cases, this may

<sup>26</sup>Morgan Stanley Wealth Management Investment Strategy; "Outcasts From China's Feast," *Wall Street Journal*, November 6, 2012; "China's Bank-Loan Problems May Dwarf Japan's," *Barron's*, November 11, 2012; "Beijing Rising," *Financial Times*, December 3, 2002; "Asia Minor," *The New Republic*, December 16, 2012; "China's Success Doesn't Lift Stocks," *Wall Street Journal*, December 27, 2002.

lead to complicated and somewhat opaque transactions involving the financial statements of such firms.

- The CSRC has had relatively limited oversight and can change or amend its rules and regulations at any time.
- China's banks have at times had sizeable amounts of NPLs.
- Loose credit can exacerbate the oscillations of cyclical boom-bust episodes.
- Chinese economic policies have to balance continued economic reforms with the need to reduce domestic unemployment.
- According to several Chinese economists, China needs to maintain at least 7 percent annual GDP growth to keep unemployment rates below 15 to 20 percent in rural areas.
- The Chinese legal system contains inherent uncertainties that could limit legal protections available to investors, including difficulties in effecting service of the legal process and enforcing judgments against Chinese companies' managements.
- Some analysts assert that China's national economic statistics, including its economic growth rate, are not entirely accurate, as they are compiled from provincial data that may be subject to political revision.
- China's stock market may not be a representative indicator of the national economy due to variations in economic growth and changes in stock market regulations, which may affect investor sentiment.

## Bullish Factors Affecting China's Economy and Markets<sup>27</sup>

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### Fundamental Factors

- Low labor costs and a large labor force; China is projected to benefit from a low demographic dependency ratio and abundant labor supply through 2020.
- A high savings rate (gross domestic saving in China as a percentage of GDP reached 54.3 percent in 2012, one of the highest savings rates of any country in the world). China's national savings exceeds national investment, as reflected in persistent and sizable current account surpluses. The availability of low-cost capital has been deemed by economists as unlikely to be a binding constraint on capital formation until at least 2016.

<sup>27</sup>Morgan Stanley Wealth Management Investment Strategy; Morgan Stanley & Co. Inc. Research; Bloomberg, LLC; FactSet; The World Bank; "China's Economic Blueprint: Take Five," *The Economist*, March 12, 2011; "Bamboo Capitalism," *The Economist*, March 12, 2011; "Chinese and Germany: Reflected Glory," *Financial Times*, January 19, 2011.



- Aggregate household indebtedness represented 28 percent of GDP as of early 2013, compared to 85 percent of GDP in the United States.
- China continues to feature population movement from rural areas to urban centers.
- China has been increasing emphasis on the development of domestic consumer spending and the raising of consumption as a percent of GDP.
- Sources of consumption growth in China include: (1) rising income; (2) a lower savings ratio; and (3) consumption upgrades, suggesting that a “golden age of consumption” may continue to unfold in China.
- China has made significant progress in building out and/or modernizing infrastructure, including airports, railways, highways, seaports, and telecommunications and Internet resources.
- China is continuing initiatives to implement planned reforms in social security, rural land management, recapitalization of state-owned banks, taxation, and capital markets oversight.
- China is dedicating resources to improving schools, farm aid, rural social services, and health care.
- China is focusing on strengthening its banking system, including capital infusions and the earmarking of foreign exchange reserves to fortify banks’ balance sheets.
- Even as China’s GDP growth appears likely to decelerate somewhat through 2020, Morgan Stanley Asia/Pacific Research expects China to generate average gains of 8 percent per year as overall consumption, the service sector, and income rise relative to GDP. According to World Bank estimates, China’s potential GDP growth is likely to reach 8.4 percent over the 2011 to 2015 time period, and 7.0 percent over the 2016 to 2020 time period.
- Consumption is projected to become a key driver of economic growth. By 2020, Morgan Stanley Asia/Pacific Research expects Chinese consumption to reach two thirds of the U.S. level and account for approximately 12 percent of global consumption. China’s private consumption appears to be substantially underestimated.
- Important reforms, if carried out, could potentially generate substantial efficiency and productivity gains. Such reforms include improved financial intermediation by developing the indigenous bond market and/or deregulating interest rates, and improving access for private entrepreneurs to sectors currently subject to state monopoly (including health care, education, telecommunications, media, and transportation).
- As part of its “market-based reform” of interest rates, China expects that freer interest rates will better reward household savers, discourage excessive investment, and possibly allow private borrowers to obtain loans from state banks by offering to pay higher rates.

- One estimate by *The Economist* magazine puts the share of GDP produced by enterprises that are not majority-owned by the state at 70 percent. According to Zheng Yumin, the CPC secretary for the Commerce Department of Zhejiang province, more than 90 percent of China's 43 million companies are private. The heartland for entrepreneurial clusters centers in regions such as Zhejiang, but entrepreneurial businesses have spread far and wide across the country.
- In sectors including solar panels, wind energy turbines, telecommunications networks, power transmission, and high-speed trains, as of early 2013 Chinese companies were already on a par with their Western counterparts. In other areas, such as construction machinery, machine tools, automobiles, and electrical engineering, companies were making rapid strides to increase their global competitiveness.
- China's 12th Five-Year Plan is based on three legs to the consumer-led growth stool: boosting employment, raising wages, and shifting the allocation of the resulting increment in labor income away from saving toward spending.
- China's 12th Five-Year Plan focuses on the development and expansion of seven strategic emerging industries (SEIs): new-generation information technology, high-end equipment manufacturing, advanced materials, alternative-fuel cars, energy conservation and environmental protection, alternative energy, and biotechnology.
- China has modernized its factories, infrastructure, shelter, and offices. It has educated its people. It has also built up an enormous reservoir of domestic saving and foreign exchange reserves. China has also broken the mold on poverty reduction and internal migration from the countryside to new cities.

#### Valuation Forces

- As of May 2013, select valuation measures for the MSCI China Index were:
  - 8.6 times estimated 2013 earnings and 8.3 times estimated 2014 earnings
  - 1.7 times price-to-book value
  - 2.9 percent dividend yield

#### Psychological, Technical, and Liquidity Forces

- China continues to increase its participation in world trade, portfolio capital flows, and foreign direct investment.
- Resources continue to be directed toward improving the position of low-income Chinese, including: (1) increasing urban and rural welfare

- payments; (2) overhauling grain production; (3) reducing rural and agricultural taxes; and (4) improving education.
- China's increasing physical capital, particularly in machinery and equipment, and gains in human capital and education, represent long-term underpinnings of China's continued progress and development.
  - Many government, monetary, and regulatory organizations have benefited and are continuing to benefit from innovative, energetic, and enlightened leadership.
  - China witnessed Rmb 7 trillion in new bank loans in 2011, representing a generous level of liquidity to fuel growth: at 16 percent of GDP in 2011, new bank loans were well above the 13 percent "normal" new loans to GDP ratio that prevailed before the financial crisis (2005 to 2007 average).
  - China's economic strength and corporate fundamentals may be the strongest in Asia, yet the country's stock markets underperformed the region in 2008, 2009, 2010, 2011, and the first five months of 2013.
  - As of May 2013, the price relationship of dual-listed domestic China A shares versus their Hong Kong-listed H-share equivalents (the Hang Seng China AH Premium Index) had moved from a premium roughly to parity.

## Bearish Factors Affecting China's Economy and Markets<sup>28</sup>

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### Fundamental Factors

- According to Prime Minister Wen Jiabao in his annual speech to China's National People's Congress on March 5, 2011, China's development in many cases has been "neither balanced, coordinated, nor sustainable." China has tended to rely too heavily on investment and on consuming natural resources and too little on consumer spending. The income generated has been unevenly divided between profits and wages, rich households and poor households, coastal provinces and inland regions, and the cities and the countryside.

<sup>28</sup>Morgan Stanley Wealth Management Investment Strategy; Morgan Stanley & Co. Inc. Research; Bloomberg, LLC; FactSet; "China's Economic Blueprint: Take Five," *The Economist*, March 12, 2011; "Where Are the Profits?" *The Economist*, December 12, 2010; "China's Opaque Ways of Finding New Leaders Are Threat to Reform," *The Economist*, March 25, 2011; "Chinese Peasants Feel Bullied Over Land," by Calum MacLeod, *USA Today*, March 25, 2011; "Greed and Fear," CLSA Asia-Pacific Markets, February 24, 2011; Chris Ansty, "China Reaches Lewis Turning Point as Labor Costs Rise," *Bloomberg Businessweek*, June 11, 2010; Peter Tasker, "Rising Wages Will Burst China's Bubble," *Financial Times*, January 11, 2011; "Let a Million Flowers Bloom," *The Economist*, March 12, 2011.

- Property, capital expenditures (capex), and lending bubbles have occasionally developed in the Chinese economy and managing the aftermath of bubbles can be a challenging process.
- According to forecasts made by the United Nations, the average annual growth rate of the working-age population in China over the 2011–2020 time period has been projected to be about 0.13 percent, a significant slowdown from the average annual growth rate of 1.24 percent over the 1991–2010 time period.
- As China’s population ages, the share of savers aged 34–59 in the population should decline and the share of dissavers aged 65 and above should rise; these divergent trends should lower the average household savings ratio.
- From 2011 onward, technological and factor productivity gains from structural reform are unlikely to be as strong as over the 1980–2010 period. This is because the most obvious distortions in the economy have already been largely removed, and as economic development reaches a higher level, it becomes increasingly difficult to effect more profound reforms to address deep-seated structural rigidities.
- According to data compiled by Organization for Economic Cooperation and Development (OECD) analyst Angus Maddison, Japan and Korea reached the US\$7,000 per-capita GDP level in the late 1960s and the late 1980s, respectively. As the Chinese economy reaches the US\$7,000 per-capita GDP inflection point similar to that in the Japanese economy around 1969 and in the Korean economy around 1988, China’s overall GDP growth may be expected to decelerate and inflation to accelerate, in similar fashion to what occurred in Japan and Korea.
- China’s average real GDP growth during 1970–1990 was 8.4 percent, while the country’s average working-age population and employment growth was 2.58 percent and 2.55 percent, respectively, producing a growth rate versus employment gap of 5 to 6 percentage points.
- China’s real GDP growth rate per annum between 1990 and 2010 was 10.5 percent, while the country’s average growth in working-age population and employment was 1.3 percent and 0.98 percent, respectively, producing a growth rate versus employment gap of 9 to 10 percentage points.
- If official statistics are reliable, owing in part to the lack of a well-funded social safety net (such as social security, private pensions, Medicaid assistance, and unemployment insurance), the Chinese household sector generated a savings rate amounting to 53 percent of GDP in 2011, meaning the country had to rely on exports and fixed investment as primary sources of output and employment growth.
- During periods when economies in the developed world surprise on the upside and experience rapid economic growth, oil and food prices

would be expected to rise globally, forcing China to tighten monetary policy aggressively. In such a scenario, stock prices could likely come under selling pressure.

- If the Chinese authorities were to rely mainly on administrative controls over monetary aggregates instead of allowing price-based policy instruments such as interest rate hikes and appreciation of the renminbi to control inflation, the risk of a policy-induced boom and bust cycle would be expected to rise.
- From close to 20 percent in 2003 to just above 10 percent in 1H 2010, operating profit margins were declining in China. Exporters' profit margins were often less than 2 percent, according to China's minister of commerce. The Chinese government has been phasing out subsidies to industry and relaxing energy price controls. Workers have been demanding higher wages and salaries. Environmental standards have been tightened. Should China allow the interest rates that banks pay depositors to rise, the transfer of wealth from savers to well-positioned corporations would be reduced.
- Growing evidence that credit growth in recent years was much larger than the formal loan growth reported by the banking sector may raise medium-term inflation risks in China if the velocity of money in circulation rises. Thus, M2 rose by 27.5 percent year-over-year in 2009 and 19.7 percent year-over-year in 2010, while nominal GDP rose by only 8.6 percent in 2009 and 16.7 percent in 2010.
- As migrant farmers' pay rose 40 percent in 2010, and all 31 Chinese provinces and regions increased their minimum wages in 2011 and 2012, China appeared to be approaching the so-called Lewis Turning Point, a pivotal period during a developing country's advance when demand for workers begins to outstrip supply, leading to higher wages, prices, inflation, and interest rates.
- Excess production capacity may represent a concern in several areas of the Chinese economy, including automobiles, steel, chemicals, and electronics.
- Future leaders in China tend to be chosen by a relatively limited number of people and thus must not offend too many special interests if they hope to succeed; as a result, the political and economic reforms necessary to keep China stable may be delayed or watered down.
- In China, all land is owned by the state. Local authorities rely on land sales for a majority of their revenues. Land appropriation, at times illegal, involuntary, inadequately compensated, and enforced by violence, may cause serious social unrest.
- As of January 2011, the one-year time deposit rate in China was 3 percent, whereas the headline CPI inflation was 4.9 percent. Deposit growth had slowed sharply, albeit from very high levels: the total renminbi deposits growth rate had fallen from 29 percent year-over-year

in June 2009 to 17.3 percent in January 2011. According to CLSA Asia-Pacific Markets Research, if deposit growth should drop below 12 percent year-over-year, a level not seen since the monthly data began in 1997, an inflationary pickup in the velocity of money in circulation could occur.

- To continue growing rapidly, China needs to transition from its manufacturing, price-based competitive strengths to indigenous innovation and value-based strengths. Among the factors needed for this transition are (1) creative, entrepreneurial initiatives by companies, individuals, universities, and technical institutes; (2) moving from highly centralized economic planning to an increasing degree of individual economic choice; (3) improved management of boom-bust cycles in real estate and other asset categories; and (4) market-based rather than controlled prices for wages, for interest rates, and for coal, oil, and other natural resources.
- Even though a significant proportion of China's residential property tends to be purchased with cash (or when a mortgage is taken out, with a down payment of 25 to 50 percent of the price), as of early 2013 property values in numerous Chinese cities were significantly overvalued and faced the possibility of a serious correction.
- China needs to productively employ 150 million to 200 million workers ("another Europe") within the 2010–2030 time period to help foster social stability.
- Although shortages persisted over the 2011–2013 timeframe among low-skilled workers in China, more than 7 million people were graduating from the country's universities each year (up from less than one million per year in 1998), with many of them facing difficulty finding work commensurate with their self-perceived elevated status.
- In order to increase household consumption's share of China's GDP, several structural reforms may be necessary through (1) reducing the maximum personal income tax rate from 45 percent to 25 percent (equal to the corporate profit tax rate); (2) lowering the value-added tax (VAT) to 12 percent from 17 percent, among the highest in the world; (3) raising deposit rates to positive levels after inflation; and (4) working to bring residential property prices down to the early 2011 global average of two months of after-tax salary per square meter.
- A study by Qiao Liu, a professor at the University of Hong Kong, concluded that the average return on equity for companies wholly or partly owned by the Chinese state was barely 4 percent, despite the benefit of inexpensive leverage provided by government-controlled banks.
- In 2009, total assets under management for the national social security fund, local government retirement plans, and private sector pensions totalled just Rmb 2.4 trillion. That amounts to only \$470 of lifetime

retirement benefits for the average Chinese worker, underscoring the inadequacy of China's social safety net.

- As of 2009, the Chinese urbanization ratio was 47 percent, roughly where Japan was in 1964. By 2013, the urbanization rate exceeded 50 percent. The floating population of unregistered urban migrants was estimated to be between 50–140 million people.

### Valuation Forces

- With certain metropolitan areas' housing prices in China selling at multiples of urban household incomes, affordability of home ownership has continued to be an issue.
- On the cyclically adjusted "Shiller P/E," which uses a 10-year average of earnings, the China equity market has at certain times in the post-2000 era been almost as expensive as the U.S. stock market was in 1929.

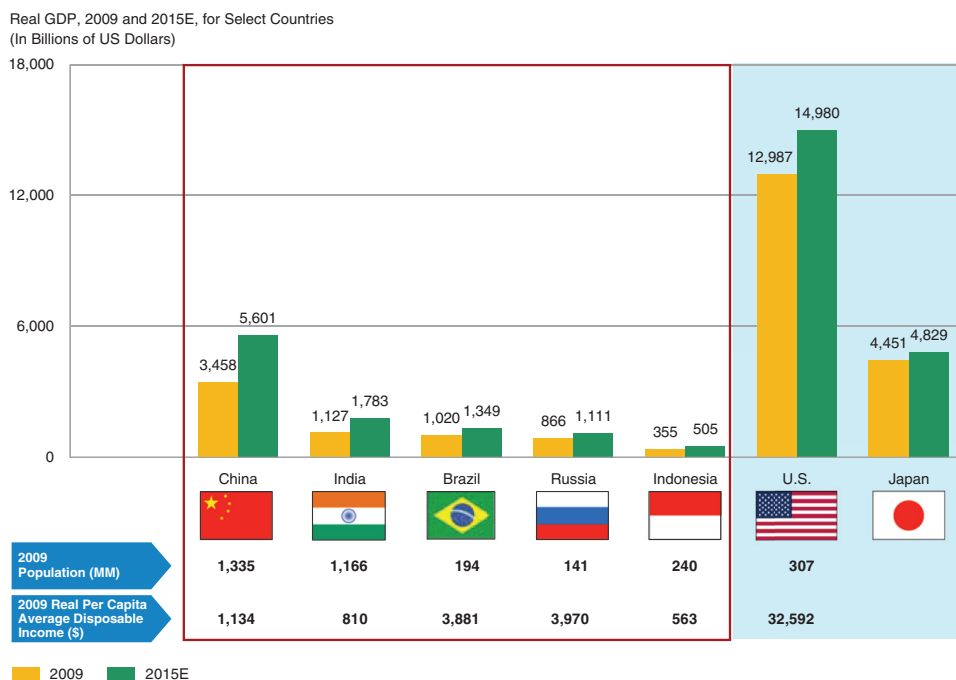
### Psychological, Technical, and Liquidity Forces

- Among the macro-level issues that have the potential to create uncertainty in China over the intermediate term are (1) projected reform of China's taxation system; (2) the external value of the renminbi; and (3) in the developed world, meaningfully slower consumption growth and/or protectionist measures affecting some of the main categories of Chinese exports.
- Poverty, inequality, and urban labor displacement may present significant hindrances to social and economic progress.
- China's economy faces challenges in transitioning toward domestic consumption in order to rely less on exports and foreign direct investment.
- Under Communist Party rule, China may continue to encounter political tradeoffs and potential pitfalls as it continues to evolve from a centrally planned economy to a more market-oriented economy.
- Regional developmental gaps; air, water, and soil pollution; rural-urban income disparities; and the structure and efficacy of China's public health system may add to social pressures.

## China's Economy in Context

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The five BRICI markets (Brazil, Russia, India, China, and Indonesia) in the boxed area in Figure 14 represent almost 15 percent of the world's GDP and 45 percent of its population. Of particular note in Table 14 is the fact that the combined GDP at world market prices of these five countries grew from 11.1 percent of world GDP in 2005 to 18.4 percent of world GDP in 2009, and is projected to reach 23.0 percent of world GDP in 2015.



**Note:**  
1. GDP and average disposable income are stated in 2005 US dollars.

**Figure 14 The Five BRICI Markets (Brazil, Russia, India, China, and Indonesia) in the Boxed Area Represent Almost 15 Percent of the World’s GDP and 45 Percent of Its Population<sup>1</sup>**

Sources: The Economist Intelligence Unit; “The Internet’s New Billion,” Boston Consulting Group, September 2010.

### Three Scenarios for the Chinese Economy through 2020

In late 2010, Morgan Stanley economists in Asia, Europe, and the U.S. developed three potential economic scenarios for China over the 2010-2020 timeframe. These scenarios and their associated probabilities are described below, and compared in Table 15.

#### The Base Case Scenario

The Base Case scenario projects that the Chinese economy can maintain an average of 8 percent growth per annum through 2020. Average consumer price index (CPI) inflation through 2020 is projected at 3.5 percent, mainly reflecting an increasingly normalized labor market.

Under the Base Case, China’s nominal GDP would triple from its 2009 size, reaching Rmb 103 trillion. Assuming an average 3 percent appreciation of the renminbi against the U.S. dollar per annum, Chinese nominal GDP in U.S. dollar terms would quadruple from its 2009 size, reaching US\$20 trillion by 2020.



**Table 14 Top 40 Largest Emerging Markets in 2010**

<b>% of World GDP at Market Prices</b>	<b>2005</b>	<b>2010</b>	<b>2015E</b>
1 China	5.0	9.3	12.2
2 Brazil	2.0	3.3	3.4
3 Russia	1.7	2.4	3.1
4 India	1.8	2.3	2.9
5 Mexico	1.9	1.6	1.6
6 Korea	1.9	1.6	1.7
7 Turkey	1.1	1.2	1.3
8 Indonesia	0.6	1.1	1.4
9 Poland	0.7	0.7	0.7
10 Saudi Arabia	0.7	0.7	0.8
11 Taiwan	0.8	0.7	0.8
12 South Africa	0.5	0.6	0.6
13 Argentina	0.4	0.6	0.5
14 Iran	0.4	0.5	0.5
15 Thailand	0.4	0.5	0.5
16 Venezuela	0.3	0.5	0.4
17 Colombia	0.3	0.5	0.5
18 UAE	0.3	0.4	0.4
19 Hong Kong SAR	0.4	0.4	0.4
20 Malaysia	0.3	0.4	0.4
21 Singapore	0.3	0.4	0.3
22 Egypt	0.2	0.4	0.4
23 Nigeria	0.2	0.3	0.4
24 Israel	0.3	0.3	0.3
25 Chile	0.3	0.3	0.4
26 Czech Republic	0.3	0.3	0.4
27 Philippines	0.2	0.3	0.3
28 Pakistan	0.2	0.3	0.3
29 Algeria	0.2	0.3	0.3
30 Romania	0.2	0.3	0.3
31 Peru	0.2	0.2	0.3
32 Ukraine	0.2	0.2	0.2
33 Hungary	0.2	0.2	0.2
34 Kazakhstan	0.1	0.2	0.3
35 Qatar	0.1	0.2	0.3
36 Kuwait	0.2	0.2	0.2
37 Bangladesh	0.1	0.2	0.2
38 Vietnam	0.1	0.2	0.2
39 Morocco	0.1	0.1	0.2
40 Slovak Republic	0.1	0.1	0.1
Total	25.3	34.1	39.6

*(continued)*

Table 14 (Continued)

% of World GDP at Market Prices	2005	2010	2015E
Emerging Markets	27.9	37.4	43.3
EU15	28.5	24.0	21.1
US	27.8	23.6	22.0
Japan	10.0	8.7	8.0

Sources: Ashmore; International Monetary Fund, *World Economic Outlook*, October 2010.

### The Current Trends Continue Scenario

In the Current Trends Continue scenario, the Chinese economy would basically continue as in the recent past, with no material change compared to the previous decade, featuring strong growth, modest inflation, and no meaningful transformation of the economic structure.

The Current Trends Continue scenario might occur if (1) the global economy were to stage a strong recovery back to precrisis levels and sustain its pace of expansion thereafter; or (2) China's economy remained so competitive that China's export growth remained as strong as precrisis levels, without causing a backlash of trade protectionism measures.

Table 15 Three Morgan Stanley Research Scenarios for the Chinese Economy through 2020

	2010–2020E			
	Actual 2000–2009	Base Case	Assuming Current Trends Continue	Expected Growth Deceleration & Structural Adjustment
Probability (%)		70	20	10
<b>Macro</b>				
GDP growth (%)	10.3	8.0	9.5	6.5
CPI Inflation (%)	1.9	3.5	2.5	4.0
<b>Production</b>				
Agriculture	17	15	15	15
Manufacturing	40	35	40	33
Services	43	50	45	52
<b>Expenditure</b>				
Consumption	49	54	47	58
Investment	48	43	50	41
<b>Income</b>				
Labor	40	45	40	52
Profits	31	30	35	20

Source: Morgan Stanley & Co. Inc. Research, "The China Files: Chinese Economy through 2020," November 8, 2010.

**The Growth Deceleration and Adjustments Scenario**

In the Growth Deceleration and Adjustment scenario, the Chinese economy might undergo drastic growth deceleration and structural adjustment.

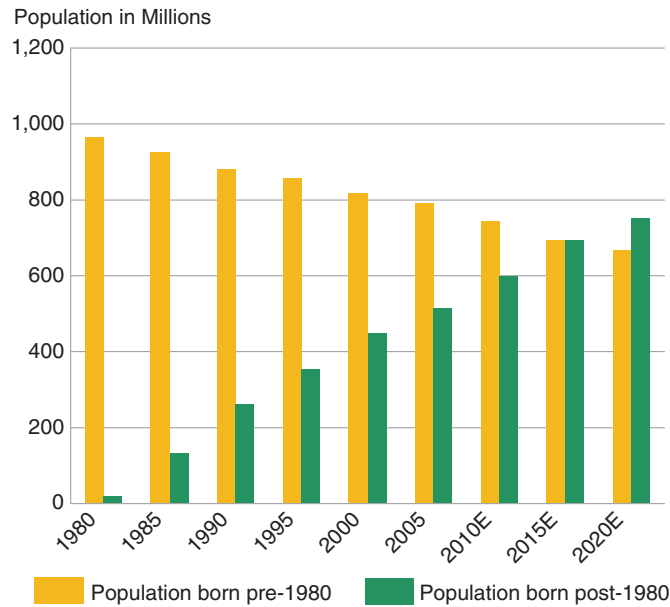
Such a scenario might materialize due to very proactive policy intervention to correct the structure of the economy or by external shocks such as a major decline in external demand and/or sustained surges in globally traded commodities prices due to supply shocks.

**The China Landscape: Megatrends<sup>29</sup>**

**Demographics**

People born after 1980, the “Chinese baby boomers,” are projected to represent more than 50 percent of China’s population by 2015 (see Figure 15).

This demographic shift may have three investment implications: (1) Chinese baby boomers tend to be globally aware and optimistic about their



**Figure 15 China’s Post-1980 Baby Boomers**

Sources: CEIC; Morgan Stanley & Co. Inc. Research, E = Morgan Stanley & Co. Inc. estimates as of September 2010.

<sup>29</sup>Morgan Stanley & Co. Inc. Research, “The China Files: US Corporates and China’s Mega-transition,” September 20, 2010; “Off the Rails,” *The Economist*, April 2, 2011.

economic future; (2) Chinese baby boomers tend to be more financially secure than were past generations; and (3) Chinese baby boomers are likely to double the country's birth rate.

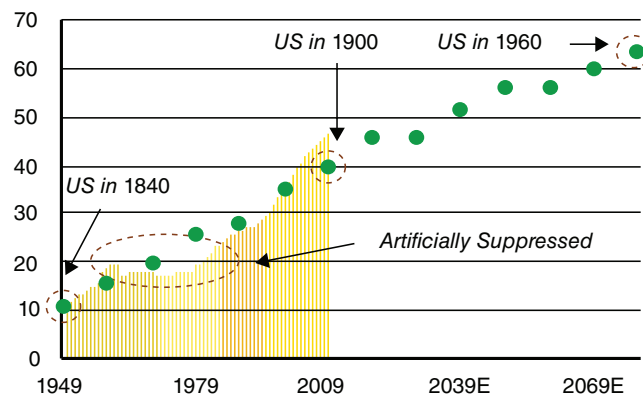
#### Asia's Shifting Demographic Profile: Possible Investment Themes

- **Health care.** Health care spending should rise as a share of GDP.
- **Financial services.** Spending on financial services should increase, particularly for retirement saving purposes.
- **Real estate and infrastructure development.** Rapid urbanization and rising household wealth should drive strong demand for private housing and associated urban infrastructure.
- **The aging consumer.** A declining share of children and youth in the population versus a rising elderly share will shift the mix of consumer spending.
- **The independent female.** Increasing education and job opportunities should lead to growing demand for female-focused brands and products.

*Source:* Morgan Stanley & Co. Inc. Research, "Investment Perspectives: US and the Americas," December 3, 2008.

#### Urbanization

Morgan Stanley China Economists have projected that urbanization will remain China's principal growth driver over the 2010–2020 period. This view holds that the rapid urbanization of the 2000–2010 time period will likely continue or even accelerate between 2010 and 2020, lifting China's urbanization ratio to the level of developed countries, from 47 percent in 2010 to 63 percent in the long term (see Figure 16).



**Figure 16** China's Rate of Urbanization

*Sources:* CEIC; Morgan Stanley & Co. Inc. Research, E = Morgan Stanley & Co. Inc. estimates as of September 2010.

As part of its initiative to support urbanization in midsize and small cities, particularly in the inland provinces, the Chinese government has decided to speed up the reform of the household registration system.

This reform seeks to equalize rural and urban citizens' entitlements to pension, education, and other social benefits, so that migrant workers from rural areas can more easily relocate to urban areas.

### **Infrastructure**

China has made significant strides in developing its infrastructure, with considerable scope for more economic expansion and rebalancing.

The country plans further investment in its national high-speed rail and highway grids, ultra-high-voltage power transmission networks, nuclear power plants, gas distribution grids, and sewage and solid waste treatment facilities.

China intends to lengthen its *total rail network* from 86,000 kilometers to 120,000 kilometers by 2015, with at least 60 percent of this system electrified. By 2015, China's *high-speed passenger rail system* should reach 16,000 kilometers in length from 2010's total of 8,400 kilometers, making it one of the most extensive high-speed rail networks in the world. By 2016, China's total roadway capacity, in 2011 at approximately 70 percent of US capacity, is projected to surpass that of the United States.

### **Completion of Public Services Network**

China's high rate of personal savings stems from individuals' concerns about retirement without a comprehensive, government-sponsored social security system in place. Morgan Stanley China economists believe that an aggressive reform and funding of the country's pension, health care, and education systems will help unleash domestic demand, and that planned reforms of China's entitlement programs will increase consumer growth rates beyond levels previously seen.

### **Consumer Finance**

Consumer finance in China lags that of developed economies such as the United States and Europe: As of 2012, total credit in China represented about 10 percent of consumers' total expenditure, compared with around 50 percent in more developed economies. Thus, as consumer credit becomes more accessible in China, consumer spending is expected to increase.

A thriving Internet environment makes online shopping possible and also drives consumer credit. Since China has the highest number of Internet users in the world (593 million, as of January 2013), Morgan Stanley economists project substantial upside for online settlement and credit cards as e-commerce continues to develop in China (see Figure 17). As of 2010, about 20 percent of

Chinese Internet users shopped online, far below the rate in developed countries, which averages about 60 percent. Should online shopping penetration rise to 50 percent, there could be as many as 120 million additional credit card users in China (in 2010, there were about 150 million cardholders).

Morgan Stanley China economists estimate that China's consumer credit spending as a percentage of total consumption will reach the world average of 40 percent by 2020, boosting consumers' purchasing power by a dramatic 30 percent. This is before taking into account the reduction in personal savings rates and the improved wage growth expected to take place across China.

### Industrial Upgrades

In the early 1990s, when China started its rise as a global producer, only 3 percent of its working population had college degrees. This lack of educated laborers forced Chinese companies to adopt a low-quality, mass-production approach to their business models. Such conditions have been changing rapidly.

As of 2011, approximately 10 percent of China's workforce had earned a college degree and Chinese companies were changing their business models to employ this better-educated workforce. China's approach to production has been changing as a younger, college-educated population continues to enter the workforce.

Morgan Stanley Research estimated that by 2020, some 35 percent of China's workforce would be college educated. This level will match that of the United States in 2010. A strong correlation exists between education and the value added of the manufacturing and service sectors of an economy.

Rank	Country	2008-2012	2012 Internet		Population
		Internet User Adds (MMs)	Users (MMs)	Y/Y Growth	Penetration
1	China	264	564	10%	42%
2	India	88	137	26%	11%
3	Indonesia	39	55	58%	23%
4	Iran	35	42	205%	55%
5	Russia	33	70	6%	49%
6	Nigeria	31	48	15%	30%
7	Philippines	28	34	32%	35%
8	Brazil	27	88	6%	45%
9	Mexico	19	42	9%	37%
10	USA	18	244	3%	78%
11	Argentina	17	28	57%	68%
12	Egypt	17	30	11%	38%
13	Colombia	14	25	39%	54%
14	Turkey	13	35	17%	47%
15	Vietnam	12	31	7%	35%
<b>Top 15</b>		<b>654</b>	<b>1473</b>	<b>15%</b>	<b>34%</b>
<b>World</b>		<b>902</b>	<b>2406</b>	<b>8%</b>	<b>34%</b>

**Figure 17 Global Comparison of Internet User Growth**

Source: Kleiner Perkins Caulfield & Byers, "KPCB Internet Trends 2013," May 2013.

## The China Landscape: Megatransition<sup>30</sup>

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### *The Megatransition: China by 2020*

As the second decade of the twenty-first century continues to unfold, China is in the process of effecting a megatransition, from the world's factory to an economic powerhouse on the global stage. The megatrends identified here, while facing some constraints, represent the push-and-pull factors involved in helping China achieve such a megatransition.

At *macro* levels, the Morgan Stanley Research China strategy team expects that by 2020:

- China's GDP share in the world economy will grow to 14 percent from 8 percent in 2010.
- China's domestic fixed asset investment (FAI) will keep growing at an 11.0 percent CAGR, to more than double 2010's absolute levels.
- China's private consumption will grow at a 12.6 percent CAGR, to more than triple 2010 levels.
- China will have made its currency, the renminbi, freely convertible and its capital account open.
- China will become one of the largest outbound investors, in financial direct investment and in world capital markets.

At *micro* levels, the Morgan Stanley Research China strategy team expects that by 2020:

- China baby boomers, those born after 1980, will represent 45 percent of the workforce and will be the dominant consumers.
- China will have deepened its urbanization ratio to 63 percent, having added 300 million people to its urban population, an increase of 50 percent from 2010.
- China's labor cost-to-GDP ratio will increase to 30 percent, with wages more than quadrupling.
- Of Chinese workers, 35 percent will have college degrees.
- China will have developed a comprehensive consumer finance industry, driven by advances in e-commerce and credit reporting. The credit consumption ratio could rise to 40 percent from 10 percent in 2010.
- China will have in place a nationwide, world-class infrastructure, from ports to airports, highways to high-speed rail lines, and power grids to gas distribution networks.

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<sup>30</sup>Morgan Stanley & Co. Inc. Research, "The China Files."

**Obstacles to Growth**

As China heads toward a megatransition, the country will undoubtedly face obstacles to its ongoing growth. It must therefore adjust its growth model to address these obstacles if it hopes to continue on a trajectory of expansion. Two main obstacles to ongoing growth are environmental issues and resource constraints.

**Environmental Issues**

China, the world's top carbon emitter, accounts for approximately 24 percent of global carbon emissions, and its emissions liability is growing faster than that of any other nation. Further industrialization, growing urbanization, and rising disposable income will drive up energy consumption in the 2010 to 2020 decade, and the rate of carbon emissions will multiply unless China makes a concerted effort to alter its current growth model.

**Resource Constraints**

As of 2010, China consumed a significant share of the global supply of commodities and energy. Given China's high rate of growth, this rate of consumption cannot continue over the long term. China competes for coal, tin, lead, zinc, aluminum, crude oil, and many additional resources with other growing economies in a global market vastly different from the one that it entered as a rapidly developing economy in 1993. Since then, other countries have begun to achieve significant growth—Brazil, Russia, Indonesia, Mexico, Turkey, and India, for example—thereby generating considerable demand for many of the same resources as China.

**China: The Middle-Income Transition<sup>31</sup>**

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As of April 2011, economists characterized China as entering a middle-income transition. Such a transition occurs when per capita income (on a nominal U.S. dollar basis) reaches US\$4,000 to \$5,000 (approximately where China was in 2010) and ends when income levels reach US\$10,000 to \$12,000. The high economic growth rates that brought China to the threshold of this transition were often achieved through labor-intensive exports, which tend to gradually lose competitiveness in the global economy as surplus labor disappears and wages rise. Low-end manufacturing (e.g., textiles) may eventually migrate to lower-cost countries in earlier stages of economic development (e.g., Bangladesh, Vietnam or India), leading to changes in China's growth model and economic structure. Exports may change as well, as the value added per person rises for China to remain competitive.

<sup>31</sup>"A Middle-Class Dragon: As China Enters a Period of Middle-Income Transition, the Stakes Could Not Be Higher," *CFA Magazine*, March–April 2011.



Japan, South Korea, Taiwan, and Singapore managed to pass through the middle-income transition rather quickly. Brazil stalled at one point during its transition. As of early 2012, Thailand, Indonesia, and Malaysia have been less successful in making the transition.

A source of anxiety for central planners is that they must relinquish control over large swaths of the economy and allow market forces to operate to a greater degree in order for the middle-income transition to succeed. Following this advice would mean less government planning, less targeting, and less clarity. Moreover, after the government lets go of resource allocation and other matters best left to market forces, it should concentrate on infrastructure, human capital, education, social services, and health care.

By one estimate, China's state-owned sector shrank from 77.6 percent in 1978, the year of Deng Xiaoping's first economic reforms, to 29.5 percent in 2007. Significant governmental controls on the economy remained in place as of early 2013, including (1) price controls on grain and gasoline; (2) use controls on coal and other energy resources; (3) industry consolidation; (4) wage setting in the state-owned sector; and (5) ultimate state control of a high percentage of listed companies.

China's consumption patterns continued to evolve as of early 2013, with the emergence of status-conscious shoppers, notable online buying, widespread advertising, new businesses such as beauty parlors, and increased car ownership rates (which more than doubled from 2005 through 2010). As part of its 12th Five-Year Plan, China planned to employ several means to put more income into the hands of mainstream consumers, including:

- Raising wages
- Tapping state-owned entities (SOEs)
- Raising interest rates
- Reducing income taxes
- Expanding consumer credit
- Building affordable housing
- Increasing social spending
- Developing the services sector
- Introducing modern retail methods

### **China Nationally and Regionally Emulates Other Asian Nations**

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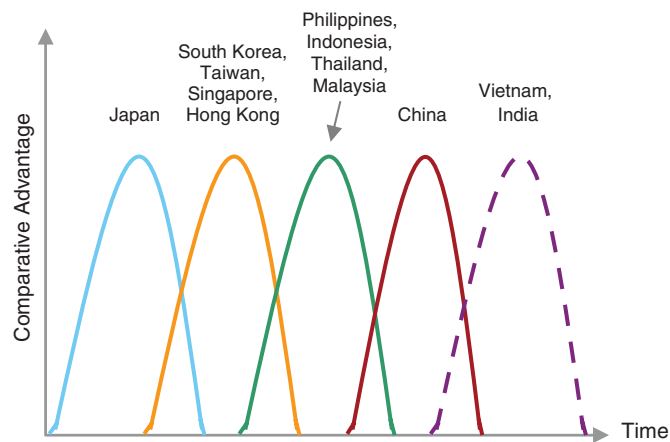
In *Why The West Rules—For Now* (Farrar, Straus & Giroux, 2010), author Ian Morris describes the rise-and-fall cycles in world history and suggests that shifts of wealth and power are inevitable. He further argues that the patterns of world history along with present-day dynamics imply that the period to 2050 may rank among the most significant eras in world history.

Throughout history, empires such as the Roman Empire and the Song dynasty of China rose up the development ladder and then fell due to climate change, migration, famine, epidemic, and/or state failure. A new set of disruptive forces faces humanity, including climate change, technological change, nuclear proliferation, population growth, and global epidemics.

Because distinctions of geography have become increasingly irrelevant, Eastern and Western civilizations have become much more intermingled and co-dependent than in earlier centuries.<sup>32</sup>

“Asia’s Economic Miracle” can be illustrated by the “Flying Geese Paradigm.” This theory postulates that Asian nations will sequentially catch up with more advanced economies through a regional rotation where the production of commoditized goods moves continuously from the more advanced to the less advanced countries (see Figure 18). The lead nation in this pattern is Japan, followed by the newly industrializing economies (South Korea, Taiwan, Singapore, and Hong Kong). After these groups come the Philippines, Indonesia, Thailand, and Malaysia. Finally, come the more recently developing major nations in Asia, including China, Vietnam, and India.

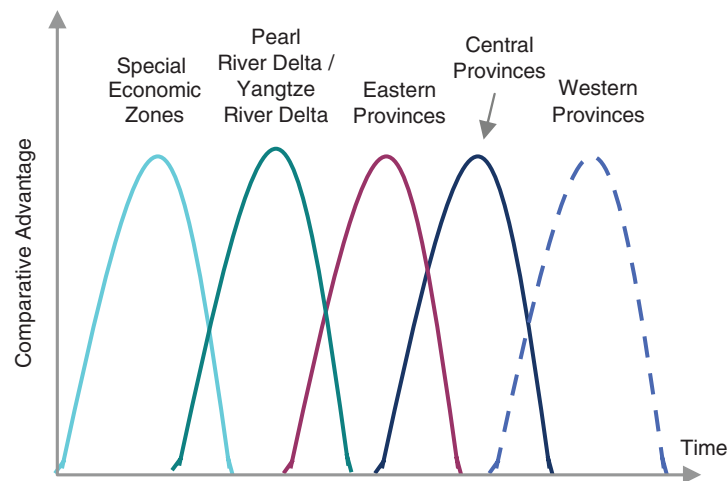
It may be argued that, given the sheer size of the Chinese economy and population, and the country’s vast regional disparities, China’s *internal development* may also in fact follow the “Flying Geese Paradigm,” in this case with the lead region being the SEZs, followed by the Pearl River Delta and the Yangtze River Delta (see Figure 19). After these regions come the other eastern provinces, with the central and western provinces following behind.



**Figure 18 Select Economies in Asia**

Source: Morgan Stanley & Co. Inc. Research, “The China Files: Chinese Economy through 2020,” November 8, 2010.

<sup>32</sup>“The Final Conflict,” *New York Times Book Reviews*, December 12, 2010.



**Figure 19 Select Regions in China**

Source: Morgan Stanley & Co. Inc. Research, "The China Files: Chinese Economy through 2020," November 8, 2010.

## Chinese Affluent Consumer<sup>33</sup>

In late 2006, MasterCard and HSBC conducted a study of affluent Chinese consumers, defined as those whose annual household income is between US\$6,000 and US\$25,000 per year. Over 780 surveys were conducted in five focus groups in Shanghai, Guangzhou, and Beijing. Among their findings, they concluded in their 2007 report that affluent Chinese consumers:

- Value self-respect and fun and enjoyment in life.
- View time constraint/convenience as a top factor affecting buying decisions.
- View a senior job position as the top perception of social status.
- View property and domestic stocks as the top assets in which to store wealth.

Tables 16 through 19 show key factors affecting affluent Chinese consumers' buying decisions and investing priorities. Figure 20 shows affluent Chinese consumers' perceptions of factors that contribute to social status. Figure 21 shows gross domestic saving as a percentage of GDP.

<sup>33</sup>"Understanding the Affluent Consumers of China," MasterCard and HSBC, Second Quarter 2007.

**Table 16 Top Factors Affecting Buying Decisions**

- 
1. Time constraint/convenience
  2. Being green
  3. Brand
  4. Luxury
- 

Source: MasterCard and HSBC, "Understanding the Affluent Consumers of China," Second Quarter 2007.

**Table 17 Middle-Class and Affluent Consumers (with Annual Household Income of Rmb 60,000 ~ US\$9,050)**

Population (Millions)	2010	2020E
Large cities <sup>a</sup>	65	127
Smaller cities <sup>b</sup>	83	288
Total	148	415

<sup>a</sup>Large Cities include Chinese cities with a population of more than one million, as defined by the Boston Consulting Group.

<sup>b</sup>Small cities include Chinese cities with a population between 250,000 and one million, as defined by the Boston Consulting Group.

Source: "Big Prizes in Small Places: China's Rapidly Multiplying Pockets of Growth," Boston Consulting Group, November 2010.

**Table 18 Top 10 Values**

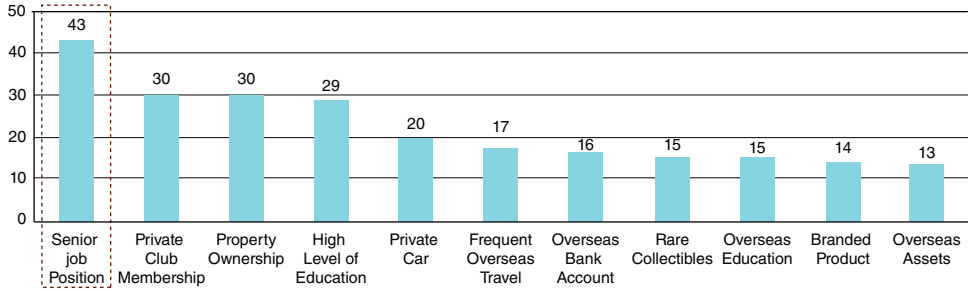
- 
1. Self-respect
  2. Fun and enjoyment in life
  3. Being well respected
  4. Sense of accomplishment
  5. Financial security
  6. Social security
  7. Good relations with others
  8. Self-fulfillment
  9. Sense of belonging
  10. Having excitement
- 

Source: MasterCard and HSBC, "Understanding the Affluent Consumers of China," Second Quarter 2007.

**Table 19 Priorities in Investing**

- 
1. Property
  2. Domestic stocks
  3. Fixed deposits in RMB
  4. Insurance with investment
  5. Investment funds
  6. Fixed foreign currency bonds
  7. Bonds
  8. Foreign stocks
  9. Collectibles
  10. Bank investment products
  11. Gold
  12. Financial company investment products
- 

Source: MasterCard and HSBC, "Understanding the Affluent Consumers of China," Second Quarter 2007.

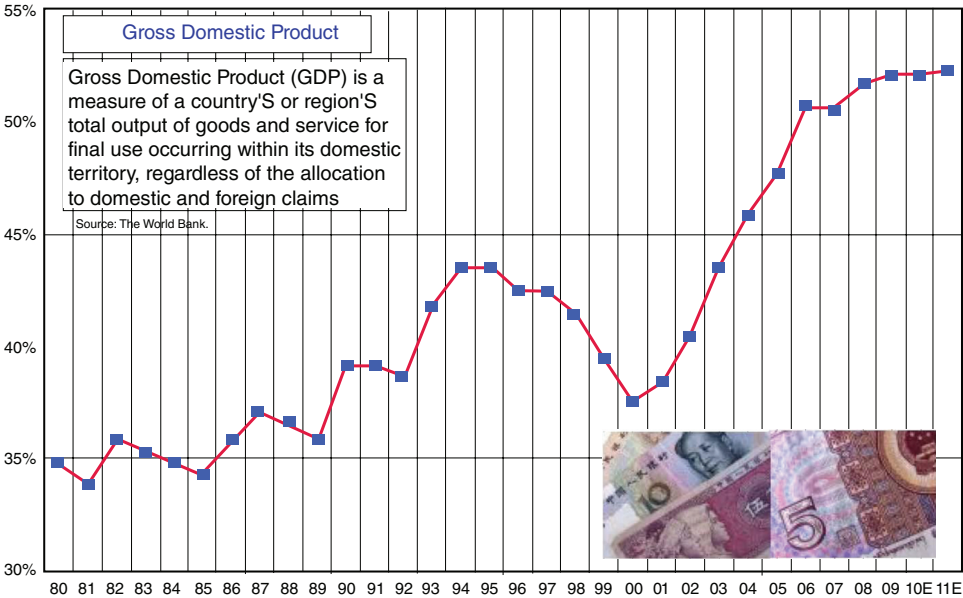


**Figure 20 Perceptions of Factors that Contribute to Social Status**  
 Source: MasterCard and HSBC, "Understanding the Affluent Consumers of China," Second Quarter 2007.

### China's Consumption May Be Understated

China's official statistics may substantially understate the true magnitude of consumption within the country due to the following factors:

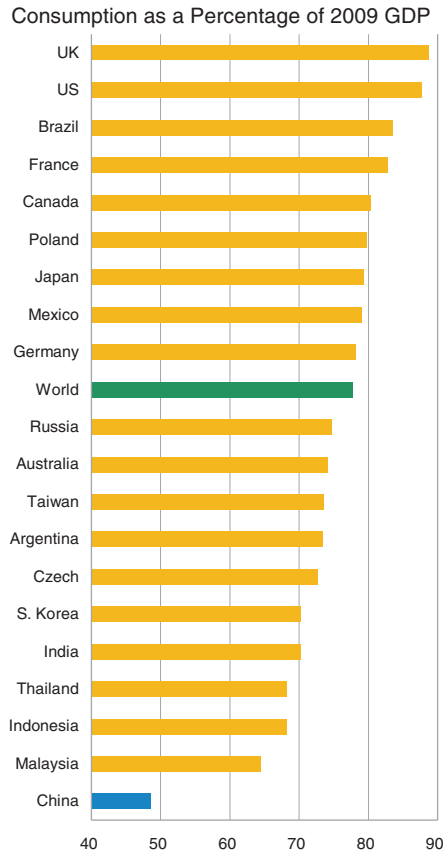
- Chinese official data for personal consumption expenditures may substantially underestimate the consumption of services, especially housing and health care (see Figure 22).
- Comparing the consumption of nonservices tradable goods between the United States and China, the gap between the United States and



**Figure 21 Gross Domestic Saving as a Percentage of GDP**  
 Sources: World Bank; Morgan Stanley & Co. Inc. Research. Data are as of December 31, 2010. Estimates are as of May 2011.

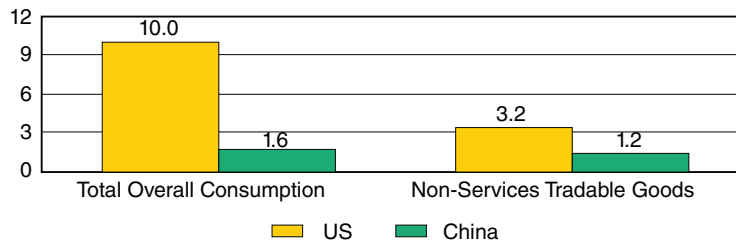
China is much smaller than suggested by overall consumption data (see Figure 23).

- A like-for-like comparison of specific types of goods and services consumed by households in China and in the United States indicates that



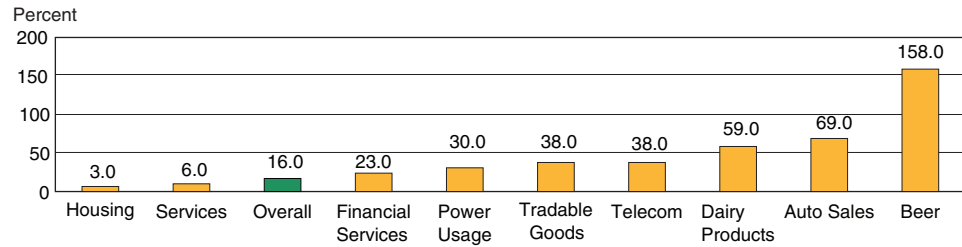
**Figure 22 China's Underconsumption**

Sources: Euromonitor; CEIC; Morgan Stanley & Co. Inc. Research. Data are as of 2009.



**Figure 23 Personal Consumption in 2008**

Source: Morgan Stanley & Co. Inc. Research, "The China Files: Chinese Economy through 2020," November 8, 2010.



**Figure 24 Comparison of Personal Consumption: Ratio of China Compared to the United States**

Source: Morgan Stanley & Co. Inc. Research, “The China Files: Chinese Economy through 2020,” November 8, 2010.

the magnitude of China’s personal consumption relative to that in the United States may be much greater than is generally perceived (see Figure 24).

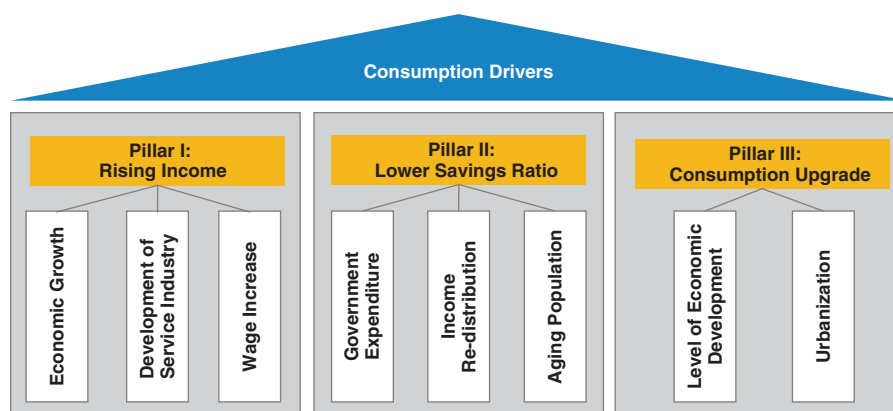
### Three Pillars Underpin Rising Chinese Consumption through 2020

Figure 25 illustrates the three pillars underpinning rising Chinese consumption through 2020. They are:

**Pillar I: Rising Income.** Household income growth is the primary source of consumption growth, and is dependent on three factors: (1) overall economic growth; (2) labor concentration in the economy; and (3) total earnings of the labor force. Morgan Stanley Research believes these three factors will help accelerate household income growth over the next decade.

**Pillar II: Lower Savings Ratio.** The key drivers of a declining savings ratio are (1) government expenditures on public goods (such as rail passenger transport and social housing) and services (such as education and health care) to reduce households’ precautionary saving; (2) income redistribution to reduce the overall savings ratio as the savings ratio of low income households exceeds that of higher-income households; and (3) an aging population as the savings ratio tends to decline with an aging population.

**Pillar III: Consumption Upgrade.** Consumption upgrade represents a fundamental and rapid change in the type of consumption. Consumers’ preferences tend to reflect the level of economic development of the state; in other words, consumers’ taste for goods and services adjusts with their standard of living; economic development and urbanization are thus expected to drive consumption trends in China through 2020.



**Figure 25 Consumption Drivers**

Source: Morgan Stanley & Co. Inc. Research, "The China Files: Chinese Economy through 2020," November 8, 2010.

In August 2010, McKinsey & Company published its annual study of Chinese consumers.<sup>34</sup> Among its findings were:

**"Well-known brands are of better quality." The percentage of those who strongly agreed or agreed:**

China	45%
United States	16%
United Kingdom	9%
Japan	8%

**"Going shopping with my family is one of the best ways to spend time with them." The percentage of those who strongly agreed or agreed:**

China	52%
United States	15%
France	9%

## Labor Supply and Workforce Trends in China

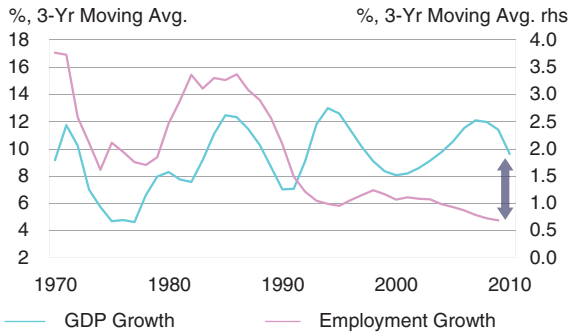
A disparity exists between GDP growth and employment growth. The growth rate of the working-age population has been slowing (the total dependency ratio<sup>35</sup> most likely reached a bottom in 2010). Wages are likely to increase as China shifts away from a labor-driven economy to a capital-driven one (see Figure 26).

<sup>34</sup>McKinsey & Company, "2010 Annual Chinese Consumer Study," How the World Shops, August 2010.

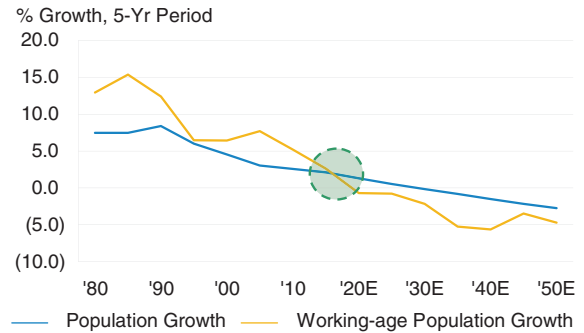
<sup>35</sup>The dependency ratio represents the number of dependents (i.e., children and the elderly) compared to the working-age population.



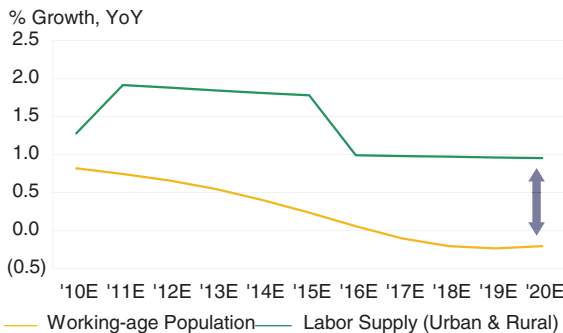
(a) GDP Growth Is Outpacing Employment Growth...



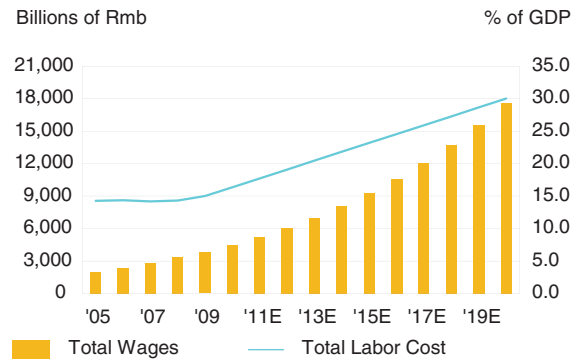
(b) ...and the Working-age Population Growth is Slowing...



(c) ...Leading to an Declining Labor Supply...



(d) ...and, Therefore, Increased Wages



1. The dependency ratio represents the number of dependents, i.e., children and the elderly, compared to the working-age population.

**Figure 26 Labor Supply and Workforce Trends in China**

Sources: (a) CEIC; Bloomberg, LLC; Morgan Stanley & Co. Inc. Research. Data are as of December 2010. (b) United Nations Population Division, “UN World Population Prospects: 2010 Revision,” May 3, 2011. (c) CEIC; Morgan Stanley & Co. Inc. Research; United Nations Population Division, “UN World Population Prospects: 2010 Revision,” May 3, 2011. (d) CEIC; Morgan Stanley & Co. Inc. Research. Data and estimates are as of November 2010.

## Demographic Trends in China<sup>36</sup>

On April 28, 2011, the National Bureau of Statistics (NBS) released the results of the Sixth National Population Census. The census reported that China’s population in 2010 was 1.34 billion, up from 1.27 billion in 2000. The average annual growth rate during the 2000–2010 time period was 0.57 percent, down from 1.07 percent during the 1990–2000 time period.

<sup>36</sup>“China’s Mainland Population Grows to 1.3397 Billion in 2010: Census Data,” *Xinhua News Agency*, April 28, 2011; “China’s One-Child Policy Faces New Fire,” *Wall Street Journal*, April 29, 2011; “New Census Finds China’s Population Growth Has Slowed,” *New York Times*, April 28, 2011.

Among the findings of the census were:

- Urban population in 2010 surged by more than 45 percent, leaving urban and rural China nearly equal in population. More than 261 million citizens, nearly one in five, were living in places other than where China's household registration process (the Hukou System—see sidebar) indicated that they did.
- The illiteracy ratio was 4.08 percent in 2010, down from 6.72 percent in 2000. University graduates in 2010 represented 8.9 percent of citizens, versus approximately 3.6 percent of citizens in 2000.
- People over 60 accounted for 13.3 percent of China's population, compared to 10.3 percent in 2000. People under 14 accounted for 16.6 percent of China's population in 2010, down from 23 percent in 2000.
- In 2010, China had approximately 120 males for every 100 females. Population experts have forecast that by 2020, 24 million Chinese single young men might have little prospect of marrying or having their own children.

#### **THE HUKOU SYSTEM OF REGISTERED RESIDENCY<sup>37</sup>**

The formal name of the hukou system is *huji*. Within the *huji* system, a *hukou* is the registered residency status of a specific individual in the system.

A *hukou* or *huji* refers to the system of residency permits that dates back to ancient China, where household registration was required by law in the People's Republic of China and in the Republic of China (Taiwan). Similar household registration systems exist within the public administration structures of Japan (*koseki*), Vietnam (*hộ khẩu*), and North Korea (*hoju*). In South Korea, the *hoju* system was abolished on January 1, 2008.

Family registers were in existence in China as early as the Xia dynasty, the first dynasty of China. In the centuries that followed, the family register developed into an organization of families and clans for purposes of taxation, conscription, and social control.

In 1958, the Chinese government officially promulgated the family register system to control the movement of people between urban and rural areas. With its large rural population of poor farm workers, hukou limited mass migration from rural towns to the urban cities to ensure

<sup>37</sup> en.wikipedia.org.

some structural stability. Workers seeking to move from the country to urban areas to take up nonagricultural work would have to apply through the relevant bureaucracies. The number of workers allowed to make such moves was tightly controlled. Migrant workers were required to get six passes to work in provinces other than their own.

Although an individual is technically required to live in the area designated on his/her permit, in practice as of early 2011, the system had largely broken down. After the Chinese economic reforms that started in 1978, workers were allowed to unofficially migrate without a valid permit to get a job.

According to Chinese government statistics, the number of migrant workers in China as of late 2010 was estimated to be 120 million, approximately 9 percent of the population. As of late 2010, an estimated 230 million Chinese, approximately two thirds of the population of the United States, had left the countryside and migrated to the cities in recent years. That number was projected to surpass 300 million (and perhaps reach 400 million) by 2025. Most Chinese migrant workers come from Sichuan, Hunan, Henan, Anhui, and Jiangxi provinces.

From the 1980s onward, an estimated 200 million Chinese lived outside their officially registered areas, with considerably less access to education and government services, and occupied in several respects a social and economic status similar to illegal immigrants. The millions of peasants who have left the countryside remained stuck at the margins of urban society, and they have been blamed for rising crime and unemployment.

The hukou system has undergone further relaxation since the mid-1990s. The first relaxation allowed rural residents to buy temporary urban residency permits, meaning they could work legally; fees for these decreased gradually to a fairly affordable level. From 1998, hukou became inheritable through either the father's or the mother's line. From 2001 onward, hukou controls were weakened. In 2003, the laws on custody and repatriation were repealed.

### ***China's One-Child Policy***

China's one-child policy has been enforced by the National Population and Family Planning Commission, which employed a half-million full-time staffers and 6 million part-timers as of early 2011. It has collected millions of dollars a year in fines from people who violate family-planning rules.

Under the one-child policy as of early 2011, many (but not all) couples who had more than one child could face fines of several months' salary and could

lose their jobs if they worked for the state. The policy exempted several groups, including ethnic minorities, rural couples whose first child is a girl, and couples in which both partners are only children. The commission was believed to be considering limited pilot plans to relax the policy as of early 2011.

Prior to the adoption of the one-child policy in 1980, China's fertility rate, the average number of children born to each woman, was already experiencing a decline. In 1979, the fertility rate was 2.7, down from 5.5 in 1970, due to policies encouraging people to marry later, wait longer between children, and have fewer children.

In 2000, a group of 24 leading demographers, economists, and former Family Planning officials joined forces to advocate for the end of the one-child policy. By early 2011, the advocacy group had encouraged China to terminate the policy because China's fertility rate was approximately 1.5 to 1.6 (by their calculation), as compared to the "replacement rate" of 2.1 children for every woman, which is generally required to keep a population stable. The advocacy group cautioned that China's labor force might start to shrink by 2016.

The National Population and Family Planning Commission held a different view. In a report released in 2004, the commission noted that China's fertility rate had been 1.8 from 1991 through 2003 and should remain at 1.8 through 2033. The commission credited the one-child policy with preventing 400 million births, based on the assumption that, without it, the fertility rate would have stayed where it was in 1970. The commission also predicted that China's overall population would peak at 1.5 billion in 2033.

As of May 2011, the U.S. Census Bureau and several Chinese demographers predicted that China's population would peak at around 1.4 billion in 2026.

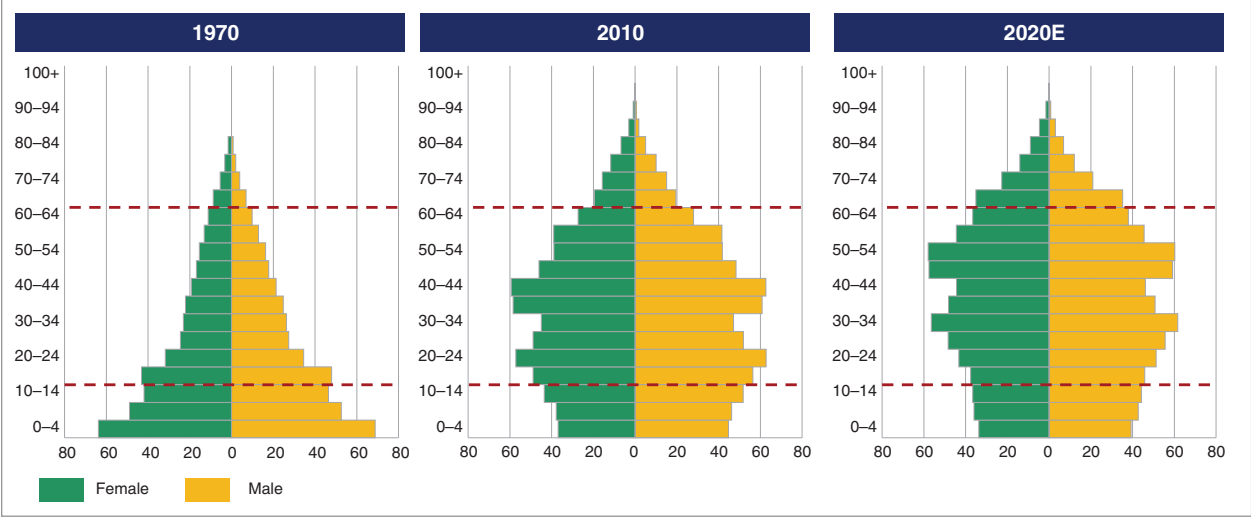
On May 3, 2011, the United Nations Population Division released its "World Population Prospects, the 2010 Revision," a report that forecasts global demographics through 2100. As illustrated in Figure 27, the UN Population Division forecasted that China's aging population as a share of the total population would grow in the years ahead, due in part to the effects of the one-child policy. The division estimated that China's fertility rate from 2005 through 2010 was 1.56, lower than that reported by China's National Population and Family Planning Commission. The division also estimated that China's fertility would trough out at 1.51 between 2015 and 2020. Demographers, economists, and policy experts noted that such demographic trends could represent headwinds to economic growth through 2020 and potentially beyond.

## Increasing Urbanization Rates in China

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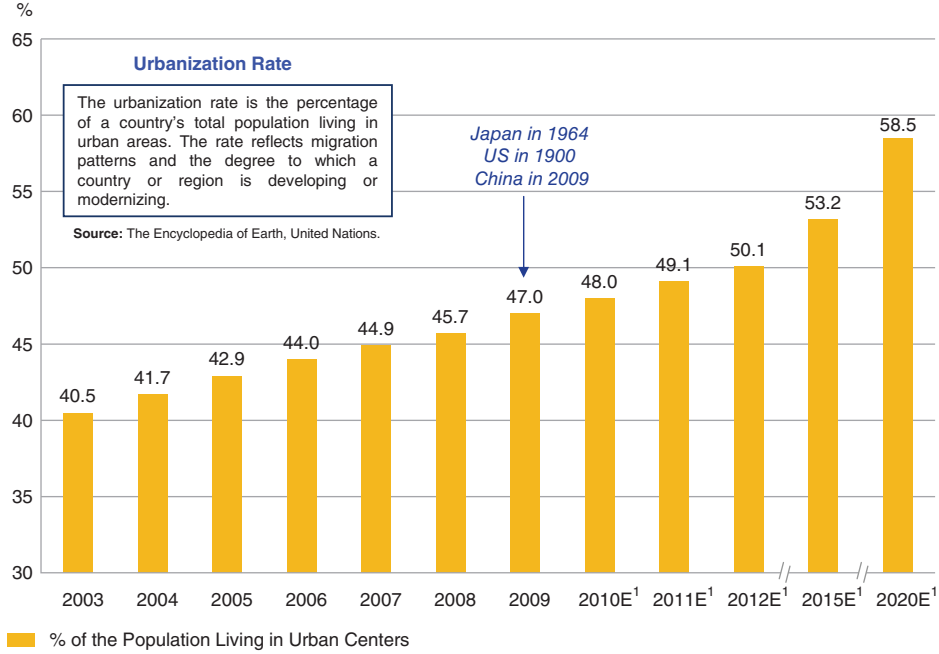
Figure 28 illustrates increasing urbanization rates in China, and Figure 29 places China's urbanization rate in context by comparing it with 20 other countries.

Millions of Persons



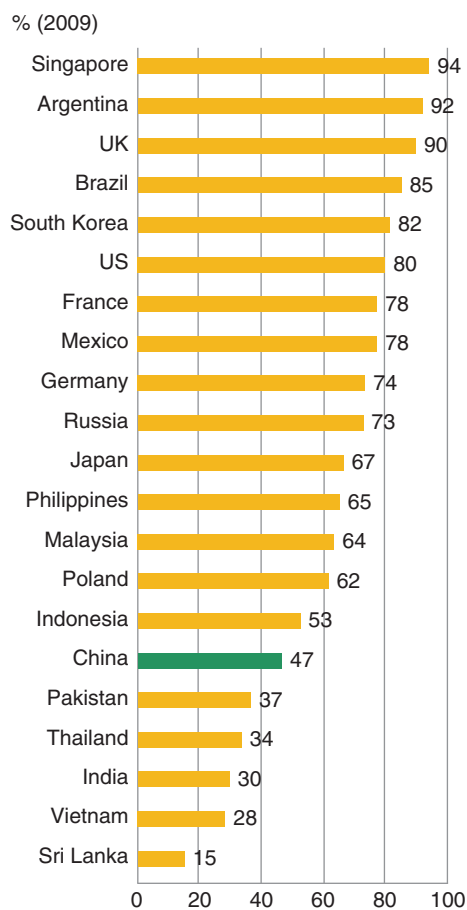
**Figure 27 China's Population Pyramid**

Source: United Nations Population Division, "UN World Population Prospects: 2010 Revision," May 3, 2011.



**Figure 28 Increasing Urbanization Rates in China**

Sources: National Bureau of Statistics; Ernst & Young Estimates; Morgan Stanley & Co. Inc. Research. Data and estimates are as of November 2010.



**Figure 29 China's Urbanization Rate in Context**

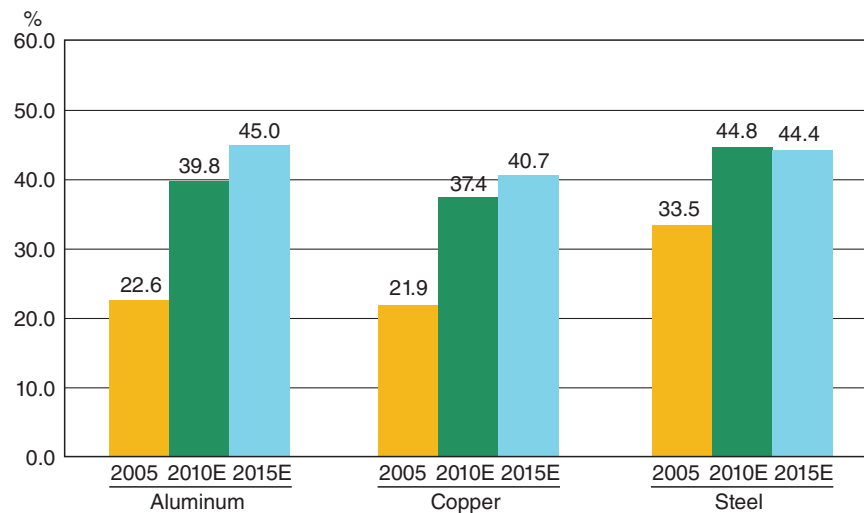
Sources: CEIC; Morgan Stanley & Co. Inc. Research. Data are as of 2009.

## China's Demand for Industrial Commodities

China's iron ore imports more than quintupled from 2003 to 2013, as China overtook Japan and the European Union to become the world's largest importer of iron ore (see Figure 30). In 2012, China produced 717 million metric tons of crude steel, 46 percent of the world's production.

## Business-to-Consumer (B2C) E-Commerce and Growing Internet Usage in China

On April 15, 2011, Morgan Stanley Research published a 57-page report, "China Internet/Media: E-Commerce: Harvesting in Digital China." Findings include:



**Figure 30 China's Consumption/Production of Materials as a Percentage of World Aggregates: 2005, 2010E, and 2015E**

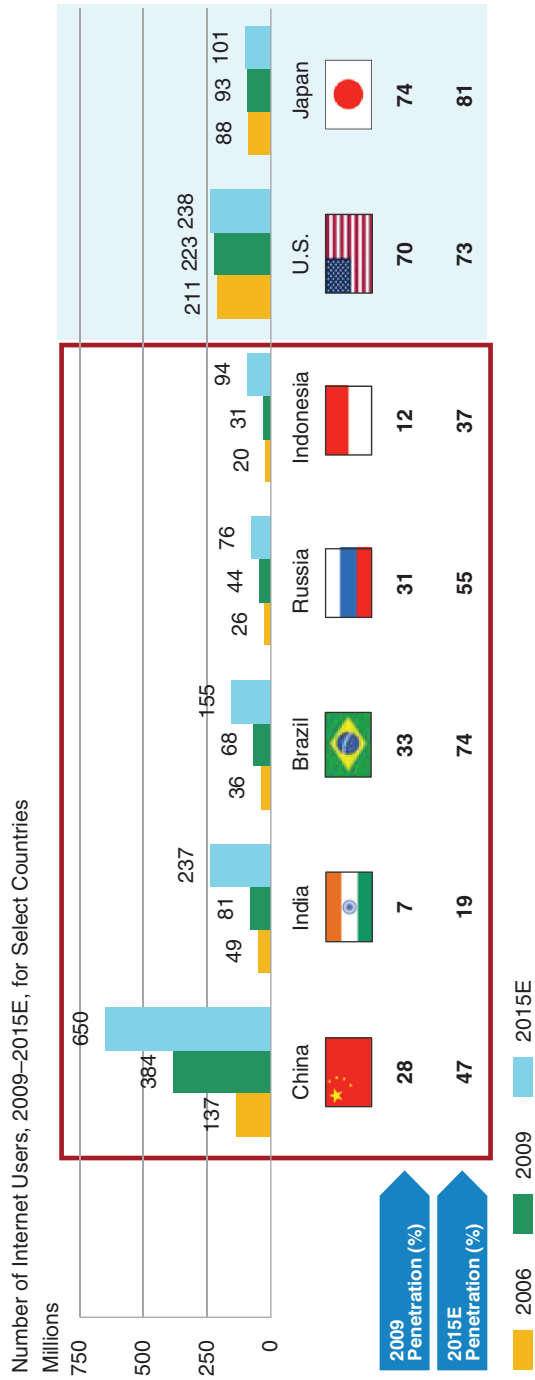
Source: Morgan Stanley & Co. Inc. Research, "Global Metals Playbook: 2Q11: Growth Continues Amid Heightened Volatility," April 8, 2011.

- China online retailers have been rapidly capturing market share from fragmented offline rivals. China's largest 20 retailers are estimated to represent less than 10 percent of total retail sales, versus 40 to 50 percent in the United States.
- China's e-commerce leaders tend to offer relatively cheaper goods (often at 30 to 40 percent discounts to offline products), convenience, and broader selections.
- Critical success factors for future Chinese e-commerce leaders include (1) scale, (2) operating efficiency, (3) capital efficiency, and (4) cost leadership.
- The report notes that e-commerce has become the fastest growing advertising category in China. Such robust demand should favor advertising leaders.
- Page nine of the report contains a list of 15 Morgan Stanley Research reports published between April 2008 and January 2011 about China's Internet and media industry. (See Figure 31.)

## China and India: A Critical Global Relationship<sup>38</sup>

Primarily in the Arunachal Pradesh region of the Himalayas, China asserts claims to 90,000 square kilometers (55,923 square miles), over which India

<sup>38</sup>Morgan Stanley Wealth Management Investment Strategy.



**Figure 31 Internet Users in the Five BRICI Countries Should More Than Double to 1.2 Billion by 2015<sup>1</sup>**  
 Sources: Ministry of Industry and Information Technology; iResearch; Internet World Stats; Economist Intelligence Unit; “The Internet’s New Billion,” Boston Consulting Group, September 2010.

**Note:**  
 1. An Internet user is defined as someone aged two years or older who went online in the past 30 days; penetration represents the number of Internet users divided by the population.



also claims ownership. In 2006, China's ambassador to India declared that the entire state of Arunachal Pradesh is in Chinese territory.

As neighboring nations with immense populations, multi-thousand-year-old cultures, and competing claims over disputed territory, China and India have extensive trade ties, with US\$74 billion in bilateral trade in 2011, up from only US\$270 million in 1990.

China and India fought a border war in 1962 and have not resolved their territorial disputes in Tibet and Kashmir, even though diplomatic ties were reestablished in 1976. India shelters thousands of Tibetan refugees, and the 14th Dali Lama has lived in Dharamsala, located in northern India, from 1959 onward. China has at times had close military ties with Pakistan. Over a period of years, China and India have conducted a series of at times cordial but inconclusive border negotiations, which were in their 13th round as of August 2009.

A significantly contentious issue between China and India has been control of water resources, and interbasin and interrivers water transfer projects; the Tibetan plateau is the origin of several major rivers in Asia, including the Yangtze, Yellow, Indus, Mekong, Brahmaputra (known in China as the Yalong Tsangpo, or the Yaluzangbu), and other rivers, all of which provide water to China, India, Bangladesh, Bhutan, Cambodia, Laos, Myanmar, Nepal, Pakistan, Thailand, and Vietnam.

For the Yalong Tsangpo (Brahmaputra), China has proposed, not without contention, dispute, and controversy:

- Constructing a canal to divert part of the river northward to supply water into arid regions, which account for 50 percent of the country's total land mass but which have less than 10 percent of the country's water resources.
- Building a 40,000-megawatt hydroelectric dam on the so-called "Great Bend" of the river. If built, the dam would be the largest hydroelectric dam in the world, with over twice the capacity of the Three Gorges Dam, which is located in Hubei Province of China and was the largest dam in the world as of May 2011.

## China and India: Expanding Strengths<sup>39</sup>

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### *China's Relative Strengths/India's Relative Weaknesses*

From 1980 to 2010, real GDP growth in China averaged 10.0 percent annually, as compared with 6.2 percent in India. As of May 2011, according to

<sup>39</sup>Morgan Stanley Investment Strategy; Morgan Stanley & Co. Inc. Research, "India and China: New Tigers of Asia, Part III," August 13, 2010; International Monetary Fund.

the International Monetary Fund, China's economy was the second largest in the world, approximately four times larger than India's economy. From 2010 through 2020, China's consumption as a share of the economy was expected to rise, while India's consumption as a share of the economy was expected to fall. According to Morgan Stanley Research, India lagged China in per-capita consumption of key items by a range of 3 to 13 years, depending on the product. According to United Nations World Population data, China's urbanization rate is expected to reach 53 percent by 2020, up from 45 percent in 2010. By contrast, India's urbanization rate is expected to reach 34 percent by 2020, approximately where China was in 2000.

China has superior infrastructure, including the world's fastest and longest high-speed rail network as of May 2011. India lacks many of the infrastructural elements needed to foster economic growth and urbanization. China's economic growth over the 1985–2010 time period indicates that India would need to increase its infrastructure spending to 10 percent of GDP, up from the 2010 level of 7.5 percent, in order to achieve a 10 percent sustainable GDP growth rate.

By 2020, China's high class, classified as those earning over US\$10,000 in annual household income, is forecasted to account for 58 percent of China's population, as compared with India's high class, forecasted to account for 46 percent of India's population.

In 2010, China's total capital expenditures were more than five times India's capital expenditures. China's investment-to-GDP ratio was 1.4 times that of India.

#### ***India's Relative Strengths/China's Relative Weaknesses***

As of early 2011, the Morgan Stanley India strategy team was projecting that India would be the fastest growing economy from 2010 through 2030.

From 2010 to 2020, India was expected to contribute 136 million people to the global labor pool, accounting for approximately 26 percent of the increase in global working-age population. In comparison, China was expected to contribute 23 million people over the same period, down from 118 million during the 2000–2010 time period. The United States, Japan, and Europe were forecasted to contribute 11 million, 8 million, and 21 million, respectively, from 2010 to 2020.

According to United Nations Population Estimates, India would be the only large country with favorable demographics after 2010. Japan, Europe, and the United States (in that order) would have a significant rise in their aging population. Although China benefited from a growing working-age population from 1980 to 2010, its aging population was expected to grow from 2010 to 2050. By contrast, India's working-age population was expected to grow steadily from 2010 through 2040.

Assuming supportive policy measures, the Morgan Stanley India strategy team believed that India would emerge as the global leader in producing secondary- and tertiary-educated talent from 2010 to 2020.

As of late 2010, India's government appeared to be initiating extensive government and economic reforms to improve the social well-being of its citizenry and to foster economic growth, with plans to:

- Reduce government subsidies.
- Implement a goods and services tax (GST) system, a tax initiative aimed at reforming the existing tax laws, moving from the existing tax system that taxes goods based on production to a new tax system that taxes goods based on consumption.
- Improve the direct tax system to encourage long-term savings.
- Consolidate the deficit of the public sector.
- Reduce the government's ownership in state-owned entities.
- Accelerate spending on infrastructure.
- Allow foreign direct investment in retail marketing and distribution.

## China as a Superpower<sup>40</sup>

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Agenda items for China include:

- Managing the geopolitical agenda (South China Sea; East China Sea; military resources; relations with North Korea, Japan, and Taiwan).
- Exercising growing power and responsibility.
- Respecting differences in culture, history, and political systems.
- Achieving rapid, widely shared, and environmentally sustainable growth.
- Sustaining prosperity and managing shared challenges.
- Strengthening the legitimacy and effectiveness of global governance.
- Managing economic opportunities, including: trade; currency adjustment; the structure and functioning of the international monetary system; climate change and the global commons; and conflicts over access to natural resources.
- Managing mutual suspicions; managing constraints on freedom of action; managing acceptance and nonacceptance of certain aspects of other nations' behavior; and avoiding "a drift into escalating reciprocal demonization."

<sup>40</sup>Gideon Rachman, "Now Beijing Feels that Time Is on Its Side," by *Financial Times*, January 18, 2011; Aaron Friedberg, "The New Era of US-China Rivalry," *Wall Street Journal*, January 18, 2011; Yu Yongding, "China's Best Way Forward," January 18, 2011; Martin Wolf, "East and West Are in It Together," *Financial Times*, January 19, 2011.



# 3

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## Investing Background

China's three stock exchanges include<sup>41</sup>:

1. **The Shanghai Stock Exchange (SSE)**
  - Founding date: 1990
  - Total companies listed: 932
  - Stock market capitalization: US\$2.3 trillion
  - Rankings by market capitalization:
    - 6th largest in the world
    - 3rd largest in the Asia-Pacific region
2. **The Shenzhen Stock Exchange (SZSE)**
  - Founded: 1990
  - Companies listed: 1,420
  - Stock market capitalization: US\$1.1 trillion
  - Rankings by market capitalization:
    - 12th largest in the world
    - 7th largest in the Asia Pacific region
3. **Hong Kong Stock Exchange (HKEx)**
  - Founded: 1891
  - Total companies listed: 1,477
    - Stock market capitalization: US\$2.2 trillion
    - Rankings by market capitalization:
      - 5th largest in the world
      - 2nd largest in the Asia-Pacific region

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<sup>41</sup>World Federation of Exchange Members, Hong Kong Stock Exchange, Shanghai Stock Exchange, Shenzhen Stock Exchange, [www.asialynx.com](http://www.asialynx.com).

By market capitalization, China's stock exchanges accounted for 12 percent of the world's total stock exchange market (see Table 20).

Niall Ferguson identified six key components of economic takeoff in the West in *Civilization: The West and the Rest* (2011). They are:

1. Competition
2. Scientific revolution
3. Rule of law and representative government
4. Modern medicine
5. Consumer demand
6. Work ethic, savings, and capital accumulation

As China simultaneously pursues several of the above six key components of economic takeoff, it is illuminating to compare China's GDP at various points in time to the GDP of Brazil, Russia, India, and Mexico in Figure 32. Figure 33 compares its GDP *per capita* relative to the same

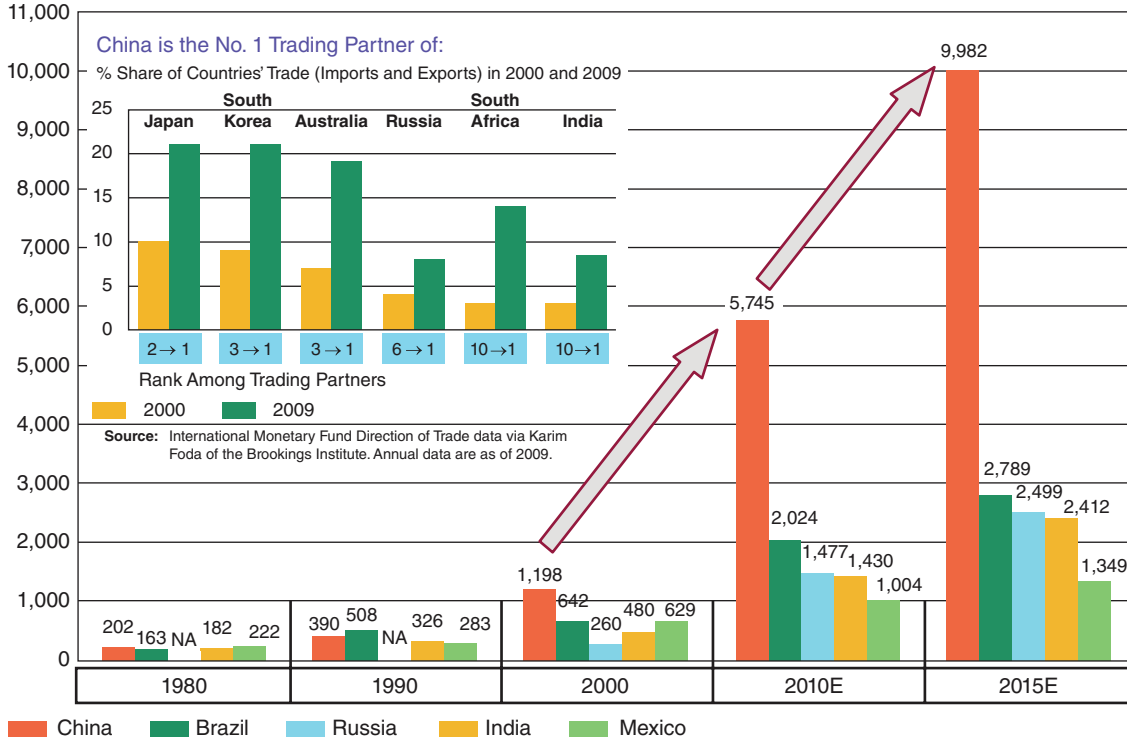
**Table 20 Stock Exchanges Around the World, by Stock Market Capitalization as of December 31, 2012**

Rank	Company Name	Market Cap. (US\$ Tn)	% of World
1.	NYSE Euronext	14.1	26.9%
2.	Nasdaq	4.6	8.8%
3.	Tokyo SE Group	3.5	6.7%
4.	London SE Group	3.4	6.5%
5.	Hong Kong Exchanges <sup>a</sup>	2.8	5.3%
6.	Shanghai SE <sup>a</sup>	2.5	4.8%
7.	TMX Group (Canada)	2.1	4.0%
8.	Deutsche Börse	1.5	2.9%
9.	Australian SE	1.4	2.7%
10.	Bombay SE	1.3	2.5%
11.	NSE of India	1.2	2.3%
12.	SIX Swiss Exchange	1.2	2.3%
13.	BM&F Bovespa	1.2	2.3%
14.	Korea Exchange	1.2	2.3%
15.	Shenzhen SE <sup>a</sup>	1.1	2.1%
16.	BMW Spanish Exchanges	1.0	1.9%
17.	JSE Limited	0.9	1.7%
18.	Moscow Exchange	0.8	1.5%
19.	Singapore Exchange	0.8	1.5%
20.	Taiwan SE	0.7	1.3%
	<b>Total</b>	<b>47.3</b>	

<sup>a</sup> Denotes Chinese Stock Exchange.

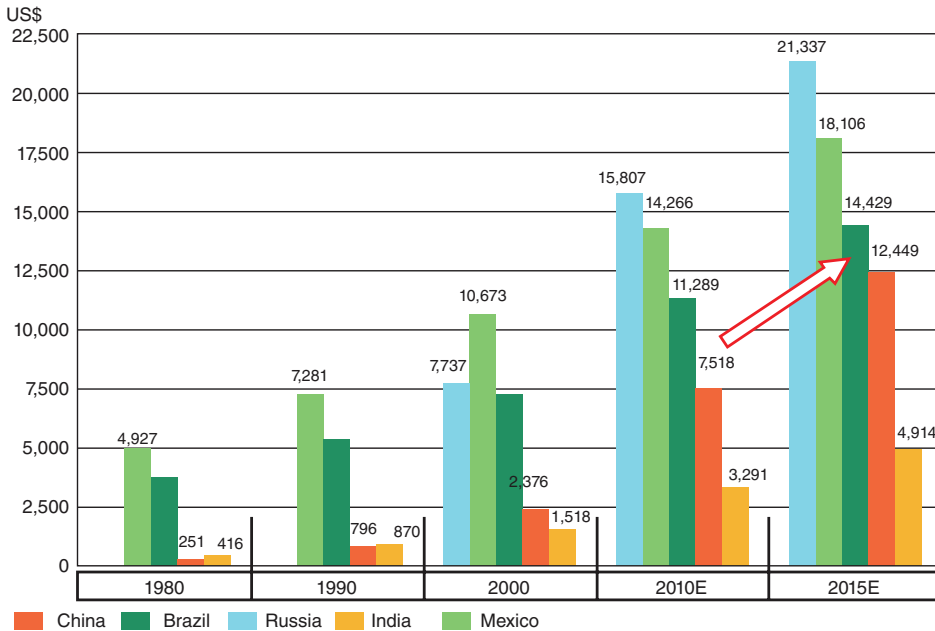
Source: World Federation of Exchange Members. Data are as of December 31, 2012.

US\$ Billion (2009 US\$)



**Figure 32 Gross Domestic Product in 2009 (US\$)**

Source: International Monetary Fund, "World Economic Outlook," April 2011.



**Figure 33 GDP per Capita of Select Emerging Market Economies**

Source: International Monetary Fund, World Economic Outlook, April 2011.

**Table 21 China's Share of Various Countries' Foreign Trade**

(Total Imports from, Plus Exports to, Each Nation)		
Country	1992	2010 <sup>a</sup>
South Korea	4.0%	22.8%
Taiwan	0.5	22.1
Australia	3.7	20.6
Japan	5.0	20.4
Malaysia	2.2	16.3
United States	3.5	14.3
Brazil	0.9	14.0
South Africa	1.8	13.1
Saudi Arabia	0.9	12.8
Indonesia	3.5	12.7
Thailand	2.2	12.0
India	0.4	10.5
Argentina	1.1	9.7
Egypt	1.6	9.0
Russia	3.8	8.9
Canada	1.5	7.0
Nigeria	0.5	6.9
Netherlands	0.5	6.5
Turkey	0.7	6.4
United Kingdom	0.6	6.2
Germany	1.3	6.1
Mexico	0.1	5.7
Italy	1.2	4.8
Spain	0.1	4.2
France	1.0	3.8
Sweden	1.1	3.8
Poland	0.7	3.4
Switzerland	0.8	3.3
Belgium	0.3	2.9

<sup>a</sup> Data are for the twelve months through August 2010.

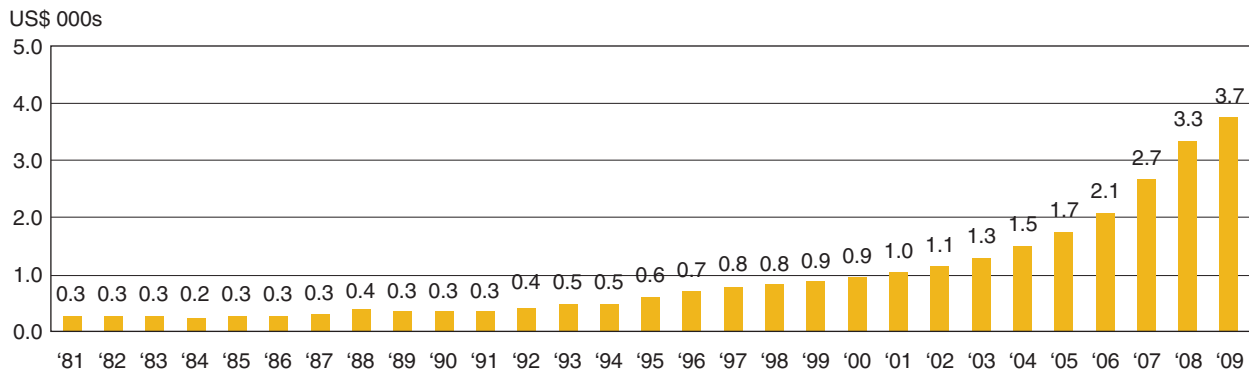
<sup>b</sup> Data are for calendar year 1998.

Source: "A Strategy to Straddle the Planet," *Financial Times*, January 28, 2011.

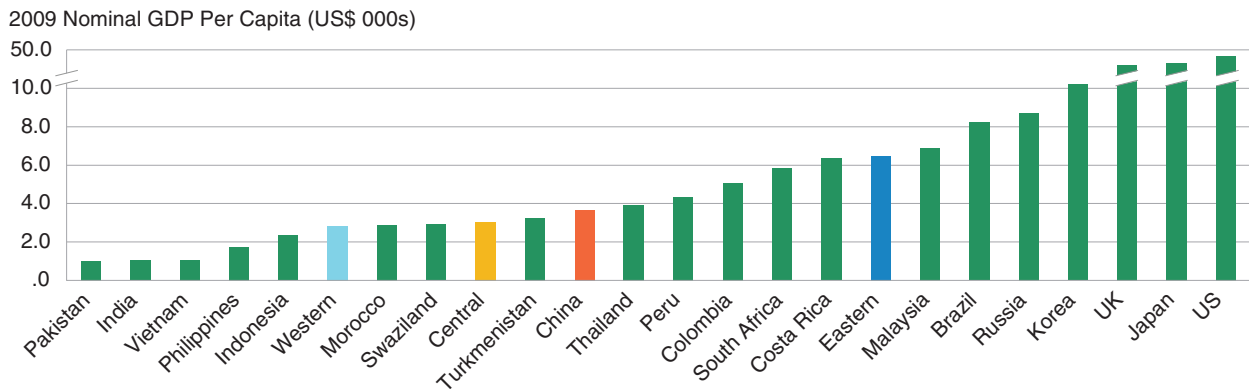
emerging market economics. Table 21 shows China's share of foreign trade.

Figure 34 shows China's GDP per capita, which is then organized to show regional disparities (Figure 35).





**Figure 34 China Nominal GDP per Capita, 1981–2009**  
 Source: China Economic Information Network, Bloomberg. Data are as of 2009.



**Figure 35 China’s GDP per Capita and Regional Disparities within a Global Context**  
 Sources: CEIC; Morgan Stanley & Co. Inc. Research. Data are as of 2009.

## China and Greater Asia Economic Forecast

Niall Ferguson also identifies “four mores” elements of continued growth in China in *Civilization*:

1. Consume more
2. Import more
3. Invest abroad more
4. Innovate more

Economic data relating to real GDP growth rates, CPI inflation, current account balances, interest rates, and exchange rates for China, Hong Kong, Taiwan, and Asia ex-Japan are shown in Table 22.

Table 22 China and Greater Asia Economic Forecast as of April 2013

	Calendar Years Ending Dec. 31						
	2007	2008	2009	2010	2011	2012	2013E
<b>Real GDP Growth (%)</b>							
Asia Ex-Japan	10.8%	7.5%	6.2%	9.4%	7.6%	6.2%	6.7%
AXJ (Ex-China and India)	6.0	3.0	0.2	7.8	4.2	3.6	4.0
Asia Pacific <sup>1</sup>	10.5	7.2	6.0	9.1	7.4	6.1	6.6
<b>China</b>	<b>14.2</b>	<b>9.6</b>	<b>9.2</b>	<b>10.4</b>	<b>9.3</b>	<b>7.8</b>	<b>8.2</b>
Hong Kong	6.4	2.1	(2.5)	6.8	4.9	1.4	3.8
Taiwan	6.0	0.7	(1.8)	10.7	4.0	1.3	2.9
<b>CPI Inflation (% , Period Average)</b>							
Asia Ex-Japan	4.6%	6.4%	2.4%	5.1%	5.8%	4.1%	4.3%
Asia-Pacific <sup>a</sup>	4.3	6.3	2.4	5.0	5.7	4.0	4.2
<b>China</b>	<b>4.8</b>	<b>5.9</b>	<b>(0.7)</b>	<b>3.3</b>	<b>5.4</b>	<b>2.6</b>	<b>3.2</b>
Hong Kong <sup>b</sup>	2.0	4.3	0.6	2.3	5.3	4.1	4.5
Taiwan	1.8	3.5	(0.9)	1.0	1.4	1.9	1.5
<b>Current Account (% of GDP)</b>							
Asia Ex-Japan	7.2	6.0%	4.7%	4.1%	2.6%	1.9%	1.8%
<b>China</b>	<b>10.1</b>	<b>9.1</b>	<b>5.2</b>	<b>4.1</b>	<b>2.8</b>	<b>2.6</b>	<b>2.4</b>
Hong Kong	12.4	15.0	9.5	6.6	6.5	1.1	2.9
Taiwan	8.4	6.9	11.4	9.3	8.9	10.5	9.1
<b>Interest Rates (Prime Lending Rate, %, Period End)</b>							
<b>China<sup>c</sup></b>	<b>7.5%</b>	<b>5.3%</b>	<b>5.3%</b>	<b>5.8%</b>	<b>6.6%</b>	<b>6.0%</b>	<b>6.25%</b>
Hong Kong <sup>d</sup>	4.1	3.5	2.3	2.2	2.5	2.5	3.0
Taiwan <sup>e</sup>	4.4	4.5	2.6	2.7	2.9	2.9	3.0
<b>Interest Rates (3-Month Interbank Rate, %, Period End)</b>							
<b>China<sup>f</sup></b>	<b>3.3%</b>	<b>1.8%</b>	<b>1.8%</b>	<b>4.6%</b>	<b>5.5%</b>	<b>3.9%</b>	<b>4.2%</b>
<b>Hong Kong</b>	<b>3.5</b>	<b>1.0</b>	<b>0.1</b>	<b>0.3</b>	<b>0.4</b>	<b>0.4</b>	<b>0.4</b>
<b>Taiwan<sup>g</sup></b>	<b>2.2</b>	<b>1.1</b>	<b>0.6</b>	<b>0.7</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>
<b>USD Exchange Rate (Period End)</b>							
China	7.31	6.83	6.83	6.60	6.29	6.30	6.30
Hong Kong	7.80	7.75	7.75	7.75	7.77	7.80	7.80
Taiwan	32.40	32.90	33.00	30.10	30.30	30.60	29.20

<sup>a</sup> Asia-Pacific includes China, Hong Kong, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan, Thailand, and Australia.

<sup>b</sup> Represents the composite consumer price index.

<sup>c</sup> Represents the one-year working capital rate.

<sup>d</sup> Represents the Hong Kong mortgage rate.

<sup>e</sup> Data represent the Taiwan First Commercial Bank prime lending rate before 2003, and the base lending rate since 2003.

<sup>f</sup> Represents the three-month time deposit rate.

<sup>g</sup> Represents the 90-day money market middle rate.

Sources: CEIC; Morgan Stanley & Co. Inc. Research.

### Asia-Pacific Market Valuations

Table 23 shows investment performance and valuation data for China, ten other countries, and the MSCI Asia Pacific Ex Japan Index.

**Table 23 MSCI Asia-Pacific Equity Market Data**

	Mkt Cap US\$Bn	Total Return (US\$)										EPS Growth					Dividend Yield		
		2005	2006	2007	2008	2009	2010	2011	2012	2012 CAGR	2013E	2014E	2015E	2012	2013E	2014E		P/B	ROE
MSCI Asia Pacific Ex Japan	6,055	23.3%	16.5%	14.3%	-41.8%	37.6%	17.0%	-15.1%	16.8%	5.4%	12.5	10.7	10.2	23.3%	12.2%	9.0%	1.4	11.7%	2.7%
<b>Countries</b>																			
Australia	974	16.0%	30.9%	28.3%	-50.7%	76.4%	14.5%	-11.0%	22.1%	9.8%	13.0	11.4	10.9	(1.9%)	10.0%	8.1%	1.9	8.2%	4.6%
<b>China</b>	<b>709</b>	<b>19.8%</b>	<b>82.9%</b>	<b>66.2%</b>	<b>-50.8%</b>	<b>62.3%</b>	<b>4.6%</b>	<b>-18.4%</b>	<b>22.7%</b>	<b>14.9%</b>	<b>10.0</b>	<b>8.6</b>	<b>8.3</b>	<b>10.5%</b>	<b>11.4%</b>	<b>7.6%</b>	<b>1.7</b>	<b>6.6%</b>	<b>2.9%</b>
Hong Kong	343	8.4%	30.4%	41.2%	-51.2%	60.2%	23.2%	-16.0%	28.3%	9.5%	10.8	9.8	9.7	13.0%	10.5%	0.7%	1.4	11.8%	2.5%
India	256	37.6%	51.0%	73.1%	-64.6%	102.8%	20.9%	-37.2%	26.0%	12.0%	7.8	5.9	5.2	15.1%	14.9%	30.4%	2.7	6.0%	1.3%
Indonesia	102	15.1%	73.8%	54.2%	-56.5%	126.2%	33.9%	6.0%	4.6%	20.7%	2.4	1.9	1.8	11.5%	15.9%	12.8%	3.7	4.4%	2.4%
Korea	591	57.0%	12.6%	31.9%	-55.3%	71.3%	26.7%	-12.0%	21.2%	11.6%	6.7	5.5	5.2	31.8%	13.9%	12.0%	1.2	9.0%	1.1%
Malaysia	135	2.3%	37.1%	46.1%	-41.2%	52.1%	37.0%	0.1%	14.3%	14.1%	12.2	10.7	10.4	1.8%	9.6%	6.9%	2.2	6.8%	2.9%
New Zealand	14	1.7%	16.6%	8.9%	-53.8%	50.4%	8.3%	5.5%	29.3%	3.6%	20.9	17.3	16.3	7.9%	13.6%	12.3%	1.7	8.7%	4.8%
Philippines	35	22.6%	58.2%	40.4%	-52.6%	65.6%	33.9%	-0.9%	46.4%	19.5%	8.8	7.9	7.6	7.9%	6.6%	7.6%	2.9	6.9%	1.9%
Singapore	204	14.4%	46.7%	28.4%	-47.4%	74.0%	22.1%	-17.9%	31.0%	12.6%	35.3	30.8	29.4	2.1%	9.2%	9.9%	1.5	8.3%	3.2%
Taiwan	411	6.4%	20.0%	8.4%	-46.5%	79.2%	21.8%	-20.9%	16.7%	5.1%	14.1	11.5	10.6	29.9%	11.9%	18.7%	1.8	11.8%	3.5%
Thailand	97	8.7%	11.1%	46.0%	-48.5%	76.6%	55.7%	-2.7%	34.5%	16.0%	10.0	8.5	8.1	19.7%	12.1%	9.9%	2.5	6.2%	2.8%

Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards, compared to U.S. investing. These risks include any political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. Such risks may be magnified in emerging market countries, since these countries may have relatively unstable governments and less established markets and economies.

Sources: FactSet; I/B/E/S; MSCI, Morgan Stanley & Co. Inc. Research.

**Emerging Market Relative Valuation: Equities and Currencies**

In January 2011, the *Bank Credit Analyst* (BCA) conducted an analysis of emerging market (EM) valuations. BCA ranked EM countries based on the valuation levels of their equities and currencies (see Figure 36).

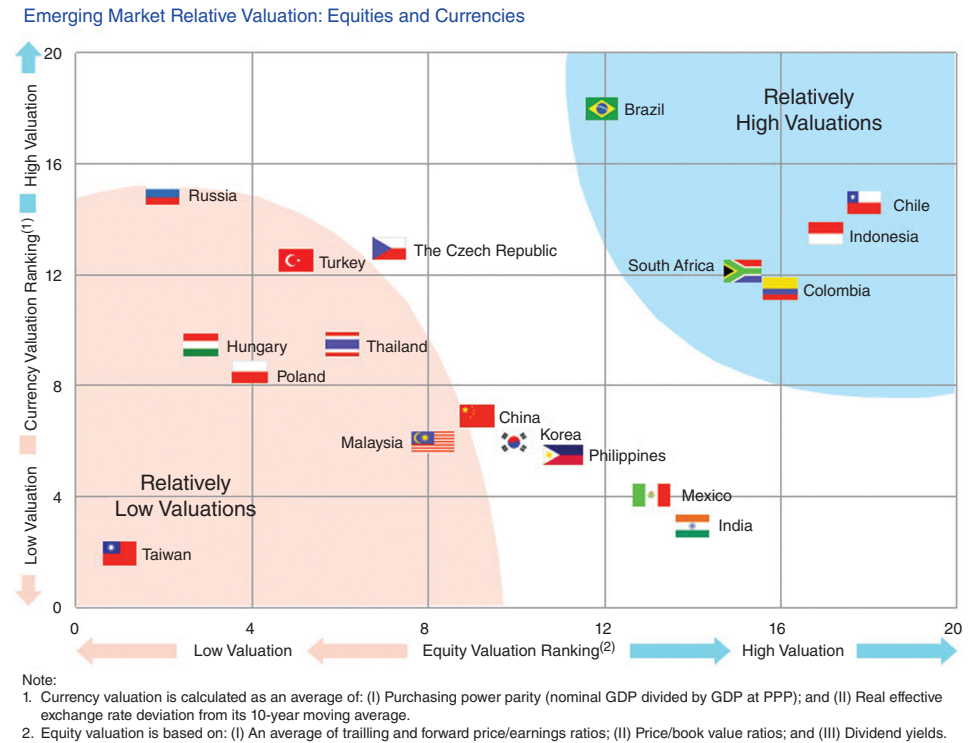
As of January 2011, BCA concluded that EM countries with high valuations included Brazil, Chile, Colombia, Indonesia, and South Africa; EM countries with low valuations included Hungary, Malaysia, Poland, Russia, Taiwan, Thailand, and Turkey.

**Chinese Initial Public Offering Activity**

The 2000–2010 annual initial public offering (IPO) volume in China is shown in Figure 37. Table 24 shows the 15 largest Chinese IPOs of equity since 2000.

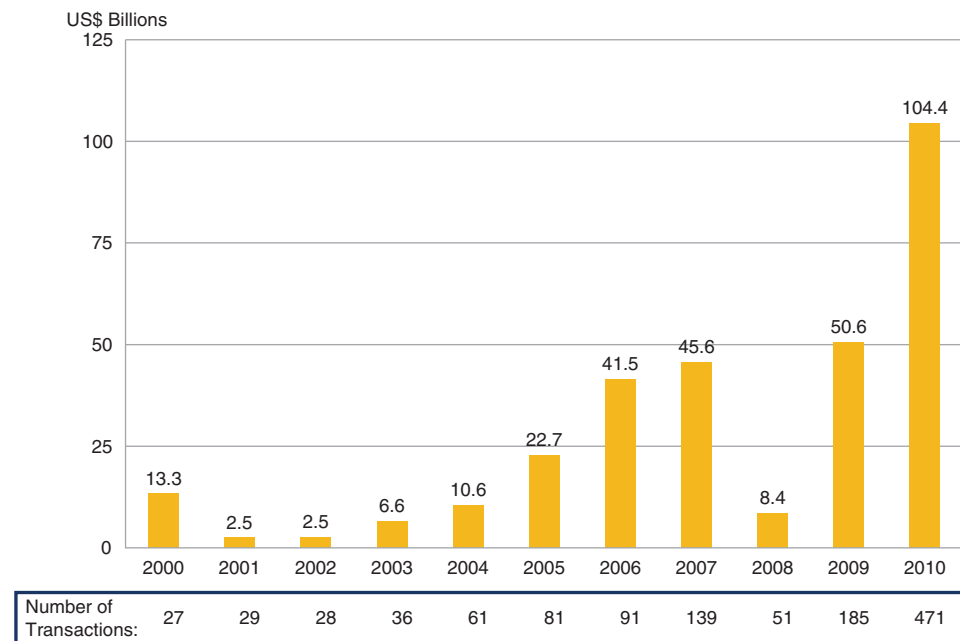
**Chinese Merger-and-Acquisition Activity**

Motivated by a desire to attain global scale, acquire raw materials, obtain technical innovation, and secure access to foreign markets, Chinese



**Figure 36 Value Opportunities: Equities and Currencies**

Source: "Outlook 2011: A Pivotal Year Ahead," *Bank Credit Analyst* (January 2011).

**Note:**

1. The equity offerings include all Chinese companies listed on stock exchanges globally.

**Figure 37 Chinese IPO Priced Equity Offerings**

Source: Dealogic.

**Table 24 Largest Chinese IPOs Since 2000**

	Pricing Date	Issuer	Industry	Deal Size (\$US MM)	Shares Offered (MM)	Bookrunners	Exchange
1	07/06/10	Agricultural Bank of China Ltd	Finance	22,117.4	54,794	China International Capital Corp, Goldman Sachs, Morgan Stanley, Deutsche Bank, JPMorgan, Macquarie, Agricultural Bank of China, CITIC, China Galaxy, Guotai Junan	Hong Kong, Shanghai
2	10/20/06	Industrial & Commercial Bank of China - ICBC	Finance	21,928.7	40,700	Bank of America Merrill Lynch, IBCB, China International Capital Corp, Credit Suisse, Deutsche Bank, CITIC, Shenyin & Wanguo, Guotai Junan	Hong Kong, Shanghai
3	05/24/06	Bank of China Ltd	Finance	11,185.9	29,404	Bank of China, Goldman Sachs, UBS	Hong Kong
4	10/20/05	China Construction Bank Corp - CCB	Finance	9,226.7	30,459	China International Capital Corp, Morgan Stanley, Credit Suisse	Hong Kong

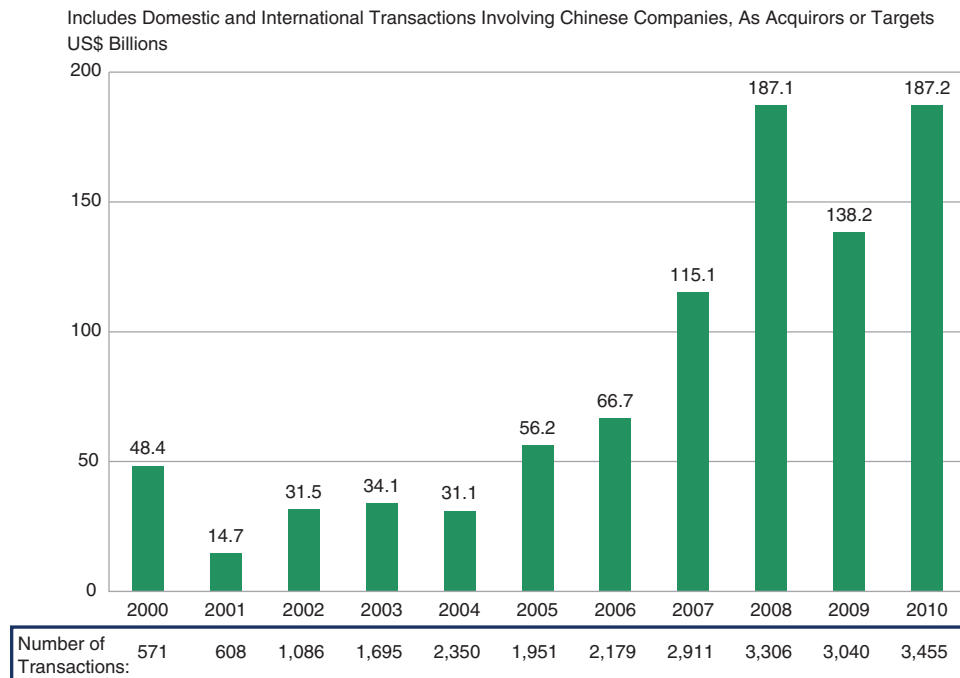
(continued)

Table 24 (Continued)

	Pricing Date	Issuer	Industry	Deal Size (\$US MM)	Shares Offered (MM)	Bookrunners	Exchange
5	07/24/09	China State Construction Engineering Corp Ltd	Construction/ Building	7,342.4	12,000	China International Capital Corp Ltd	Shanghai
6	04/20/07	China CITIC Bank Corp Ltd	Finance	5,919.1	5,590	China International Capital Corp, CITIC, Citi, HSBC, Nomura	Hong Kong, Shanghai
7	11/30/07	China Railway Group Ltd	Construction/ Building	5,850.7	3,825	Bank of China, JPMorgan, UBS, CIMB Group	Hong Kong, Shanghai
8	03/06/08	China Railway Construction Corp Ltd	Transportation	5,708.8	1,888	CITIC, Citi, Macquarie	Hong Kong, Shanghai
9	06/16/00	China Unicom Ltd	Telecommuni- cations	5,650.6	2,828	China International Capital Corp, Morgan Stanley	Hong Kong, New York
10	09/17/09	Metallurgical Corp of China Ltd - MCC	Metal & Steel	5,130.2	6,371	China International Capital Corp, CITIC, Citi, Morgan Stanley	Hong Kong, Shanghai
11	11/30/12	People's Insurance Co (Group) of China Ltd	Insurance	3,562.1	7,933	Goldman Sachs, China International Capital Corp, Deutsche Bank, Credit Suisse, Agricultural Bank of China, CCB, Essence Securities, Bank of China, ICBC, JPMorgan, Bank of America Merrill Lynch, Daiwa, HSBC, UBS, Haitong, Morgan Stanley, Citi	Hong Kong
12	12/12/03	China Life Insurance Co Ltd	Insurance	3,475.0	7,441	China International Capital Corp, Citi, Credit Suisse, Deutsche Bank	Hong Kong, New York
13	10/12/00	China Petroleum & Chemical Corp - SINOPEC	Oil & Gas	3,462.2	16,780	Morgan Stanley, China International Capital Corp Ltd	Hong Kong, New York
14	06/08/05	China Shenhua Energy Co Ltd	Mining	3,271.7	3,399	Bank of America Merrill Lynch, Deutsche Bank, China International Capital Corp	Hong Kong
15	08/12/10	China Everbright Bank Co Ltd	Finance	3,203.9	7,000	China International Capital Corp, China Investment Securities Co, Shenyin & Wanguo	Shanghai

The securities mentioned are provided for informational purposes only and should not be deemed as a recommendation to buy or sell. Returns do not include payment of any charges or fees an investor would pay to purchase the securities. Such costs would lower performance.

Sources: Dealogic; Bloomberg, LLC; Shanghai Expo; www.expo 2010.china.hu. Data are as of April 2013.



**Figure 38 Chinese M&A Transactions: Includes Domestic and International Transactions Involving Chinese Companies, as Acquirors or Targets**

Source: Thomson Reuters.

corporations accounted for approximately 10 percent of the value of cross-border acquisitions in 2010. Figure 38 shows recent domestic and international merger & acquisition transactions involving Chinese companies, as acquirors or targets. As China's enterprises invest abroad, its interests should continue to align with global interests, increasing the country's enthusiasm for and embrace of international cooperation.

As of early 2011, China (including Macau and Hong Kong) owned approximately 6 percent of the world's stock of FDI. As of early 2011, stock exchange-listed Chinese firms, many of which were state-controlled, represented approximately 13 percent of total global equity capitalization. Table 25 shows the largest Chinese M&A transactions in 2010, and Table 26 lists notable resource-related transactions by Chinese companies during the 2005 through 2010 period.

**Table 25 Largest Chinese M&A Transactions Since 2011 (Chinese Acquirers Accounted for Almost All of the Top 15 Chinese M&A Transactions Since 2011)**

	Date Announced	Target Name	Nationality of Target	Target Industry	Target Business Description	Acquiror Name	Nationality of Acquiror	Deal Size (\$US MM)
1	08/22/12	China Telecom Corp-3G Assets	China	Telecomm	A provider of telecommunication services	China Telecom Corp Ltd	China	18,047.3
2	07/23/12	Nexen Inc	Canada	Energy	Oil and gas exploration and production company	CNOOC Canada Holding Ltd	China	17,665.6
3	12/05/12	Ping An Insurance (Group) Co	China	Insurance	Insurance and financial services	Investor Group	Thailand	9,385.9
4	05/20/12	Alibaba Group Holding Ltd	China	Business Services	Provider of ecommerce services	Alibaba Group Holding Ltd	China	7,100.0
5	11/11/11	Petrogal Brasil Ltda	Brazil	Energy	Oil and gas exploration and production company	SIPC	China	4,800.0
6	04/06/11	Shanghai Automotive Ind-Asts	China	Automotive	Owns stakes in various automotice groups	SAIC Motor Corp Ltd	China	4,507.4
7	12/07/12	International Lease Finance	United States	Rental/Leasing	Provides aircraft leasing and sales services to domestic and foreign airlines	Investor Group	China	4,230.0
8	03/13/13	ENI East Africa SpA	Mozambique	Energy	Oil and gas exploration and production company	PetroChina Co Ltd	China	4,210.0
9	08/10/11	GDF Suez-Exploration Business	France	Utilities	Exploration and Production Business Operations unit of GDF Suez SA	CIC	China	3,258.7
10	04/01/13	GD Midea Holding Co Ltd	China	General Industrial	Manufactures and wholesales home appliances, electric machinery, telecommunications equipment and its parts	Midea Group Co Ltd	China	3,199.9
11	08/13/12	Focus Media Holding Ltd	China	Media	Outdoor advertising services provider	Focus Media Holding Ltd SPV	United States	2,961.2
12	03/30/11	Tullow Oil-Exploration Areas	Uganda	Energy	Exploration areas owned by Tullow Oil PLC located in Uganda	Investor Group	China	2,900.0
13	10/09/11	Daylight Energy Ltd	Canada	Energy	Oil and gas exploration and production company	SIPC	China	2,759.7



Date Announced	Target Name	Nationality of Target	Target Industry	Target Business Description	Acquiror Name	Nationality of Acquiror	Deal Size (\$US MM)
14 02/05/13	Longtan Hydropower Dvlp Co Ltd	China	Other	An investment company involved in the construction and development of the Longtan Hydropower Project	Guangxi Guiguan Elec Power Co	China	2,747.4
15 12/22/11	EDP-Renewable Assets	Portugal	Utilities	A provider of electric services	China Three Gorges Corp	China	2,611.0

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Source: Thomson Reuters. Data are as of April 2013.

**Table 26 Notable Resource-Related Transactions by Chinese Companies, 2005–2010**

Date	Investor	Deal Size (US\$ Bn)	Description
Aug. 2005	China National Petroleum	4.2	State-owned oil giant, parent of PetroChina, buys Calgary-based PetroKazakhstan
Sept. 2006	China National Machinery	3.0	State-owned consortium to develop iron ore in Gabon Republic
Nov. 2007	China Metallurgic Group	2.9	State-owned metal producer to develop Afghanistan's largest copper mine
Feb. 2008	Aluminum Corp of China	12.8	With Alcoa, buys 12% of Australia's mining giant Rio Tinto
June 2009	Sinopec	7.2	Petrochemical giant buys Switzerland's Addax Petroleum, a play on West Africa and Iraq
Aug. 2009	Yanzhou Coal	3.0	China's fourth-largest coal producer buys Australian miner Felix Resources
Dec. 2009	Shunde Rixin	1.9	Private, Guangdong-based conglomerate buys 70% of exploration rights to Chilean iron ore deposits
March 2010	CNOOC	3.1	State-owned offshore oil giant buys a 50% stake in a unit of Bidas Energy
May 2010	Sinochem	3.1	State's largest chemical trader buys 40% of Brazil's Peregrino field
March 2011	China Bluestar (Group) Co Ltd	2.2	China National Bluestar acquired Elkem AS, an Oslo-based manufacturer of silicon and aluminium
March 2011	CNOOC and Total SA	2.9	CNOOC Ltd and Total SA agreed to acquire a 66% interest in the exploration areas of Tullow Oil
Nov. 2011	Sinopec	4.8	Sinopec acquired a 30% stake in Petrogal Brasil Ltda (Petrogal)
July 2012	CNOOC	17.7	CNOOC acquired the entire share capital of Nexen Inc, a Calgary-based oil and gas exploration and production company
March 2013	China National Petroleum Corp	4.2	CNPC agreed to acquire a 28.57% stake in ENI East Africa SpA, in Mozambique

Sources: Heritage Foundation; "China's Sure Bet," *Barron's*, November 8, 2010.

## Overview of China-Related Equities

Figure 39 contains a schematic overview of the various types of China-related equities.

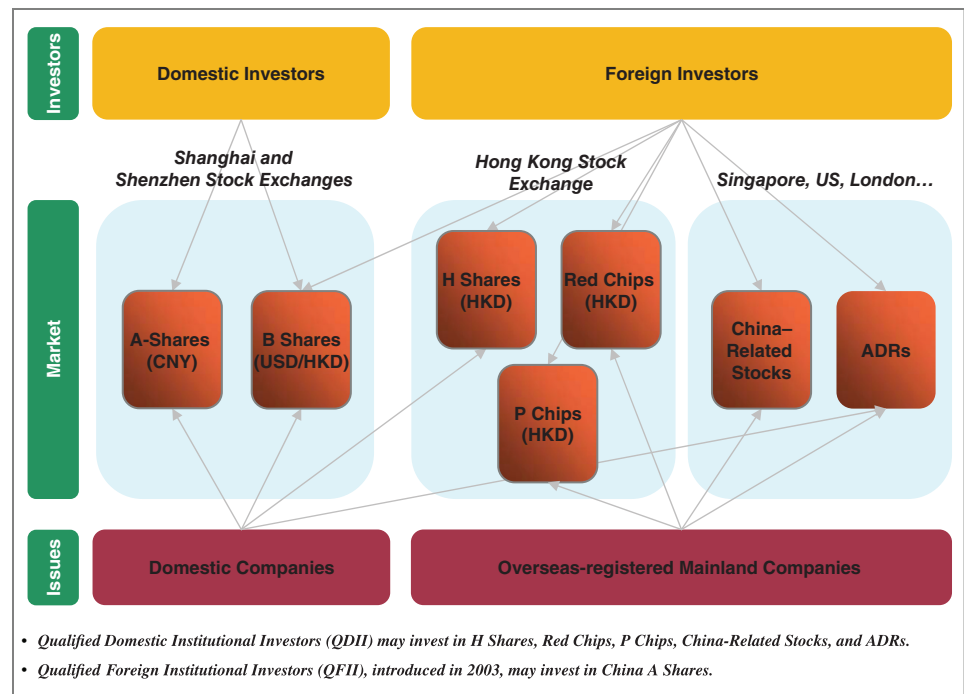
Chinese companies can issue A, B, and H shares, and American depositary receipts (ADRs). While the different types of shares in the same company may trade on different exchanges, and in some cases in different currencies, their entitlement to dividends is essentially the same.

The differences in valuation are largely a result of differing profiles of buyers and sellers and liquidity on the various exchanges. Figure 40 shows tradeable and nontradeable shares.

Figure 41 shows the historical performance of China shares in U.S. dollars.

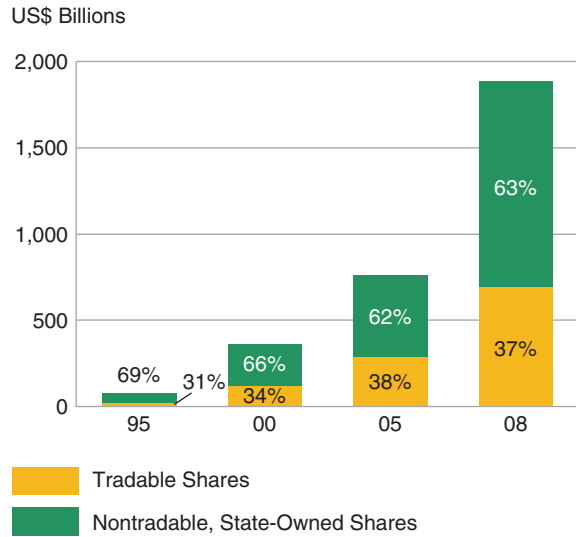
### China's Domestic Fund Management Industry and Chinese Individual Investors

From 1997 through 2010, China's domestic asset management industry grew at a 41 percent CAGR as measured by assets under management. As of May 2011, Chinese fund managers owned 23 percent of the A-shares market and



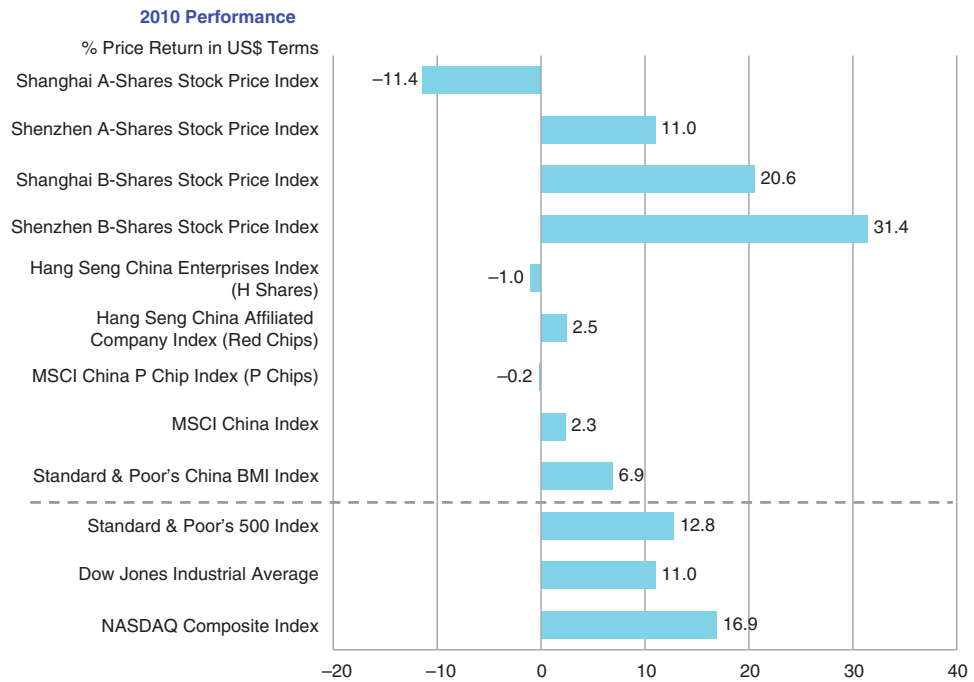
**Figure 39 Overview of China-Related Equities**

Sources: Morgan Stanley & Co. Inc. Research; Morgan Stanley Wealth Management Investment Strategy; Blackrock.



**Figure 40 Tradable versus Nontradable Shares**

Source: Bloomberg, LLC. Data are as of 2008.

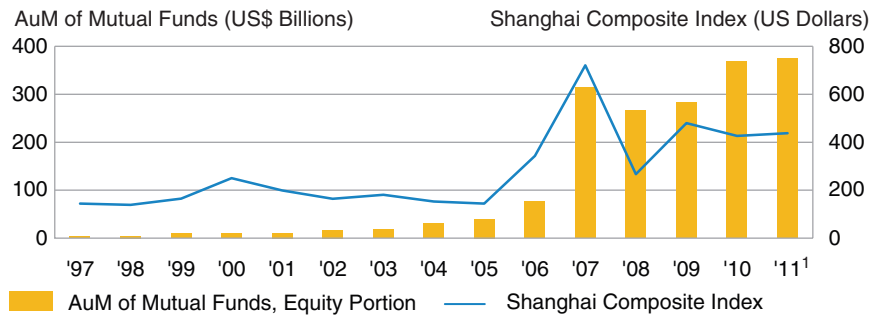


**Figure 41 2010 Price Performance in U.S. Dollar Terms**

Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. Such risks include any political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks may be magnified in emerging market countries, since these countries may have relatively unstable governments and less established markets and economies.

Source: Bloomberg, LLC. Data are as of December 31, 2010.



**Figure 42 Aggregate Assets under Management (AuM) of Mutual Funds**

Sources: Wind; Morgan Stanley & Co. Inc. Research. Data are as of May 2011.

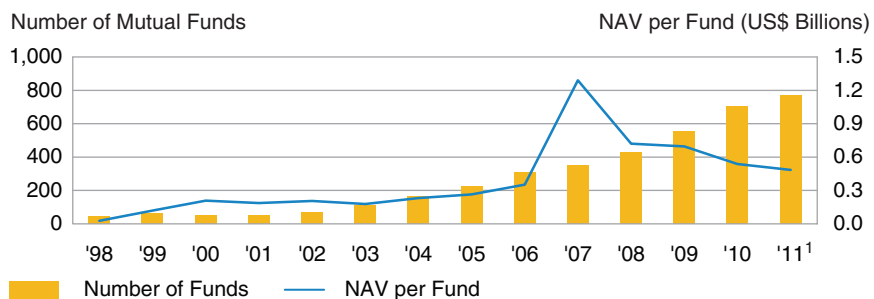
represented the core of institutional ownership of the A-shares market (see Figure 42).

As of May 2011, over 750 Chinese domestic mutual funds were in operation, with an average collective net asset value (NAV) per fund of US\$500 million. As of May 2011, fund managers were allowed to sell short, invest in index futures, and employ margin (see Figure 43).

As of May 2011, individual investors were the leading holder of Chinese A shares, despite the rapid growth of institutional investors (see Figure 44).

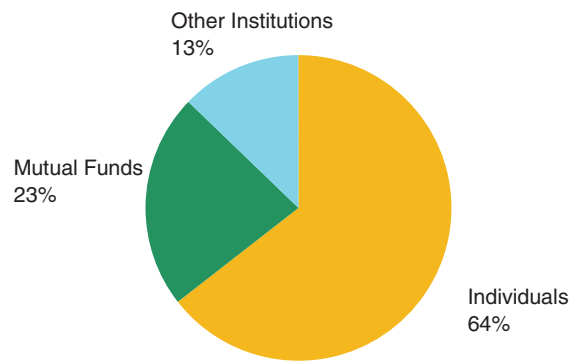
Although institutional investors, mainly mutual funds, had flourished from 2002 to 2009, individual investors remained the majority holder of A shares as of May 2011. The Morgan Stanley Research China strategy team estimated that 65 percent of institutional funds had come from retail investors, as of May 2011.

From early 2001 to early 2011, retail investors tended to be momentum investors. From November 2005 through September 2007, the Shanghai SE Composite index rose 405 percent; during that same time period, the number of new individual investment accounts grew, on several



**Figure 43 Expansion of Mutual Funds in China**

Sources: Wind; Morgan Stanley & Co. Inc. Research. Data are as of May 2011.



**Figure 44 Share of Investor Base by Free-Float Market Capitalization**

Sources: CEIC; Morgan Stanley & Co. Inc. Research; Morgan Stanley Wealth Management Investment Strategy. Data are as of May 2011.

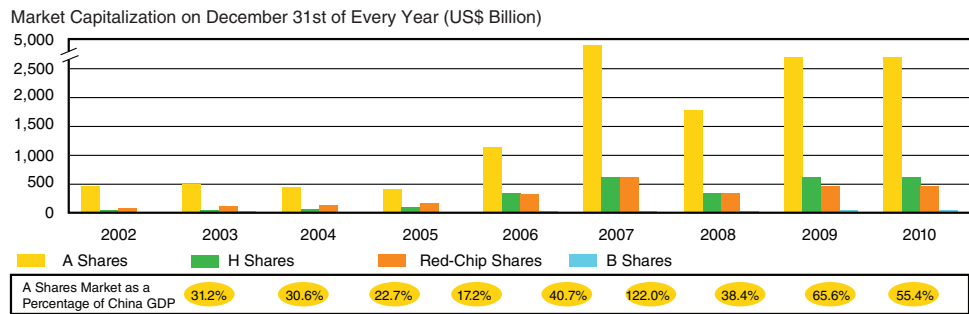
occasions at rates exceeding 2,500 percent year-over-year. From 2007 through October 2008, the Shanghai SE Composite Index fell 68 percent; during that same time period, the number of new individual investment accounts shrank considerably as many investors withdrew funds from the stock market. From 2008 to early 2011, the number of new individual investment accounts grew in line with the performance of the Shanghai SE Composite Index.

#### **China's A-Shares Market<sup>42</sup>**

China's A-shares market was created in 1990, but remained a nascent market until the reform of nontradable shares in 2005. Prior to 2005, mainland Chinese companies had two share classes: tradable shares listed on the Shanghai and Shenzhen Stock Exchanges; and nontradable, nonlisted shares with the same ownership rights and claims as tradable shares. In 2005, the CSRC launched a program to convert nontradable shares into tradable shares by 2006, using bonus shares, cash, options, and capital-raising incentives to help facilitate the conversion process.

In 2009, the CSRC launched the Growth Enterprise Market (GEM) board, a NASDAQ-style initiative to develop the equity market for startups and growing businesses. As a result of the creation of the GEM

<sup>42</sup>"GEM Board a New Test for China Market," *Asset Magazine*, October 2009; Andrea Beltratti and Bernardo Bortolotti, "The Non-tradable Share Reform in the Chinese Stock Market," *Fondazione Eni Enrico Mattei*, November 2006; "China Considering International Board," *Business China*, November 29, 2010; "ChiNext: To Boom or to Doom?" *China Daily*, November 13, 2009; "China's International Board a Step Closer," *Economic Observer*, September 23, 2010.



**Figure 45 China’s A-Shares Market Relative to Other Chinese Share Markets**

Source: Bloomberg, LLC. Data are as of December 31, 2010.

board, the Shenzhen Stock Exchange launched the ChiNext market, a subexchange for domestic start-ups, with the intent of attracting more companies.

The CSRC’s initiatives produced results: from 2005 to 2010, the A-shares market grew rapidly, with a CAGR of 53.4 percent. As of December 2010, the A-shares market represented China’s largest and primary stock market and was the world’s fifth largest stock market, with US\$3.3 trillion in market capitalization, or 55.4 percent of China’s 2010 GDP.

As of early 2011, the CSRC was in the process of launching the International Board, a subexchange of the Shanghai Stock Exchange that would allow foreign companies and offshore Chinese companies that are technically based overseas to sell renminbi-denominated bonds and shares publicly in mainland China.

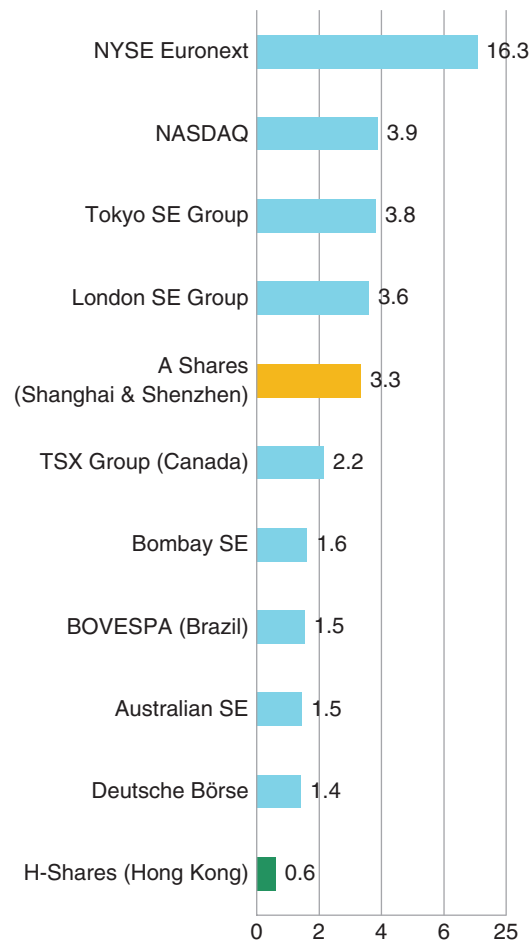
Figures 45 and 46 show China’s A-shares investment performance relative to other Chinese shares markets, and relative to the rest of the world.

**Qualified Foreign Institutional Investors**

Qualified Foreign Institutional Investors (QFII) represent a group of investors allowed to invest in China’s domestic A-shares stock market. These QFII are subject to regulations by the Chinese government. Since the inception of the QFII program in 2003, the number of QFII investors grew from zero to over 200 as of early 2013. Figure 47 shows the growth of QFII in China. Table 27 lists some of the investors.

**Shanghai SE Composite Index**

Figure 48 shows the performance of the Shanghai SE Composite Index from 1994 through 2010.



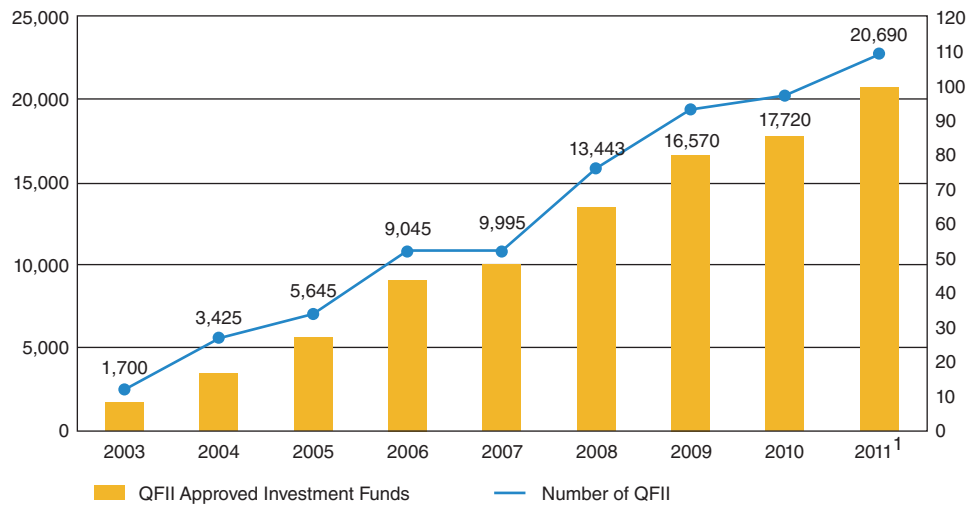
**Figure 46 China’s A-Shares Market: The Fifth Largest Equity Market Capitalization in the World**

Sources: Bloomberg, LLC; World Federation of Exchanges. Data are as of May 2011.

**Table 27 Select List of QFII**

Name	Quota (\$MM)
UBS Ltd.	800
Citigroup Global Markets	550
Credit Suisse	500
Fortis Bank	500
Nikko Asset Management	450
Morgan Stanley International	450
HSBC	400
Deutsche Bank AG	400
Nomua Securities	350
ING Bank NV	350
Goldman Sachs & Co.	300
Merrill Lynch International	300
INVESCO	250

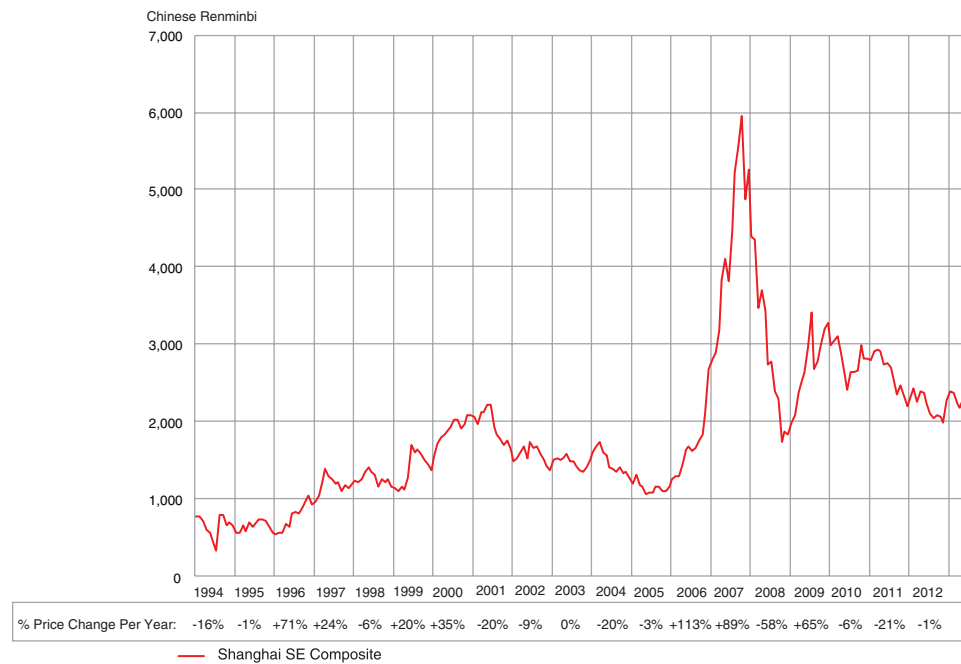
Sources: Factiva; Morgan Stanley & Co. Inc. Research. Data are as of April 2011.



**Figure 47 Qualified Foreign Institutional Investors in China**

<sup>a</sup> Data for 2011 are as of April 29, 2011.

Sources: CEIC; Morgan Stanley & Co. Inc. Research.



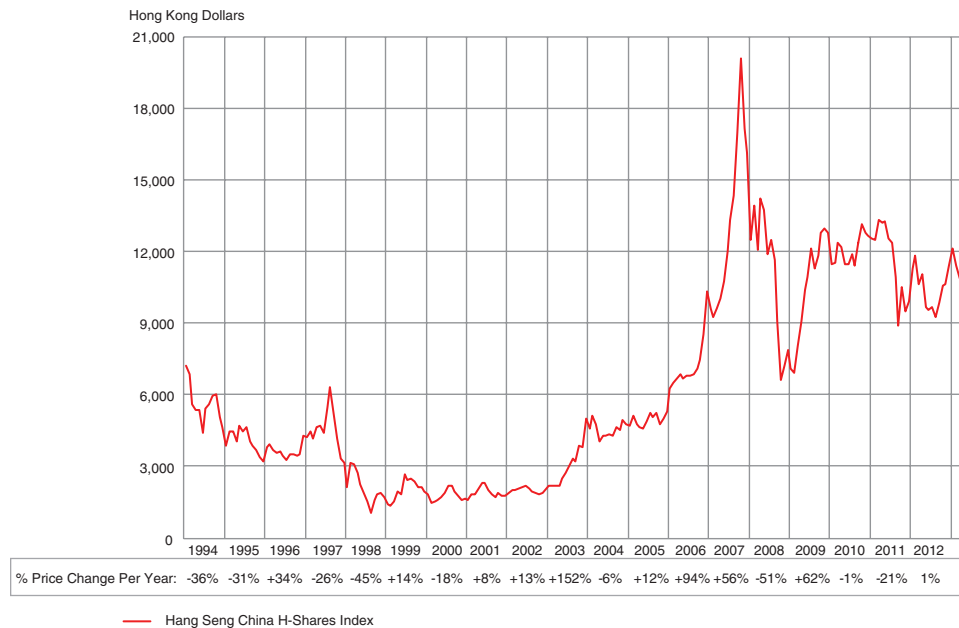
**Figure 48 Performance of the Shanghai SE Composite Index (A and B Shares), 1994 through Early 2013**

Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards, compared to US investing. Such risks include any political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks may be magnified in emerging market countries, since these countries may have relatively unstable governments and less established markets and economies.

Sources: FactSet; Shanghai SE Composite. Data are as of May 31, 2013.





**Figure 49 Performance of the Hang Seng China Enterprises Index (H Shares), 1994 through Early 2013**

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Sources: FactSet; Hang Seng. Data are as of May 31, 2013.

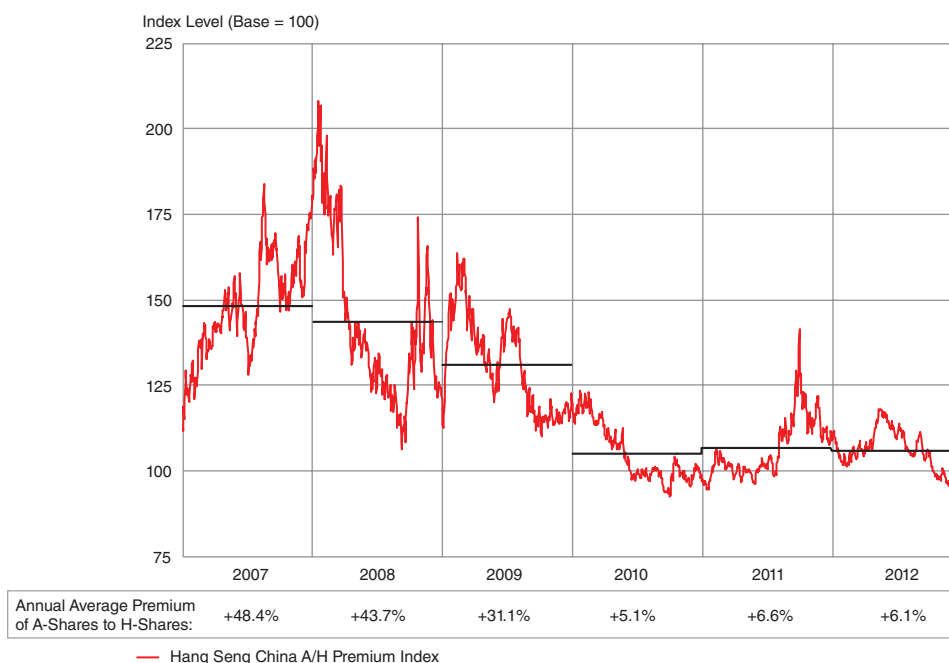
**Hang Seng China Enterprises Index**

Figure 49 shows the performance of the Hang Seng China Enterprises Index from 1994 through 2010.

**Hang Seng China A/H Premium Index<sup>43</sup>**

Created by HSI Services Ltd. in 2006, the Hang Seng China A/H Premium index (see Figure 50) tracks the price premium (or discount) of A shares to H shares. The higher the index, the higher premium of A shares over H shares, and vice versa. The index is based to 100 and is denominated in U.S. dollars.

<sup>43</sup>Bloomberg, LLC.



**Figure 50 Hang Seng China A/H Premium Index, 2006 through 2012**

Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results.

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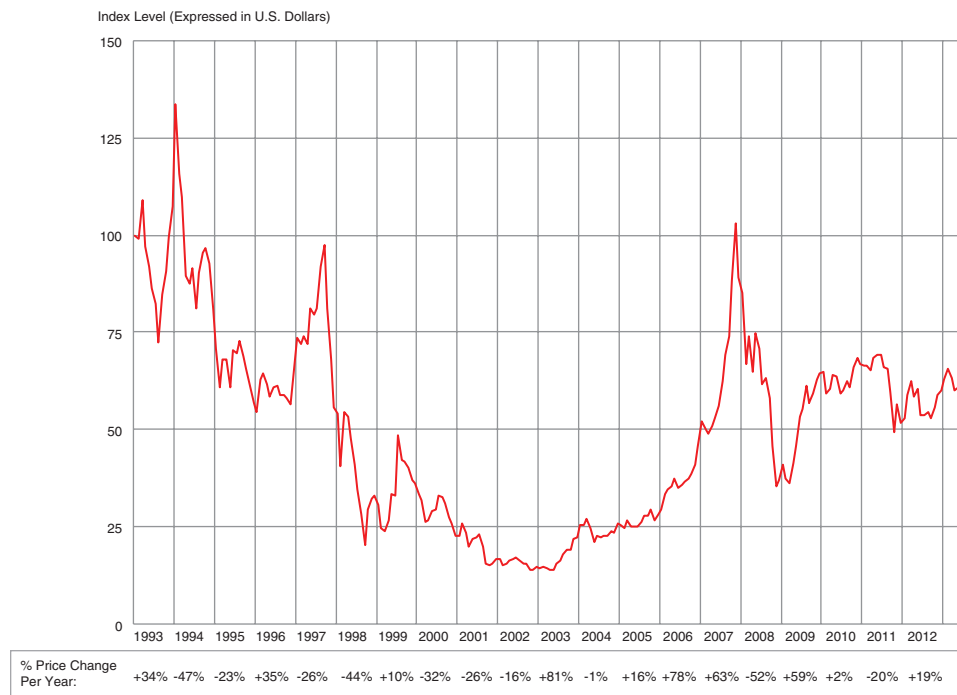
Source: Bloomberg, LLC. Data are as of December 31, 2012.

## The MSCI China Index

As of June 5, 2013, the MSCI China Index (see Figure 51) included the following sectors.<sup>44</sup>

Sector	Index Weight%
Financials	40.9
Energy	15.1
Telecom Services	11.1
Information Technology	7.3
Industrials	6.2
Consumer Staples	5.8
Consumer Discretionary	5.4
Materials	3.5
Utilities	3.3
Health Care	1.4
Total	100.0

<sup>44</sup>FactSet.



**Figure 51 MSCI China Index—Price Performance (Excluding Dividends), 1993 through Early 2013.**

Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. Such risks include any political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks may be magnified in emerging market countries, since these countries may have relatively unstable governments and less established markets and economies.

Sources: FactSet; MSCI. Data are as of May, 31, 2013.

Figure 51 shows the MSCI index’s performance over the past 20 years. Table 28 lists the constituents of the MSCI China Index.

**Table 28 Constituents of the MSCI China Index**

	Company Name	YE2010 Value of US\$1.00 if Purchased on 1/1/05	Index weight	Price Return (US\$) (%)						
				2005	2006	2007	2008	2009	2010	
1	China Mobile Ltd	2.93	8.84%	39.6	82.5	104.7	(43.2)	(6.4)	5.7	
2	Industrial & Commercial Bank of China Ltd	NA	6.69%	NA	NA	15.6	(26.7)	57.8	(8.6)	
3	China Construction Bank Corp.	NA	6.38%	NA	82.8	34.5	(35.3)	56.9	7.4	
4	GNOOC Ltd	4.42	6.27%	26.1	40.3	79.2	(45.1)	68.4	50.8	
5	Bank of China Ltd	NA	4.89%	NA	NA	(11.7)	(43.6)	98.0	1.5	
6	China Life Insurance Co. Ltd (A Shares)	6.11	4.49%	32.1	286.4	51.6	(41.3)	62.8	(17.4)	
7	PetroChina Co. Ltd	2.45	4.08%	53.4	73.0	25.8	(50.9)	37.2	8.7	
8	Tencent Holdings Ltd	36.32	3.23%	78.9	232.7	112.6	(14.8)	236.8	(0.0)	
9	Ping An Insurance (Group) Co. of China Ltd	6.58	2.83%	8.6	200.1	93.9	(54.9)	81.2	27.5	
10	China Petroleum & Chemical Corp.	2.32	2.26%	20.6	86.4	63.2	(59.9)	47.3	7.4	
11	China Shenhua Energy Co. Ltd	NA	2.11%	NA	118.3	148.3	(64.6)	131.6	(14.4)	
12	China Merchants Bank Co. Ltd. 'H'	NA	1.46%	NA	NA	92.8	(54.6)	84.1	2.2	
13	Agricultural Bank of China Ltd	NA	1.25%	NA	NA	NA	NA	NA	NA	
14	China Unicorn (Hong Kong) Ltd	1.81	1.25%	2.7	80.4	56.6	(47.7)	10.5	7.9	
15	China Overseas Land & Investment Ltd	7.57	1.12%	73.6	213.0	54.0	(32.0)	52.1	(12.5)	
16	China Telecom Corp. Ltd	1.43	1.07%	0.2	49.0	45.2	(53.1)	12.1	25.3	
17	Belle International Holdings Ltd	NA	1.05%	NA	NA	NA	(71.0)	166.3	44.7	
18	Bank of Communications Co. Ltd	NA	0.99%	NA	167.0	15.0	(48.3)	61.1	(8.6)	
19	Hengan International Group co. Ltd	13.15	0.94%	73.0	118.4	81.1	(28.4)	131.2	16.1	
20	Yanzhou Coal Mining Co. Ltd	3.42	0.88%	(28.1)	25.8	145.5	(63.0)	201.4	38.1	
21	China Coal Energy Co. Ltd	NA	0.81%	NA	NA	383.9	(74.7)	130.7	(15.0)	
22	Want Want China Holdings Ltd	NA	0.77%	NA	NA	NA	NA	69.4	24.9	
23	China Resources Enterprise Ltd	2.62	0.73%	14.3	60.9	49.5	(59.4)	109.6	12.1	
24	Dongfeng Motor Group Co. Ltd	NA	0.69%	NA	92.7	45.5	(54.3)	347.0	19.6	
25	Jiangxi Copper Co. Ltd	5.77	0.67%	(16.7)	114.6	141.3	(70.1)	223.1	38.8	
26	China Yurun Food Group Ltd	NA	0.64%	NA	65.3	80.6	(29.4)	152.3	10.8	
27	China Merchants Holdings (International) Co. Ltd	2.10	0.64%	15.3	88.7	51.6	(68.9)	68.5	21.3	
28	Tingyi (Cayman Islands) Holding Corp.	11.84	0.63%	128.2	98.1	65.4	(28.3)	113.7	3.4	
29	Inner Mongolia Yitai Coal Co. Ltd	33.11	0.63%	19.8	68.4	1,009.3	(74.5)	250.9	65.0	
30	China CITIC Bank Corp. Ltd	NA	0.59%	NA	NA	NA	(45.5)	150.1	(24.2)	

31	Anhui Conch Cement Co. Ltd	8.63	0.57%	13.3	170.4	161.3	(47.1)	39.9	45.7
32	Kunlun Energy Co. Ltd	9.88	0.57%	40.5	150.7	15.7	(51.4)	328.0	16.6
33	GOME Electrical Appliances Holding Ltd	1.76	0.56%	(25.3)	15.8	223.8	(77.2)	179.6	(1.0)
34	Zijin Mining Group Co. Ltd	10.23	0.55%	94.8	216.1	177.8	(60.9)	57.8	(3.1)
35	China Resources Land Ltd	10.76	0.54%	144.9	187.8	84.7	(44.6)	85.6	(19.7)
36	China Communications Construction Co. Ltd	NA	0.54%	NA	NA	165.2	(53.0)	(22.3)	(8.7)
37	Aluminum Corp. of China Ltd	1.54	0.53%	28.6	21.7	123.0	(74.5)	109.5	(17.3)
38	Kingboard Chemical Holdings Ltd	2.83	0.53%	28.0	45.0	51.5	(69.9)	121.5	50.8
39	PICC Property and Casualty Company Ltd	4.17	0.52%	(17.4)	78.8	179.0	(62.3)	67.4	60.5
40	China Pacific Insurance (Group) Co. Ltd	NA	0.50%	NA	NA	NA	NA	NA	4.3
41	China Minsheng Banking Corp. Ltd	NA	0.50%	NA	NA	NA	NA	NA	(8.7)
42	China Oilfield Services Ltd	7.09	0.49%	31.9	72.3	228.8	(64.7)	48.7	80.6
43	China National Building Material Co. Ltd	NA	0.49%	NA	NA	494.7	(68.8)	72.4	10.7
44	Beijing Enterprises Holdings Ltd	4.17	0.47%	13.7	26.5	122.3	(14.2)	77.9	(14.5)
45	Lenovo Group Ltd	2.14	0.46%	54.1	(11.9)	121.3	(69.7)	130.2	2.2
46	Guangzhou Automobile Group Co. Ltd	1.83	0.45%	(7.0)	22.0	58.6	(51.6)	104.9	2.6
47	China Mengniu Dairy Co. Ltd	3.38	0.44%	8.5	208.9	39.5	(64.5)	175.2	(26.0)
48	China Resources Power Holdings Co. Ltd	3.39	0.44%	3.8	167.5	129.0	(44.4)	5.5	(9.0)
49	China Railway Group Ltd	NA	0.43%	NA	NA	NA	(49.7)	12.4	(7.4)
50	CITIC Pacific Ltd	0.91	0.42%	(2.7)	24.8	61.8	(80.6)	149.3	(3.6)
51	Cosco Pacific Ltd	0.84	0.42%	(11.6)	28.2	13.6	(61.7)	25.5	36.0
52	China COSCO Holdings Co. Ltd	NA	0.40%	NA	47.6	387.5	(74.8)	77.1	(13.9)
53	BYD Co. Ltd	7.53	0.40%	(41.8)	148.6	72.7	(5.9)	438.7	(40.5)
54	GCL-Poly Energy Holdings Ltd	NA	0.38%	NA	NA	NA	(83.6)	280.1	23.0
55	Evergrande Real Estate Group Ltd	NA	0.38%	NA	NA	NA	NA	NA	(12.1)
56	Huabao International Holdings Ltd	11.98	0.38%	14.6	250.6	84.4	(34.5)	64.7	49.9
57	CSR Corp. Ltd	NA	0.37%	NA	NA	NA	NA	35.3	78.8
58	Weichai Power Co. Ltd	7.10	0.37%	(39.1)	108.9	106.8	(58.7)	329.2	52.2
59	Air China Ltd	2.91	0.37%	(17.3)	69.6	175.3	(79.2)	152.8	43.5
60	Shimao Property Holdings Ltd	NA	0.36%	NA	NA	36.1	(72.8)	173.5	(20.4)
61	China Taiping Insurance Holdings Co. Ltd	7.47	0.35%	3.4	196.1	117.8	(44.0)	110.5	(5.0)

(continued)

Table 28 (Continued)

	Company Name	YE2010 Value of US\$1.00 if Purchased on 1/1/05	Index weight	Price Return (US\$) (%)						
				2005	2006	2007	2008	2009	2010	
62	Shanghai Industrial Holdings Ltd	2.02	0.35%	(2.5)	2.2	104.8	(47.6)	123.9	(15.5)	
63	Nine Dragons Paper Holdings Ltd	NA	0.34%	NA	NA	46.8	(88.7)	465.3	(12.4)	
64	Alibaba.com Ltd	NA	0.33%	NA	NA	NA	(79.7)	222.4	(22.8)	
65	China Railway Construction Corp. Ltd	NA	0.33%	NA	NA	NA	NA	(13.8)	(6.2)	
66	ENN Energy Holdings Ltd	5.24	0.33%	38.5	42.7	75.5	(46.9)	144.7	16.2	
67	Chaoda Modern Agriculture (Holdings) Ltd	2.14	0.32%	12.5	54.9	42.3	(26.6)	67.6	(29.9)	
68	Shandong Weigao Group Medical Polymer Co. Ltd	51.27	0.31%	98.2	385.6	116.8	(34.3)	120.1	69.8	
69	Sinopharm Group Co. Ltd	NA	0.30%	NA	NA	NA	NA	NA	(1.9)	
70	Agile Property Holdings Ltd	NA	0.30%	NA	94.1	94.0	(71.4)	182.0	0.1	
71	Sino-Ocean Land Holdings Ltd	NA	0.30%	NA	NA	NA	(63.5)	105.0	(29.3)	
72	Fushan International Energy Group Ltd	13.66	0.30%	121.1	11.3	422.6	(61.2)	288.5	(29.5)	
73	ZTE Corp. (H Shares)	3.35	0.29%	4.0	36.7	17.0	(31.9)	207.2	(3.7)	
74	Parkson Retail Group Ltd	NA	0.29%	NA	174.2	143.4	(52.9)	55.4	(12.6)	
75	China Everbright Ltd	4.45	0.29%	(20.1)	188.0	171.3	(61.3)	101.6	(8.8)	
76	Poly (Hong Kong) Investments Ltd	4.91	0.29%	(21.7)	29.7	340.3	(73.4)	430.9	(22.0)	
77	Shanghai Electric Group Co. Ltd	NA	0.28%	NA	23.0	101.3	(52.1)	14.3	42.5	
78	China Agri-Industries Holdings Ltd	NA	0.27%	NA	NA	NA	(25.8)	164.8	(13.7)	
79	China High Speed Transmission Equipment Group Co. Ltd	NA	0.27%	NA	NA	NA	(54.6)	102.0	(36.7)	
80	Longfor Properties Co. Ltd	NA	0.27%	NA	NA	NA	NA	NA	23.3	
81	Zhuzhou CSR Times Electric Co. Ltd	NA	0.27%	NA	NA	6.6	(45.3)	154.3	91.7	
82	Zhaojin Mining Industry Co. Ltd	NA	0.26%	NA	NA	109.2	(62.9)	158.2	104.6	
83	China Longyuan Power Group Corp. Ltd	NA	0.26%	NA	NA	NA	NA	NA	(29.4)	
84	China Shipping Development Co. Ltd	1.50	0.26%	(17.2)	108.1	72.7	(62.4)	51.4	(11.4)	
85	Brilliance China Automotive Holdings Ltd	3.90	0.25%	(24.2)	14.4	31.5	(76.6)	440.5	170.1	
86	Dongfang Electric Corp. Ltd	16.21	0.25%	66.7	162.5	215.5	(70.3)	114.3	84.6	
87	Golden Eagle Retail Group Ltd	NA	0.25%	NA	NA	17.5	(32.8)	191.0	20.7	
88	Angang Steel Co. Ltd	3.34	0.25%	6.0	172.2	107.0	(59.1)	97.4	(30.7)	
89	China International Marine Containers (Group) Co. Ltd	3.32	0.24%	(12.4)	185.7	6.4	(70.8)	132.3	84.0	
90	Huaneng Power International Inc.	0.71	0.24%	(11.9)	35.9	17.8	(31.4)	(21.6)	(6.6)	

91	Geely Automobile Holdings Ltd	9.31	0.24%	(10.7)	136.2	14.0	(28.0)	577.4	(20.6)
92	Country Garden Holdings Co. Ltd	NA	0.24%	NA	NA	NA	(78.8)	52.0	2.9
93	Tsingtao Brewery Co. Ltd	5.18	0.23%	4.7	59.5	99.2	(37.9)	165.6	(5.6)
94	Soho China Ltd	NA	0.23%	NA	NA	NA	(58.4)	26.1	37.3
95	China Vanke Co. Ltd	7.82	0.23%	69.1	199.5	102.9	(52.5)	62.6	(1.6)
96	China Rongsheng Heavy Industries Group Holdings Ltd	NA	0.22%	NA	NA	NA	NA	NA	NA
97	China Shipping Container Lines Co. Ltd	1.71	0.22%	(13.4)	(22.5)	237.9	(74.4)	139.2	22.5
98	China Resources Cement Holdings Ltd	0.45	0.22%	(28.0)	NA	NA	NA	NA	52.9
99	Li Ning Co. Ltd	4.23	0.21%	41.4	125.9	132.5	(58.1)	143.7	(44.3)
100	Zhejiang Expressway Co. Ltd	1.43	0.21%	(10.1)	23.8	108.9	(63.3)	57.9	6.3
101	Anta Sports Products Ltd	NA	0.20%	NA	NA	NA	(67.2)	226.2	6.8
102	Guangzhou R&F Properties Co. Ltd	NA	0.20%	NA	148.1	65.0	(69.1)	60.2	(19.0)
103	Shui On Land Ltd	NA	0.20%	NA	NA	33.7	(72.9)	106.4	(18.9)
104	Renhe Commercial Holdings Co. Ltd	NA	0.20%	NA	NA	NA	NA	49.1	(22.9)
105	Jiangsu Expressway Co. Ltd	2.60	0.20%	28.1	11.4	73.4	(32.5)	21.3	28.3
106	Wumart Stores Inc.	6.13	0.20%	19.5	84.1	(3.9)	(12.6)	113.1	55.6
107	Hengdelei Holdings Ltd	NA	0.19%	NA	219.0	36.2	(72.4)	267.3	57.1
108	Semiconductor Manufacturing International Corp.	0.33	0.19%	(37.7)	(4.1)	(19.0)	(60.1)	53.8	11.7
109	Guangdong Investment Ltd	1.54	0.19%	11.8	20.7	26.5	(29.7)	45.6	(11.9)
110	China Dongxiang Group Co. Ltd	NA	0.18%	NA	NA	NA	(67.4)	219.0	(44.1)
111	SINOPEC Shanghai Petrochemical Co. Ltd	1.39	0.18%	2.8	28.7	24.9	(58.4)	54.2	30.9
112	Lee & Man Paper Manufacturing Ltd	3.71	0.18%	35.8	121.4	78.9	(88.8)	461.4	9.8
113	China BlueChemical Ltd	NA	0.18%	NA	NA	59.6	(36.5)	49.3	17.0
114	China Shanshui Cement Group Co. Ltd	NA	0.18%	NA	NA	NA	NA	214.3	(2.2)
115	BBMG Corp.	NA	0.18%	NA	NA	NA	NA	NA	23.8
116	Fosun International Ltd	NA	0.17%	NA	NA	NA	(65.0)	113.3	5.1
117	Great Wall Motor Co. Ltd	6.71	0.17%	(28.5)	193.6	49.0	(75.8)	258.3	147.3
118	China Gas Holdings Ltd	3.46	0.17%	50.4	5.1	118.1	(66.2)	271.7	(20.2)
119	China Southern Airlines Co. Ltd	2.32	0.17%	(27.5)	41.6	224.5	(81.1)	87.5	96.2
120	Yuexiu Property Co. Ltd	2.77	0.17%	2.8	172.9	4.3	(67.0)	193.2	(2.0)
121	Datang International Power Generation Co. Ltd	0.93	0.16%	(2.3)	41.7	71.4	(40.7)	(18.3)	(18.7)
122	Franshion Properties (China) Ltd	NA	0.16%	NA	NA	NA	(49.6)	30.4	(14.8)
123	Sinofert Holdings Ltd	0.87	0.16%	(68.6)	123.6	124.8	(48.2)	15.7	(7.6)

(continued)

Table 28 (Continued)

		YE2010 Value of US\$1.00 if Purchased on 1/1/05		Index weight	Price Return (US\$) (%)					
Company Name		2005	2006	2007	2008	2009	2010			
124	Metallurgical Corp. of China Ltd	NA	NA	NA	NA	NA	(25.5)			
125	China Communications Services Corp. Ltd	NA	NA	74.1	(36.9)	(21.4)	20.9			
126	China Shineway Pharmaceutical Group Ltd	5.16	15.0	25.2	(22.4)	233.3	53.0			
127	Lonking Holdings Ltd	NA	503.4	33.8	(67.6)	171.4	57.3			
128	Beijing Capital International Airport Co. Ltd	1.26	71.0	116.8	(70.4)	32.1	(19.5)			
129	KWG Property Holding Ltd	NA	NA	NA	(79.9)	160.3	(1.4)			
130	Bosideng International Holdings Ltd	NA	NA	NA	(68.9)	138.2	77.7			
131	Maanshan Iron & Steel Co. Ltd	1.38	77.4	20.8	(46.3)	105.7	(27.3)			
132	Skyworth Digital Holdings Ltd	1.69	(71.8)	52.9	(62.9)	1,733.6	(42.4)			
133	China Zhongwang Holdings Ltd	NA	NA	NA	NA	NA	(30.8)			
134	China National Materials Co. Ltd	NA	NA	NA	(50.8)	24.0	8.4			
135	Hidili Industry International Development Ltd	NA	NA	NA	(79.5)	300.2	(32.9)			
136	Shanghai Lujiazui Finance & Trade Zone Dev. Co. Ltd	3.89	157.3	119.1	(61.7)	115.1	(17.1)			
137	Greentown China Holdings Ltd	NA	NA	(16.1)	(73.2)	275.1	(29.5)			
138	Sinotruk (Hong Kong) Ltd	NA	NA	NA	(56.7)	73.7	(11.9)			
139	Hopson Development Holdings Ltd	2.96	130.9	237.1	(73.9)	99.9	(25.5)			
140	China Travel International Investment Hong Kong Ltd	0.70	36.1	101.8	(70.4)	53.6	(24.8)			

Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. Such risks include any political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks may be magnified in emerging market countries, since these countries may have relatively unstable governments and less established markets and economies.

Sources: FactSet; MSCI.

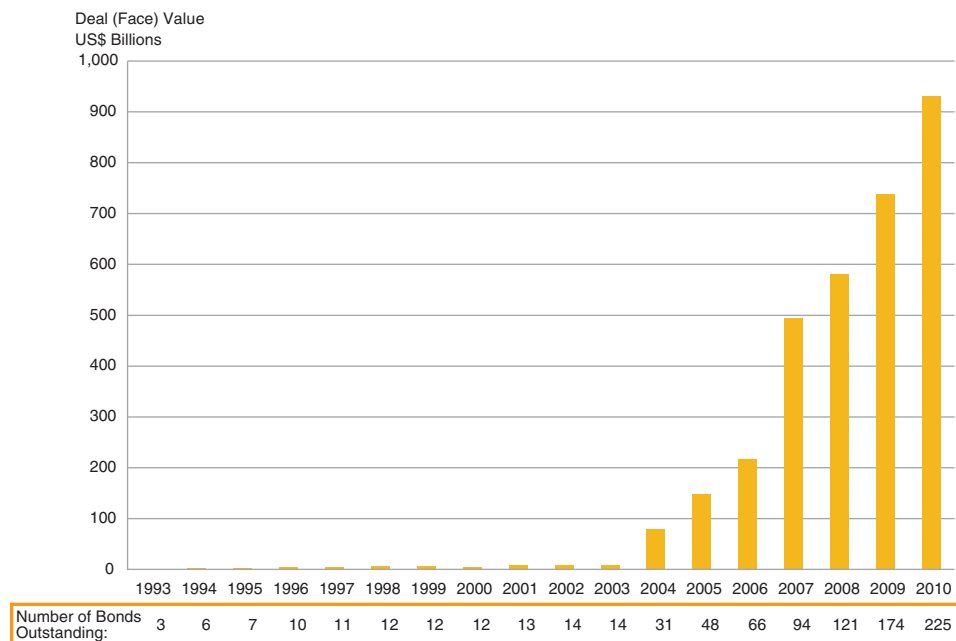


## China's Treasury Bond Market

China's treasury bond market was in its nascent stages pre-2004. As of 2010, China's treasury bond market had grown twelvefold since 2004 in terms of dollar value, and sevenfold in terms of the number of bonds outstanding. See Figure 52.

Sources of information on Chinese treasury bonds include:

- [www.bloomberg.com](http://www.bloomberg.com)
- [www.financeasia.com](http://www.financeasia.com)



**Figure 52 Year-End Balance of Outstanding Chinese Treasury Bonds**

Source: Dealogic. Data are as of December 31, 2010.

## China's Corporate Bond Market

Figure 53 shows the year-end balance of outstanding Chinese corporate bonds for 1993–2010. Panda bonds are renminbi-denominated fixed-income securities issued since 2005 by non-Chinese borrowers to raise capital within China. As of early 2011, two foreign entities had each raised a total of RMB 2 billion through the issuance of panda bonds:

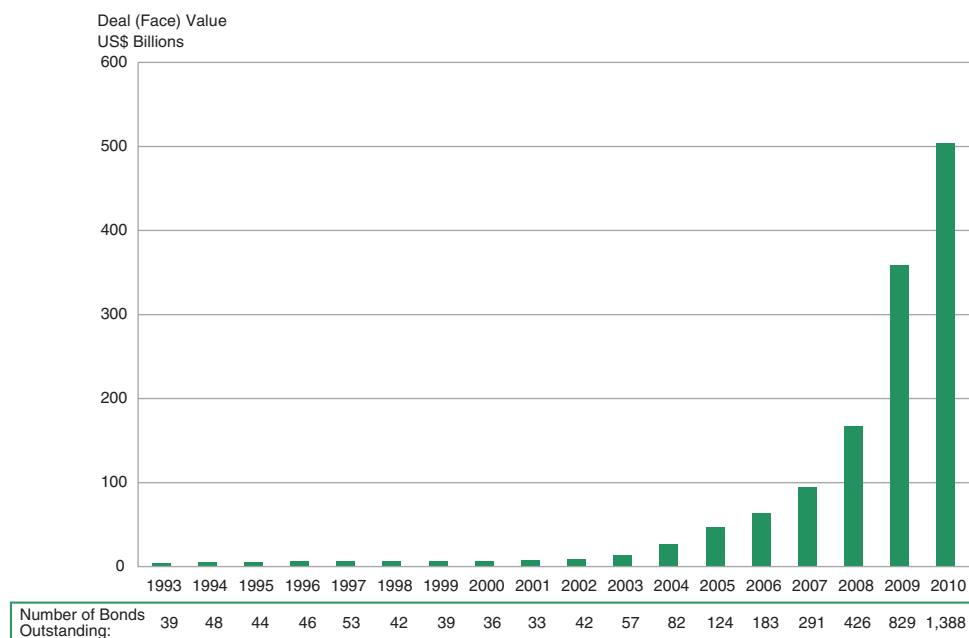
- The International Finance Corporation, with a 10-year, 3.40 percent annual coupon bond and a seven-year, 3.20 percent coupon bond.
- The Asian Development Bank, with a 10-year, 3.34 percent annual coupon bond and a 10-year, 4.20 percent coupon bond.

### **Renminbi (Yuan)–Denominated Chinese Share Trading in Hong Kong**

Following an agreement on July 19, 2010, to relax certain restrictions on Chinese currency transfers in Hong Kong and thereby allow more yuan-denominated investment instruments to be traded there, in early 2011, Chinese officials announced plans to allow the listing of yuan-denominated shares of Chinese firms on the Hong Kong stock exchange.

In February 2010, Chinese authorities allowed *foreign entities* to issue bonds in RMB to offshore investors, primarily through the Hong Kong market.<sup>45</sup> *Chinese entities* have been able to issue offshore bonds since 2008. Since then, a number of global enterprises have tapped into the market. International banks HSBC and Standard Chartered were the first to issue offshore bonds in June 2009, via their on-shore Chinese subsidiaries.

In 2010, the first international companies entered the market. McDonald's (stock exchange symbol: MCD) was the first global company to issue an offshore renminbi-denominated bond, with a RMB 200 million (US\$29 million)



**Figure 53 Year-End Balance of Outstanding Chinese Corporate Bonds**

Source: Dealogic. Data are as of December 31, 2010.

<sup>45</sup>“Renminbi Goes Offshore,” *Barron's*, January 10, 2011.

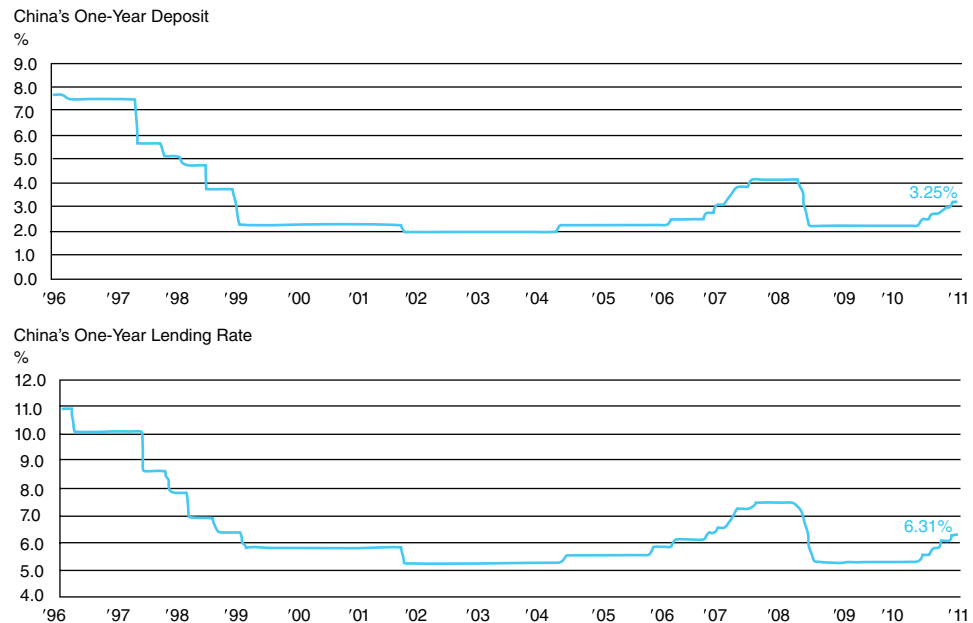
three-year bond priced at 3 percent. Caterpillar (stock exchange symbol: CAT) sold a RMB 1 billion (US\$51 million) two-year issue in November, priced at 2 percent.

In early 2011, the World Bank issued offshore renminbi-denominated bonds for RMB 500 million (US\$75 million), as two-year notes yielding 0.95 percent. The World Bank bond was sold in lots of RMB 500,000 per note, putting them out of reach of many retail investors.

International investors have expressed interest in the bonds' RMB currency denomination, which was expected to appreciate versus other major currencies over a 5- to 10-year time frame.

## Short-Term Interest Rates in China

Figure 54 shows the one-year deposit rate and lending rate for 1993–2010.



**Figure 54 (a) China's One-Year Deposit Rate and (b) One-Year Lending Rate**

Sources: People's Bank of China; Bloomberg, LLC. Data are as of May 31, 2011.



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## Understanding China's Investment Potential

In evaluating China's investment potential, investors need to devote thought and attention to:

- Developing comprehension of China's demographic, environmental, savings, investment, political, innovation, productivity, and technological trends.
- Evaluating the development and potential of China's energy, natural resources, agricultural, communications, transportation, and Internet infrastructure.
- Examining China's credit and capital markets and capital allocation strategies.
- Identifying catalysts and hindrances to growth.
- Exploring the status and role of China's financial system.

Among the issues that investors should consider in formulating investment strategies relating to China are:

- Domestic politics
- The economy
- The Chinese renminbi
- Credit and capital markets
- Geopolitics
- China's maritime positioning
- The property market
- Inflation and deflation
- Energy
- Security
- The relationship between the United States and China
- Other issues

In China and in the United States, corporate entities perform most research and development (R&D). One important difference is that in China, the majority of those entities are owned by the state; in 2011, the government funded 65 percent of the R&D efforts in the country. By contrast, the U.S. government accounted for only 27 percent of America's R&D expenditures in that year.

From 2002 through 2012, China increased its R&D expenditures by 21 percent per year. During the same period, US R&D spending grew by less than 4 percent per year. If these growth rates continue, China's R&D spending would catch up with that of the United States by 2020. If the renminbi should experience meaningful appreciation of 40 percent versus the U.S. dollar, China's R&D spending could match that of the United States before 2020.

## Domestic Politics<sup>46</sup>

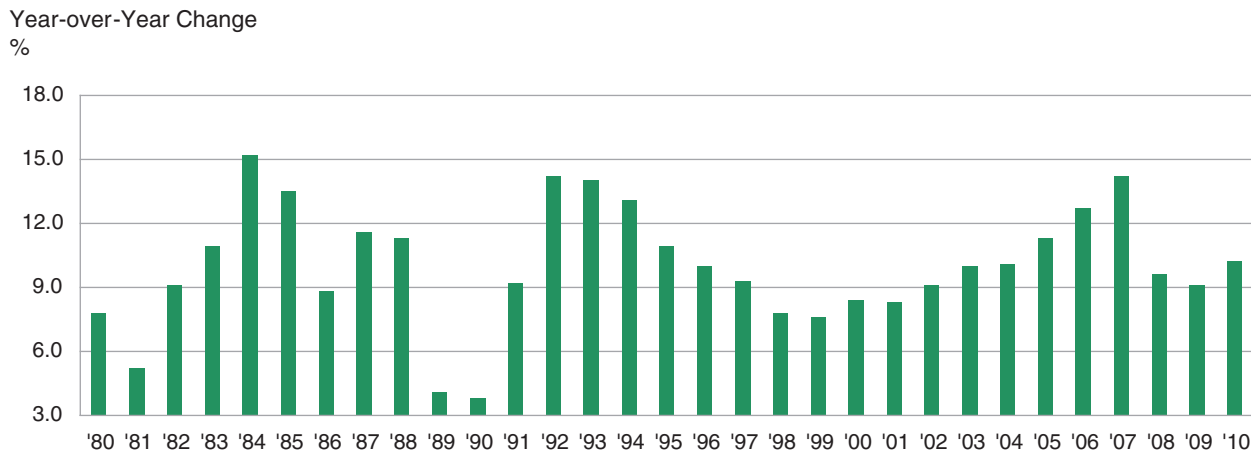
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Domestic political issues for consideration in China include:

- The role, effectiveness, flexibility, and degree of independence of:
  - The head of state (president)
  - The Central Administrative System (including the State Council, the premier, vice premiers, ministers, and other officials)
  - The National People's Congress
  - The Communist Party
  - The military
  - The civil service
  - The judiciary
  - The central bank
  - The media
- Maturation of civic polity, dissent, opposition views, and the political system.
- Stipulations and guarantees of the constitutional framework.
- The degree of state intervention in and control over various economic sectors.
- Structuring and strengthening a social safety net.
- Investing in housing, health care, and education.
- Expanding the middle class.
- Uses of China's sovereign wealth funds and foreign exchange reserves.
- Populating, administering, and fostering the growth of underdeveloped provinces, autonomous regions, and municipalities.

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<sup>46</sup>Morgan Stanley Wealth Management Investment Strategy.



**Figure 55 China's Real GDP Growth Rate, 1980–2010**

Source: Bloomberg, LLC. Data are as of December 31, 2010.

## The Economy<sup>47</sup>

Since World War II and particularly since 1978, impressive growth within its manufacturing, mining, and service sectors has transformed China from a largely rural economy into an advanced, industrial, urbanized nation. Figure 55 shows China's real GDP growth rate since 1980.

In 2001, after 15 years of negotiations, China joined the World Trade Organization (WTO). The key turning point came in November 1999, when the United States and China signed a trade treaty. China is also a member of the Asia Pacific Economic Cooperation (APEC) forum and the Group of Twenty Finance Ministers and Central Bank Governors (G-20).

In 2008 and early 2009, growth slowed sharply as a result of the global economic downturn, a contraction in world trade, highly stressed international financial market conditions, and a dramatic decline in world commodity prices.

As of 2012, China's economy in 2010 was composed of 10.1 percent agriculture, 45.3 percent industrial goods, and 44.6 percent services.

Following is a snapshot of the Chinese economy for 2012<sup>48</sup>:

- **GDP (2012E):** US\$12.4 trillion
- **GDP per capita—purchasing power parity (2012E):** US\$9,100
- **Inflation YOY CPI (April 2013):** +9.3 percent

<sup>47</sup>“China Joins the WTO—at last,” *BBC News*, December 11, 2001; CIA World Factbook, (May 2011).

<sup>48</sup>CIA World Factbook, April 2013; Bloomberg, LLC.

- **Unemployment rate (December 2012):** 6.4 percent
- **Labor force (2012E):** 795.4 million
- **Labor force by sector (2011E):** Agriculture 34.8 percent; industry 29.5 percent; services 35.7 percent
- **Industries:** Mining and ore processing, machine building, armaments, textiles and apparel, petroleum, cement, chemicals, fertilizers, consumer products, food processing, transportation equipment, telecommunications equipment, commercial space launch vehicles, and satellites.
- **Agriculture:** Rice, wheat, potatoes, corn, peanuts, tea, millet, barley, apples, cotton, oilseed, pork, and fish.
- **Public debt (2012E):** 31.7 percent of GDP

Economic issues for consideration by China's policymakers include<sup>49</sup>:

- Ensuring the quality, emphasis, and efficacy of economic policy.
- Restructuring and diversifying the economy away from an emphasis on exports and inward foreign investment toward appropriate development of domestic consumption of goods and services.
- Productively using China's significant infrastructure investments, including roads, ports, airports, telecommunications, and the Internet, for commercial advantage.
- Stimulating technological innovation and creativity.
- Managing portfolio and direct investment flows into and out of China.
- Transforming the Chinese export economy into a high-value-added products and services economy.
- Creating national champion companies to grow, acquire, and compete within global markets.

#### ***China Business Cycle Signal Indicator***<sup>50</sup>

Developed by the NBS and Goldman Sachs, the China Business Cycle Signal is a leading economic indicator that aims to monitor the pace of China's economy relative to macroeconomic performance and trends. The indicator is based on the Hang Seng Mainland Free-Float Index; industrial product sales; M2 money supply, new fixed-asset investment; the logistics index; the contract value of foreign direct investment; the consumer expectations index; and yield spreads versus Chinese government bonds.

<sup>49</sup>Morgan Stanley Wealth Management Investment Strategy.

<sup>50</sup>Bloomberg, LLC.



**China's Business Cycle and Key Indicators**

Figure 56 shows China's business cycle.

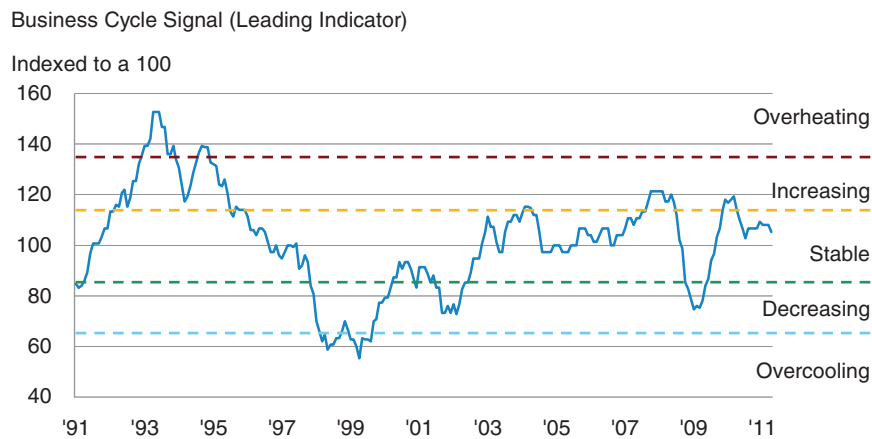
**The Chinese Renminbi**

From 1981 to 1993, the Chinese renminbi experienced six currency devaluations versus the U.S. dollar. These valuations ranged from 9.6 percent to 44.9 percent, and the official exchange rate moved from 1.59 renminbi per U.S. dollar to 5.82 renminbi per U.S. dollar.

On January 1, 1994, China devalued the official rate to prevailing swap rate of 8.7 renminbi per U.S. dollar, the seventh devaluation of the renminbi. At the end of 1998, China's foreign exchange reserves reached \$US145 billion; concurrently, China pegged its official exchange rate at 8.28 renminbi per U.S. dollar and the exchange rate remained essentially fixed through mid-2005.

On July 21, 2005, China ended its fixed-rate currency regime, allowing the renminbi to strengthen through mid-2008. On July 21, 2008, China pegged its exchange rate at 6.83 renminbi per U.S. dollar, and its exchange rate remained fixed through mid-2010. Monetary authorities in China have been asked by other developing countries to allow the renminbi to appreciate.

On June 19, 2010, China ended its fixed-rate currency policy that had been in effect from July 21, 2008. From June 19, 2010 to December 31, 2010, the renminbi appreciated 3.3 percent; in 2011 it appreciated 1.02 percent and in 2012 another 1.64 percent.

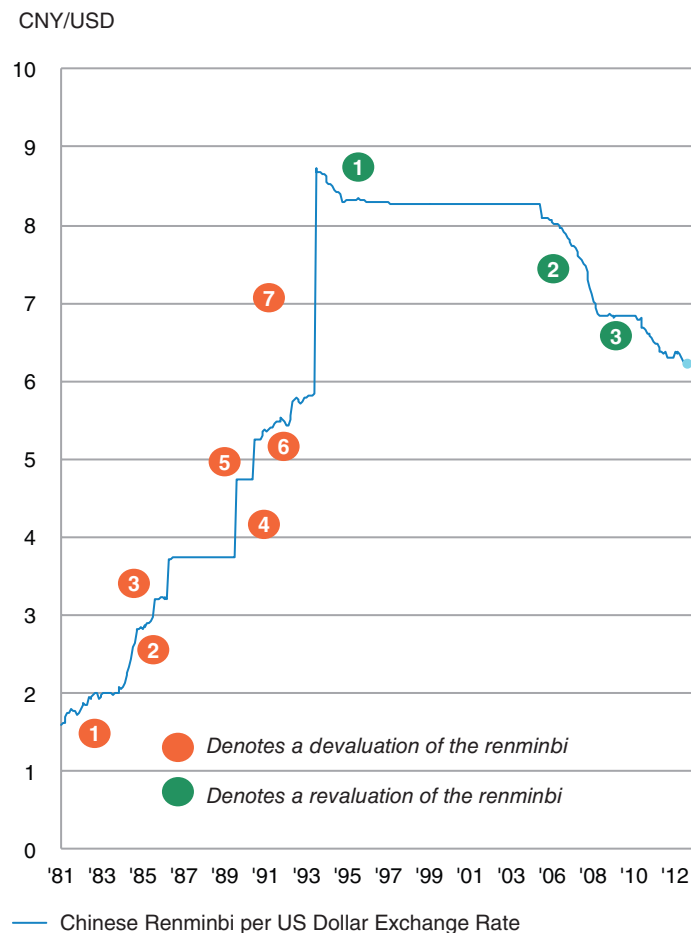


**Figure 56 China's Business Cycle**

Sources: CEIC; Morgan Stanley & Co. Inc. Research; Bloomberg, LLC. Data are as of April 30, 2011.

A strengthening renminbi is considered one monetary tool to help contain Chinese domestic inflation. Figure 57 shows how the renminbi rose relatively slowly versus the U.S. dollar in 2011 and 2012.

As of early 2011, the Bank of China Ltd. began allowing customers to trade the renminbi, also known as the yuan, in the United States, thereby expanding the nascent offshore market for the currency, which began in Hong Kong in 2010. The Bank of China, 70 percent owned by the Chinese



**Figure 57 Chinese Renminbi per U.S. Dollar Exchange Rate**

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy.

Sources: Morgan Stanley Wealth Management Investment Strategy. Hong Kong Center for Economic Research; "China Ends Fixed-Rate Currency," *Washington Post*, July 22, 2005; Bloomberg; Morgan Stanley & Co. Inc. Research. Data are as of May 31, 2013.

government, permitted companies and individuals to buy and sell the Chinese currency through accounts with its U.S. branches.<sup>51</sup>

The decision represented another move by China to allow the renminbi, whose value had been tightly controlled by the government, to become an international currency that can be used for trade and investment.

Until the middle of 2010, the buying and selling of the renminbi had largely been confined to mainland China by the country's strict capital controls. In July 2010, China opened the currency to trading in Hong Kong. The preparations for convertibility reflect Chinese strength, as China, the world's second-largest national economy, has recognized that as a significant global power it must have a global currency. In December 2010, Chinese regulators increased the number of exporters that could use yuan to settle international transactions from a few hundred to nearly 70,000.

A number of currency strategists and economists have predicted that by 2015 or thereafter, 20 percent to 30 percent of China's more than US\$2.0 trillion in annual imports could be conducted in yuan rather than dollars. As of mid-2011, less than 1 percent of China's imports was denominated in yuan.

## Credit and Capital Markets

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Credit and capital markets issues for consideration include:

- Developing reliable and liquid markets for bank credit, mortgage finance, public and private equity, venture capital, money market instruments, and fixed-income securities.
- Managing the internal and external value of the Chinese renminbi.
- Structuring appropriate conditions affecting capital flows.
- Channeling the contribution of foreign financial services and asset management firms.
- Broadening the institutional and individual investor base.
- Achieving a level playing field for investors, issuers, and intermediaries.
- Strengthening and internationally advancing regulatory, legal, and accounting safeguards and standards.

## Geopolitics

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Geopolitical issues for consideration include:

- China's relations with:
  - Russia, India, Japan, Pakistan, Mongolia, Taiwan, and the two Koreas

<sup>51</sup>"New Move to Make Yuan a Global Currency," *Wall Street Journal*, January 12, 2011.

- Other neighboring countries in Asia including Vietnam, the Philippines, Malaysia, Thailand, Myanmar, Laos, Cambodia, Singapore, Brunei, and Indonesia
- United States, Canada, and Mexico
- European Union
- Middle Eastern countries
- African and Latin American countries
- United Nations
- China's stance toward disputed territories and maritime zones.
- The integration of China's economy, natural resources, population, financial system, *weltanschauung*, cybertactivities, and military capabilities into global frameworks.
- China's role in preventing the spread of nuclear, chemical, and biological weapons.
- China's role in shaping and addressing global climatological, environmental, and ecological issues.

### China's Maritime Positioning<sup>52</sup>

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In 2006, China Central Television showed a documentary series, *Daguo Jueqi* (The Rise of Great Powers). It included interviews with historians and international leaders and was considered accurate enough to be purchased by the History Channel and broadcast in the United States. The twelve 50-minute episodes explained how the Portuguese, Spanish, Dutch, French, British, German, Japanese, Russian, and American empires rose, prospered, and fell.

The series also examined the maritime achievements of the major powers in their rise to global dominance. Whatever the population, size, or territory of the originating great power country, its strategy was always to open to the outside world, to control the principal sea lanes and deep-water bases, and to master technology, naval action, and influence.

The documentary broke with decades of Chinese Communist Party historical ideology and revealed China's post-millennium pragmatism as that of a rising power intent on avoiding its past political philosophy that left it in a long period of weakness during the nineteenth century.

China's intentions appear to address two major issues:

1. China's views toward Taiwan and the extent of Chinese territorial waters in its Exclusive Economic Zone (EEZ).

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<sup>52</sup>Excerpted and adapted from Olivier Zajec, "China's Naval Ambitions," *Le Monde Diplomatique*, September 2008; "China Flash of Maritime Muscle May Mean Power Push in Asia Seas," *Bloomberg*, March 23, 2009.

2. With China having become the world's second-largest oil importer, the protection of its four energy corridors:
  1. The Straits of Malacca
  2. The Sundra and Gaspan Straits
  3. Passages through Filipino waters
  4. Rail/pipeline/canal networks transversing Myanmar and Thailand

China has been in disputes with Japan over the Diaoyu Islands (Senkaku in Japanese) near Okinawa. Tokyo insists that its EEZ extends 450 km to the west of the archipelago, which Beijing contests by claiming the entire continental plateau that extends its own territory into the East China Sea. This area has been estimated to contain a potential 200 billion cubic meters of natural gas. China is also in discussions with Taiwan, Vietnam, the Philippines, Malaysia, Brunei, and Indonesia over the Spratly Islands (Nansha in Chinese) and the Pratas Archipelago (Dongsha), and with Vietnam and Taiwan over the Paracel Islands (Xisha in Chinese).

Beijing has been building a string of permanent Chinese bases along the shores of the Indian Ocean and the maritime routes to Malacca including: Marao in the Maldives; Coco Island in Myanmar; Hambatota in Sri Lanka; Woody Island 300 miles east of the Paracel Archipelago; Chittagong in Bangladesh; and Gwadar in the Baluchistan region of Pakistan; with consideration given to the construction of coastal bases in Africa, several of whose countries have opened to Chinese investment.

The naval bases, river ports, sea walls, and protected submarine bases (including the new Sanya nuclear base on Hainan Island) have been expanded and modernized, as befits a nation whose foreign trade depends 90 percent on sea routes. In 2012, China's sea-related industries accounted for 12 percent of GDP and eight of the world's 20 leading ports were Chinese.

China's fifth national defense white paper in 2006 transferred priority from the army, which traditionally held pride of place, to the navy and air force. The situation in the South China Sea has not been a declared arms race, but a variable geometry negotiation between the Indian, U.S., Australian, and Japanese fleets, and the Chinese and Pakistani fleets.

China's history of naval action and influence and maritime positioning and technology dates back to the Ming dynasty. During the Ming dynasty, China commanded one of the world's most advanced naval fleets and commissioned Admiral Zheng He to explore the seas of Southeast Asia. By the fifteenth and sixteenth centuries, China had mastered astronomic observation-based navigation and the compass; built multimast ships with pivotable rigging; and invented the anchor, the printing of marine navigation charts, the capstan, and the adjustable center board. Chinese junks had watertight compartments and stern-mounted rudders.

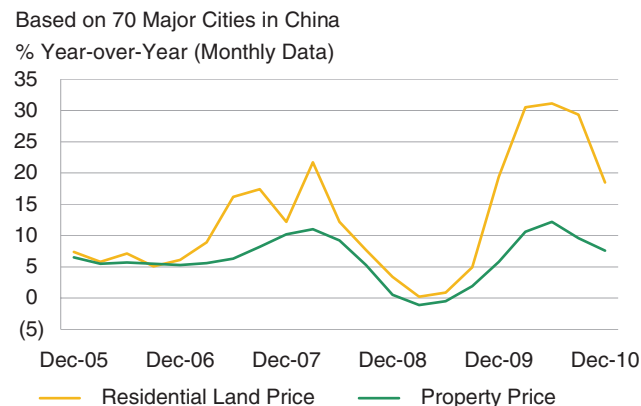
China has been significantly altering the balance of military power in the Pacific and affecting other nations' ability to project military power in Asia, through the Dongfeng 21D land-based antiship ballistic missile, designed to target aircraft carrier groups with the help of satellites, unmanned aerial vehicles, and over-the-horizon radar.

## China's Property Market<sup>53</sup>

As of early 2011, concerns persisted over the state of China's property market, in which property prices had risen 86 percent from January 2006 through March 2011 (see Figure 58). Although some economists believed that China's property prices had started to show signs of stabilizing, its sharp 53 percent rise from January 2009 through March 2011 inspired caution that a potential bubble-bursting scenario was on the horizon.

### 10 Leading Indicators of Speculative Bubbles<sup>54</sup>

1. Great investment debacles generally start out with a compelling growth story.
2. A blind faith in the competence of the authorities is another typical feature of a classic mania.
3. A general increase in investment is another leading indicator of financial distress.
4. Great booms are invariably accompanied by a surge in corruption.



**Figure 58 Land and Property Prices**

Sources: CEIC; Morgan Stanley & Co. Inc. Research; BIS; Bloomberg, LLC. Data are as of December 31, 2010.

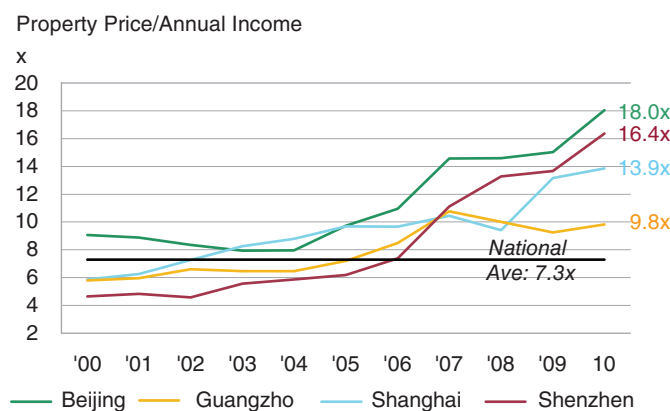
<sup>53</sup>Morgan Stanley Wealth Management Investment Strategy; Morgan Stanley & Co. Inc. Research; SBS, "China's Ghost Cities," March 20, 2011.

<sup>54</sup>Edward Chancellor, "China's Red Flags," GMO White Paper, March 2010.

5. Strong growth in the money supply is another robust leading indicator of financial fragility.
6. Fixed currency regimes often produce inappropriately low interest rates, which are liable to feed booms and end in busts.
7. Crises generally follow a period of rampant credit growth.
8. Moral hazard is another common feature of great speculative mania, with a prevailing belief that the authorities will not let bad things happen to the financial system.
9. During periods of prosperity, financial structures tend to become precarious.
10. Questionable loans are generally secured against collateral, most commonly real estate, with a combination of strong credit growth and rapidly rising property prices.

As a preferred way for individuals to store wealth and carrying minimal or no property taxes; with high savings rates, ample bank liquidity, and low national indebtedness; and in view of local governments' dependence on revenues from land redevelopment, housing prices in China have at times reached excessive valuation levels and exorbitant multiples of average annual earnings (e.g., in Beijing in 2010, 18 times, compared to a 2006 U.S. nationwide peak of 6.4 times).

In addition to high property prices and high valuation levels (see Figure 59), data as of early 2011 highlighted a vacancy issue: approximately



**Figure 59 Property Valuation at Very High Levels**

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy.

Source: Morgan Stanley & Co. Inc. Research, "China Property: Transaction Tracker," May 12, 2011. Data are as of December 31, 2010.

64 million apartments and houses had remained empty during the last six months of 2010, according to Chinese media reports.

On the assumption that each apartment could serve as a home to a typical Chinese family of three (two parents and one child), the vacant properties could accommodate 200 million people, representing more than 15 percent of the country's early 2011 1.3 billion population. If correct, the empty dwelling units would have been sufficient to house over half of the U.S. population at the time.

#### ***President Hu Jintao on Social Housing***<sup>55</sup>

In a seminar in Zhongnanhai on November 30, 2010, President Hu Jintao called for “accelerating social housing construction and reinforcing adjustments in the property market.” His speech highlighted the government's determination to meet the housing needs of the low-income population.

The Ministry of Housing and Urban-Rural Development had set a construction target for 2011 of 10 million units, 70 percent more than the 5.8 million units in 2010. Investments in social housing construction could therefore potentially total more than Rmb 1,000 billion, or 20 percent of real estate investments.

#### ***Chinese Property Market: Subsidized, Not Subprime***<sup>56</sup>

In 2010, investment in residential real estate accounted directly for 12 percent of China's GDP, up from 10 percent in 2009 and a record. By contrast, the peak of spending on US residential investment in 2005 was equal to just 6 percent of GDP.

A larger role for real estate in the Chinese economy means the consequences of a bust could be more serious than in the United States. A crackdown on speculation saw growth in real estate investment fall from 31 percent a year at the end of 2007 to 3 percent at the beginning of 2009. The decline in construction spending, as much as the fall in exports, crunched China's GDP growth to a decade low of 6.5 percent. Data from Soufun Holdings, which runs China's leading property web site, indicated that average prices in first-tier cities such as Beijing and Shanghai were rising considerably faster than disposable incomes.

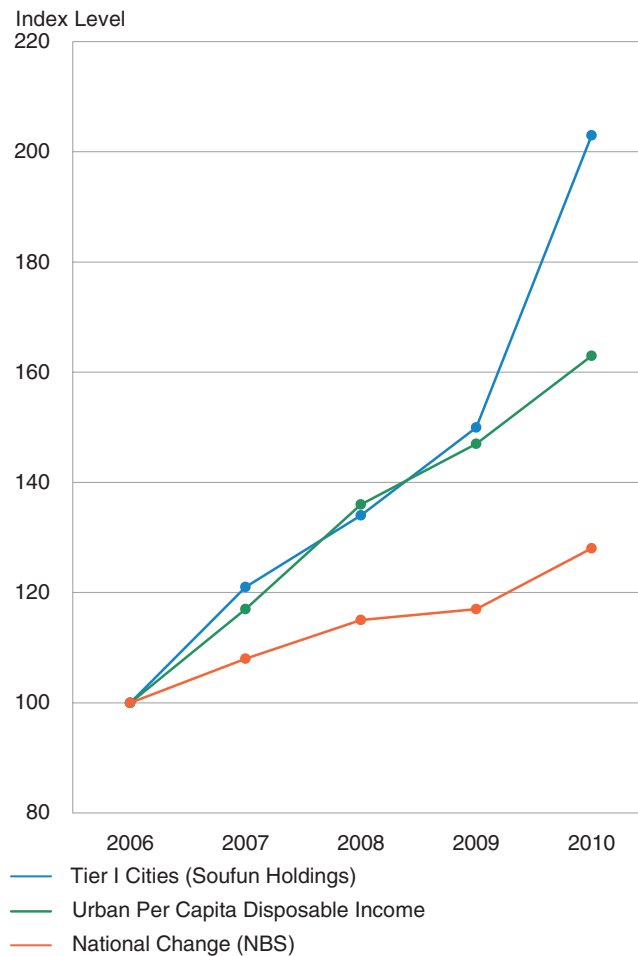
Plans to build 10 million new budget residences in 2011 were expected to somewhat cushion China's economy from a sharp slowdown in private-sector construction.

In the United States, mortgage debt reached 103 percent of GDP in 2007. As of March 2011, in China, long-term loans to households, a proxy for mortgage borrowing, were the equivalent of 16 percent of GDP. Including all loans to real estate developers and a share of loans to local government

<sup>55</sup>Morgan Stanley & Co. Inc. Research, “From Goldilocks to Reflation,” December 2010.

<sup>56</sup>Tom Orlik, “China: Subsidized, Not Subprime,” *Wall Street Journal*, March 26–27, 2011.





**Figure 60 China's Property and Income Indexes**

Sources: National Bureau of Statistics; Soufun Holdings; WSJ Reporting. Data are as of March 2011.

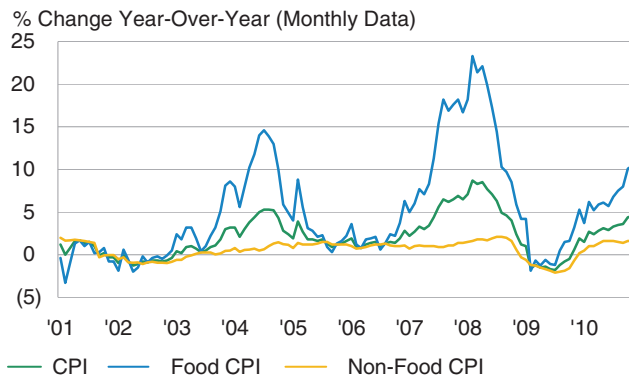
investment vehicles (some of which were invested in property), the total would have represented the equivalent of 50 percent of GDP. (See Figure 60.)

### Inflation and Deflation<sup>57</sup>

From January 2001 to December 2010, China's CPI and producer price index (PPI) experienced significant episodes of inflation and deflation, characterized by steep increases and declines in price levels (see Figure 61).

From April 2006 to April 2008, China's CPI rose 12 percent; following that sharp rise in CPI levels, the CPI index fell 2 percent from April 2008

<sup>57</sup>Morgan Stanley Wealth Management Investment Strategy; Morgan Stanley & Co. Inc. Research, "China Economics: China Inflation Tracker," March 29, 2011.

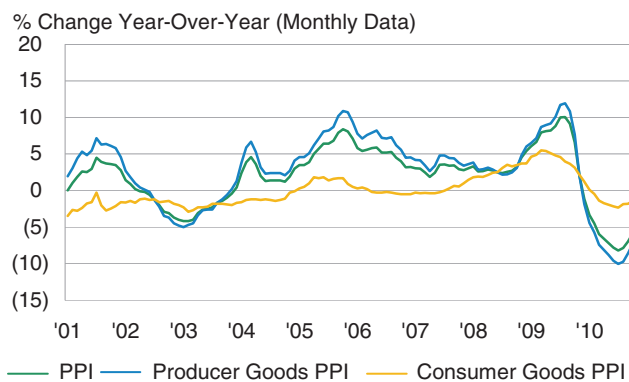


**Figure 61 Consumer Price Index (CPI)**

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Source: Morgan Stanley & Co. Inc. Research. Data are as of December 31, 2010.

to October 2009. During these two periods from early 2006 to late 2009, China’s PPI also experienced volatile inflationary and deflationary price movements (see Figure 62).

As of March 2011, China economists in Morgan Stanley Research believed that inflationary pressures would remain relatively muted in China as they forecast the CPI to increase 4.5 percent year-over-year in 2011. Uncertainty surrounded the extent to which China’s potential strengthening of the renminbi might subdue inflationary pressures.



**Figure 62 Producer Price Index (PPI)**

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Source: Bloomberg, LLC. Data are as of December 31, 2010.

In the absence of sufficiently assertive policy measures by the central government and the People's Bank of China to address inflation expectations, cost-of-living increases, elevated money velocity, and bank lending, the authorities might have been expected to face speculative purchases of property; mass hoarding of consumption goods (including grain, vegetables, and fuel); significant capital outflows; and, possibly, some degree of social unrest.

The composition of China's PPI Index is as follows<sup>58</sup>:

1. Industry
2. Producer goods:
  - Excavation
  - Raw Materials
  - Manufacturing
3. Consumer goods:
  - Food
  - Clothing
  - Daily-use articles
  - Durable goods

Although CPI weights have generally been kept confidential in China, the NBS has been known to revise them every five years. The window of revision was opened again in 2011 after the previous reweighting in 2006.

In January 2011, the NBS released data regarding CPI weights. The food weighting was cut by 2.21 percentage points to allow more reflection of certain nonfood components in the CPI. Changes in weightings of the non-food components included residence, +4.22 percentage points; tobacco and beverages, -0.55 percentage points; clothing, +0.36 percentage points; household facility and services, +0.36 percentage points; medicine, medicare, and articles, -0.36 percentage points; transportation and communication, +0.05 percentage points; and recreation, education, culture articles, and services, +0.25 percentage points.

As of March 2011, Morgan Stanley Research estimated that the food weighting in the CPI could have been downsized to 30.3 percent after the reweighting, and, consequently, the nonfood CPI could have risen to 69.7 percent (see Table 2).

As of early 2011, the NBS had classified "property purchase" as an investment as opposed to a consumed good; as a result, property prices were not reflected in "residence" or in headline CPI. In 2009, the NBS reported that the residence portion of the CPI accounted for 14.7 percent of the head-

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<sup>58</sup>Bloomberg, LLC.

**Table 2 CPI Reweighting in 2011**

Percentage Point Change versus 2006 Weighting		
<b>Food</b>	<b>2.21</b>	<b>▼</b>
<b>Nonfood</b>	<b>2.21</b>	<b>▲</b>
Tobacco and Beverages	0.51	▼
Clothing	0.49	▼
Household Facility and Services	0.36	▼
Medicine, Medicare, and Articles	0.36	▼
Transportation and Communication	0.05	▼
Recreation, Education, Culture Articles, and Services	0.25	▼
Residence	<b>4.22</b>	<b>▲</b>

Sources: National Bureau of Statistics; CEIC; Morgan Stanley & Co. Inc. Research. Estimates are as of March 29, 2011.

line CPI. As of March 2011, Morgan Stanley Research estimated that the residence portion accounted for 18.9 percent of the headline CPI. Morgan Stanley Research’s detailed breakdown of the residence portion consisted of renting and private housing, 8.9 percent; water, electricity, and fuel, 6.0 percent; and building and decoration materials, 4.0 percent.

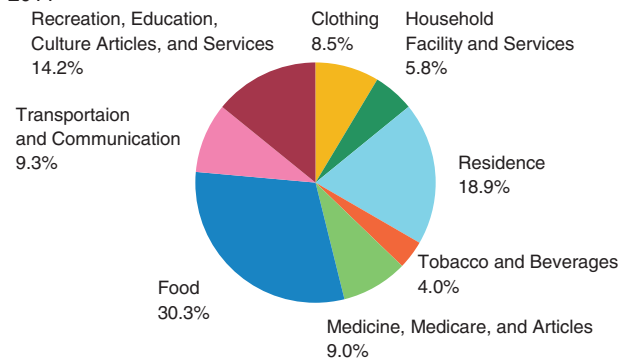
Figure 63 shows Morgan Stanley Research’s estimates for China’s headline CPI (as of March 2011).

## Energy

China’s reserves of natural resources include coal, iron ore, petroleum, natural gas, mercury, tin, tungsten, antimony, manganese, molybdenum, vanadium, magnetite, aluminum, lead, zinc, rare earth elements, and uranium. (See Figure 64.)

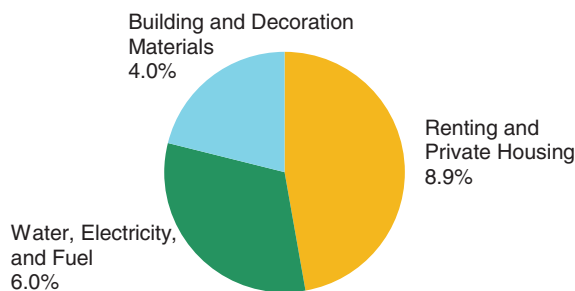
### Estimated CPI Weights

2011



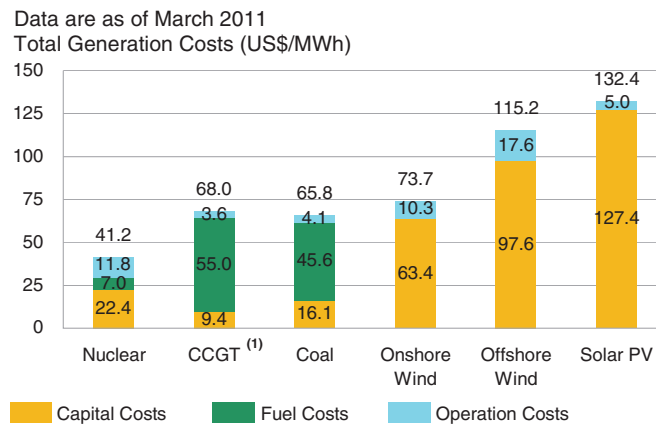
### Estimated Residence Weights (18.9%)

2011



**Figure 63 2011 (a) Estimated CPI Weights and (b) Estimated Residence Weights**

Source: Morgan Stanley & Co. Inc. Research, “China Economics: China Inflation Tracker,” March 29, 2011.



**Figure 64 China Energy Economics**

Source: Morgan Stanley & Co. Inc. Research, "Global CleanTech," March 22, 2011.

Following is a brief comparison of China's resources to total world reserves for coal, natural gas, and oil<sup>59</sup>:

Resource	Global Ranking	World Reserves (%)
Coal	3	13.3
Natural gas	13	1.5
Oil	17	1.0

Set forth below is a brief comparison of China's consumption to the rest of the world<sup>60</sup>:

Energy Type	Global Ranking	Share of World Consumption (%)
Coal	1	48.2
Oil	1	20.3
Hydroelectric	1	21.0
Wind	1	22.4
Natural gas	4	3.4
Nuclear	9	2.7
Solar	9	2.2
Geothermal	18	0.2
Carbon dioxide emissions	1	25.1

<sup>59</sup>CIA Factbook; BP Global, BP Statistical Review of World Energy, June 2012. Based on 2012 data.

<sup>60</sup>CIA Factbook; BP Global, BP Statistical Review of World Energy, June 2011. Based on 2010 data.

Energy issues for consideration include<sup>61</sup>:

- China's elasticity of oil, gas, and coal supply.
- China's usage of hydro, solar, wind, nuclear, and biomass energy sources.
- The structure, efficiency, and strategic positioning of China's state-owned energy enterprises.
- China's onshore and offshore oil-and-gas exploration activity and overall energy import infrastructure.
- New exploration and drilling activity in China and nearby regions.
- Price differentials for energy products sold in domestic compared to nondomestic markets.
- Pathways of China's external investment in the energy sector, and the forms and degree of allowable foreign investment in the energy sector.

The ten largest oil exporters to China are<sup>62</sup>:

	Country	Tonnes (Millions)	Barrels (Millions)
1	Saudi Arabia	45.3	332
2	Angola	40.8	299
3	Iran	21.1	155
4	Russia	15.2	111
5	Oman	15.2	111
6	Sudan	12.8	94
7	Iraq	10.6	78
8	Kazakhstan	10.0	73
9	Kuwait	9.7	71
10	Brazil	8.0	58

## Security

Security issues for consideration include<sup>63</sup>:

- Achieving harmonization of laws and equitable law enforcement.
- Enforcing anticorruption initiatives.
- Policing, counterterrorism activity, and cooperation with global anti-terrorism agencies.
- The position of the Chinese military and police forces in public opinion.
- Responsiveness to citizens' concerns and dissent.

<sup>61</sup>Morgan Stanley Wealth Management Investment Strategy.

<sup>62</sup>Haven Analytics; U.S. Census Bureau, Foreign Trade Division.

<sup>63</sup>Morgan Stanley Wealth Management Investment Strategy.

## The Relationship between the United States and China

There are four potential scenarios and outcomes for the relationship between the United States and China, illustrated in Figure 65.

### Other Issues

Set forth below is a listing of additional issues to consider, classified by subject matter.

#### Financial System/Monetary Policy

**Central bank independence.** Improved pricing of bank credit, more market-determined interest rates, and firmer control over inflationary forces might result from devolving more power and independence to China's central bank, the People's Bank of China, which as of May 2013 was one of 27 ministries and agencies under the direction of the State Council and the National Development and Reform Commission (formerly the highly powerful State Planning Commission).

**Financial market liberalization.** As China continues to open its markets, loosen controls on the renminbi, and gradually transform the nation into a more consumer-focused economy, the country's financial

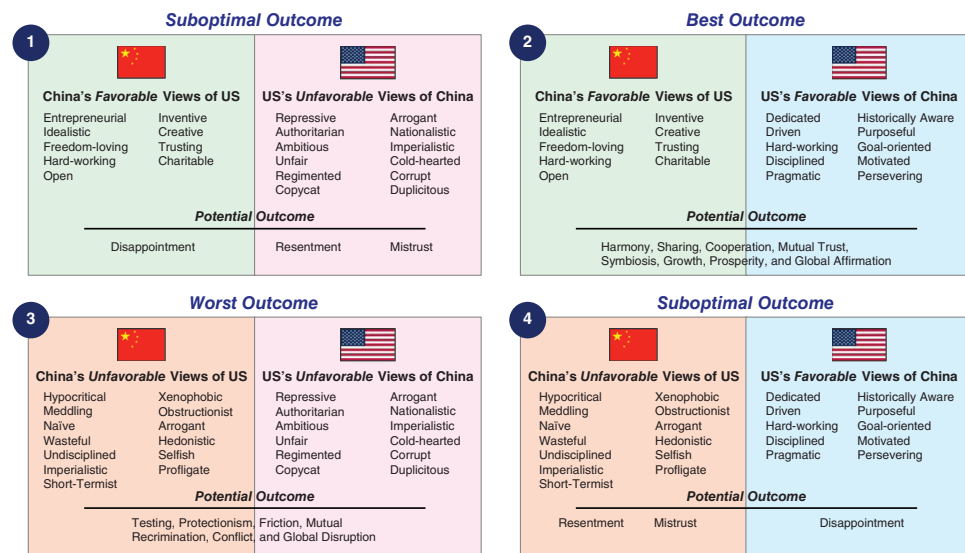


Figure 65 Four Potential Scenarios and Outcomes

Source: Morgan Stanley Wealth Management Investment Strategy, June 2013.

importance has been growing to global commercial and investment banks, hedge funds, and private equity firms: (1) IPOs of Chinese companies reached US\$104 billion in 2010 (US\$124 billion including Hong Kong companies); (2) equity trading volume on Chinese and Hong Kong stock exchanges rivaled aggregate U.S. markets' equity trading turnover; and (3) Chinese companies completed 3,455 mergers and acquisitions worth US\$190 billion, or 9 percent of global transactions in 2010.

**Monetary supply and bank lending growth.** M-2 rose 19.7 percent annualized in December 2010, considered quite high for an economy growing at a 10 percent rate; in fact, M-2 in China had risen from US\$1.5 trillion in 2000 to almost US\$17 trillion by early 2013, larger than the US M-2 of US\$10.5 trillion in 2013; in addition, as of May 2013, bank lending in China was larger than in the United States, even though its economy was smaller.

#### ***Economic Reform/Technological Innovation***

**Fostering innovation.** In a document published by the State Intellectual Property Office of China called “National Patent Development Strategy (2011–2020),” China has identified innovation as a key to higher living standards and long-term growth and has set an ambitious goal of two million annual patent filings by 2015, up from 600,000 in 2009 (of which 300,000 were “utility-model patents,” which usually cover products' engineering features and are less ambitious than the 300,000 invention patents—in the American patent system, there are no utility patents and in 2009 in the United States, patent filings totaled approximately 500,000).

**Increased foreign investment flexibility for Chinese companies.** With an effective date of January 1, 2011, China's State Administration of Foreign Exchange (SAFE) ruled that Chinese companies were allowed to retain and invest export income outside of China; as a result: (1) the growth rate of China's foreign exchange reserves appeared likely to diminish significantly; (2) the likelihood of unduly restrictive Chinese monetary policy was expected to lessen; (3) the rate of speculation in and appreciation of property prices in China appeared likely to slow; (4) Chinese companies were deemed likely to increase their acquisitions and direct investment activity in the United States and other countries, with special emphasis in sectors where China lacked sufficient domestic resources (including oil, uranium, iron ore, nickel, platinum, copper, titanium, chrome, lithium, manganese, potash, and food (among other areas)).



**Increased overseas economic presence.** On February 14, 2011, assisted by a US\$2.5 billion loan from the state-owned Export-Import Bank of China, the China State Construction Engineering Corporation (the country's largest construction firm by revenue) broke ground on Baha Mar Resorts Ltd., a US\$3.4 billion hotel, casino, and resort project slated to employ as many as 8,000 Chinese construction workers in Nassau, the Bahamas. This plan is part of the company's initiative to showcase outside China its complex project management capabilities.

**Intellectual property.** As China continues to more assertively address issues associated with compulsory disclosure, licensing, and/or transfer of foreign technologies, and to vigilantly assure the protection of foreign innovation and intellectual property, including software, copyrights, patents, trademarks, trade secrets, and technical know-how, in certain businesses including desktop computers, solar panels, wind turbines, high-speed trains, nuclear reactors, and biotechnology, Chinese companies have at times been perceived by foreign firms as acquiring advanced technology through strict local content requirements, preferential contracts favoring state-owned companies, and other means, and then using such knowledge, in addition to low-cost local labor, low-interest loans from state-owned banks and inexpensive government-supplied land, to pursue dominant Chinese global market positions for such products.

**Transformation of economic priorities.** Following an October 2010 four-day plenum meeting held in Beijing attended by all standing members of the Politburo, the 17th Central Committee of the Communist Party of China issued a communiqué focused on structural issues, reforms, and economic rebalancing in the nation's 12th Five-Year Plan (2011–2015), for the first time prioritizing domestic consumption ahead of investments and exports.

### **Socioeconomics**

**Augmenting the social safety net.** As part of initiatives to continue funding the social security system, to broaden public confidence in government pension schemes, to foster a shift from very high savings rates to increased household consumption, and to extend the lockup period of the transferred equities by another three years, in June 2009, China transferred to the National Social Security Fund 8.4 billion shares in 131 companies listed on stock exchanges since 2005.

**Empowering rural economic growth.** As of May 2011, urban wage levels in China's inland provinces averaged 50–60 percent of urban wage

levels in the coastal provinces, whereas inland per square meter property prices averaged 25–33 percent of coastal levels; in other words, migrant workers from the inland provinces could potentially *double* their wages by moving to a coastal province, but with coastal property prices *triple to quadruple* inland property price levels. Among the institutional reforms potentially capable of stimulating rural economic growth are (1) granting full trading rights of land to rural residents, (2) improving village governance and election procedures, (3) eliminating the *hukou* restrictions (please see page xx) on rural migrants' access to full urban residency and public services, (4) providing automobile and home appliance subsidies, (5) improving local health care resources, and (6) increasing financial support for small and midsized businesses in rural areas.

**Public reaction to pollution.** Especially in rural areas where environmental regulation and enforcement has at times been lax and where local officials, under pressure to generate economic growth, have encouraged the development of sometimes unlicensed factories, pollution problems including lead poisoning and toxic gas leaks have led to grass-roots dissatisfaction, public protests, and occasional civil unrest.

**Securing employment for university graduates.** From 800,000 university graduates annually in 1998 to more than 6 million per year in 2010, China's large supply of higher-degree recipients trained in accounting, finance, computer programming, and other white-collar occupations has faced significant difficulty in securing challenging and rewarding work. Such difficulty represents a potential source of social instability.

**Unleashing the potential of megacities.** To reap the benefits of integration, efficiency, productivity, shared infrastructure, and sustainability, in January 2011, China announced plans to merge nine Pearl River Delta cities (Guangzhou, 12 million; Shenzhen, nine million; Dongguan, seven million; and six smaller cities with 14 million inhabitants) into a 41,000 square kilometer (14,000 square miles, roughly 25 times the surface area of London) metropolis with more than 42 million people accounting for approximately 10 percent of the country's GDP.

**Wage-price pressures.** According to the International Labour Organisation and Morgan Stanley economist Stephen Roach, partially reflecting annual productivity growth estimated at 10–15 percent annually from 1990 through 2010, Chinese workers received real wage increases averaging 12.6 percent per year from 2000 through 2009 (compared with 1.5 percent in Indonesia and 0 percent in Thailand);

as of May 2011, Chinese workers were paid approximately US\$400 per month, less than workers in Taiwan and Malaysia, but three times more than workers in Indonesia and five times more than workers in Vietnam; by continuing to raise minimum wages, Chinese officials have sought to avert labor unrest while setting in motion concerns about international manufacturing competitiveness and persistent and rising inflation.

### **Central Government/Foreign Relations**

**China and Africa.** In part due to China's large foreign currency reserves, in part due to having avoided several developed Western nations' colonial heritage in Africa, and in part due to greater acceptance by China of the current political status quo in many African countries, in the post-2000 era, China has increased its direct investment, infrastructure development projects, and political influence on the African continent. To China, Africa offers not only important sources of significant natural resources, but also important markets for Chinese consumer, industrial, and technological exports.

**China and Central Asia.** Central Asia (consisting of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) has been increasingly viewed by Chinese officials as a critical frontier for the nation's energy security, trade expansion, ethnic stability, and military defense.

**China and North Korea.** As North Korea's principal supplier of food and fuel, China could use its leverage to rein in Pyongyang's nuclear ambitions, bellicose posturing, and exports of nuclear technology, in spite of two Chinese concerns if the Kim dynasty were to collapse and the two Koreas (North and South) were reunified as one nation: (1) a large influx of North Korean refugees into China, and (2) the resulting presence of American military resources close to the China-Korea border.

**China and Southeast Asia.** Following China's 2010 free-trade agreement with the Association of South-East Asian Nations (ASEAN), in late 2010 and early 2011 China signed agreements to modernize and/or build new rail lines in Laos and Thailand, while extending its rail network from Kunming (capital of the Yunnan province) to the China-Laos border and conducting feasibility studies for rail upgrades in Myanmar, Vietnam, and Cambodia.

**China and Taiwan.** Between the March 22, 2008, election of Ma Ying-jeou as Taiwan's president and early 2011, 15 cross-strait agreements were signed, including the 2010 Economic Cooperation Framework

Agreement; China plus Hong Kong accounted for 40 percent of Taiwan's exports and a 2010 Taiwanese bilateral trade surplus of US\$70 billion; Taiwanese businesses had US\$90 billion invested in China, where 800,000 Taiwanese lived as of early 2011; following the July 2008 inauguration of direct flights between Taiwan and China, more than 2.0 million Chinese tourists visited Taiwan in 2012.

**Cyberwarfare.** To varying degrees, the United States, the United Kingdom, China, Russia, Israel, and other world powers have considered established codes of conduct: (1) placing the onus for investigating aggressive acts on the countries where those attacks originated; (2) banning behavior opposed by all countries (such as the disabling of networks and data theft); and (3) clarifying what kinds of cyberactivity might trigger an armed cyber response to cyberwarfare, which aims to disrupt military and civilian networks.

**Diffusion of power.** Unlike the eras of unquestioned centralized authority and consistent policies pursued under Mao Zedong, Jiang Zemin, or Deng Xiaoping, a number of rival power centers, including the military, ministries, and large state-owned corporate interests may have increased the difficulty of resolving bilateral disputes and pursuing China's broad foreign policy goals.

### ***Commodities/Natural Resources***

**Commodity intensity.** The International Monetary Fund has estimated that driven primarily by a less-rapid pace of investment growth, China's potential growth rate would slow to approximately 7 percent per annum between 2016 and 2020, compared to an average annual growth of 9.6 percent for the 18-year period from 1995 through 2012; as China placed increased emphasis on energy efficiency, the country's service sector was projected to expand relative to manufacturing and heavy industry, and, consequently, China's demand for commodities was thought possibly to be significantly lower than consensus projections.

**The critical importance of water.** As of mid-2013, China had 20 percent of the world's population, supported by 7 percent of the world's fresh water supply (approximately the same as Canada, with China having 40 times Canada's population); the per-capita volume of water consumption in China was 25 percent of the global average, projected to decline to 20 percent; one third the length of China's rivers, three quarters of its principal lakes, and one quarter of the country's coastal waters were rated as "highly polluted"; in the Yellow River region and in much of the arid North China plain (including the provinces

of Heilongjiang, Jilin, Liaoning, Hebei, Shanxi, Beijing, and Tianjin—Northern China possesses only 18 percent of the country's water, with 62 percent of its agricultural land) surface water supply has declined in the post-2000 era and due to exploitation, underground water levels fell as much as three feet annually over the 1975–2000 time period, necessitating the drilling of deep wells to reach water and highlighting the importance of agriculture and water infrastructure improvements, including reservoirs, embankments, pivot and drip irrigation systems, aqueducts, wastewater treatment plants, transfer tunnels, dams, pumping and recycling stations, and desalination facilities.

**Increased demand for gold.** With a limited number of instruments for investing in cash, when low interest rates produce low or negative real returns on bank deposits, and when real estate investment/speculation is curtailed by the authorities, Chinese retail demand tends to rise for physical gold (in the form of jewelry, bullion, bars, and coin), gold mining shares, and other gold-linked investment vehicles. According to the World Gold Council, Chinese total demand for gold rose from 480 metric tons (15,432,358 troy ounces) in 2010 to 516 metric tons (16,589,785 troy ounces) in 2012.

**Strategic oil reserves.** As a buffer against sudden disruptions of oil supplies, in late 2008 and early 2009, China began building its strategic oil reserves toward a goal of 684 million barrels (equal to 90 days' supply by 2020); as of December 2012, the United States' strategic oil reserve held 695 barrels.



# 5

## Overview of the Investment Landscape

This section contains information on the wide variety of closed-end funds; private equity and venture capital funds; Chinese A, B, H, Red Chip, and P Chip shares; China-related equities indices; convertible bonds; and U.S., European, and Asian corporations in China. For a brief overview, see Table 30.

**Table 30 Examples of Vehicles for Portfolio Investment in China**

Type	Exchange Listing	Further Details	Description	Potential Issues
Closed-end and open-end China/Taiwan mutual funds	New York	p. 149	<ul style="list-style-type: none"> <li>• Mutual funds that invest primarily in the equities of companies whose principal business is based in China or the Greater China region, including Hong Kong and Taiwan</li> </ul>	<ul style="list-style-type: none"> <li>• Investors cannot actively manage the holdings in the underlying mutual funds</li> </ul>
Private equity/venture capital funds	Not applicable	p. 150	<ul style="list-style-type: none"> <li>• Private equity and venture capital funds investing in China</li> </ul>	<ul style="list-style-type: none"> <li>• Some degree of illiquidity and lack of transparency</li> </ul>
A shares	Shanghai, Shenzhen	p. 151	<ul style="list-style-type: none"> <li>• A shares are issued by Chinese companies and commenced trading in 1990</li> <li>• The A Shares stock market is China's largest stock market, and the fifth largest stock market in the world</li> </ul>	<ul style="list-style-type: none"> <li>• Limited to domestic investors and qualified foreign institutional investors</li> </ul>
B shares	Shanghai, Shenzhen	p. 152	<ul style="list-style-type: none"> <li>• B Shares are issued by Chinese companies and commenced trading in 1991</li> <li>• Traded in foreign currencies (U.S. and Hong Kong dollars)</li> </ul>	<ul style="list-style-type: none"> <li>• Generally smaller, less liquid market</li> <li>• Small-sized companies</li> <li>• Relatively narrow investor base</li> </ul>

*(continued)*

Table 30 (Continued)

Type	Exchange Listing	Further Details	Description	Potential Issues
H shares	Hong Kong	p. 153	<ul style="list-style-type: none"> <li>• H Shares are issued by Chinese companies and commenced trading in 1993</li> <li>• Generally intended to help restructure State-Owned Enterprises (SOEs) through debt reduction and higher levels of equity capital</li> </ul>	<ul style="list-style-type: none"> <li>• Companies with traditional management styles</li> <li>• Relatively limited information access and disclosure</li> </ul>
Red chips	Hong Kong	p. 154	<ul style="list-style-type: none"> <li>• Red Chip shares are issued by Chinese companies that are incorporated in Hong Kong and are owned directly or indirectly by the Chinese government</li> </ul>	<ul style="list-style-type: none"> <li>• Relatively small-sized companies</li> <li>• Degree of core business focus</li> </ul>
P chips	Hong Kong	p. 155	<ul style="list-style-type: none"> <li>• P Chip shares are issued by overseas-registered Chinese companies that are run by Chinese nationals and have no affiliation with the Chinese government</li> </ul>	<ul style="list-style-type: none"> <li>• Relatively small market</li> <li>• Relatively limited information access and disclosure</li> </ul>
Other China-related indices	Shanghai, Shenzhen, Hong Kong, United States	pp. 156–157	<ul style="list-style-type: none"> <li>• Indices that track various Chinese shares or U.S.-listed companies with exposure to China that are available to domestic or foreign investors</li> </ul>	<ul style="list-style-type: none"> <li>• Degree of core business focus</li> <li>• Relatively limited information access and disclosure</li> </ul>
ADRs	United States, London	p. 158	<ul style="list-style-type: none"> <li>• American Depositary Receipts based on H shares or other non-U.S. Chinese-related companies</li> <li>• Used by foreign companies to increase liquidity and raise their investor profile</li> </ul>	<ul style="list-style-type: none"> <li>• Limited number of China-based ADRs</li> <li>• May have limited liquidity</li> </ul>
Convertible bonds (primarily traded over-the-counter)	Shanghai, Shenzhen, Hong Kong, and Singapore	p. 159	<ul style="list-style-type: none"> <li>• A corporate bond issued by a Chinese-related company convertible into shares at a predetermined price</li> </ul>	<ul style="list-style-type: none"> <li>• Limited number of China-based convertible bonds</li> </ul>
U.S., European, and Asian Corporations	United States, London, Paris, Tokyo, and Taiwan, among others	p. 160	<ul style="list-style-type: none"> <li>• U.S., European, and Asian corporations with exposure to China, through subsidiaries, partnerships, ventures, or sales channels in China</li> </ul>	<ul style="list-style-type: none"> <li>• Government regulations and degree of exposure to China</li> <li>• Economic conditions in domicile country or region may affect the realized exposure to China</li> </ul>

Source: Morgan Stanley Wealth Management Investment Strategy, Morgan Stanley & Co. Inc. Research.

## Overview of Closed-End Funds with Exposure to Greater China

Closed-end funds with exposure to the greater China region may trade at a premium or at a discount to their NAV.



Investors may also consider a range of open-end funds with exposure to the Greater China region and should consult funds' prospectuses for details.

Investors may consider diversified emerging markets or Asia-Pacific funds as additional possibilities to obtain exposure to China.

Sources of further information about closed-end funds include:

- [www.cefcconnect.com](http://www.cefcconnect.com)
- [www.bloomberg.com](http://www.bloomberg.com)
- [www.finance.yahoo.com](http://www.finance.yahoo.com)

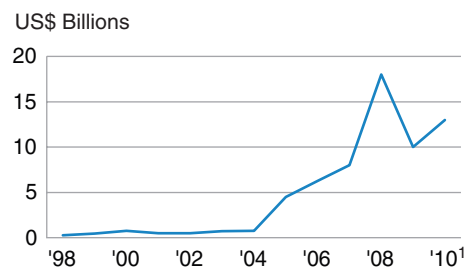
## Overview of Private Equity/Venture Capital in China: From Nascent Beginnings to Burgeoning Present Times

### Private Equity<sup>64</sup>

As of late 2010, there were 167 registered foreign managers of private equity funds in China and 265 domestic ones, up from almost none in 2000, according to Asia Private Equity Research. A typical Chinese private equity investment is a noncontrolling stake of 15 to 40 percent in an operating company, with the money intended as growth capital.

In August 2010, Chinese officials lifted a restriction on registered insurance companies placing money with private equity firms, allowing such entities up to 5 percent of their assets.

From 2005 through late 2010, private equity firms raised more than US\$57 billion for investment in China, but as of late 2010, much of that was thought not to have been deployed, according to Preqin, a research firm (see Figure 66). Table 31 shows internal rates of return.



**Figure 66 Chinese Private Equity Annual Fundraising**

<sup>1</sup>Chinese private equity Annual Fundraising data are as of late 2010.

Source: Center for Asia Private Equity Research.

<sup>64</sup>“Barbarians in Love,” *The Economist*, November 27, 2010.

**Table 31 Chinese Private Equity Internal Rates of Return**

<i>By the Year the Deal Was Struck</i>			
Year	%	Year	%
1998	-5.9	2003	21.3
1999	-8.3	2004	32.6
2000	16.1	2005	31.3
2001	8.2	2006	25.9
2002	8.6	2007	5.2

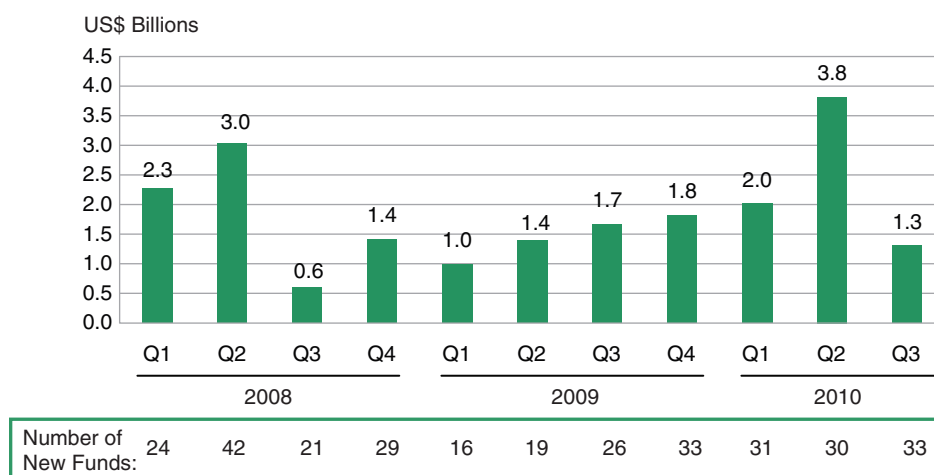
Source: Center for Asia Private Equity Research.

**Venture Capital**

Similar to private equity, venture capital in China has blossomed in the years since 2004 into a robust and growing industry. Chinese and non-Chinese VC firms have been investing capital into early-stage businesses thought to have high growth potential. A significant portion of the funds raised in the 2009 and 2010 years by Chinese and non-Chinese VC firms were denominated in Chinese renminbi (see Figure 67).

Sources of further information about Chinese and non-Chinese private equity firms with exposure to China include:

- [www.pedaily.cn/en/](http://www.pedaily.cn/en/)
- [www.asiape.com](http://www.asiape.com)
- [www.preqing.com](http://www.preqing.com)



**Figure 67 Venture Capital Fundraising in China**

Source: Zero2IPO Group.

## Chinese A Shares<sup>65</sup>

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A shares are issued by Chinese companies and listed on the Shanghai and Shenzhen stock exchanges. A shares are restricted to Chinese investors and qualified institutional foreign investors (see pages 95–96).

The Shanghai Stock Exchange A-Share Stock Price Index is a capitalization-weighted index that includes all A shares listed on the Shanghai Stock Exchange. The index is denominated in yuan and had 876 constituents as of May 2011. The index was inaugurated on February 21, 1992, with a base value of 100 on December 19, 1990.

The Shenzhen Stock Exchange A-Share Stock Price Index is a capitalization-weighted index that includes all A shares listed on the Shenzhen Stock Exchange. The index is denominated in yuan and had 1,205 constituents as of May 2011. The index was inaugurated on October 4, 1991, with a base value of 100 on April 3, 1991.

Sources of further information about A-shares indexes include:

- [www.sse.com](http://www.sse.com)
- [www.szse.com](http://www.szse.com)
- [www.bloomberg.com](http://www.bloomberg.com)

### **MSCI China A Index**

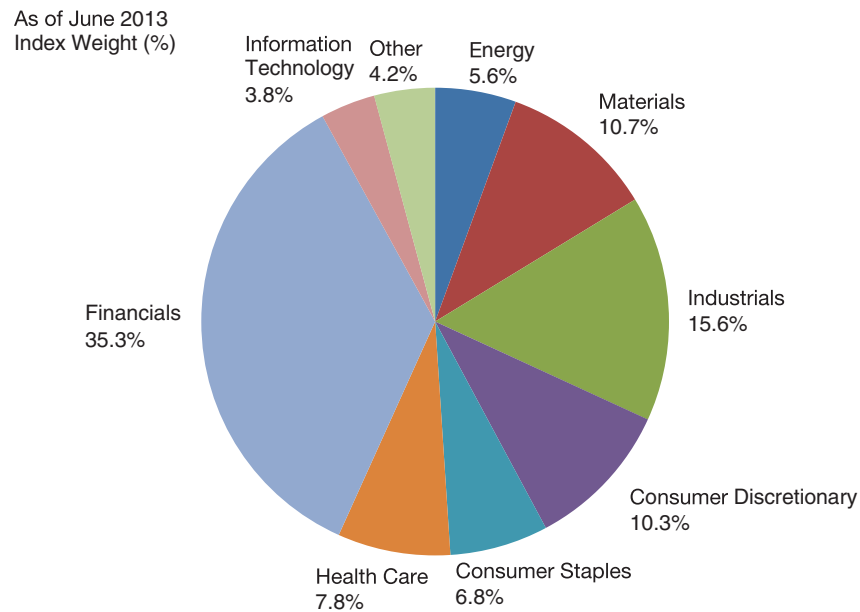
The MSCI China A Index (Figure 68) is a capitalization-weighted index that seeks to represent the A shares listed on the Shanghai and Shenzhen stock exchanges. The index provides Chinese investors with a benchmark of the A-shares stock market. As of May 2011, the index had a market capitalization of US\$948 billion, with 599 constituents.<sup>66</sup>

For further information, please see [www.msci.com](http://www.msci.com).

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<sup>65</sup> Bloomberg, LLC; Shanghai Stock Exchange; Shenzhen Stock Exchange; Asian Equity Research Institute; [www.chinadaily.com](http://www.chinadaily.com). Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. Such risks may include the political and economic uncertainties of foreign countries, as well as the risk of currency fluctuations. These risks may be magnified in emerging market countries, since these countries may have relatively unstable governments and less established markets and economies.

<sup>66</sup> MSCI; FactSet.



**Figure 68 MSCI China A Index—Sector Breakdown**

Sources: MSCI; FactSet.

## Chinese B Shares<sup>67</sup>

B Shares are issued by Chinese companies and listed on the Shanghai and Shenzhen stock exchanges. B shares are available to Chinese investors and foreign investors.

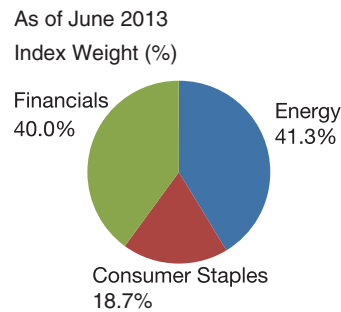
The Shanghai Stock Exchange B-Share Stock Price Index is a capitalization-weighted index that includes all B shares listed on the Shanghai Stock Exchange. The index is denominated in U.S. dollars and had 53 constituents as of May 2011. The index was inaugurated on February 19, 2001, with a base value of 100 on February 21, 1992.

The Shenzhen Stock Exchange B-Share Stock Price Index is a capitalization-weighted index that includes all B shares listed on the Shenzhen Stock Exchange. The index is denominated in Hong Kong dollars and had 53 constituents as of May 2011. The index was inaugurated on October 6, 1992, with a base value of 100 on February 28, 1992. The index has been open to investors since February 19, 2001.

Sources of further information about B-shares indexes include:

- [www.sse.com](http://www.sse.com)
- [www.szse.com](http://www.szse.com)
- [www.bloomberg.com](http://www.bloomberg.com)

<sup>67</sup> See note 65.



**Figure 69 MSCI China B Index—Sector Breakdown**

Sources: MSCI; FactSet.

### MSCI China B Index

The MSCI China B Index (Figure 69) is a capitalization-weighted index that seeks to represent the B shares listed on the Shanghai and Shenzhen stock exchanges. As of May 2011, the index had a market capitalization of US\$8 billion, with four constituents.

For further information, please see [www.msci.com](http://www.msci.com).

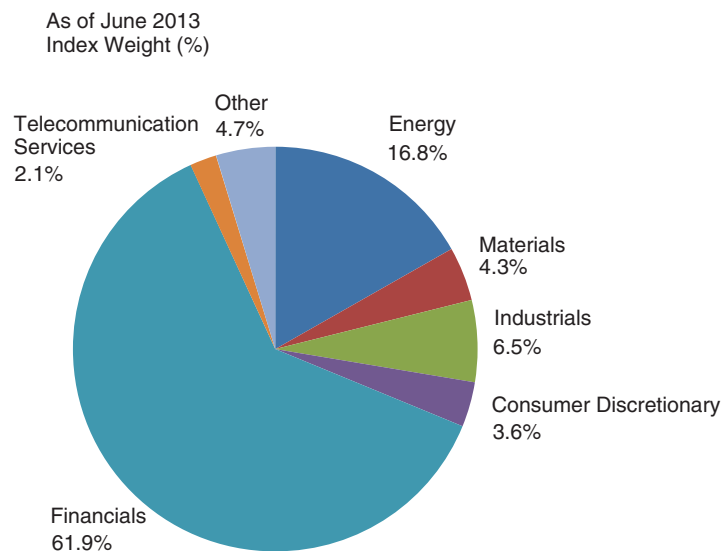
### Chinese H Shares<sup>68</sup>

H shares are issued by Chinese companies that are incorporated in mainland China and listed on the Hong Kong Stock Exchange. H shares represent early-phase efforts by the Chinese government to reform and restructure state-owned enterprises (SOEs) through privatization. H shares are available for investment to foreign investors and qualified domestic institutional investors.

Companies incorporated in mainland China can also issue A shares on the Shanghai and Shenzhen stock exchanges. These A shares are restricted to Chinese investors and qualified foreign institutional investors.

The Hang Seng China Enterprises Index is a free-float capitalization-weighted index that includes all H shares listed on the Hong Kong Stock

<sup>68</sup> Bloomberg, LLC; Hong Kong Stock Exchange; Asian Equity Research Institute. Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. Such risks may include the political and economic uncertainties of foreign countries, as well as the risk of currency fluctuations. These risks may be magnified in emerging market countries, since these countries may have relatively unstable governments and less established markets and economies.



**Figure 70 MSCI China H Index—Sector Breakdown**

Sources: MSCI; FactSet.

Exchange. The index is denominated in Hong Kong dollars and had 40 constituents as of May 2011. The current Hang Seng China Enterprises Index replaced its predecessor on October 3, 2001, with a base value of 100 on January 3, 2000.

- [www.hsi.com](http://www.hsi.com)
- [www.bloomberg.com](http://www.bloomberg.com)

### **MSCI China H Index**

The MSCI China H Index (Figure 70) is a capitalization-weighted index that seeks to represent the H-shares listed on the Hong Kong Stock Exchange. As of May 2011, the index had a market capitalization of US\$390 billion, with 63 constituents.

For further information, please see [www.msci.com](http://www.msci.com).

### **Chinese Red Chip Shares<sup>69</sup>**

Red chip shares are issued by overseas-registered Chinese companies listed on the Hong Kong Stock Exchange that have at least 30 percent of their shareholdings held by state-owned organizations or provincial/municipal governments in China. Red chips are available to foreign investors and qualified domestic institutional investors.

<sup>69</sup> Ibid.

The primary difference between red chips and H shares is that red chips represent Chinese companies incorporated overseas, whereas H shares represent Chinese companies incorporated in mainland China (see page xxx).

The Hang Seng China-Affiliated Corporations (Red Chip) Index is a capitalization-weighted index that includes red chips listed on the Hong Kong Stock Exchange. The index is denominated in Hong Kong dollars and had 25 constituents as of May 2011. The index replaced its predecessor in 2000, with a base value of 2000 on January 3, 2000.

Sources for further information about red chips include:

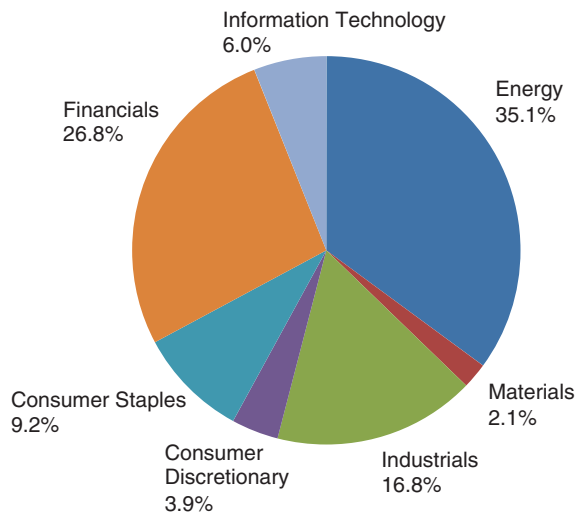
- [www.hsi.com](http://www.hsi.com)
- [www.bloomberg.com](http://www.bloomberg.com)

**MSCI China Red Chip Index<sup>70</sup>**

The MSCI China Red Chip Index (Figure 71) is a capitalization-weighted index that seeks to represent the Red Chips listed on the Hong Kong Stock Exchange. As of May 2011, the index had a market capitalization of US\$171 billion, with 28 constituents.

For further information, please go to [www.msci.com](http://www.msci.com).

As of June 2013  
Index Weight (%)



**Figure 71 MSCI China Red Chip Index—Sector Breakdown**

Sources: MSCI; FactSet.

<sup>70</sup> MSCI; FactSet.

## Chinese P-Chip Shares<sup>71</sup>

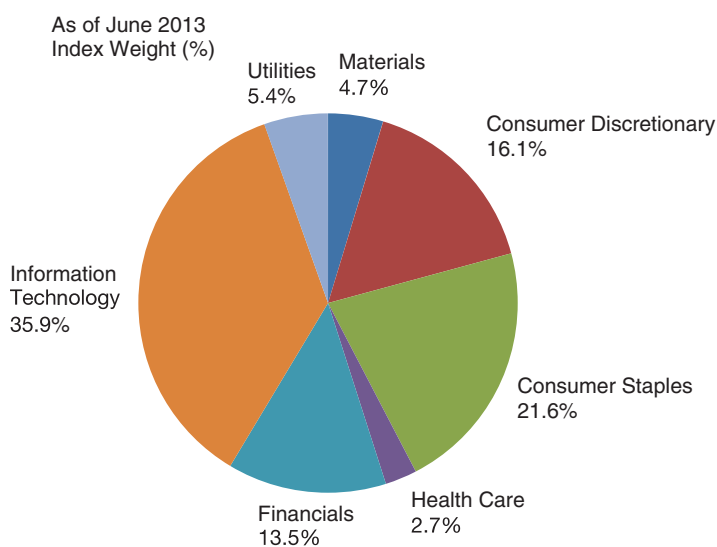
P-chip (private-chip) shares are issued by overseas-registered Chinese companies listed on the Hong Kong Stock Exchange that are privately run by Chinese nationals. As of early 2012, the P-chip market was relatively small, but it had been growing in light of the Chinese governments' efforts to reform the structure and expand the size of its capital markets. P chips are available to foreign investors and qualified domestic institutional investors.

The primary difference between P chips and red chips is that P chips represent Chinese companies that have no affiliations with the Chinese government, whereas red chips represent Chinese companies that are at least 30 percent owned by the Chinese government.

Due to the relatively small size of the market, as of early 2011 the Hong Kong Stock Exchange had not constructed an index to represent P chips.

### MSCI China P Index

The MSCI China P Chip Index (Figure 72) is a capitalization-weighted index that seeks to represent the P chips listed on the Hong Kong Stock Exchange.



**Figure 72 MSCI China P Index—Sector Breakdown**

Sources: MSCI; FactSet.

<sup>71</sup> Ibid.



As of May 2011, the index had a market capitalization of US\$128 billion, with 46 constituents.

For further information, please see [www.msci.com](http://www.msci.com).

## Select China-Related Equity Indexes<sup>72</sup>

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The FTSE Group manages a family of China-FTSE China A50 Index related indexes, including:

- FTSE China 25 Index
- FTSE China A50 Index
- FTSE China A All-Share Index
- FTSE China A 200 Index
- FTSE China A 200 Sector Indexes
- FTSE China A 200 Style Indexes
- FTSE China A Blue-Chip Value 100 Index
- FTSE China A 400 Index
- FTSE China A 600 Index
- FTSE China A Small Cap Index
- FTSE China A Provincial Indexes
- FTSE China A High Yield 150 Index
- FTSE China A Insurance Investment Index
- FTSE China Index
- FTSE Hong Kong Index
- FTSE China H Share Index
- FTSE China B All-Share Index
- FTSE China B 35 Index
- FTSE China Bond Index
- FTSE China A 200 Composite Index

For further information, see [www.ftse.com/Indices/FTSE\\_China\\_Index\\_Series/index.jsp](http://www.ftse.com/Indices/FTSE_China_Index_Series/index.jsp)

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<sup>72</sup>FTSE Group; Bloomberg, LLC. Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. Such risks may include the political and economic uncertainties of foreign countries, as well as the risk of currency fluctuations. These risks may be magnified in emerging market countries, since these countries may have relatively unstable governments and less established markets and economies.

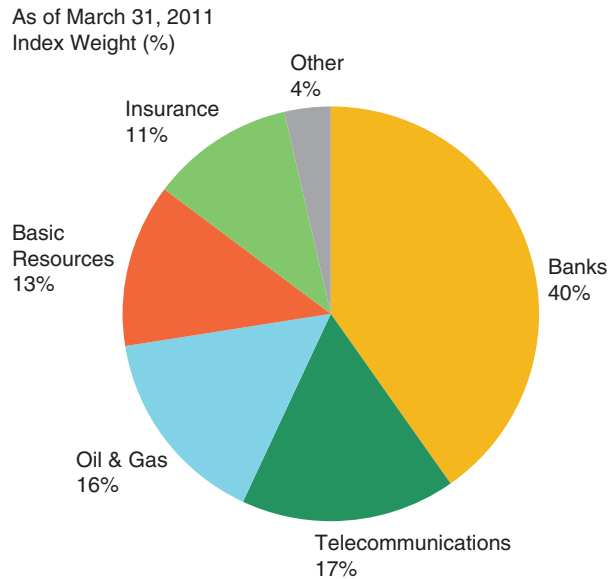


**Figure 73 Price Performance Since Inception through early 2013**

Source: FactSet. Data are as of May 31, 2013.

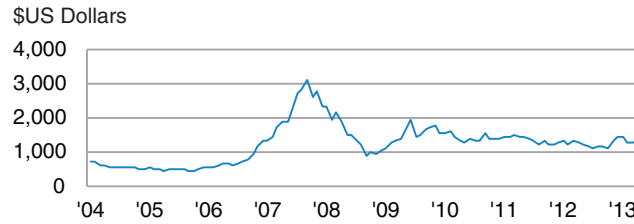
**FTSE China 25 Index**

The FTSE China 25 Index includes the 25 largest and most liquid Chinese companies (red chips or H shares) listed and traded on the Hong Kong Stock Exchange. The index provides foreign investors with a benchmark of the offshore Chinese stock markets and it can be used as a basis for index-linked investment vehicles.



**Figure 74 Sector Breakdown**

Source: FTSE Group. Data are as of March 21, 2011.

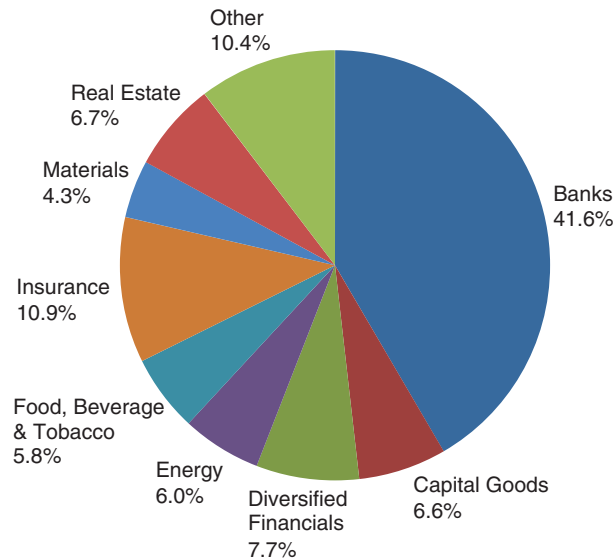


**Figure 75 Price Performance Since Inception through 2013**

Source: Bloomberg, LLC. Data are as of May 31, 2010.

**FTSE China A50 Index**

The FTSE China A50 Index includes the largest 50 A-shares Chinese companies by total market capitalization that are listed and traded on the Shanghai and Shenzhen stock exchanges. The index provides domestic investors and qualified foreign institutional investors with a benchmark of the A-shares market and it can be used as a basis for index-linked investment vehicles. (See Figures 75 and 76.)



**Figure 76 Sector Breakdown**

Source: FTSE Group. Data are as of May 31, 2013.

## Select China-Related Equity Indexes<sup>73</sup>

### Halter USX China Index<sup>74</sup>

The Halter USX China Index (Figure 77) includes companies listed on U.S. exchanges that generate most of their revenues from the People's Republic of China. The index provides a benchmark for companies with exposure to China.

The Halter USX China Index was created by the Halter Financial Group in response to economic trends taking place in China, as well as developments in U.S. capital markets.

For a company to be included in the index, it must have an average market capitalization of more than US\$50 million for the preceding 40 days, must trade on the New York Stock Exchange (NYSE), Nasdaq, or NYSE Arca exchanges, and must derive the majority of its business from China. As of May 2012, the index included 226 U.S.-listed companies with exposure to China.

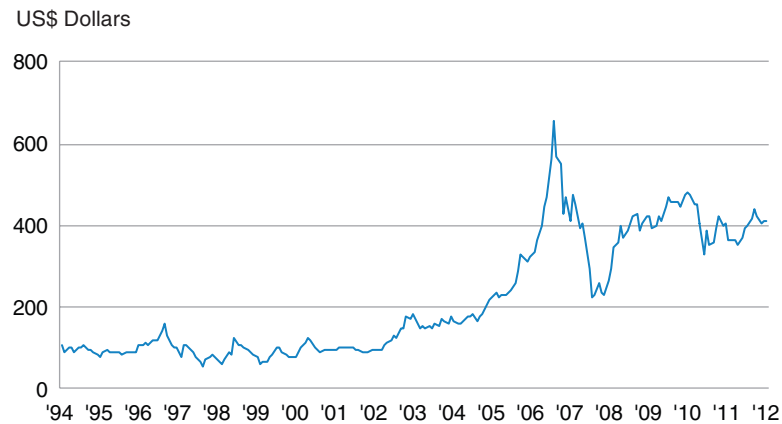


**Figure 77 Price Performance Since Inception through 2010**

Source: Bloomberg, LLC. Data are as of December 31, 2010.

<sup>73</sup> Estimates of future performance are based on assumptions that may not be realized. The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. Such risks may include political and economic uncertainties of foreign countries, as well as the risk of currency fluctuations. These risks may be magnified in emerging market countries, since these countries may have relatively unstable governments and less established markets and economies.

<sup>74</sup> Bloomberg, LLC; [www.usxchinaindex.com](http://www.usxchinaindex.com).



**Figure 78 Price Performance Since Inception through early 2013**

Source: FactSet. Data are as of May 31, 2013.

### **Standard & Poor's China BMI Index<sup>75</sup>**

The Standard & Poor's China BMI Index (Figure 78) includes companies that are publicly traded and domiciled in China, but legally available to foreign investors. The index included 555 companies as of May 2011 and provided foreign investors with an investable universe of publicly traded Chinese companies.

Standard & Poor's also maintains two other broad market indexes with exposure to China: the Standard & Poor's Greater China Ex-Taiwan Listed BMI Index; and the Standard & Poor's China Ex A-B Shares BMI Index. As of May 2011, the indexes had 612 and 380 constituents, respectively.

## **Overview of China ADRs**

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China ADRs represent American depositary receipts based on H shares, red chips, P chips, or other non-U.S. China-related companies.

Several Chinese companies were listed on the NYSE and the Nasdaq, and 15 Chinese companies were listed on the London Stock Exchange as of early 2011.

Sources of further information about China ADRs include:

- [www.bloomberg.com](http://www.bloomberg.com)
- [www.finance.yahoo.com](http://www.finance.yahoo.com)
- [www.factset.com](http://www.factset.com)
- [www.adrbnymellon.com](http://www.adrbnymellon.com)

<sup>75</sup> Bloomberg, LLC.

## Overview of China Convertible Bonds

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China convertible bonds are issued by China-related companies and trade either over-the-counter or on a registered stock exchange.

In terms of monetary amount outstanding, over 55 percent of the Chinese convertible bond market is represented by Chinese financial companies.

Sources of further information about China convertible bonds include:

- [www.bloomberg.com](http://www.bloomberg.com)
- [www.convertbond.com](http://www.convertbond.com)
- [www.finance.yahoo.com](http://www.finance.yahoo.com)

## U.S., European, and Asian Corporations in China<sup>76</sup>

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The Morgan Stanley Research China strategy team believes that China is in the process of a “megatransition” between 2010 and 2020, from being a leading *producer* of globally distributed goods, to the world’s largest *market* for consumer and industrial products. For multinational companies, competitive landscapes in specific industries are therefore likely to become more complex, reflecting powerful secular trends that are driving the megatransition: demographics; urbanization; infrastructure; the development of a social security network; consumer financing; and education (see Figure 79).

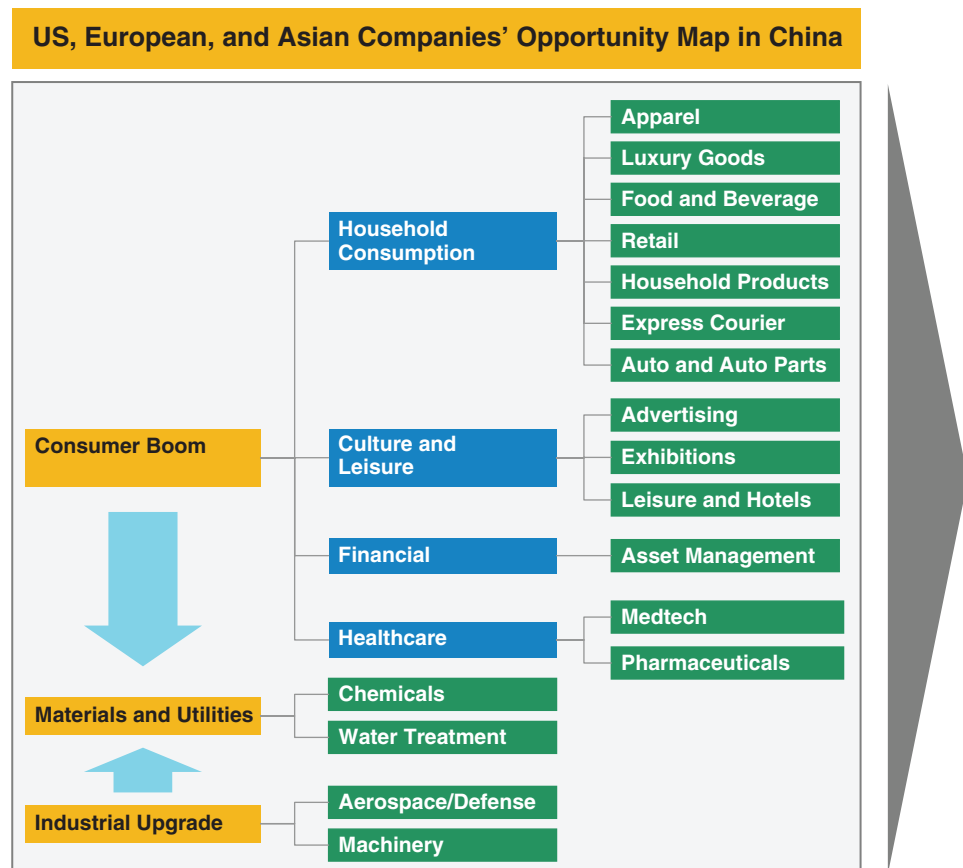
According to the Morgan Stanley Research China strategy team, winning strategies of multinationals in China should feature two elements: (1) a shift to franchise building (establishing brands and distribution/service networks) over revenue generation (maximizing short-term sales); and (2) a preference for integration (making China a second home market) rather than localization (treating China as another foreign market).

### U.S. Companies

The Morgan Stanley Research China strategy team, together with industry analysts from the United States and China for 16 industries, systematically reviewed the landscape of 16 U.S. industries, evaluating companies’ current position, growth strategy, and competitive headwinds. For further information,

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<sup>76</sup>Morgan Stanley & Co. Inc. Research: “The China Files: US Corporates and China’s Megatransition,” September 20, 2010; “The China Files: European Corporates and China’s Megatransition,” October 29, 2010; and “The China Files: Asian Corporates and China’s Megatransition,” November 8, 2010.



**Figure 79 U.S., European, and Asian Companies' Opportunity Map in China**

Sources: Morgan Stanley & Co. Inc. Research: "The China Files: US Corporates and China's Megatransition," September 20, 2010; "The China Files: European Corporates and China's Megatransition," October 29, 2010; and "The China Files: Asian Corporates and China's Megatransition," November 8, 2010.

please refer to the Morgan Stanley Research report, "The China Files: US Corporates and China's Megatransition," published on September 20, 2010.

**European Companies**

The Morgan Stanley Research China strategy team, together with industry analysts from Europe and China, systematically reviewed the landscape of 18 European industries, evaluating companies' current position, growth strategy, and competitive headwinds. For further information, please refer to the Morgan Stanley Research report, "The China Files: European Corporates and China's Megatransition," published on October 29, 2010.

*Asian Companies*

The Morgan Stanley Research China strategy team, together with industry analysts from China and the Asia Pacific region, systematically reviewed the landscape of 14 Asia-Pacific industries, evaluating companies' current position, growth strategy, and competitive headwinds. For further information, please refer to the Morgan Stanley Research report, "The China Files: Asian Corporates and China's Megatransition," published on November 8, 2010.



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# 7

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## Glossary of Indexes

**Note:** The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees, or sales charges, which would lower performance. Past performance is no guarantee of future results.

**Consumer Price Index** The consumer price index is a widely recognized price measure for tracking the price of a market basket of goods and services purchased by individuals. The weights of the components are based on consumer spending patterns.

**Dow Jones Industrial Average** The Dow Jones Industrial Average is a price-weighted average of 30 blue-chip stocks traded on the New York Stock Exchange and the Nasdaq. The index was inaugurated in 1896.

**FTSE China 25 Index** The FTSE China 25 Index includes the 25 largest and most liquid Chinese companies (red chips or H shares) listed and traded on the Hong Kong Stock Exchange.

**FTSE China A50 Index** The FTSE China A50 Index includes the largest 50 A Shares of Chinese companies by total market capitalization that are listed and traded on the Shanghai and Shenzhen stock exchanges.

**Hang Seng China AH Premium Index** The Hang Seng China AH Premium Index tracks the price premium (or discount) of A shares to H shares. The higher the index, the higher the premium of A shares over H shares, and vice versa.

**Hang Seng China-Affiliated Corporations (Red Chip) Index** The Hang Seng China-Affiliated Corporations (Red Chip) Index is a capitalization index

comprised of stocks listed on the Hong Kong Stock Exchange. The companies have at least 30 percent of their shareholdings held by state-owned organizations or provincial/municipal governments in China. The index was inaugurated in 2000.

**Hang Seng China Enterprises (H Shares) Index** The Hang Seng China Enterprises Index is a free-float capitalization-weighted index of H shares listed on the Hong Kong Stock Exchange and included in the Hang Seng Mainland Composite Index. The index was inaugurated in 2001.

**Halter USX China Index** The Halter USX China Index includes companies listed on US exchanges that generate most of their revenues from the People's Republic of China.

**The Nasdaq Composite Index:** The Nasdaq Composite Index is a broad-based capitalization-weighted index of stocks in all three Nasdaq tiers: Global Select, Global Market, and Capital Market. The index contains over 3,000 securities and was inaugurated in 1971.

**Producer Price Index** The producer price index tracks prices received by producers of select products and materials at the first commercial sale. The report measures prices for goods at three stages of production: finished, intermediate, and crude. The index for finished goods generally receives the most attention. Changes in this index represent one of the first aggregate inflation measures available each month.

**MSCI Asia Pacific Ex Japan** The MSCI Asia Pacific Ex Japan Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of Asia, excluding Japan. As of December 31, 2012, the MSCI AC Asia ex Japan Index consisted of the following 10 developed and emerging market country indexes: China, Hong Kong, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand.

**MSCI Australia** The MSCI Australia Index is a capitalization-weighted index that monitors the performance of stocks from the Commonwealth of Australia.

**MSCI China** The MSCI China Index is a capitalization-weighted index designed to represent Chinese B shares, Hong Kong H shares, red chip, and P chip companies that are available to non-Chinese investors. The MSCI China Index is calculated in Hong Kong Dollars.

**MSCI China A Index** The MSCI China A Index is a capitalization-weighted index that seeks to represent the A shares listed on the Shanghai and Shenzhen stock exchanges.

- MSCI China B Index** The MSCI China B Index is a capitalization-weighted index that seeks to represent the B shares listed on the Shanghai and Shenzhen stock exchanges.
- MSCI China H Index** The MSCI China H Index is a capitalization-weighted index that seeks to represent the H shares listed on the Hong Kong Stock Exchange.
- MSCI China P Chip Index** The MSCI China Red Chip Index is a capitalization-weighted index that seeks to represent the P chips listed on the Hong Kong Stock Exchange.
- MSCI China Red Chip Index** The MSCI China Red Chip Index is a capitalization-weighted index that seeks to represent the Red Chips listed on the Hong Kong Stock Exchange.
- MSCI Hong Kong** The MSCI Hong Kong Index is a capitalization-weighted index that monitors the performance of stocks from Hong Kong, the Special Autonomous Region (SAR) of the People's Republic of China.
- MSCI India** The MSCI India Index is a capitalization-weighted index that monitors the performance of stocks from the country of India.
- MSCI Indonesia** The MSCI Indonesia Index is a capitalization-weighted index that monitors the performance of stocks from the country of Indonesia.
- MSCI Korea** The MSCI Korea Index is a capitalization-weighted index that monitors the performance of stocks from the country of Korea.
- MSCI Malaysia** The MSCI Malaysia Index is a capitalization-weighted index that monitors the performance of stocks from the country of Malaysia.
- MSCI New Zealand** The MSCI New Zealand Index is a capitalization-weighted index that monitors the performance of stocks from the country of New Zealand.
- MSCI Philippines** The MSCI Philippines Index is a capitalization-weighted index that monitors the performance of stocks from the country of the Philippines.
- MSCI Singapore** The MSCI Singapore Index is a capitalization-weighted index that monitors the performance of stocks from the country of Singapore.
- MSCI Taiwan** The MSCI Taiwan Index is a capitalization-weighted index that monitors the performance of stocks from the country of Taiwan.
- MSCI Thailand** The MSCI Thailand Index is a capitalization-weighted index that monitors the performance of stocks from the country of Thailand.

**Shanghai A-Share Stock Price Index** The Shanghai A-Share Stock Price Index is a capitalization-weighted index that tracks the daily performance of all A shares listed on the Shanghai Stock Exchange. A shares are restricted to local Chinese investors and qualified institutional foreign investors. The index was inaugurated in 1990.

**Shanghai B-Share Stock Price Index** The Shanghai B-Share Stock Price Index is a capitalization-weighted index that tracks the daily performance of all B shares listed on the Shanghai Stock Exchange. The index was inaugurated in 1990.

**Shanghai Stock Exchange (SE) Composite Index** The Shanghai SE Composite Index is a capitalization-weighted index that tracks the daily performance of all A shares and B shares listed on the Shanghai Stock Exchange. The index was inaugurated in 1990.

**Shenzhen A-Share Stock Price Index** The Shenzhen A-Share Stock Price Index is a capitalization-weighted index that tracks the daily performance of all A-shares listed on the Shenzhen Stock Exchange. A-shares are restricted to local Chinese investors and qualified institutional foreign investors. The index was inaugurated in 1991.

**Shenzhen B-Share Stock Price Index** The Shenzhen B-Share Stock Price Index is a capitalization-weighted index that tracks the daily performance of all B-shares listed on the Shenzhen Stock Exchange. The index was inaugurated in 1992.

**Standard & Poor's 500 Index** The Standard & Poor's 500 Index has served as a widely used gauge of the large-capitalization U.S. equities market since the index was first published in 1957. The index includes 500 leading companies in major sectors of the U.S. economy, capturing 75 percent coverage of U.S. equities.

**Standard & Poor's China BMI Index** The Standard & Poor's China BMI Index is a capitalization-weighted index that defines and measures the investable universe of publicly traded companies that are domiciled in China and legally available to foreign investors.

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