

CHINA AND INDIA-FOUR STORIES ROLLED INTO ONE

The debate about whether Asia will once again dominate the global economy—as it did for two millennia before the industrial revolution in 18th-century Britain and the rise of the US—is over. The 21st century will be the age of Asia's return to economic pre-eminence.¹

—Victor Mallet, *Financial Times*, 2008

The first decade of the twenty-first century will go down as representing a strategic inflection point in the global economic landscape. For the first time in almost two hundred years, it is in this decade that, in terms of gross domestic product (GDP), the emerging economies will catch up with and race ahead of the developed ones—a trend that is likely to get added impetus as a result of the financial crisis presently engulfing many of the world's economies. China and India, the biggest contributors to world economic growth, are the flag bearers of this transformation.

Starkly put, China and India are changing the rules of the global game. They are two of the world's ten largest and the two fastest-growing economies. Thus, they account for the two biggest growth opportunities for almost every product or service, be it candy, cars, or computers. They are two of the world's poorest economies in terms of per capita income. Thus, they offer some of the lowest wage rates for blue- and white-collar work—wage rates that can have a transformational effect on competitive advantage. They are the world's two largest producers of

science and engineering graduates. Thus, they present an opportunity to radically expand a company's intellectual capabilities without a proportionate increase in cost structure. And finally, they are the breeding grounds for a new cohort of ambitious, aggressive, and fast-moving global champions. Thus, they represent a competitive threat to established multinationals that is potentially far more severe than was ever the case from Toyota, Sony, Samsung, or LG.

The central thesis of this book is that any Fortune 1000 company that is not busy figuring out how to leverage the rise of China and India to transform the entire company runs a serious risk of not being around as an independent entity within ten to fifteen years from now. If you doubt the validity of this thesis, just look at how the structure of even the most basic and relatively low-tech industries has changed over the past twenty years. In 1987, Mittal Steel was just a tiny steel producer in Indonesia. Today, as ArcelorMittal, it is the world's steel behemoth, bigger than the next three players combined. In 1987, Cemex was a midsized cement producer in Mexico. Today it is one of the three largest building materials companies in the world. In 1987, South African Breweries was a domestic beer company confined to its homeland due to the antiapartheid sanctions imposed by the rest of the world. Today it is one of the world's three largest beer companies. Look ahead now, and factor in the sheer size and growth rates of China and India, the globalization of capital markets, and the rapid diffusion of technology. There can be little doubt that, over the next ten years, the magnitude and pace of change in every industry will be bigger and faster than over the past twenty.

As the history of most industries tells us, strategic inflection points are particularly dangerous times for incumbent firms. Consider the survival rates of incumbents in the computing industry after the shift from mainframes to minicomputers, from minicomputers to PCs, and from isolated PCs to the Internet. Such turning points require nonlinear transformations in core

beliefs and core business models. A small number of established players—IBM under Lou Gerstner and Sam Palmisano and Apple under Steve Jobs—are able to engineer the needed transformation and come out fitter and stronger. These companies have cultures that thrive on change and are lucky to have leaders with a propensity to look at today from the lens of tomorrow. Most companies, however, deal with strategic inflection points by getting trapped in a vicious cycle. Their leaders look at tomorrow from the lens of today. Thus, they are either blind to the change or see it as a peripheral phenomenon. By the time they wake up, it is too late. Remember the case of Digital Equipment, the world's second largest computer company in the late 1970s. In 1977, Digital's founder and CEO, Ken Olsen, observed, "There is no reason for any individuals to have a computer in their home."² By 1998 Digital Equipment had vanished, acquired by PC maker Compaq.

Given the transformational impact of China and India, the world economy, and thus every industry in it, is at a similar strategic inflection point today. The leaders of every large company must choose, by design or by default, between two clear options: Do we want to be like Nokia, which has vowed to dominate not just every corner of the rich markets such as London and Manhattan but also every corner of the poorest markets such as the villages of Xinjiang province in China and Uttar Pradesh in India? Or do we want to be like Motorola, whose former CEO had declared that one of the linchpins of his strategy to save the company was to deemphasize the "low-margin" emerging markets?³ Do we want to be like Accenture, which decided to grab the tiger by the tail and embarked on the growth of its India-based global delivery capabilities from five hundred people in 2002 to over thirty-five thousand people in 2007? Or do we want to be like BearingPoint whose former CEO stated publicly in 2005 that "we do not plan to engage in [a] rapid expansion" of the company's delivery capabilities in China and India?⁴ If you belong in the first category of leaders, we invite you to read on. If you doubt our

central thesis, we wish you the best of luck and hope that we will have the opportunity to compare notes in 2020.

The goal of this book is to provide business leaders with a strategic road map for capturing the growth, efficiency, talent, and innovation opportunities offered by China and India. We discuss how a company can leverage its global capabilities to discover, create, and win the market opportunities there. We examine how a company can leverage the talent and innovation opportunities from within these two countries to transform itself globally. And we look at how a company can effectively battle with the emerging dragons and tigers from these new epicenters of the world economy.

In this first chapter, we begin the journey by looking at the factors that are driving the reemergence of China and India, outlining the four game-changing realities that define the strategic importance of today's China and today's India, uncovering the challenges that make it extremely hard for many companies to deal with the new global reality, and laying out the tasks that await business leaders who want to drive the change rather than be blindsided over the next ten years.

Back to the Future: The Reemergence of China and India

The starting point for understanding the rise of China and India is to look at this phenomenon as a case of renaissance, of rebirth. Other than economic historians, few people know that for much of the past two thousand years, China and India were the two largest and, by the standards of those times, among the most scientifically and technologically advanced societies in the world.⁵ China invented paper, gunpowder, and the compass, among other things. In turn, India brought to the world abstract mathematical concepts such as the number zero, negative numbers, decimals, and fractions. As recently as 1820, China and India together accounted for almost 50 percent of the world's

Table 1.1 China and India: A Look Back (Percentage of World GDP)

	<i>United States plus Other Western Offshoots</i>	<i>Europe</i>	<i>China</i>	<i>India</i>
1000	0.7%	13.4%	22.7%	28.9%
1500	0.5	23.9	25.0	24.5
1700	0.2	29.7	22.3	24.4
1820	1.9	32.3	32.9	16.0
1913	21.7	46.6	8.9	7.6
1950	30.6	39.3	4.5	4.2

Source: A. Maddison, *The World Economy: Historical Statistics* (Paris: OECD, 2003).

GDP (see Table 1.1). Barely a hundred years later, the tables had turned: by the early twentieth century, China and India added up to only about 15 percent of the world's GDP. By 1950, the giants had become pygmies, accounting for less than 10 percent of the world economy, even after adjusting for purchasing power parity.

What happened? The industrial revolution of the nineteenth century that made first Europe and then America rich passed China and India by. When the British became India's *de facto* rulers in the late eighteenth century, India's per capita income was roughly the same as Britain's. However, given a significantly bigger population, India's was a much larger economy. Unfortunately for India, the British had the benefit of good timing. India's emperor was weak, and the country was politically divided. This created an opportune time for a smart foreign ruler who knew how to colonize India and use its resources to fuel its own industrial development. China's was a somewhat similar story of internal fractions, a weak emperor, and control by foreign powers. The First Opium War of 1840 pitted China, whose emperor had recently issued an edict banning the addictive drug, against Britain, which wanted to continue its opium trade. China lost and was forced to cede Hong Kong to Britain

and sovereignty over various other occupied “concessions” to foreign powers, including the United States, France, Russia, Germany, and Japan.

What is happening now in both China and India is the delayed industrial and technological revolution. Technology and capital move much faster now than they did two centuries ago. Thus, it is not surprising that economic growth that took one hundred years to make Europe and America rich may now take only twenty to thirty years. The evidence regarding the much faster pace of economic growth induced by the current wave of industrial and technological revolution is already in. In the nineteenth century, it took Germany, Britain, and America fifty years of industrial revolution to double their per capita incomes. China and India are now doing so in around ten.

Table 1.2 provides data on the size of the world’s twelve largest economies as of 2005–2006 and their growth rates since 1990. Several observations are in order. First, the ranks of the twelve largest economies include four emerging countries: Brazil, Russia, India, and China (or, as Goldman Sachs famously coined them, BRIC for short). Second, economic growth in the BRIC countries vastly outpaces that in the rich countries. This is why most analysts predict that the BRIC economies will rapidly start overtaking the developed ones in the next twenty years.⁶ Third, even among the BRIC countries, China and India are not just the two largest but also by far the two fastest-growing economies. Thus, they are likely to move up the ranks at a faster pace than other countries. Fourth, the population size of China and India is several times larger than that of any other country. As a result, their growth will have a much greater impact on the world economy than was the case with the rise of Japan or could be with the rise of Russia and Brazil.

Because of rising costs, it is very hard for a country to keep delivering rapid economic growth once its per capita income achieves parity with that of the other rich countries. Since Japan’s population is about 40 percent that of the United States,

Table 1.2 World's Twelve Largest Economies by GDP

Country	2005 GDP (\$ billions)	GDP Growth Rate (%)			2005 Population (millions)	2005 GDP/ Capita (\$)
		1990–2000	2000–2005	2005–2006		
United States	\$12,417	3.5%	2.6%	3.3%	296	\$41,530
Japan	4,534	1.1	1.4	2.2	128	35,420
Germany	2,795	1.8	0.7	2.8	82	34,090
China	2,234	10.6	9.6	10.7	1305	1,700
United Kingdom	2,199	2.7	2.4	2.8	60	36,650
France	2,127	1.9	1.5	2.0	61	34,870
Italy	1,763	1.5	0.6	1.9	57	29,830
Spain	1,125	2.7	3.1	3.9	43	25,570
Canada	1,114	3.1	2.5	2.8	32	33,760
India	806	6.0	7.0	9.2	1095	726
Brazil	796	2.9	2.2	3.7	186	4,260
Russia	764	–4.7	6.2	6.7	143	5,380

Source: World Bank, *World Development Indicators 2007* (Washington, D.C.: World Bank, 2007).

its economy had to peak at a size well below that of the United States. Short of unimaginably catastrophic mismanagement of the U.S. economy, there is almost no way that Japan's economy could become the largest in the world. Consequently, as Japan grew, it joined the rich people's club but did not transform the world's economic structure. In contrast, China's per capita income has to reach only about one-quarter that of the United States for its economy to become the world's largest. Even then, China will still have a few more decades of rapid growth in front of it. Similar arguments apply to the case of India. To sum up, unlike Japan, both China and India will almost certainly overtake the U.S. economy and, in the process, fundamentally transform the world's economic structure.

Tables 1.3 and 1.4 provide projections regarding the structure of the world economy over the next forty years. These projections are based on generally conservative assumptions. Recent growth rates in all four BRIC countries have been faster than the original projections. Considering also the robustness of the underlying econometric models, we regard these

**Table 1.3 Projected World Economic Structure
(Percentage of World GDP)**

	2004	2025	2050
United States	28%	27%	26%
European Union	34	25	15
Japan	12	7	4
China	4	15	28
India	2	5	17
Other countries	20	21	10

Note: During 2005, 2006, and 2007, the Chinese and Indian economies grew at a much faster rate than predicted. This acceleration has led most observers to make upward revisions in the projected size of these two economies in 2025 and 2050.

Source: "Reshaping the World Economy," *BusinessWeek*, Aug. 22, 2005.

Table 1.4 Rise of the BRIC Economies: When Each BRIC Country's GDP Is Projected to Exceed That of the G6

	<i>Italy</i>	<i>France and the United Kingdom</i>	<i>Germany</i>	<i>Japan</i>	<i>United States</i>
China	2004	2005	2008	2013 ^a	2035 ^a
India	2012 ^a	2015 ^a	2020 ^a	2025 ^a	2040–2045 ^a
Russia	2020 ^a	2030 ^a	2035–2040 ^a		
Brazil	2025–2030 ^a	2035 ^a	2040 ^a		

Sources: D. Wilson and R. Purushothaman, "Dreaming with BRICs: The Path to 2050," Goldman Sachs Global Economics Paper No. 99, Oct. 2003; T. Poddar and Eva Yi, "India's Rising Growth Potential," Goldman Sachs Global Economics Paper No. 152, Jan. 2007.

^aThese are approximate years.

long-term projections as credible. To abstract from and summarize these projections, we can think of the world economy in 2050 as consisting of four major economic blocks—China, India, the United States, and the European Union—each accounting for about 15 to 25 percent of world GDP, with all other countries accounting for the remaining 15 to 25 percent. The decision makers in China and India are well aware of these projections. As they look at the history of the past two thousand years and the fact that the delayed industrial and technological revolution is propelling current growth, they believe firmly that the rise of their countries is inevitable and that it is their destiny to be superpowers again.

Four Stories Rolled into One

China and India pack a particularly powerful punch because each of these two countries represents four stories rolled into one, all playing out simultaneously:

1. *Megamarkets*. As fast-growing megamarkets, they provide some of the largest growth opportunities for every product or service.

2. *Cost-efficiency platforms*. As countries with some of the lowest wage rates, they have the potential to dramatically reduce a company's global cost structure.
3. *Innovation platforms*. As the producers of the largest annual pools of scientists and engineers in the world, they can enable a quantum leap in a company's technological and innovation capabilities.
4. *Launching pads for new global competitors*. As the home base of large, rapidly growing, and very capable companies that are eager to play on the global stage, they are becoming the springboards for the emergence of a new breed of fearsome global competitors.

Many countries feature one or two of these stories, but other than China and India, none features all four. Each one of these stories would have compelling strategic implications for almost any large company. The fact that China and India feature all four simultaneously makes these two countries central to the future of most companies.

Rapidly Growing Megamarkets

Within any country, the size of the market for any particular product or service (shampoo, clothing, fast food, cars, tractors, computers, mobile phones—you name it) depends on a number of factors: population size, buying power, demographics, cultural norms and habits, geography, stage of economic development, and others. Consider two of the most important factors: population size and buying power. Between them, China and India currently account for 40 percent of the world's population, about 10 percent of the world's GDP, and about 20 percent of the growth in the world's GDP. As these numbers suggest, China and India already account for between 10 to 40 percent of the global demand for most products and services. Furthermore, in

line with GDP growth rates, demand is growing at an annual rate of about 10 percent in real terms. Factor in currency appreciation, and these numbers translate into even higher growth rates in U.S. dollar terms. Given the long-term economic projections set out in Tables 1.3 and 1.4, there is good reason to anticipate that by 2040 to 2050, China and India together may account for 40 percent of the world's market for almost every product or service.

Consider these illustrative examples of the large market that China and India currently represent:

- In 2007, China's car market became the second largest in the world. Between 2015 and 2020, it is likely to become the world's largest. At that time, India's car market is likely to be the third largest after China and the United States. According to Goldman Sachs, the total number of cars on the roads in China and India could rise from 30 million in 2005 to 750 million by 2040.⁷
- In 2007, China and India were, respectively, the first and second largest markets for Nokia Corporation. At the end of 2007, the estimated number of mobile subscribers was over 500 million in China and over 200 million in India. Each country was still adding over 6 million new subscribers every month.
- Wal-Mart executives have noted that China and, over a longer term, India, may be the only countries where they can build a revenue base as large as that in the United States.
- Between 2007 and 2020, airlines in China and India are projected to be the two largest buyers of commercial airplanes from Boeing and Airbus.
- In China, total investment banking revenues from activities related to equity and debt markets, mergers and acquisitions, and loans grew from \$328 million in 2003 to \$1.6 billion

in 2006 and \$2.2 billion in 2007. The figures for India were \$146 million in 2003, \$685 million in 2006, and \$1 billion in 2007.⁸

- India is currently the primary battleground for Hewlett-Packard, Dell, and Lenovo in their fight for global dominance in the PC industry. H-P and Dell have commanding market shares in Europe and the United States, and Lenovo has a commanding market share in China. India represents a rapidly growing open field. Whichever of these companies establishes a dominant position within India will be able to leverage scale in two or three of the world's megamarkets to achieve global dominance.
- According to analysis by McKinsey & Company, even after discounting for delays and discontinued projects, India is likely to see an investment of about \$750 billion in infrastructure between 2007 and 2015. The implications for companies such as Caterpillar, GE, ABB, and Jacobs Engineering that provide equipment, financing, and services for infrastructure are enormous. By way of example, McKinsey predicts that the size of the Indian market for earth-moving and construction equipment alone will grow over fivefold, from \$2.3 billion in 2007 to \$12 billion to \$13 billion by 2015.⁹ These are large numbers and will make a material difference to the growth rates, and hence stock prices, of whichever companies have the capabilities to capture these market opportunities. GE earned \$1 billion in revenues from India in 2006 and appears well on its way to achieve a targeted \$8 billion in revenue by 2010, only four years later.

Given the current and potential market size of China and India, it should be clear that a suboptimal China and India strategy is no longer a matter of merely leaving some money on the table. Any medium to large company that does not develop

well-thought-out strategies to capture the growth opportunities in China and India could face severe threats to its very existence in a relatively short period of time. If you are not leveraging the market opportunities that China and India represent, rest assured that somebody else is. That somebody could be your well-known archrival. It is equally likely, however, that that somebody could be a new home-grown competitor from within China or India that will be able to scale up rapidly and build economic and organizational muscle to either annihilate or acquire your company.

Platforms for Global Cost Reduction

The potential of China and India to serve as platforms for cost reduction is perhaps the best known of the four compelling stories. What is less well known, however, is that with each passing year, the need to leverage China and India as cost-efficiency platforms is changing from a discretionary option into a strategic imperative. We start first with some comparative data on blue- and white-collar wages.

Table 1.5 compares the average hourly compensation (including benefits) for production workers in China, India, and several other countries. As these and other data indicate, although some countries (for example, Indonesia, Vietnam, and Bangladesh) have an even lower cost base, China and India continue to provide some of the lowest labor costs in the world. Our own field interviews during mid-2007 confirm that even in relatively high-cost locations within each country (such as the Suzhou Industrial Park near Shanghai and the province of Haryana near New Delhi), the total cost of blue-collar workers runs at about a dollar an hour in China and India. Labor costs in the countryside are even lower. In comparison, hourly labor costs exceed three dollars in Brazil, four dollars in Hungary, eighteen dollars in the United Kingdom, and over twenty dollars in both Japan and the United States. In short, the cost of

Table 1.5 Labor Cost Comparisons (Average Hourly Compensation Including Benefits for Production Workers)

	2003	2009 (Projected)
Indonesia	\$0.30	\$0.70
China	0.80	1.27
India	1.12	1.68
Russia	1.50	2.38
Mexico	2.45	3.28
Poland	2.70	3.83
Brazil	2.75	3.90
Hungary	3.53	5.30
South Korea	9.99	13.01
United Kingdom	17.87	20.14
Japan	20.68	22.61
United States	21.86	25.34
Germany	30.60	34.46

Sources: Economist Intelligence Unit, Euromonitor, U.S. Department of Labor, and Boston Consulting Group.

production workers in China and India remains a tiny fraction of that in the developed countries. It is also considerably less than the figure in even many of the emerging economies of Central Europe and Latin America.

Large cost differences between China and India on one side and the developed economies on the other exist also in white-collar jobs. In mid-2007, the total annual compensation (including benefits) for software engineers just out of college in India was about five thousand dollars, and the national average for all software professionals was around fifteen thousand dollars.¹⁰ Compensation levels in China were only slightly higher. In mid-2007, a fresh engineer with an offer to join a manufacturing company in Shanghai could expect to receive about three thousand renminbi per month plus benefits, or a total annual compensation (including benefits) of about six to seven thousand

dollars. To sum up, despite significant salary jumps in recent years as well as currency appreciation in both the yuan and the rupee, the cost of engineering talent in China and India remains at around 10 to 15 percent of that in the developed countries.

Given these large cost differences, delays in tapping China and India as cost-efficiency platforms are becoming increasingly risky. Both of these countries are wide open to foreign direct investment. Thus, if you are not tapping the cost base of China and India, the likelihood is high that your archrival is. You can also take it as a given that one or more low-cost competitors from within these two countries is busy planning an attack in your established markets. If you do not have a competitive cost structure, you will face a two-pronged challenge: lower profit margins as well as a lower market share. As your volumes shrink, the loss of scale economies will worsen your cost position. The resulting downward spiral will mean reduced cash flows, a weakening of stock price, and an inevitable change in management. The new CEO will have little choice other than an accelerated but belated push of the cost base to China or India, or both. In the worst-case scenario, your company will become a sitting duck for your savvier and more proactive competitors.

Accenture and Black & Decker provide excellent examples of companies that saw the potential writing on the wall and took steps to tap India and China for radical cost reduction. We discuss each of these cases in turn.

Accenture is one of the world's largest management consulting, technology services, and outsourcing companies. Table 1.6 compares key financial statistics for Accenture and Electronic Data Systems, two of the largest U.S.-based consulting and information technology (IT) services companies, with those for Infosys and Wipro Technologies, two of their largest India-based competitors.

As the data in Table 1.6 indicate, there is a vast gulf in the profit margins of the two Western multinationals versus their Indian counterparts. As much younger companies, Infosys and

Table 1.6 Comparative Financial Data on Selected Consulting and IT Services Companies

<i>Company (Ticker Symbol)</i>	<i>Headquarters</i>	<i>Revenues^a (billions)</i>	<i>Profit Margins (%)^a</i>	<i>Net Income^a (billions)</i>	<i>Market Capitalization^b (billions)</i>
Accenture (ACN)	United States	\$22.4	5.99%	\$1.34	\$21.7
Electronic Data Systems (EDS)	United States	22.0	3.38	0.76	11.2
Infosys Technologies (INFY)	India	3.6	27.82	1.01	25.4
Wipro Technologies (WIT)	India	4.4	18.18	0.79	21.8

Source: www.finance.yahoo.com.

^aTrailing twelve months as of Dec. 24, 2007.

^bMarket capitalization as of Dec. 24, 2007.

Wipro have significantly smaller revenues than Accenture and EDS. Yet they have significantly higher profit margins, roughly similar net income figures, and larger stock market capitalizations. These figures also indicate that should they choose to do so, the Indian companies have considerable economic power to acquire one or more of the established multinationals such as Capgemini, BearingPoint, or Computer Sciences Corporation, all of them smaller than Accenture and EDS. Clearly the global IT services industry is in the middle of a structural change.

Accenture was one of the early movers in recognizing this shift. Its leaders moved to increase the size of its India-based delivery capabilities from fewer than five hundred people in 2002 to more than thirty-five thousand in 2007—over 20 percent of the company's entire global staff. Even a first-cut analysis indicates that the impact of this strategic move has been enormous. Assuming a cost difference of at least \$30,000 per employee between the United States and India, if Accenture

were to hire all of these people in the United States or Western Europe, its cost structure would be higher by more than \$1 billion, an unsustainable amount. In short, without the buildup in India, Accenture would be either a much less profitable or a much slower-growing company. Either of these scenarios would have had serious repercussions for the viability of the company (and its executive leadership).

Consider now the case of Black & Decker. With 2006 revenues of \$6.4 billion, it is the largest U.S.-based company in power tools, home improvement products, and fastening systems. The bulk of the company's sales take place through major retail chains such as Home Depot and Lowe's, which exercise considerable economic power over their suppliers. The exercise of such power is both direct (demands for price reductions) and indirect (sales of their own private label brands that compete directly with the suppliers' brands). Black & Decker's major competitors are Makita from Japan, Bosch from Germany, and Techtronic Industries (TTI) from Hong Kong. TTI, a relatively recent entrant, appears to be the most unsettling of these competitors. With the bulk of its manufacturing operations based in China, TTI has one of the industry's lowest cost structures. It also is a rapidly growing player, whose 2006 revenues of \$2.8 billion were more than double the figure for 2002. In recent years, TTI has been on a major spree to acquire well-recognized brands as well as cultivate marketing alliances; its products are now sold under its own as well as private label brands such as Milwaukee, Ryobi, Ridgid, and AEG. With a low-cost base on the one hand and well-recognized brands on the other, TTI appears to have a strong potential to change the global structure of the power tools industry over the next five to ten years. Black & Decker has taken notice and shifted large proportions of its own manufacturing operations to China. In a relatively mature industry where large retail chains exercise huge power, it is hard to imagine how Black & Decker could continue to remain a viable player without this major shift in cost base to China.

Platforms for Innovation

The third compelling story that China and India represent pertains to their potential to dramatically boost a company's global technology and innovation base. This potential is rooted in two opportunities. The first opportunity pertains to the large, well-trained, and low-cost pool of scientific and engineering talent within China and India that is eager for challenge, career advancement, and more and better creature comforts. Leveraging this talent pool can dramatically extend the R&D capabilities of most companies. The second opportunity pertains to the innovation demanded by the unique needs of the Chinese and Indian markets such as low buying power, energy and raw material scarcity, environmental degradation, large populations, and high population densities. Designing new products, services, and even entire business models to cater to these unique needs can yield innovations that can serve as cutting-edge sources of competitive advantage not just in other emerging economies but also back home in the developed economies.

Consider first the pool of available scientific and engineering talent within China and India. In 2005, the estimated number of people who received master's and Ph.D. degrees in engineering, technology, and computer science was about sixty thousand for the United States, about seventy-five thousand for China, and about sixty thousand for India.¹¹ Furthermore, over 50 percent of the Ph.D. degrees in engineering awarded in the United States were earned by foreign nationals. Among these, students from China and India constituted the dominant foreign groups, and a significant proportion of these chose to return to their home countries. In short, the pool of available research and development talent in China and India is among the largest in the world, growing rapidly, and with a relatively low cost. A company that can tap into this talent effectively and efficiently can boost the productivity of its R&D expenditures by several multiples. GE's John F. Welch Technology Centre in Bangalore and

Microsoft's research center in Beijing (Microsoft Research Asia) illustrate the potential of China and India to extend the intellectual capabilities of even the largest companies on the planet.

Inaugurated in Bangalore in September 2000, the John F. Welch Technology Centre has already become the largest of GE's four global research centers (the other locations are upstate New York, Shanghai, and Munich). Each of these multidisciplinary centers reports to the head of GE Research and works on corporatewide technology initiatives. With a staff of over three thousand scientists, 60 percent with master's and Ph.D. degrees, the Bangalore center is not merely the largest research center within GE but also one of the largest research centers of any company worldwide. The reason this center exists has little to do with cost. The real value lies in the fact that it can hire large numbers of highly trained people in arcane subspecialties (such as computational fluid dynamics), something that would be nearly impossible in almost any other country. The net result is a significant expansion in the size and capabilities of GE's research staff and thus a significant boost to the company's ability to differentiate its products and services and avoid having to compete on prices. As a global research center, most of the projects that Bangalore-based teams work on address business needs not just in India but also for GE worldwide. Some of the recent examples include a major part of the design work for GE engines that power Boeing's Dreamliner aircraft, a redesign of washing machines for the U.S. market so that they may use only one-third to one-half the amount of water without any reduction in cleaning effectiveness, and design of the locomotive for China's recently launched high-altitude rail service in Tibet. Given its central role and despite its short history, the John F. Welch Centre is already the source for over 10 percent of all patents filed by GE Global Research with the U.S. Patent and Trademark Office.

Microsoft Research Asia (MSRA), founded in Beijing in 1998, is Microsoft's largest research center outside its corporate

headquarters in Redmond, Washington. It has an ideal location—within Beijing's ZhongGuanCun Science Park and near two of the best universities in China (Peking University and Tsinghua University). As Dr. Yong Rui, head of strategy for the center, commented to us in a mid-2007 interview, "If you throw a stone here, chances are pretty high that you'll hit a Ph.D." With a staff of over three hundred researchers and engineers (some of the best and brightest in China), MSRA has emerged as Microsoft's global center of excellence for a number of technology programs critical to the company's future. Illustrative examples include the development of a next-generation user interface that would allow users to interact with computers using speech, gestures, and expressions; next-generation multimedia technologies; and next-generation Web search and data mining technologies. MSRA has already emerged as one of the largest China-based filers of patents with the U.S. Patent and Trademark Office. In 2004, MIT's *Technology Review* named the Beijing center as one of the world's hottest computer labs and noted that it was "a key part of Microsoft's effort to ensure its global future through research."¹²

Consider now the potential for innovation offered by a company's decision to invent new products, services, and business models to serve the unique needs of Chinese and Indian markets. Given low per capita incomes, the vast majority of the inhabitants in China and India cannot afford to buy cars that cost twenty thousand dollars, PCs that cost a thousand dollars, or cell phone services that cost ten cents a minute. This is true not just in business-to-consumer (B2C) contexts but also in many business-to-business (B2B) contexts. The market for hospital equipment such as CT scanners and MRI machines provides an example. Yes, a growing number of well-financed hospitals in the major cities can afford to buy the same equipment as can be found at hospitals such as Massachusetts General or Johns Hopkins. However, think about the potential market that can be unleashed if companies such as GE and Siemens could develop imaging machines that are high caliber in terms

of core functionality, cost a fraction of their existing high-end models, but may lack many of the sophisticated yet nonessential features.

Low buying power is only one feature of what makes the Chinese and Indian markets unique. Consider also the scarcity of water, shortage of space, dependence on energy imports, and ongoing environmental degradation. In an integrated global economy (and the fact that we live on a small planet), these are challenges not just for China and India but for the entire world. These challenges are also economic opportunities. As we noted, China and India possess vast and relatively low-cost scientific and engineering capabilities. Companies that can leverage these resources (on top of the existing global R&D network and historical stock of technical knowledge) to address the unique needs of China and India have the potential to emerge as the globally dominant players of tomorrow.

Jeffrey Immelt, GE's CEO, has termed this new perspective on globalization as "in country, for the world." As he elaborates, "[Look at] water. There's a shortage everywhere, even in places like California and Florida. Some systems we're working on in the Middle East, India, and China are trying to do water desalination at \$0.001 per milliliter, which is an off-the-charts low cost. We'll never hit that in the U.S. But we'll hit it someplace outside. And the second we do, a huge market is going to open up inside as well."¹³

Springboards for the Emergence of Fearsome New Competitors

The fourth compelling story that China and India represent pertains to their role as breeding grounds for fearsome new competitors. Unlike the emergence of global players such as Toyota, Sony, Samsung, and Hyundai from Japan and South Korea between 1970 and 2000, the more recent emergence of global champions from China and India is taking place at a

much faster and more fearsome pace. Virtually all Japanese and Korean giants grew organically. In contrast, the globalization of Indian and Chinese companies already shows signs of being much more acquisitions driven. Capital markets, both public and private, are significantly more global today than they were two decades ago. Thus, globalizing companies from China and India can access equity and debt capital from global capital markets much more freely and easily than was possible twenty years ago. Also, Chinese and Indian companies now have easy access to global investment banks as well as global consulting firms, most of them with well-staffed offices in both countries. Finally, the large size of Chinese and Indian economies means that many domestic companies from these two countries are able to accumulate global scale before venturing abroad.

Illustrative examples of emerging global champions from China across a diverse set of industries include Huawei Technologies, Lenovo, Haier Group, and Chery Automobile.

- Huawei is China's leading telecommunications equipment company and perhaps the toughest long-term competitor to Cisco Systems. It reported 2007 sales of \$16 billion, a 45 percent growth over 2006. Huawei derived over 60 percent and a growing proportion of these revenues from customers outside China in developing as well as developed economies.
- Lenovo is China's leading company in personal computers. Its 2005 acquisition of IBM Corporation's PC business made it the third largest PC company in the world behind Hewlett-Packard and Dell. Lenovo's official global headquarters is in North Carolina, its American CEO (William Amelio) lives in and works out of Singapore, and its chief marketing officer (Deepak Advani) is an Indian-American.
- Haier Group is China's leading home appliance manufacturer with a growing manufacturing and market presence

and market share in the United States, Europe, India, and other countries. In 2005, Haier made an aborted acquisition attempt to buy the U.S.-based Maytag Corporation. With revenues exceeding \$14 billion in 2006, Haier was the fourth largest white goods manufacturer in the world. In 2008, after GE announced its intention to sell or spin off the home appliance business, Haier had emerged as one of the keenest potential bidders.

- Chery Automobile is China's fourth largest domestic auto company, and the most ambitious and global of them all. It was founded in 1997. By 2007, it had already produced and sold over 1 million cars. Chery's 2007 sales of 380,000 cars represented an increase of 25 percent over the previous year. Exports accounted for over 30 percent of the company's unit sales. In 2007, Chery announced a global strategic alliance with Chrysler Corporation to manufacture small cars that would be sold by Chrysler under the Dodge brand.

Illustrative examples of emerging global champions from India across a diverse set of industries include Infosys, Tata Steel, Bharat Forge, and Suzlon:

- Infosys is one of India's home-grown giants in information technology. Founded in 1981, Infosys became a Nasdaq-listed company in 1999. By the end of 2007, it had a market capitalization of over \$25 billion and twelve-month trailing revenues of \$3.6 billion, and it was growing at over 40 percent per year. In mid-2007, rumors circulated that Infosys had considered a bid for France-headquartered Capgemini, a company three times bigger in terms of revenues but with a market capitalization of only \$10 billion.
- Founded in 1907, Tata Steel is Asia's first and India's largest private sector steel company. Tata Steel was widely regarded as one of the world's lowest cost steel producers.

In early 2007, Tata Steel acquired the Anglo-Dutch steel giant Corus for \$11 billion, a company three times its size. After this acquisition, Tata Steel became the sixth largest steel company in the world.

- Bharat Forge was India's leading and one of the world's largest manufacturers of forgings, such as parts for engines, axles, and similar automotive subsystems. Its revenues for fiscal 2006–2007 exceeded \$1 billion, representing a 38 percent growth over the previous year. Bharat Forge operated across Europe, North America, and Asia. Between 2003 and 2007, it acquired two companies in Germany, one in Sweden and one in the United States. Bharat Forge also held a majority stake in a Changchun-based joint venture with First Auto Works, one of China's biggest car companies.
- Founded in 1995, Suzlon Energy was the world's fifth largest (and Asia's and India's leading) manufacturer of wind turbines. Suzlon's 2006–2007 revenues were \$2 billion, representing a 100 percent growth over the previous year. In mid-2007, Suzlon acquired Germany's REpower Systems at a price exceeding 1.3 billion euros.

The rapid growth and global ambitions of the emerging dragons and tigers from China and India significantly escalate the urgency with which established multinationals must begin to consider the rise of these two countries as game-changing rather than peripheral developments. In 2000, there were very few companies from China and India in the ranks of the world's top 500 companies by sales revenue. By 2008, this number had grown to 36. Could it be that, by 2020, over 150 of the world's 500 largest companies will be based in China and India? Not unlikely. If we are even partially correct in our projections, it will be a very different world. Yet the vast majority of today's business leaders appear to be unprepared for the challenges (and the opportunities) that lie ahead.

Challenges for Multinationals

Adapting to changes in the external environment is always an ordeal for incumbent organizations. It becomes particularly challenging when the external changes are not just nonlinear but also occurring at a rapid pace. This is the case with the rise of China and India. While the challenges are both external and internal, the latter can be particularly damaging to a company's future prospects. External challenges impinge on all players in the industry. However, a company's ability (or lack of it) to deal with internal challenges is what determines whether it will exploit these changes and thrive or be buried by them. We discuss first the external and then the internal challenges.

External Challenges

We discuss below some of the major strategic challenges (as distinct from operational ones such as widespread corruption) that China and India pose for multinational companies.

Vast and Diverse Societies. Some of the common strategic challenges that cut across both China and India pertain to the vastness, the diversity, the internal complexity, and the multilayered political structure in each country. Each country is large not just in terms of population but also geographically. China's surface area is as large as that of the United States. India's is smaller but still larger than that of the European Monetary Union. In short, both China and India could be viewed as continents rather than just countries. As a direct result, both countries also feature very high levels of internal diversity along multiple dimensions: economic wealth, language, culture, and, particularly in the case of India, religion. This vastness and diversity make it especially hard for managers from other countries to develop a good understanding of these countries without a significant commitment of time and effort, including on-the-ground immersion.

Take internal disparity in wealth. China and India have some of the highest levels of income inequalities in the world, a situation that is worsening over time. According to estimates by *Forbes* magazine, in early 2008, forty-two Chinese citizens had a net worth exceeding \$1 billion. Many of our Chinese informers believe that the actual number of billionaires in China is much larger. The number of billionaires in India was estimated to be fifty-three, also among the world's top five. It is sad but true that China and India boasted not just these very large levels of personal wealth but also two of the largest numbers of the really poor people in the world. China's Gini coefficient (a measure of income inequality within the country) rose from .41 in 1993 to .47 in 2004. The figures for India were .33 in 1993 and .36 in 2004.¹⁴ This vast disparity in wealth means that the behavior of consumers in Shanghai or Mumbai tells us little about the behavior of hundreds of millions of other Chinese and Indians who live in poorer towns and villages and yet whose combined buying power is very large and growing rapidly.

Consider language and cultural diversity. Even if we leave aside minority languages (such as Tibetan, Mongolian, Miao, and Tai), China's languages include many vastly different dialects (such as Mandarin and Cantonese). In India, linguistic diversity is even greater, with twenty-two officially recognized national languages. Relative to the United States or Europe, China and India also feature greater cultural and religious diversity. Given the ongoing liberalization of religious practice within the country, China has a rapidly growing number of Buddhists, and the estimated number of Chinese Muslims is greater than 20 million. India has an estimated 140 million Muslims, followed by a sizable minority of Christians, Sikhs, Buddhists, Jains, and followers of other faiths. The strategic implication of this multidimensional diversity is that developing a single homogeneous strategy for China or India will rarely be optimal or even barely satisfactory.

Politically too, China and India represent a complex structure. Of course, given India's democratic system, it is all too

common that the central government may be composed of uneasy alliances between coalition partners and that the ruling parties in various states may be different from that (or those) at the center. However, even in seemingly monolithic China, political power is distributed widely—across various ministries at the center that do not always see eye to eye, and across the provinces, counties, and cities, where the governing premise for centuries has been that “the mountains are high and the emperor is far away.” Thus, in both China and India, a company may find that an agreement with one arm or one level of government does not necessarily mean that it will not run afoul of some other branch or level of government.

Rapid Pace of Change. Aside from the fact that China and India are very different from the developed countries as well as vast and diverse, another factor that makes it difficult for managers to understand them well is that they are changing rapidly. Thus, as with the Internet, yesterday’s knowledge may well be obsolete today. As an illustrative example, consider the importance of foreign direct investment (FDI) to China’s future growth. In 2005, China received \$79 billion in FDI, the highest of any country in the world. Yet if you consider that China has accumulated foreign exchange reserves of over \$1.5 trillion and domestic savings of over \$2 trillion, it is obvious that there is no longer any shortage of capital within China. Thus, corporate strategies that assume that the Chinese government still places high importance on FDI may well be based on obsolete knowledge.

Given their recent emergence as major economic powers, governments in both China and India are still trying to figure out the best policies for economic growth, social harmony, protecting the environment, protecting the country’s national sovereignty, as well as the nature and extent of their country’s integration with the rest of the world. Also, given rapid development, many of the policies run a high likelihood of change

within short time spans. This may happen either because of a change in the ruling party (as in the case of India) or leaders (as in the case of China) or because the objective circumstances today are vastly different from those of five years ago.

More Global and More Demanding Capital Markets. Given the ability of most investors to move capital with the click of a button, capital markets have globalized more rapidly and to a much greater extent than the markets for any other commodity, including products, services, technology, and labor. Thus, we now have a growing disconnect between where a company's products and services are produced, where its employees are located, and where its shareholders may sit. For historical reasons and because its corporate headquarters is located in Helsinki, we may think of Nokia as a Finnish company. Yet it is not unlikely that on any given day, the bulk of its shares may be owned by investors from other countries. Assuming that these investors are rational, we should expect that they will care about only one outcome, the return on their investment, and will allocate capital to where it can yield the highest gains. Not surprisingly, the average tenure of corporate CEOs has declined steadily over the past ten years. There is no reason for us to expect that shareholders will become less demanding over the next ten.

In such a context, leaders of existing multinationals do not have the luxury of time. Given the vastly greater growth rates as well as appreciating currencies in both India and China, the economic clout of companies based in these two countries is rising rapidly. The reverse is true of many established multinationals in the developed countries.

Other Unique Difficulties. Aside from common strategic challenges that bedevil both China and India, each country also offers its unique difficulties. In China, some of the most important challenges pertain to the entrenched dominance of

state-owned enterprises in many sectors of the economy, growing economic nationalism, media that are expected to serve national policy rather than be objective or neutral and a legal system that is still being developed after its decimation during the Cultural Revolution. In India, some of the unique challenges pertain to a still quite poor infrastructure, bureaucratic red tape, and potential for unexpected opposition from local politicians, nongovernmental organizations, and local media that may be sympathetic to the latter.

Internal Challenges

In developing robust strategies for China and India, many established companies face not just external challenges but also internal challenges rooted in cognitive insularity, legacy mindsets, and, on occasion, just plain hubris. We describe each of these in turn.

Cognitive Insularity. The legendary Jack Welch, GE's former CEO, has long lamented the cognitive insularity of many CEOs of large companies. Instead of exposing themselves directly to the ground-level reality on the shop floor, in the labs, and in the marketplace, they spend far too much time in the comforts of their offices and home towns. The net result is that they rule their companies through filtered reports and abstract numbers. Isolated from direct observation, they render themselves incapable of making decisions that are guided not just by numbers but also by gut-level judgment. In short, they become bureaucrats who can keep the current business running rather than what they should be: entrepreneurs who seek new opportunities and in the process transform the company.

In a world that is becoming increasingly multipolar at a rapid pace, cognitive insularity can be dangerous. We do not suggest that most CEOs do not read the daily newspapers and thus are somehow unaware of the rise of China and India. However, we do believe that most CEOs and their direct reports have

little more than superficial knowledge of the magnitude, pace, and nature of change occurring in the global economy. There is a difference between superficial awareness and comprehensive up-to-date knowledge. It is differences such as these that explain why the former CEO of BearingPoint, the IT services company, decided to set up global delivery centers in India and China but then went on to conclude that there was no urgent need to scale up these capabilities. They also explain why the former CEO of Motorola viewed the low-margin emerging markets as lower-priority markets for the company.

Unfortunately, cognitive insularity appears to be a widespread problem not confined to just some isolated cases. A recent article in *Economist* aptly titled “All Mouth and No Trousers” reported the results of a survey by the Boston Consulting Group.¹⁵ According to the BCG study of several large Western firms, even though an estimated 34 percent of the potential market for these firms was in Asia, this region accounted for only 14 percent of sales, 7 percent of employees, 5 percent of assets, 3 percent of R&D, and only 2 percent of the top two hundred executives.

Legacy Mindsets. It is an interesting and oft-repeated story that Harry Warner, the founder of Warner Bros., the Hollywood studio, remarked in 1927: “Who the hell wants to hear actors talk.” We find this story interesting not because it portrays Warner as irrational but because it shows him as very rational yet trapped into a legacy mindset. In the heyday of silent films, actors needed to look good. Whether they had good voices was irrelevant. Not surprisingly, most of them had terrible voices. Given this reality, Warner was indeed right in wondering why anybody would want to hear actors talk. However, what he overlooked was that a new business model might emerge whereby actors would be hired not just for their looks but also for their voices.

In the context of today’s global reality, we find that many CEOs are similarly trapped in legacy mindsets. Consider the

case of a U.S.-based power tools company. This company has two highly successful brands in Western markets, a lower-priced brand (call it Alpha) targeted at do-it-yourself consumers and a higher-priced brand (call it Beta) targeted at professionals such as plumbers, electricians, and carpenters. Although this company has a large offshore manufacturing base in China, its sales and market share within China itself are minuscule—despite the fact that during 2007, urban construction in China exceeded that in the rest of the world combined. Our discussions with some of the current and former executives of this company lead us to believe that they may be trapped in a legacy mindset. Given low labor costs, there is not much of a do-it-yourself market in China. Thus, there is no market for Alpha. Moreover, Chinese plumbers, electricians, and carpenters cannot afford the price that the company charges for its higher-end brand. Hence, there is no market for Beta. In short, the conclusion has been that China does not offer much of a market opportunity for the company's products and brands!

Given the starkly different realities of the markets in China and India, companies need to stop thinking of themselves as portfolios of legacy products, legacy services, legacy brands, or legacy business models. Instead, they need to think of themselves as portfolios of capabilities that can be deployed to create new products, new services, new brands, and even new business models which target the mega-opportunities that China and India offer. If the power tools company discussed above were to think in these terms, it might see that China offers a major market opportunity to introduce a new third brand (call it Gamma). The products and services under this new brand might encompass newly designed and much cheaper professional tools tailored for the smaller pocketbooks and smaller hands of China's professionals.

Hubris. *Hubris* refers to exaggerated self-pride. Given the vast gulf in the per capita buying power of the ordinary consumer in China or India (and the substandard infrastructure that exists

in much of India), it is easy for senior executives from developed countries to get caught up in surface-level appearances and to look down on the capabilities (and ego) of potential customers, business partners, suppliers, or even employees in China or India. Consider, for example, the comments of Chrysler's CEO in 2000 after a visit to India, "Call me when you've built some roads."¹⁶ As we noted earlier, the probability is very high that barely fifteen years later, by 2015, India may be the third largest car market in the world after China and the United States.

Instead of hubris, what leaders need is a clear understanding of the new challenges as well as the new opportunities. Yes, in per capita terms, China and India are still very poor economies and will be so even in 2050. At the same time, this poverty, when combined with steely ambition, the world's largest pools of scientists and engineers, and access to global capital markets, makes China and India hotbeds for some of the world's cutting edge innovations. The perspective of Carlos Tavares, chief product strategist and the number two executive at Nissan Motor Co. behind CEO Carlos Ghosn, stands in stark contrast to that of Chrysler's former CEO. Although there have been reports of some internal resistance, Tavares is pushing ahead determinedly to make India one of the company's global small car hubs. As he notes, "Any time you need to achieve a cost breakthrough, people will tell you that it's not possible."¹⁷

The Task Ahead

The rest of the book is devoted to the action implications of the tectonic shifts discussed in this chapter. Each of the six chapters that follow focuses on one important action domain.

Think China and India, Not China or India

In Chapter Two, we start from the notion that it is a waste of time and energy to debate whether a company should focus on

China or India. Any company that downplays the importance of either country is courting trouble. There are at least four reasons that we argue strongly in favor of an integrated China+India mindset. First, although China is ahead of India by about ten to fifteen years, each of these two economies is well on its way to becoming one of the world's four or five largest markets for virtually every product or service. Thus, overlooking either market implies forgoing many of the important benefits associated with larger scale: cost efficiencies, market power, and revenue growth. Second, while Chinese and Indian economies will exhibit a remarkable degree of convergence over the next twenty years, in the short to medium term, they offer complementary strengths (China in manufacturing and India in services) that a smart global company can profitably exploit. Third, notwithstanding important differences, China and India also have massive similarities. An integrated China+India strategy allows the multinational corporation to transfer learning from China to India and from India to China, thereby accelerating the pace of the company's success in both markets. Fourth, an integrated China+India strategy enables the global enterprise to reduce political, economic, and intellectual property risks associated with operating in just China or just India.

Megamarkets and Microcustomers: Fighting for Local Market Dominance

In Chapter Three, we examine how a company should position itself to capture the hearts, minds, and wallets of customers in China and India. We argue that unless a company operates in niche products and services, it should go wide and deep, pursuing a multisegment strategy. At the top end of the income spectrum, customers have high buying power and are likely to prefer global products and services. Thus, companies are unlikely to face much pressure for local adaptation of their products and services except for cultural reasons. The middle income segment

constitutes the mass market. For most products and services, this is also the fastest-growing market in each country and can be ignored only at great peril to the company's future. This segment is often characterized by brutal competition, low pricing power, and low margins. In order to win here, a company will generally need to develop local products and services that are designed to be low cost. At the lower end of the income spectrum, a company is unlikely to generate much revenue. However, given high growth rates, this is the segment with the greatest possibilities for innovation. Every smart company should engage with this segment seriously, aim to break even, and view it as a learning laboratory for the discovery of new business models.

Leveraging China and India for Global Advantage

Chapter Four deals with the outbound part of the China-India story: how a company can use China and India as global platforms. We focus on three opportunities: cost arbitrage, intellectual arbitrage, and business model innovation. Realizing these opportunities requires a company to work on many fronts: managing internal politics; conducting a disaggregated value chain analysis to decide exactly which activities should be located in China, which in India, and which in other countries; deciding whether to set up the company's own operations or rely on outsourcing; building the necessary local capabilities; and then deploying the local capabilities globally without losing control of the value chain.

Competing with Dragons and Tigers on the World Stage

Chapter Five examines in detail the forces that are propelling the rapid emergence of global champions from China and India. We also compare the relative strengths and weaknesses of the Chinese and Indian globalizers vis-à-vis each other. Building on this analysis, we advance a multipronged strategy for current multinationals

to not only defend themselves but also compete with these dragons and tigers on the world stage. First, a company should attack the new champions within their home markets by taking the battle for markets within China and India seriously. Second, it should neutralize the new champions' supply-side advantage by also tapping fully into the cost efficiency and innovation opportunities offered by China and India. Third, a company should pursue an integrated China+India strategy. A company from outside China and India will often find it easier to pursue an integrated multi-country strategy than would be the case with emerging players from within either of these two countries.

Winning the War for Talent: Dealing with Scarcity in the Midst of Plenty

Chapter Six looks at the human resource challenges that companies must overcome in their quest to win within China and India and to leverage the strengths of these two countries for global advantage. Notwithstanding their billion-plus populations and the world's two largest pools of college graduates every year, China and India suffer from an acute shortage of professional staff, such as seasoned managers and people with specialized skills (accountants in China and software developers in India, for example). As such, most companies, foreign and domestic, find themselves engaged in a perpetual war for talent.

In an environment such as this, you have no choice but to be market competitive in terms of compensation. However, you do have the ability to increase the odds that the turnover of professional staff in your company would be around 5 percent rather than 50 percent. This depends directly on your firm's ability to build proprietary competitive advantages in the local labor market. How might you build such competitive advantages?

- *Invest in building a visible and positive profile in the local media and on local campuses.* A stronger corporate brand breeds

pride in and loyalty to your company. Some related issues to think about are: How often does the corporate CEO visit China and India? How often are he or she and the local country manager interviewed by the local media? How often do local managers visit targeted local campuses, give talks, and serve as guest professors?

- *Offer career opportunities in the company's global network outside the employee's home country.* This is one area where the multinational firm may have a distinct advantage over many domestic companies.
- *Invest in building an emotional bond between employees and your company.* In general, the family plays a bigger role in China, India, and other Asian countries than in the West. Do you, for example, send congratulatory notes to the employee's spouse (or parents) for a job well done? Do you invest in family get-togethers and other social events that foster pride in your company and the transformation of your work units into social communities?

In addition, smart companies increasingly recruit from colleges in not just the tier 1 (the largest and most developed) cities but also tier 2 and even tier 3 cities, where salaries are cheaper and turnover lower. However, ensuring that staff hired in tier 2 and 3 cities and campuses would be as productive as those hired in tier 1 locations requires investment in the establishment of local in-company training centers (or corporate universities).

Global Enterprise 2020

In the final chapter, we pull together the conclusions from our analysis and outline what the features of a global enterprise must be if it is to emerge as one of the winners ten years from now. We argue that the magnitude and pace of change, as well as the multifaceted nature of the new reality, demand that senior

leaders rethink some of their central assumptions in crafting global strategy, rethink what must be the drivers and processes to create innovations over the next ten years, rethink how the company must be organized and managed, and above all strive with full vigor to globalize the corporate mindset.

The successful global corporation of tomorrow will be one that figures out how to take advantage of three realities: the rapid growth of emerging markets and the increasing multipolarity of the world economy; enduring cultural, political, and economic differences across countries and regions; and the rapidly growing integration of national economies. Organizationally it will be managed as a globally integrated enterprise rather than as a federation of regional or national fiefdoms. And it will be led by business leaders who have global mindsets and are masters at building bridges rather than moats.

