



Map of India



THE LARGEST MARKET THE WORLD HAS EVER SEEN



Bombay Stock Exchange

So far as I am able to judge, nothing has been left undone, either by man or nature, to make India the most extraordinary country that the sun visits on his rounds. Nothing seems to have been forgotten, nothing overlooked.

Mark Twain

The world's largest truck manufacturer, the largest manufacturer of motorcycles in the world, the country with the most FDA-approved drug companies outside the United States, the largest number of Fortune 500 R&D centers outside the United States, the third-largest stock exchange in the world in terms of volume (Figure 1.1), the second-largest producer of sugarcane (got ethanol?), the largest producer of milk and fruits, the third-largest producer of cotton, and that's just the beginning. Here are a few more statistics to overwhelm you, before it's all put in context:

India is home to the world's fifth-largest coal reserves and the third-largest bauxite reserves. It is the fourth-largest steel producer in the world, the sixth-largest aluminum producer, and the third-largest manufacturer of CDs and DVDs. Indians purchase six million cell phones per month. There are 40 million Internet users, projected to grow to 200 million by 2015. The middle class comprises more than 60 million people today and is expected to exceed 583 million people by 2025. Seven hundred million Indians own property and 100 million households have bank accounts today. Eighty million Indians hold secondary degrees and India is home to the largest number of engineering graduates in the world.

Now for the context. India is a complex and growing country and is on its way to becoming a world economic power. Despite the accomplishments listed here, most Indian business leaders and many of the more progressive politicians are painfully aware of the fact that India has a long way to go before the country can become what they would like it to be. The country is in a transition period between "Old India" and "New India." You can never be sure which you will find.

There is a common perception that India has a lopsided economy built on information technology and business process outsourcing, but that is changing rapidly as national and multinational firms scramble to meet the demands of a rapidly growing middle class. The rapid expansion of India's manufacturing base is, in turn, creating millions of skilled and semiskilled jobs for a very young working-age population.

FIRST IMPRESSIONS CAN BE MISLEADING

When I first visited the country—in late 2001—my first impressions were mixed, starting from the moment my American doctor prescribed antimalaria medications for my trip. "You're kidding!" I responded, when I read the prescription. "No," he replied, "I am not. Malaria is widespread on the Indian subcontinent. By the way, you're going to need a series of vaccinations." Now I was beginning to get a bit nervous. Wasn't I traveling to the fourth-largest economy in the world, home to some of the leading outsourcing and technology firms? Wasn't Bangalore supposed to be like Silicon Valley? This was beginning to sound more like a safari, with mosquito netting and a rifle for tigers.

I arrived in New Delhi after spending what seemed like an eternity on a flight out of Chicago. The New Delhi airport was nondescript and long overdue for a major renovation. There seemed to be an islandlike attitude among the security staff and airport personnel that

gave me the feeling that I was somewhere in the Bahamas. I finally located my car—only to find my driver fast asleep behind the steering wheel. It took me several minutes to revive him. After navigating out of the parking lot—which required numerous parked cars to be physically pushed out of the way, we made it to the highway. There I enjoyed a forty-minute ride down potholed streets while my driver played chicken with motorized scooters and the occasional cow.

The next morning I was standing at a crowded intersection in the heart of the city when I noticed a pack of monkeys moving steadily toward me. These weren't the cute little spider monkeys that your kids would giggle at while spending a relaxed Sunday at the local zoo. These were more like baboons; in fact, it seemed to be a gang of ill-tempered baboons, and they were coming my way. I looked around to see if anything else was amiss but my fellow pedestrians seemed uninterested. Later, as I headed back to the safety of my hotel, I found myself repeating over and over, "fourth-largest economy in the world, fourth-largest economy in the world." That was 7 years ago.

By now, a local court has ordered the monkeys to leave the city—although it is still unclear if they will comply. When you fly into New Delhi you will still not be impressed by the airport; it is a mess. But by 2010 the airport will have been completely renovated, boasting a passenger capacity that will rival Chicago-O'Hare, with futuristic terminals that would make any architect proud. This is the New India, partly here, partly under construction.

AN ECONOMIC TOUR THROUGH INDIA

It is often said that the only thing Indians have in common is their national currency, the rupee, and their geographic borders, stretching approximately 2,500 miles from north to south and about the same distance from east to west (Figure 1.2). There are 28 states, four major ethnic groups, 16 official languages, hundreds of local

dialects, and every religion known to man—calling the country complex would be an understatement. But if you had the luxury of time and money you might be able to get a more complete picture by taking a journey through each of India's states. We've done that in this section, giving you a high-altitude statistical survey of each state and major city in the country. You may want to skim over this section unless you're interested in a particular region or state, but a quick look at some of the numbers will give you a sense of the key roles that agriculture, manufacturing, IT, and tourism play in the Indian economy. The main theme of this chapter—why we think India is developing the world's largest market, and why it will eventually be larger than the China market, follows this economic tour.

Jammu and Kashmir

Our economic tour of India starts in the far north of the country, in the state of Jammu and Kashmir, home to the awe-inspiring Himalayan mountain range, which includes Mt. Everest and other 7,000-meter peaks. This mountain range stands like a sentinel on India's northern border, providing climatic influences and an abundant supply of fresh water for the country. India's northern neighbors, Pakistan, Afghanistan, Tajikistan, and China also border this region, an area that resembles the Colorado Rockies. Muslims account for 80 percent of the state's population, with significant minorities coming from the Hindu, Buddhist, and Sikh religions. The economy depends on farming, animal husbandry, and a nascent manufacturing and transportation sector. Kashmir is problematic in that it is a contested area between India and Pakistan and has been the victim of several border wars. A few years back many analysts believed that Kashmir would be the scene of the world's first nuclear conflict. Tensions have eased between the two countries in recent years, but the fate of Kashmir is yet to be decided, and until a final agreement is reached between Pakistan and India it will remain a sensitive issue.

Northern India in many ways resembles the delta region of the Mississippi River valley, with a vast river system traversing the region, and like the delta it is rich in agriculture, known to many as the "Granary of India," producing 60 percent of India's wheat and 40 percent of its rice. The problem is that between 30 to 40 percent of all of India's produce is lost in the supply chain as a result of spoilage, loss, and so on. For those of you looking into the future, this differential represents a big economic opportunity. An interesting side note is the fact that India has a total arable land area of 162 million hectares—25 percent more arable land than China. Now can you imagine what will happen when India gets its supply-chain act together? Exports of every type of agricultural product will explode. Over time, this is going to translate into a real advantage.

Reliance Industries, India's top conglomerate, is already working on the problem of 30 to 40 percent spoilage in India's produce supply chain. The company has recently launched a new retail chain called Reliance Fresh supermarket stores. Recognizing the inefficiencies in the produce supply chain, Reliance decided to create a retail operation that cuts out the middleman. By negotiating long-term contracts directly with farmers and modernizing the supply chain with refrigerated warehouses, trucks, bar coding, and other supply-chain management tools, the company will be able to provide fresh produce and other farm products to India's rapidly growing middle class at prices up to 30 percent lower than traditional markets. Averaging between 2,500 to 4,000 square feet in size, the air-conditioned Reliance Fresh stores are a radical departure from the mom-and-pop outlets or open-air stalls that currently represent the bulk of India's retail outlets. Reliance plans to expand its supermarket chain to 70 cities within the next 24 months, with over 4,000 stores in more than 1,500 cities planned by 2012. And, the company expects to hire and train 500,000 people during the same period. That's significant, considering the fact that India's retail sector, currently dominated by over 15 million mom-and-pop stores,

is currently valued at over \$200 billion per year and growing at an annual rate of more than 25 percent.

Punjab and Uttar Pradesh

The north of India is also home to the states of Punjab and Uttar Pradesh (UP), two centers of cultural, religious, and economic power. The Himalayan foothills to the north of Punjab help define the state and the people that live there, with many of the famed Gurkha soldiers of the British army having been recruited from this area. The Gurkhas, tough characters by any standard, have most recently been deployed in Iraq. This area also has a lot of potatoes; Frito-Lay, a subsidiary of PepsiCo, recognized that fact and built a processing plant here in 1996. They entered into the first long-term contract agreements with local farmers, an approach that is being replicated by Wal-Mart as well as it moves into India's retail arena. As you continue to travel through this region you cannot help but notice, as evidenced by ancient landmarks, that at 5,000 years old Punjab and Uttar Pradesh is also the oldest living civilization. Known to many as the Indus Valley and the birthplace of Buddhism, it is a good place to relax after you have completed your first few business deals in India.

The towns of Kullu, Manali, McLeod Ganj, and Dharamsal have become famous tourist destinations because of the influence of Tibetan exiles in setting up monasteries, temples, and schools following their relocation from Tibet in the mid-1960s. Consequently, its thriving hospitality industry and the class of hoteliers are responsible for this region having one of the highest per capita rates in the nation, a fact not overlooked by leading hotel chains like The Four Seasons and Hilton. Currently, India has an estimated shortfall of over 200,000 hotel rooms, and hotel operators like Starwood, Four Seasons, Sheraton, Hillwood, Accor, Trump, and Marriott are all rapidly developing new properties. The lack of hotel accommodations

will become painfully clear to you when you try to book your reservations. Getting a room is hard enough—and the rates you will pay will make New York City look like a bargain!

Not surprisingly, this region is also India's wealthiest, with the majority of its revenue generated from wheat, fruits, vegetables, and sugarcane. India is the second-largest producer of sugarcane in the world, and that's important, considering the fact that sugarcane is the ideal crop for the production of ethanol, a vital element of the struggle against global warming. That point has not been overlooked by the GMR Corporation, which has built two state-of-the-art ethanol production facilities here. These two plants have a combined annual production capacity of 16 million gallons of ethanol, and the company has plans to build three more plants of similar size over the next 2 years. With its current sugarcane production levels, India will have the ability to produce over 350,000 barrels of ethanol per day, a staggering number when you consider that the United States only produces 194,000 barrels of ethanol a day. India's proximity to Japan will also create a very attractive export market opportunity for ethanol as Japan moves aggressively to implement the Kyoto Protocol.

The first important city to consider is Ludhiana, which serves as the industrial hub of Punjab and which had a total export market that surpassed US\$120 million in 2006. With continued GDP and trade growth, Ludhiana's exports are expected to climb to over US\$500 million by 2012. India is the largest producer of motorcycles in the world, and this region is the headquarters of the country's leading motorcycle companies—Avon Bicycles, Hero cycles, and Eastman Industries. It is also the home to over 6,000 textile companies—an industry that had been shackled by poor economic policies of the past but is now poised to become a global competitor. When you consider the fact that India has a middle class that exceeds 60 million and a large, very young population that is highly fashion conscious, you begin to get a sense of the size of that country's fashion apparel market!

This area is also considered to have the best infrastructure in India, with an extensive network of roads, rail, air, and river transportation. Good infrastructure is still a rarity in India, but that is rapidly changing, as an estimated US\$60 billion dollars a year (US\$180 billion dollars in local terms) of annual investments are being invested to modernize the infrastructure.

Haryana

A little further to the south is the state of Haryana, close to the capital city of New Delhi. It is an agrarian state that has developed a rapidly growing economy. Like its parent, Punjab, Haryana grows significant amounts of wheat and rice, which has made it the second-largest contributor to the country's central pool of food grains. Dairy farming is also an essential part of the economy, as India is the largest producer of milk in the world. The problem again is the supply chain—almost none of the dairy products produced in India are pasteurized or cold stored, which leads to an incredible amount of lost revenues. Of course, if you look at the glass as being half full, it also provides a major opportunity for new business opportunities (take note Kraft Foods, Land O'Lakes, and Dannon!)

Over one thousand medium and large companies, with capital investments topping US\$4.4 billion, have been established in the cities of Gurgaon, Panchkula, and Faridabad, all of which lie in close proximity to New Delhi, the capital of India. There are more than 80,000 small-scale automotive, truck, and motorcycle support industries in the state. Numerous manufacturing entities, including Maruti, Escorts, Hero Honda, Alcatel, Sony, Whirlpool India, and Bharti Telecom have made Gurgaon home. Bharti Telecom is one of the companies that is capturing the growth of the middle class. Working through three individual business units—mobile services, broadband and telephone services, and enterprise services—the company has captured a significant amount of the revenues being

created from the sale of six million cell phones per month. The company, established in 1995, is a public limited company and is headquartered in New Delhi. It was founded by Sunil Mittal, the same individual who has entered into a joint venture with Wal-Mart. The mobile services business unit offers mobile services throughout India across 23 telecom circles. By 2006 the company had more than twenty million customers, a market cap of more than US\$30 billion, and an annual growth rate of more than 80 percent! If that many people have cell phones, what other products and services will they need next?

Gurgaon has seen the emergence of an active information technology industry in recent years, with firms like IBM, Hewitt Associates, Dell, Convergys, and NIIT setting up back offices or contact centers there. Besides a strong manufacturing and service sector growth, Haryana also possesses a strong agrarian economy, which involves 70 percent of the state's population.

India's most prominent real estate development firm, DLF Group, has taken the lead in turning agrarian Gurgaon into a home for tens of thousands of foreign and Indian professionals. This is a growing trend in India, as developers attempt to create modern cities in what were, until recently, sleepy backwaters. It is a trend worth noting, since these class-B and C cities will soon become major commercial centers.

Founded in the mid-1970s, the DLF Group is India's leading real estate developer (based on the size of their holdings). It has six divisions: residential, commercial, retail, hotels, infrastructure, and townships. The company has made a name for itself in its design and planning of massive office parks, master-planned communities, and leisure facilities. Currently, its flagship project—DLF City, a township encompassing 3,000 acres—is Asia's largest private township, with schools, health care, hospitality, and shopping facilities, amounting to a total investment of US\$15 billion.

And then there is the capital city of New Delhi, with a population of 14.1 million. It's not the largest city in India, but it boasts

the most tree cover of any large city in the world—and of course, it's home to the ill-tempered monkeys that I mentioned earlier. But New Delhi is known for more than monkeys and tree cover—it is also India's capital city and a center for commerce, with a per capita income that is nearly three times the national average. The city is also home to the Delhi metro, a light rail system (completed on time and within budget), and a new highway system that will be completed by 2009.

Uttar Pradesh

As you continue your journey across India you will pass through Uttar Pradesh (UP), the most populous subnational entity in the world. It has the largest urban area and population and is possibly the state with the largest number of million-plus cities. Only five nations have higher populations than UP—the People's Republic of China, the United States, Indonesia, and Brazil. It has the second-largest economy in India, after Maharashtra. Uttar Pradesh is a very fertile agricultural area and a major contributor of grain, livestock, and dairy. National and international tourists are attracted to UP, with huge numbers flocking to Agra and the holy cities of Varanasi, Ayodhya, and Matura. Uttar Pradesh recently (2007) held state elections that saw an unlikely coalition of voters emerge, as the poorest and the wealthiest members of Indian society came together to elect the new (and first female) governor of the state.

Uttarakhand

Formed from the hill districts of Uttar Pradesh, the state of Uttarakhand was created in 2000; it lies along a stretch of the Himalayas that contains Hinduism's most sacred pilgrimage destinations. Uttarakhand is comprised mostly of Rajputs, a martial caste

of Hindus who claim to be descended from the warrior dynasty of Kshatriyas—the principal military order of the Vedic society.

Madhya Pradesh

The state of Madhya Pradesh, affectionately referred to as the “Heart of India,” is located south of New Delhi. Its powerful Narmada River, by tradition, separates northern from southern India. The state provides India with 70 percent of its soy production, and since India is the fourth-largest producer of soybeans in the world, this is significant. Not surprisingly, this area is also known as the “Soy Bowl” of India. Ruchi Soya Industries is a leader in the agribusiness sector, and has become the largest producer of edible oils, soy foods, and processed foods in the nation. The company has a large manufacturing capacity and several respected consumer brand names to its credit, including Nutrela and Ruchi Gold—both have captured leading spots in the soy foods and edible oils categories. The firm has also ventured into related businesses, including bakery specialties, vegetable fats, and soaps, which is now the number-one brand in the Indian market.

India’s primary centers of commerce, transportation, and mining are to the west of Madhya Pradesh. Bordering southeastern Pakistan are the powerful western states that serve home to India’s rapidly growing copper, zinc, and salt mines, and transportation, financial services, and entertainment industries. Rajasthan, India’s largest state, is home to the nation’s oldest archaeological ruins and the world’s oldest mountain ranges, the Kalibanga and Aravallis ranges. The area looks a lot like the American West, and if it were not for the language, culture, and other traditions, you might think that you were in southern Utah or Arizona. Honda Motor Co., Japan’s third-largest carmaker, is building its second Indian car factory in the western state of Rajasthan. Honda chose Rajasthan to supply its biggest market, the northern and eastern parts of the country.

Honda will spend an estimated US\$ 450 million to set up this factory. The carmaker, which has a plant near New Delhi that assembles Accord and Civic sedans, will have an annual production capacity of 150,000 vehicles in India by 2010.

Endowed with the natural beauty of the Thar Desert as well as a venerable history, tourism is one of the pillars of Rajasthan's economy. The palaces in Jaipur, lakes of Udaipur, and forts at Jodhpur are preferred tourist sites. The Taj Hotels Resorts and Palaces have been recognized as one of the leading hospitality firms of the world, operating one of Asia's largest and finest groups of hotels, composed of 59 hotels in 40 locations across Asia. Although the company's hotels range from world-renowned landmarks to modernized business hotels, it is especially renowned for its authentic Rajput palaces, located in Jaipur, Jaisalmar, and Jodhpur. These accommodations, all formerly palaces of the most illustrious of India's kings and princes, have been transformed into luxurious destinations for travelers.

Gujarat, India's most industrialized state, produces 19.8 percent of the nation's total manufacturing output, an influence on a national economy similar to that of Detroit's contribution to the United States. Gujarat has established itself as a leader in textiles, transportation, and petrochemicals, and is home to Reliance Industries' Jamnagar oil facility. With a refining capacity of 661,000 barrels per day, Jamnagar is the world's largest greenfield refinery and the third largest globally. Gujarat is one of India's most progressive states when it comes to encouraging private sector investment, and that policy is clearly paying off. The state is also home to the world's largest shipyard (Bhavnagar). The state has also been aggressive in developing a dependable power grid, ranking first nationwide in gas-based thermal electricity generation, with a national market share of over 18 percent. It is home to scores of National Stock Exchange conglomerates, such as Adani Exports, Indian Petrochemicals Corporation, Vishal Exports Overseas, Nirma, Arvind Mills, and Cadila Healthcare.

To Gujarat's south lies Maharashtra, India's third-largest state in terms of size and second largest in terms of population. Favorable economic policies in the 1970s transformed Maharashtra into India's leading industrial and financial state, similar to New York City in its importance in the worlds of finance, entertainment, and culture (its urban population is 42 percent). Major industries include petrochemicals, agriculture (mangoes, grapes, and oranges), and electrical products. Fiat Auto and Tata Motors recently announced the formation of a joint venture to produce passenger cars and diesel engines at a new facility here for India's fast-growing auto market. This venture will create 3,000 to 4,000 jobs over the next 3 to 4 years. With the capacity to produce in excess of 100,000 cars and 200,000 engines and transmissions annually, the Ranjangaon plant will manufacture vehicles for both the Indian and overseas markets. Both Fiat and Tata vehicles will be manufactured at the same facility, and will be managed equally by the two shareholder partners.

Mumbai (formerly Bombay) is the financial capital of India, and is the home to many of India's major banks, insurance companies, and brokerage firms. It is also the site of Asia's oldest stock exchange—the National Stock Exchange—which is the third-largest exchange by volume in the world. There are over 6,000 companies listed on India's stock markets, compared to less than 1,700 in China, and another 150 companies expect to go public this year alone.

South India is a modern Tower of Babal, with a distinct language for each of the four states in the region. Composed of Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu, this region is a real challenge for any marketing executive. It stretches south from the Narmada River and spreads from the west to the east coast. Over 48 percent of the population are involved in agriculture, cultivating crops such as paddy, sorghum, millet, sugarcane, and chili. Hill regions of the Western Ghats (mountain ranges) primarily produce coffee, tea, vanilla, rubber, and pepper. On the other hand, the area's major cities—Chennai, Bangalore, Hyderabad, and Trivanduram—are

home to the manufacturing units of many information technology, automobile, and electronic manufacturers. Chennai is also home to Nokia, the Finnish mobile handset company. Nokia is leading the development of an electronics hardware zone—within 2 years, along with eight of its suppliers, it will invest over \$200 million dollars and employ some 20,000 people. One of Nokia's suppliers is a Taiwanese company, Foxconn. When the company set up their operation in India, they soon learned that their Indian employees quickly adapted to the Taiwanese style of work—with uniformed employees performing both manual and highly skilled tasks well—once trained—and consistently maintaining international standards of quality. The automaker BMW has also recently built a plant here, to manufacture their series 3 and 5 models for the Indian market.

Bangalore, often referred to as the Silicon Valley of India, is located in this region. The city is India's IT and outsourcing center, accounting for approximately 38 percent of India's software exports. Many world-class companies have their roots in this city, Infosys being one of them. When you visit the corporate headquarters of Infosys you could easily believe that you had somehow stepped into the corporate campus of a U.S. technology company in Washington state. Employees ride bicycles to and from the various buildings that make up the campus, on pathways that are lined with all types of trees and plants. On campus is a fitness center that would give an L.A. Fitness a run for its money, and a lecture hall that is reminiscent of the Sydney opera hall. The Silicon Valley look doesn't end at the office park, as the company offers highly competitive compensation packages to their employees; with a healthy mix of stock options, many of Infosys' original employees are now millionaires. Infosys delivers information technology (IT)-enabled business solutions to more than 500 hundred global clients. The company provides end-to-end business solutions, including consulting, design, development, software re-engineering, maintenance, systems integration, package evaluation, and implementation and infrastructure management services.

Infosys also provides software products to the banking industry. The company first went public in India in 1993—in 1999 the company was listed on NASDAQ. With 2007 revenues in excess of US\$3 billion dollars and a market capitalization of over US\$26 billion, you could say the company is on a roll. It expects to add over 30,000 employees in 2007, giving Infosys an estimated headcount of over 100,000 employees by 2008 and a revenue target of over US\$4 billion dollars the same year! And that is just one of the many international players located in Bangalore.

The state of Karnataka is India's largest producer of coffee, raw silk, and sandalwood. It accounts for 75 percent of India's floriculture and 59 percent of the country's coffee production. Over 90 percent of India's gold comes from the southern region of this state; that's important, since India has some of the world's top jewelry designers. Recently there has been increased activity in the extraction of manganese in these districts, a direct result of India's rapidly growing steel industry. Like Gujarat, Karnataka is one of India's most industrialized states.

Kerala, a landmass wedged between the Arabian Sea and the Western Ghats, is primarily made up of Malayali-Dravidian, Jewish, and Arab citizens. Since its inception, democratic socialist principles have guided Kerala's economy. The state is gradually liberalizing its economy and attracting more foreign investment. Kerala has India's highest literacy rate—its service sector forms the foundation of its economy, followed by agriculture (cereals and grains) and fishing. Also, Kerala plays a significant role in India's spice industry. India accounts for 45 percent of black pepper imports to the United States, almost all of which come from Kerala.

The southeastern tip of India is comprised of Andhra Pradesh and Tamil Nadu. Andhra Pradesh has long been recognized for its agriculture production, in particular rice, sugarcane, cotton, and tobacco. Recently, it has begun to invest heavily in its information technology and biotechnology industries; it hopes to increase its standing in the rankings of top IT-exporting states in India.

Andhra Pradesh, has entered into a formal agreement with Reliance Industries for planting *jatropha* for high-quality biodiesel fuel. *Jatropha* has been recognized as a critical component of India's desire to achieve energy independence by 2011. It is unique in its ability to be grown in wastelands, and once harvested it has a yield per hectare of more than four times that of soybeans and ten times that of corn. The government has identified 400,000 square km of land where *jatropha* can be grown, hoping it will replace 20 percent of India's diesel consumption by 2011. In September 2007, Hindustan Petroleum Corporation Limited joined with the Maharashtra State Farming Corporation for a *jatropha* seed-based biodiesel venture. The fuel is already being used on Indian Railways. In fact, more than 250 engineers from various R&D groups have come to India to work on the biodiesel program in the past year alone. Mahindra & Mahindra, India's largest tractor manufacturer, is aiming to produce the country's first biodiesel tractor as well as a passenger vehicle, to be launched under the Scorpio brand.

Tamil Nadu, India's southernmost state, has had continuous human habitation since prehistoric times. Its long history and cultural traditions are among the world's oldest, which has resulted in the oldest surviving literature in India. Currently, Tamil Nadu holds the position of having the highest level of urbanization in India (43.86%). Furthermore, it ranks as one of India's most industrialized states, with more than 110 industrial parks (and their supporting infrastructure). The state is a leading producer of agricultural products (corn, rye, and sugarcane) in India, second only to Punjab. It is also India's largest producer of turmeric, of which India is the largest producer, consumer, and exporter of in the world. It is the only state to have a formal biodiesel policy that stipulates the use of *jatropha* plant crops. Tamil Nadu distributes wasteland to poor farmers for planting. One would have to wonder why a country like India, with an economy one-fifth the size of the United States, would have a more progressive energy policy than the United States.

Eastern India consists of the states of West Bengal, Bihar, Jharkhand, and Orissa, where climates vary from tropical savannah in the southern portions bordering the Bay of Bengal to humid subtropical in the north. West Bengal is agrarian and is one of India's most populous states. It is unique for having been led by the Communist Party of India (CPI) Left Front for three decades, which makes it the world's longest-running democratically elected communist government. Rice and jute are the state's principal food crops. The service sector is the largest contributor to the gross domestic product of the state, contributing 51 percent of the state's GDP. State industries are localized in the Kolkata region and the mineral-rich western highlands. Numerous steel plants are located in the Durgapur region of the state. Mittal Steel, the company that recently acquired the European steel company Arcelor, is building a new plant here. The plant will be one of India's largest, built in two phases, with a capacity of 12 million tons per year.

West Bengal was also the scene of violent protests, which occurred when the government tried to seize land from local farmers under an eminent domain law. Local farmers weren't about to be bullied by politicians who were eager to hand over land to a multinational corporation. The resulting riots forced the courts to intervene, and the local government has now backed away from the deal. The lesson to take from this is to make sure that the local populace is aligned with government policy before you get into a major business deal!

Bihar is often recognized as being one of India's poorest and least-developed states. Its annual per capita income of US\$94, compared with India's average of US\$255, is a pretty good indicator of the wide variance between Indian states in terms of government policies, lack of direct foreign investment, and a lack of investment in agriculture, infrastructure, and educational facilities.

In 2000 Bihar was divided; the industrially advanced and mineral-rich southern half was carved out to form the separate state of Jharkhand, a new state that had previously produced 60 percent of

Bihar's material output. Jharkhand, known for its mineral wealth—iron ore, coal, copper ore, mica, bauxite, kainite, and forestry products—this small state, mostly covered by rivers and forests, has a concentration of some of the country's most highly industrialized cities.

Further south rests Orissa, a state with a long coastline and large resources of chrome, manganese, granite, and gemstone minerals. Because of this wealth, it frequently attracts foreign investment in steel, aluminum, power, refineries, and infrastructure. Furthermore, Orissa is emerging as a player in IT outsourcing and services. The current planned IT investment in the state is projected to be \$90 billion. India's top IT firms—Satyam Computer Services, TCS, MindTree Consulting, IBM, Bosch, and Wipro—have set up development centers in Orissa. National Aluminum and Tata Sponge Iron have their corporate offices in the state. Recently the number of companies who have signed Memoranda of Understanding to set up steel plants has gone up to 50, including South Korea's Posco, which has agreed to construct a mammoth US\$12 billion steel plant near the port of Paradip. Arcelor-Mittal has also announced plans to invest in another US\$10 billion megasteel project. The state is also attracting an unprecedented amount of investment in aluminum, coal-based power plants, and petrochemicals. Vedanta Resources' 1.4 million-ton aluminum project in Kalahandi is the state's largest investment in aluminum.

The Seven Sister States comprise a region in northeastern India, consisting of the contiguous states of Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, and Tripura. The ethnic and religious diversity that characterize the seven states distinguish them from the rest of India. The *Seven Sisters* reference is symbolic of their relative isolation from mainstream Indian culture and consciousness. Originally, following India's winning independence in 1947, only three states covered the area. Four new states were carved out of the original territory, in line with the government's policy

of reorganizing the states along ethnic and linguistic lines. Many industries in the region are tea-based, with others focused in crude oil and natural gas, silk, bamboo, and handicrafts. The Seven Sisters are heavily forested, with beautiful wildlife sanctuaries, tea estates, and rivers. However, for security reasons (intertribal tensions, widespread insurgencies, and disputed borders with neighboring China) there are restrictions on foreigners visiting, hampering the development of a potentially profitable tourism industry.

THE INDIA MARKET VERSUS THE CHINA MARKET

You now know that India is a worldwide leader in some key industries, and the country will soon become a global leader in a number of others, but why is it going to become the largest market the world has ever seen? Why not China, after all—that country has 1.3 billion people, compared to India's only 1.1 billion. China is clearly in the lead, as the world's manufacturing leader. China is a one-party state, and its government made a decision some years back to pursue economic development through exports, a lot of exports. Consumption was put on the backburner. In fact, two-thirds of China's GDP growth is driven by exports; less than a third is driven by consumption. The Chinese government also decided to pursue the "one child" policy, which has reduced population growth but has also created a graying population, with 265 million 65-year-olds by 2020. That number of retirees is going to put a significant strain on the economy—more importantly, retirees simply do not spend as much as younger workers. With fewer workers supporting larger numbers of retirees, the strain on the severely underfunded social pension system is expected to grow. The pension system currently only covers urban Chinese, not rural residents, who make up the majority of the population; even so, it has to be subsidized by other government revenues. Chinese already save prodigiously for retirement, and as their society ages, they are expected to consume less and save even more to fund their retirement.

The demographic challenge is bound to affect China's economic prospects. China is graying before it has fully developed. With more than 50 percent of its population living in poverty, it will have to grapple with the same age-related fiscal, social, and productivity challenges of countries like Japan and the European Community, with several times its per capita income.

The demographic picture for India is quite different—by 2005, India had nearly 500 million people less than 19 years of age; that's a lot of teenagers, which translates into a lot of iPods! And in another 40 to 50 years India is expected to have 220 million more workers than in China. But what does that mean in terms of consumption?

Everything hinges on education. Every year for the next 10 years an estimated 16 million Indians will be joining the workforce, and an additional 15 million Indians are expected to move from agrarian to nonagrarian livelihoods, meaning that over 30 million individuals per year will need some type of practical education. The problem is that the government does not have the resources required to meet this massive demand for education. Consider Infosys, one of India's premiere tech companies. They will spend more than US\$150 million dollars on training and education for new employees this year alone. The reason is that India's universities are not providing graduates with the skills training that they require for the corporate world, so the private sector is being forced to fill the gap. The potential market for private education in India is expected to exceed US\$25 billion per year, and some local players, like NIIT, the Indian equivalent of Devry, are already reaping the benefits of this vast market. The type of education that will be required will run the complete spectrum from electricians, welders, and plumbers to hotel managers, retail assistants, and bank associates.

But how will people pay for their education? After all, more than 60 percent of India's population are poor farmers, right? Not exactly. The fact is that almost 94 percent of rural households own land, including homestead land. There are more than 115.6 million

farm holdings, with an average size of 3 acres. And that translates into capital—a lot of capital. Land is scarce in India, and property values are going to rise in a very big way. As the Indian market for mortgage-backed securities and asset-back securities is developed by global financial firms like Citigroup and ICICI Bank, liquidity will flow into the rural property market. Punjab National Bank, one of India's highest-ranked national banks, with a customer base of more than 36 million, grew from US\$60 billion in assets in 2005 to more than US\$80 billion in 2006. The portfolio varied from mortgage, lease rental, personal and education loans, to car and housing loans. The conservative estimate of this land value is US\$3 trillion, and when that is freed up, capital will be available for education, starting a business, or buying an apartment. The process is already underway, with farmers selling their land to industrial groups, or in some cases taking part of the proceeds from the sale as equity in the new development.

EXPLOSIVE GROWTH IN INDIA'S MIDDLE CLASS

With education, assets, and millions of jobs being created in the fast-growing industrial base of the country, the Indian middle class is set to explode, from 60 million people today to more than 583 million people by 2025. In terms of consumption, India's consumer spending will exceed US\$400 billion by 2010 and it will overtake Germany by 2020. By 2050—which is, of course, a long way off—consumer spending in India could surpass the United States. Today that consumption is concentrated in India's six major metropolitan cities: New Delhi (12,791,458), Mumbai (16,368,084), Chennai (6,424,624), Kolkata (13,216,546), Bangalore (5,686,844), and Hyderabad (5,533,640). These comprise the affluent, densely populated urban agglomerations endowed with high purchasing power. They are drivers of the economy, and while they represent only 6 percent of the total Indian population, they contribute 14 percent to India's GDP.

However, that is all set to change: As India's infrastructure is developed and large corporate parks are built in traditionally rural areas, consumption growth will increasingly be focused in the smaller cities. Today India's six major cities are home to just 6 percent of the total Indian population. The balance comprise the yet-to-be-tapped hinterland. Ahmedabad, Pune, Kanpur, Surat, Jaipur, Lucknow, and Nagpur are the major Tier II cities, and Patna, Indore, Bhopal, Vadodara, Ludhiana, Agra, and Nashik are some of the major Tier III cities. Consider the fact that in 2001 the number of Indian rural households that owned a TV was 26 million. By 2004 that number has jumped to more than 41 million households. And that is just one TV per household; as disposable incomes grow, the number of TVs per household will grow, and that will equate to a market opportunity in excess of US\$30 billion over the next 5 years for TVs alone.

That type of growth in consumption has not escaped the attention of Wal-Mart, which entered into a joint venture with telecom tycoon Sunil Mittal for supply-chain and wholesale businesses with Sunil Mittal's retail stores across the nation. (Sunil Mittal is a master in running a consumer business; the New York-based buyout firm Warburg Pincus LLC took home US\$1.6 billion on the US\$290 million it invested in Mittal's mobile-phone network from 1999 to 2001.) Mittal will fully own the front end of Wal-Mart's retail business. Indian law still doesn't allow foreign investment in stores with a large range of brand-name consumer goods. The government's communist allies are opposed to its plan to open up the industry to overseas investors. The present policy restricts foreign direct investment in retail to single-brand ventures, with a foreign shareholding cap of 51 percent. However, 100 percent foreign ownership is permitted in wholesale cash and carry, where one can only sell to retailers and distributors, and not to consumers. Therefore, from a regulation point of view, Wal-Mart can hold a majority stake in the cash-and-carry venture. An equal joint venture between Mittal and Wal-Mart will run the supply chain and sell to wholesalers, something that German retailer

Metro AG is already doing successfully in India. It is still not clear whether the stores will carry the Wal-Mart brand.

Indian consumers expect value and are traditionally very conservative with spending, so expect consumers to initially focus on durable and semidurable goods like cars, TVs, and refrigerators. Only 1.6 million households, or slightly more than 1 percent of India's population, owned a car in 2006, and 160 in every thousand households owned a refrigerator. With more than 2 million new cars being sold a year, India is one of the fastest-growing auto markets in the world. And as more choices become available to consumers and competition drives down prices, consumption at all levels will accelerate. A case in point is the Indian automobile industry. Ten to twelve years ago a budget of US\$ 5,500 could have bought an Indian customer a compact Suzuki 800CC car. Now, in 2007, within the same budget, the customer can choose from an array of financing options and can take home a Chevrolet 1600CC. And those with a US\$ 1,000 budget 10 years ago, for a 2-wheeler? They have graduated to the Suzuki.

The Indian retail sector is changing rapidly; multiplexes with retail outlets have combined movie watching and shopping. PVR, a cinema chain spread across 10 cities in India, recently opened a multiplex with 11 screens in the IT city Bangalore. The public limited company recently entered the field of movie production, with Oscar-nominated Indian film star Aamir Khan; it also offers tickets on mobile phones. Multiplexes have grown to 150 in India as of 2006—with a seating capacity increasing to 160,000, 40 percent of the total revenue comes from multiplexes.

The number of retail malls in India is set to rise from 158 in 2005 to 600 by 2010.

Ahmedabad, a city known for low crime rates, has multiplexes like Fun Republic, Wide Angle, and the IMAX theatre, which is often touted as the biggest in India. E-Square multiplex, Adlabs, and Inox are among the popular multiplexes of Pune. Kanpur, India's supplier

of flavored pan Masala, has few multiplexes and malls. Rave 3 is the most popular multiplex-cum-shopping mall. Surat, the land of diamonds and saris, is high on malls and multiplexes as well. FAME and Valentine multiplexes are the well-known ones. Entertainment Paradise and Inox are the popular multiplexes of Jaipur. Lucknow's multiplexes-cum-shopping malls include Fun Republic, Wave cinemas, and the Saharaganj mall. Inox is the most favorite multiplex in Nagpur.

Indian consumers have started favoring big retail stores more than the neighborhood grocery. They would like to visit a multiplex rather than a cinema hall. They would like to buy their daily vegetables from Reliance Fresh, retail chain division of Reliance Industries of India, rather than a roadside vendor.

What will the largest market the world has ever seen mean for you? Consider the following: Based on current GDP growth rates over the next 5 to 10 years, India will have 500 million mobile phone customers, 400 million new laptops, 50 million iPhones, 650 million new TV sets, 140 million new vehicles, 150 million new refrigerators, 95 million new dishwashers, 2.5 billion new tires, 5 billion light bulbs, 12 billion DVDs, 20 billion CDs, 40 billion bars of soap, 3 billion new shirts, 2.8 billion new jeans, 8 billion pairs of shoes, 24 billion tubes of toothpaste, 9 billion bottles of shampoo, 22 billion magazines, 200 billion newspapers, 9 billion books, 240 billion cans of beer—and that's just the beginning. India is going to need a lot of just about everything, and Indian consumers are quickly becoming savvy to international brands and trends. That level of consumer spending is going to create immediate opportunities for domestic and international manufacturers and retailers of just about every size and shape.