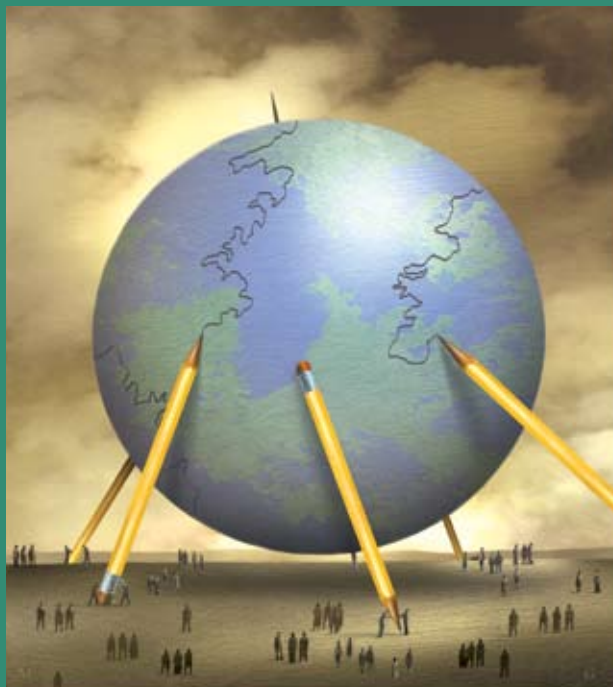


REPORT

The 2008 BCG 100 New Global Challengers

How Top Companies from Rapidly Developing Economies Are Changing the World



THE BOSTON CONSULTING GROUP

The Boston Consulting Group (BCG) is a global management consulting firm and the world's leading advisor on business strategy. We partner with clients in all sectors and regions to identify their highest-value opportunities, address their most critical challenges, and transform their businesses. Our customized approach combines deep insight into the dynamics of companies and markets with close collaboration at all levels of the client organization. This ensures that our clients achieve sustainable competitive advantage, build more capable organizations, and secure lasting results. Founded in 1963, BCG is a private company with 66 offices in 38 countries. For more information, please visit www.bcg.com.

The 2008 BCG 100

New Global Challengers

How Top Companies from Rapidly Developing Economies Are Changing the World

Marcos Aguiar

Arindam Bhattacharya

Laurent de Vitton

Jim Hemerling

Kim Wee Koh

David C. Michael

Harold L. Sirkin

Kevin Waddell

Bernd Waltermann

December 2007

© The Boston Consulting Group, Inc. 2007. All rights reserved.

For information or permission to reprint, please contact BCG at:

E-mail: bcg-info@bcg.com

Fax: +1 617 850 3901, attention BCG/Permissions

Mail: BCG/Permissions

The Boston Consulting Group, Inc.

Exchange Place

Boston, MA 02109

USA



Contents

Note to the Reader	4
The Accelerating Tide of RDE-Based Globalization	6
The 2008 BCG 100 New Global Challengers	7
Who They Are	7
Where They Come From	10
The Industries They Represent	11
Why Are They Globalizing?	11
How Are They Globalizing?	12
The BCG 100's Performance	14
Superior Value Creation	14
Revved-Up Revenues	14
Potent Profits	14
Huge Purchasing Power	14
Rising Spending on R&D	16
Aggressive M&A Activity	16
Gauging the BCG 100's Global Competitiveness	18
Competing on Cost	18
Going Beyond Cost-Based Competition	19
Winning the M&A Game	21
Addressing the Talent Shortage	22
Operating on a Truly Global Scale	22
Managing Risks	23
Are We There Yet? The BCG 100's Globalization Journey	23
The Roles Played by States	24
Looking Ahead	28
Implications for Challengers	28
Implications for Incumbents	29
Closing Questions	30
For Further Reading	32



Note to the Reader

In 2006 The Boston Consulting Group (BCG) published the first *New Global Challengers* report. In the context of rapid globalization—and particularly the emergence of fast-globalizing companies from rapidly developing economies (RDEs)—we were responding to a question that was being raised in the boardrooms of many of the world’s leading companies: Which are the emerging RDE-based competitors that we should know about?

Our 2006 report contained a list of 100 RDE-based global challengers that could boast of large businesses, significant global activity, and a clear commitment to further globalization. We knew that the report and the issues it touched on were important. Nonetheless, the immense interest the report garnered around the world, especially among business leaders, surprised us. *Fortune* magazine quoted Jeff Immelt, CEO of General Electric, as saying that GE had used the report to better understand which of the BCG 100 challengers were customers, suppliers, or competitors—and what GE could do to move more companies into the first two groups while reducing those in the last.

In this report, we update the original list, introducing readers to a number of new challengers while tracking the progress of the companies we

discussed in the 2006 report. Our analysis of the 2008 BCG 100 global challengers reveals globalization dynamics that are already affecting every market and industry, reshaping the world’s economic landscape. We hope that you find this report both interesting and useful. We welcome your feedback and the opportunity to discuss the implications for your business.

For Further Contact

If you would like to discuss our observations and conclusions, please contact one of the authors, listed below:

Marcos Aguiar
Partner and Managing Director
BCG São Paulo
+55 11 3046 3533
aguiar.marcos@bcg.com

Arindam Bhattacharya
Partner and Managing Director
BCG New Delhi
+91 124 459 7000
bhattacharya.arindam@bcg.com

Laurent de Vitton
Project Leader
BCG Beijing
+86 10 8527 9000
devitton.laurent@bcg.com

Jim Hemerling
Senior Partner and Managing Director
BCG San Francisco
+1 415 732 8000
BCG Shanghai
+86 21 2306 4000
hemerling.jim@bcg.com

Kim Wee Koh
Partner and Managing Director
BCG Singapore
+65 6429 2500
koh.kimwee@bcg.com

David C. Michael
Senior Partner and Managing Director
BCG Beijing
+86 10 8527 9000
michael.david@bcg.com

Harold L. Sirkin
Senior Partner and Managing Director
BCG Chicago
+1 312 993 3300
hal.ops@bcg.com

Kevin Waddell
Partner and Managing Director
BCG Warsaw
+48 22 820 36 00
waddell.kevin@bcg.com

Bernd Waltermann
Senior Partner and Managing Director
BCG Singapore
+65 6429 2500
waltermann.bernd@bcg.com

Acknowledgments

This report was sponsored by BCG's Global Advantage Initiative. For inquiries about the activities of the Global Advantage Initiative, please contact any of its three leaders:

Arindam Bhattacharya, partner and managing director in the firm's New Delhi office.

Jim Hemerling, senior partner and managing director in the firm's San Francisco and Shanghai offices.

Bernd Waltermann, senior partner and managing director in the firm's Singapore office.

The research and analysis that went into this report were led by a global team of senior BCG consultants based principally in RDEs around the world. The team also had the support of senior BCG advisors in Europe and the United States. We would like to acknowledge the particularly valuable contributions made by our colleagues Aditya Agrawal, Mukund Bhaskar, Dan Faccio, Fernando Machado, Andrew Schmid, Bo Wu, and Jinhua Yin. We would also like to acknowledge the editorial and production assistance of Barry Adler, Gary Callahan, Elyse Friedman, Kim Friedman, Gina Goldstein, Kathleen Lancaster, Justin Palmer, and Sara Strassenreiter.

The Accelerating Tide of RDE-Based Globalization

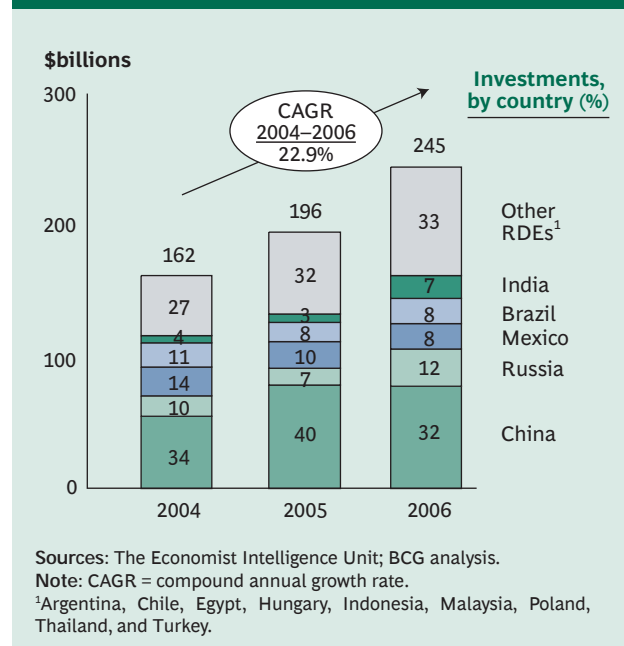
This report focuses on areas of the world that are experiencing rapid economic growth and on the fast-growing companies operating within them. These rapidly developing economies (RDEs) are currently home to many excellent companies. The companies featured in this report merit particular attention from established industry leaders because they are the challengers that the incumbents will soon face in global markets—if they aren't already confronting them. Incumbents will encounter these challengers as competitors, as customers, as candidates for partnering in mergers or acquisitions, and as potential acquirers. They are the new global challengers.

The 2008 BCG 100 global challengers (“the BCG 100”) hail from some widely disparate but fast-growing economies. In general, RDEs have been gaining importance in the global economy at an accelerating pace. The 14 countries that are home to the BCG 100—Argentina, Brazil, Chile, China, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Poland, Russia, Thailand, and Turkey—accounted for 17.3 percent of real GDP worldwide in 2006, up from 15.7 percent in 2005 and 13.4 percent in 2000. Moreover, they command an increasing share of global trade. In 2006 China overtook the United States as the world's second-largest exporter, behind only Germany; in 2008, if Chinese exports continue to grow at the astonishing rate of 27 percent per annum that they achieved in 2006, China will become the world's largest exporter.

Many RDEs are also developing closer economic ties with one another. For example, trade between China and India grew 38 percent in 2006. The mix of goods traded also

shifted to include an increasing share of high-valued-added offerings, such as telecommunications products and IT services. Another indication of the increasing prominence of RDEs in the global economy is the level of foreign direct investment they receive. Across the 14 RDEs that are home to the BCG 100, this investment surged at a compound annual growth rate (CAGR) of almost 23 percent from 2004 through 2006, to reach \$245 billion. In 2006 alone, the rate of growth was even higher, at 25 percent. (See Exhibit 1.)

Exhibit 1. Foreign Direct Investment in RDEs Has Been Increasing





The 2008 BCG 100 New Global Challengers

Like our 2006 report, this year's edition features 100 dynamic companies based in RDEs around the globe. Although these companies operate in different countries and different industries, they all share the desire to globalize—and are moving in that direction with impressive speed. (See Exhibit 2, page 8.)

In part, this report is a review of how far those of our 2006 challengers that also appear on this year's list have come since we wrote about them more than a year ago. As we did in the 2006 report, we discuss who the BCG 100 are, how they are performing, and what global strategies they are adopting. We then consider the key challenges the BCG 100 face and whether they have the capabilities to overcome those challenges. This report also looks for the first time at the role of the state, particularly China's State-Owned Assets Supervision and Administration Commission (SASAC).

Who They Are

In compiling this year's list, we went through the same systematic selection process we undertook for the first edition. (For details, see the sidebar "Methodology for Selecting the 2008 BCG 100," page 9.) It is not surprising that a great many of the companies that made it onto our 2006 list—83 of them—appear again on this year's list, but 17 challengers are new this year, replacing the same number from the 2006 list. However, the disappearance from this year's list of 17 companies that we listed in 2006 does not mean that those companies are no longer significant global challengers. On the contrary, most of them remain powerful contenders in their respective indus-

tries. Nonetheless, as we evaluated the relative performance of thousands of globalizing companies from RDEs, we found compelling reasons to introduce 17 new companies to our list this year.

Although our criteria for inclusion were primarily quantitative, we have exercised a certain prerogative by developing a final list that is highly diverse. Of the 17 new challengers, 5 come from Latin America and 8 from China. (China also accounted for 11 of the 17 companies from the 2006 list that were dropped this year.) Like the other 83 challengers on the 2008 list, the 17 new entrants are major local—and increasingly global—players that have recorded high revenues and are threatening established players in markets around the world. This group of challengers comprises the following companies:

- ◇ Changhong Electric (China), a home appliances company with \$2.4 billion in 2006 revenues and subsidiaries in Australia, Europe, Southeast Asia, and the United States
- ◇ Chery Automobile (China), the leading Chinese exporter of cars, with \$2.6 billion in 2006 revenues, currently building plants in Eastern Europe, the Middle East, and South America
- ◇ COFCO (China), a company with \$17.9 billion in 2006 revenues and the country's largest manufacturer, importer, and exporter of oils and food
- ◇ CSAV (Chile), a global top-ten shipping carrier with 2006 revenues of \$3.8 billion and subsidiaries in Brazil, Hong Kong, and Uruguay

Exhibit 2. The 2008 BCG 100 Global Challengers List Includes 17 New Entrants

Companies by country	Industries	Companies by country	Industries
Argentina (1) Tenaris★	Steel	Sinomach★ TCL Corporation	Engineered products Consumer electronics
Brazil (13) Braskem Companhia Vale do Rio Doce (CVRD) Coteminas Embraer Gerdau Steel JBS-Friboi★ Marcopolo★ Natura Perdigão Petrobrás Sadia Votorantim Group WEG	Petrochemicals Mining Textiles Aerospace Steel Food and beverages Automotive equipment Cosmetics Food and beverages Fossil fuels Food and beverages Process industries Engineered products	Techtronic Industries Company Tsingtao Brewery VTech Holdings★ Wanxiang Group Corporation ZTE Corporation	Engineered products Consumer electronics Food and beverages Consumer electronics Automotive equipment Telecommunications equipment
Chile (1) CSAV★	Shipping	Egypt (1) Orascom Telecom Holding	Telecommunications networks
China (41) Aluminum Corporation of China (Chalco) BYD Company Changhong Electric★ Chery Automobile★ China Aviation I China FAW Group Corporation China International Marine Containers Group Company (CIMC) China Minmetals Corporation China Mobile Communications Corporation China National Heavy Duty Truck Corporation (CNHTC) China Petroleum & Chemical Corporation (Sinopec) China Shipping Group CNOOC COFCO★ COSCO Group CSIC (China Shipbuilding Industry Corporation)★ Dongfeng Motor Company Founder Group Galanz Group Company Gree Electric Appliances Haier Company Hisense Huawei Technologies Company Johnson Electric Lenovo Group Li & Fung Group Midea Holding Company Nine Dragons Paper Holdings★ PetroChina Company Shanghai Automotive Industry Corporation Group (SAIC) Shanghai Baosteel Group Corporation Shanghai Zhenhua Port★ Machinery Co. (ZPMC) Shougang Group Sinochem Corporation	Nonferrous metals Consumer electronics Home appliances Automotive equipment Aerospace Automotive equipment Shipping Nonferrous metals Telecommunications networks Automotive equipment Fossil fuels Shipping Fossil fuels Food and beverages Shipping Shipbuilding Automotive equipment Computers/IT components Home appliances Home appliances Home appliances Consumer electronics Telecommunications equipment Engineered products Computers/IT components Textiles Home appliances Paper packaging Fossil fuels Automotive equipment Steel Engineered products Steel Chemicals	Hungary (1) MOL Group★ India (20) Bajaj Auto Bharat Forge Cipla Crompton Greaves Dr. Reddy's Laboratories Hindalco Industries Infosys Technologies Larsen & Toubro Mahindra & Mahindra Ranbaxy Pharmaceuticals Reliance Group Satyam Computer Services Suzlon Energy★ Tata Consultancy Services (TCS) Tata Motors Tata Steel Tata Tea Videocon Industries Videsh Sanchar Nigam (VSNL) Wipro Indonesia (1) Indofood Sukses Makmur Malaysia (2) Malaysia International Shipping Company (MISC) Petronas Mexico (7) América Móvil Cemex Femsa Gruma Grupo Bimbo★ Grupo Modelo Nemak Poland (1) PKN Orlen★ Russia (6) Gazprom Inter RAO UES★ Lukoil MMC Norilsk Nickel Group Rusal Severstal Thailand (2) Charoen Pokphand Foods Thai Union Frozen Products Turkey (3) Koç Holding Sabanci Holding Vestel Group	Fossil fuels Automotive equipment Automotive equipment Pharmaceuticals Engineered products Pharmaceuticals Nonferrous metals IT services/business process outsourcing Engineering services Automotive equipment Pharmaceuticals Petrochemicals IT services/business process outsourcing Wind energy IT services/business process outsourcing Automotive equipment Steel Food and beverages Consumer electronics Telecommunications networks IT services/business process outsourcing Food and beverages Shipping Fossil fuels Telecommunications networks Building materials Food and beverages Food and beverages Food and beverages Food and beverages Automotive equipment Fossil fuels Energy Fossil fuels Nonferrous metals Nonferrous metals Steel Food and beverages Food and beverages Home appliances Chemicals Consumer electronics

★ Companies new to the BCG 100.

Sources: BCG 100 database; BCG analysis.

Methodology for Selecting the 2008 BCG 100

We generated the 2008 list by using a detailed screening process based on the same rigorous selection principles we followed in 2006. For the 2006 report, we looked at 2004 financial data; this time we had the benefit of additional data from fiscal years 2005 and 2006. First, we selected a set of RDE countries in which to find our challenger companies. We started with 30 countries ranked according to size of GDP, value of exports, and amount of outbound foreign direct investment. From these rankings, we chose a set of 14 RDE countries: Argentina, Brazil, Chile, China, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Poland, Russia, Thailand, and Turkey.

We then compiled an initial master list of more than 3,000 candidate companies that are based in these countries. This list drew on a variety of local company rankings, such as the top 500 companies in India selected by *Businessworld* (India's leading business magazine) and the top 500 companies in Brazil selected by *Exame* (Brazil's leading business magazine). Having amassed this large candidate pool, an international BCG research team from Brazil, China, Eastern Europe, India, Mexico, and Russia, together with a panel of senior BCG experts in Asia, Europe, Latin America, Russia, and the United States, conducted a rigorous three-step triage process.

In step one, we ensured that our selection included only companies that are truly RDE based, omitting foreign joint ventures and the RDE-based subsidiaries of multinational corporations. In step two, we homed in on those players with 2006 revenues of at least \$1 billion, a threshold we believe is generally necessary to drive a serious globalization campaign. We allowed ourselves some flexibility on this criterion; four companies on our final list fell short of the \$1 billion threshold. We included them because their revenues are fast approaching this level and because we felt that they merit inclusion on the basis of other criteria.

In step three, we scored the major globalization credentials of the remaining companies using five criteria: the international presence of the company as indicated by its owned and operated subsidiaries, sales networks, manufacturing facilities, and R&D centers; the major international investments pursued in the past five years, including mergers and acquisitions; the company's access to capital for financing international expansion, whether through free cash flows, stock markets, or other sources; the breadth and depth of its technologies and its intellectual-property portfolio; and the international appeal of its existing offerings and value propositions.

- ◇ CSIC (China Shipbuilding Industry Corporation), the country's largest manufacturer of ships and marine equipment, with \$8 billion in 2006 revenues
- ◇ Grupo Bimbo (Mexico), a food and beverage company with \$5.9 billion in 2006 revenues that produces and sells market-leading brands in Brazil, Mexico, and the United States
- ◇ Inter RAO UES (Russia), the country's number-one importer and exporter of electricity, with 64 percent (\$649 million) of 2006 sales coming from overseas operations
- ◇ JBS-Friboi (Brazil), Latin America's largest beef-and-pork processor, with \$1.8 billion in 2006 revenues—which should rise to \$13 billion in 2008 in the wake of the company's recent acquisition of United States-based Swift & Company
- ◇ Marcopolo (Brazil), the world's third-largest manufacturer of bodywork and components for buses and vans, with \$820 million in 2006 revenues, 46 percent of which came from abroad
- ◇ MOL Group (Hungary), the country's leader in oil refining, fuel retailing, and gas transport, with \$13.7 billion in 2006 revenues, subsidiaries in 12 countries, and 5,000 employees abroad
- ◇ Nine Dragons Paper Holdings (China), the largest paperboard-packaging manufacturer in China and one of the largest in the world, with 2006 sales growth of 64 percent and \$1 billion in revenues
- ◇ PKN Orlen (Poland), an oil and gas company and the largest Central European company by sales—\$17 billion for 2006, 46 percent of which were generated offshore

- ◇ Shanghai Zhenhua Port Machinery Co. (ZPMC) (China), a leading international manufacturer of container cranes, with \$2.1 billion in 2006 revenues, 84 percent of which were generated in international markets
- ◇ Sinomach (China), one of the world's leading machinery contractors, with half of its \$5.1 billion in 2006 revenues coming from offshore markets
- ◇ Suzlon Energy (India), the fifth-largest company in the world for installed wind-energy capacity, with 2006 revenues of \$1.8 billion and manufacturing in China, Europe, India, and the United States
- ◇ Tenaris (Argentina), a leading international manufacturer of tubes and pipes for the oil industry, with global operations and \$7.7 billion in 2006 revenues, 80 percent of which came from offshore
- ◇ VTech Holdings (China), the market leader in Europe and the United States for educational video games and an innovator in cordless phones, with \$1.2 billion in 2006 revenues, 78 percent from offshore

Where They Come From

The 2008 BCG 100 are based in 14 countries: Argentina, Brazil, Chile, China, Egypt, Hungary, India, Indonesia, Ma-

A Snapshot of Five Countries' BCG 100 Challengers

China. China is home to the largest number of challengers (41). On average, these companies earned 2006 revenues of \$14.5 billion and achieved a compound annual growth rate (CAGR) of 26 percent for 2004 to 2006. In 2006 their operating-profit margin averaged 14 percent, down from 15 percent in 2004, and international sales accounted for 17 percent of their total revenues, up slightly from 16 percent in 2005. Of the 41, 34 are publicly traded, including most of the 29 companies that are mostly or entirely state owned. The total shareholder return (TSR) of the publicly traded companies for the period January 2002 to June 2007 grew at a CAGR of 27.7 percent.

India. Next is India, with 20 challengers. Their revenues for 2006 averaged only \$3.9 billion, but they boasted an impressive CAGR of 31 percent for revenues from 2004 to 2006. The operating-profit margin of these companies averaged 16 percent in 2006, down from 17 percent in 2004. International sales in 2006 represented 47 percent of total sales, up from 40 percent in 2005. All the Indian companies on our list are publicly traded, and none of them are state owned. Their TSR for the period January 2002 to June 2007 grew at a CAGR of 38.2 percent.

Brazil. Brazil contributes 13 challengers to our 2008 list. Their 2006 revenues averaged \$9.8 billion (skewed by Petrobrás, whose 2006 revenues were a whopping \$72 billion) and have been growing very fast; the average CAGR for revenues from 2004 to 2006 was 35 percent. The operating-profit margin of these challengers averaged 25 percent in 2006, down from 26 percent in 2004. Their 2006

international sales accounted for 30 percent of total revenues, up from 28 percent in 2005. Of these 13 companies, 8 are publicly traded and only Petrobrás is state owned. The TSR of the publicly traded companies for the period January 2002 to June 2007 grew at a CAGR of 44.5 percent.

Mexico. Mexico weighs in with seven challengers, which had average 2006 revenues of \$9.5 billion. These challengers grew their revenues, on average, at a CAGR of 29 percent from 2004 to 2006. Their operating-profit margins remained steady over the same period, at an average of 18 percent. International revenues accounted for 56 percent of total 2006 revenues, up from 51 percent in 2005. Five challengers are publicly traded and three are state owned. The TSR of the five publicly traded companies for the period January 2002 to June 2007 grew at a CAGR of 39.5 percent.

Russia. The six companies contributed by Russia to this year's list enjoyed strong 2006 revenues that averaged \$29.7 billion, fast revenue growth (a CAGR of 41 percent for 2004 to 2006), and high average profitability of 24 percent. These impressive results reflect the dominance of natural-resource companies and the rise in oil prices over the period. International revenues accounted for 70 percent of total 2006 revenues for the six companies, slightly below the 71 percent they represented in 2005. Three companies are publicly traded and three are state owned. The TSR of the publicly traded companies grew at a CAGR of 44.3 percent for the period January 2002 to June 2007.

aysia, Mexico, Poland, Russia, Thailand, and Turkey. (See the sidebar “A Snapshot of Five Countries’ BCG 100 Challengers.”)

Asia is home to the large majority (66), followed by Latin America (22). Russia, Turkey, and Egypt collectively are home to another 10. The 2008 list includes two Latin American countries (Argentina and Chile) and two Central European countries (Hungary and Poland) that were not represented on the 2006 list; we selected one global challenger from each of those countries. China remains by far the dominant home-base country, with 41 of the 2008 BCG 100. India and Brazil follow with 20 and 13 challengers, respectively.

The Industries They Represent

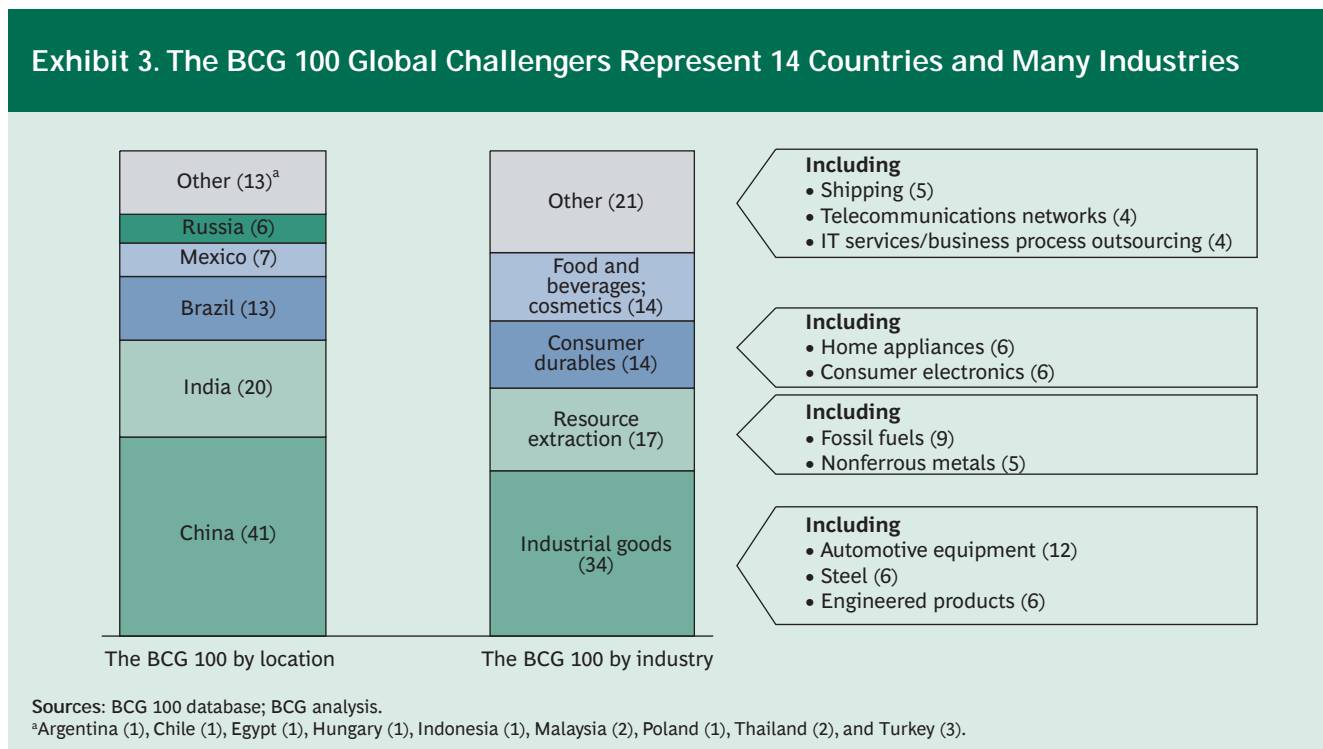
The BCG 100 span a very broad spectrum of industries. For example, they include 34 companies operating in the industrial-goods sector and 17 resource-extraction companies, 9 of which are fossil fuel companies. There are also 14 consumer-durables challengers and 14 companies from the food-and-beverage and cosmetics industries. The remaining 21 challengers represent a range of indus-

tries, including shipping, telecommunications networks, and IT services and business process outsourcing. (See Exhibit 3.)

Note that although we label companies according to industry for easy categorization, in reality some companies are large conglomerates with diversified holdings that extend well beyond the industries with which they are primarily identified. Koç Holding (Turkey) is an example. In addition to home appliances, it has businesses in a wide variety of other sectors, including automotive, energy, finance, and retail. Other large conglomerates include Sabanci Holding (also in Turkey), Videocon Industries (India), and Votorantim Group (Brazil).

Why Are They Globalizing?

The desire for growth ultimately drives globalization. For the great majority (90) of the BCG 100, access to new growth and profit pools is the overriding rationale for going global. These companies have realized that being big in their home markets is not enough to ensure their long-term viability. They must move abroad in order to continue growing and to attain a scale that will enable them



to compete with other global players. Many of the BCG 100 have other motives for globalization in addition to growth. These include, for example, developing complementary skills, such as R&D expertise; acquiring intangible assets, such as brands; and experimenting with new business models.

For the ten challengers whose globalization efforts are not motivated primarily by a quest for growth, the impetus comes from an increasingly urgent need to secure long-term access to natural resources. These challengers are therefore global less in terms of their revenues than in terms of their purchasing and investment patterns: they acquire rights to resources in key locations across the world.

How Are They Globalizing?

In our 2006 report, we identified six globalization models that RDE challengers adopt when seeking to expand. Those models continue to be the most widely used. We list them below, with examples drawn from this year's BCG 100. Clearly, companies often pursue these strategies not to the exclusion of one another but in combination. Furthermore, all six approaches build on an underlying foundation of low costs.

Model 1: Taking RDE Brands Global. Twenty-nine of our challengers, including 11 from China and 7 from India, have focused on this approach. Many pursue growth organically. An example is India's Bajaj Auto, the country's largest exporter of two- and three-wheeled vehicles. The company recorded 2006 revenues of \$2.2 billion, up 131 percent since 2000. Its expansion has been entirely organic. It holds a dominant position in nine countries outside India, mainly in developing markets.

Another example of a company taking its brand global is Natura, a Brazilian cosmetics company. With a strong brand in its home market, the company first expanded into other Latin American countries and is now entering the European market.

Model 2: Turning RDE Engineering into Global Innovation. Twenty challengers are pursuing this approach. Examples are aviation companies Embraer (Brazil) and China Aviation I. Embraer posted 2006 revenues of

\$3.8 billion (of which 96 percent were international); it is the world's third-largest commercial aircraft manufacturer, behind Boeing and Airbus, and it operates a joint venture in China with Aviation Industry Corporation (AVIC) II. Embraer competes using a combination of low-cost labor and strong R&D. China Aviation I, with 2006 revenues of \$10.5 billion (up 420 percent since 2000), is China's largest manufacturer of defense and commercial aircraft, missiles, and other aeronautical products.

Model 3: Assuming Global Category Leadership. Fourteen challengers, eight of which are based in China, focus primarily on this approach. For instance, BYD Company, China's largest maker of rechargeable batteries, is a top performer among our publicly traded challengers, providing investors with a total shareholder return (TSR) of 148 percent in 2006. BYD competes head-on with Japanese players in the battery market, using a labor-intensive approach in contrast to its competitors' capital-intensive model. In 2003 BYD entered the automotive industry through its acquisition of Tsinchuan Automobile Company.

Model 4: Monetizing RDE Natural Resources. Seventeen challengers representing a variety of industries concentrate on this model. More than half of them use mergers and acquisitions (M&A) to expand globally. An example is Hindalco Industries, an India-based metals company that is Asia's largest integrated primary producer of finished aluminum. The company recorded 2006 revenues of \$4.1 billion, of which about one-third came from abroad. Although Hindalco has traditionally grown organically, it recently made a number of acquisitions, including the purchase in 2001 of Alcan's INDAL facilities in India, the purchase in 2003 of two copper mines in Australia, and the purchase in early 2007 of Canada's Novelis for \$6 billion. The Novelis acquisition is expected to boost the company's revenues to \$10 billion.

Model 5: Rolling Out New Business Models to Multiple Markets. Ten challengers focus on this approach, and nine of them are pursuing M&A growth strategies. An example is Mexican challenger América Móvil. With 2006 revenues of \$21.3 billion, this mobile-network operator has a commanding presence in the Americas, including a 28 percent share of the prepaid wireless market in the United States. The company has effectively expanded its

business into new markets while localizing operations in each. For instance, it uses different brands and marketing strategies in different regions but maintains as a common element a strong emphasis on cost containment. It is interesting that a major shareholder in the company (with a 30 percent stake), Carlos Slim Helú, is now among the richest men in the world.

Model 6: Acquiring Natural Resources. China is home to half of the ten companies on our list that pursue this strategy. This focus reflects the high priority the Chinese government puts on securing access to resources, espe-

cially energy. A representative company is China Minmetals Corporation, a base-metals producer and trader. The company is China's largest metals manufacturer and overseas trader and its largest importer of steel and non-ferrous metals. Although China Minmetals receives strong government support, it has also accumulated in-depth market knowledge through its global trading network. Its 2006 revenues totaled \$18.9 billion. Another Chinese company pursuing this model—and generating a superior profit margin of 40 percent—is CNOOC, China's largest producer of offshore crude oil and natural gas.