

## CHAPTER 2

# The Globalization of Companies and Industries

“Going global” is often described in incremental terms as a more or less gradual process, starting with increased exports or global sourcing, followed by a modest international presence, growing into a multinational organization, and ultimately evolving into a global posture. This appearance of gradualism, however, is deceptive. It obscures the key changes that globalization requires in a company’s mission, core competencies, structure, processes, and culture. As a consequence, it leads managers to underestimate the enormous differences that exist between managing international operations, a multinational enterprise, and managing a global corporation. Research by Diana Farrell of McKinsey & Company shows that industries and companies both tend to globalize in stages, and at each stage, there are different opportunities for and challenges associated with creating value.<sup>1</sup>

In the first stage (market entry), companies tend to enter new countries using business models that are very similar to the ones they deploy in their home markets. To gain access to local customers, however, they often need to establish a production presence, either because of the nature of their businesses (as in service industries like food retail or banking) or because of local countries’ regulatory restrictions (as in the auto industry).

In the second stage (product specialization), companies transfer the full production process of a particular product to a single, low-cost location and export the goods to various consumer markets. Under this scenario, different locations begin to specialize in different products or components and trade in finished goods.

The third stage (value chain disaggregation) represents the next step in the company’s globalization of the supply-chain infrastructure. In this stage, companies start to disaggregate the production process and focus

each activity in the most advantageous location. Individual components of a single product might be manufactured in several different locations and assembled into final products elsewhere. Examples include the PC industry market and the decision by companies to offshore some of their business processes and information technology services.

In the fourth stage (value chain reengineering) companies seek to further increase their cost savings by reengineering their processes to suit local market conditions, notably by substituting lower-cost labor for capital. General Electric's (GE) medical equipment division, for example, has tailored its manufacturing processes abroad to take advantage of low labor costs. Not only does it use more labor-intensive production processes—it also designs and builds the capital equipment for its plants locally.

Finally, in the fifth stage (the creation of new markets), the focus is on market expansion. The McKinsey Global Institute estimates that the third and fourth stages together have the potential to reduce costs by more than 50% in many industries, which gives companies the opportunity to substantially lower their sticker prices in both old and new markets and to expand demand. Significantly, the value of new revenues generated in this last stage is often greater than the value of cost savings in the other stages.

It should be noted that the five stages described above do not define a rigid sequence that all industries follow. As the McKinsey study notes, companies can skip or combine steps. For example, in consumer electronics, product specialization and value chain disaggregation (the second and third stages) occurred together as different locations started to specialize in producing different components (Taiwanese manufacturers focused on semiconductors, while Chinese companies focused on computer keyboards and other components).

## Understanding Industry Globalization

Executives often ask whether their industry is becoming more global and, if so, what strategies they should consider to take advantage of this development and stake out an enduring global competitive advantage. This may be the wrong question. Simple characterizations such as “the electronics industry is global” are not particularly useful. A better

question is *how* global an industry is, or is likely, to become. Virtually all industries are global in some respects. However, only a handful of industries can be considered truly global today or are likely to become so in the future. Many more will remain hybrids, that is, global in some respects, local in others. *Industry globalization, therefore, is a matter of degree.* What counts is which elements of an industry are becoming global and how they affect strategic choice. In approaching this issue, we must focus on the drivers of industry globalization and think about how these elements shape strategic choice.

We should also make a distinction between *industry globalization*, *global competition*, and the degree to which a *company has globalized* its operations. In traditionally global industries, competition is mostly waged on a worldwide basis and the leaders have created global corporate structures. But the fact that an industry is not truly global does not prevent global competition. And a competitive global posture does not necessarily require a global reorganization of every aspect of a company's operations. Economies of scale and scope are among the most important drivers of industry globalization; in global industries, the minimum volume required for cost efficiency is simply no longer available in a single country or region. Global competition begins when companies cross-subsidize national market-share battles in pursuit of global brand and distribution positions. A global company structure is characterized by production and distribution systems in key markets around the world that enable cross-subsidization, competitive retaliation on a global basis, and world-scale volume.<sup>2</sup>

So why are some industries more global than others? And why do global industries appear to be concentrated in certain countries or regions? Most would consider the oil, auto, and pharmaceutical industries global industries, while tax preparation, many retailing sectors, and real estate are substantially domestic in nature. Others, such as furniture, lie somewhere in the middle. What accounts for the difference? The dominant location of global industries also poses interesting questions. Although the machine tool and semiconductor industries originated in the United States, Asia has emerged as the dominant player in most of their segments today. What accounts for this shift? Why is the worldwide chemical industry concentrated in Germany while the United States continues to dominate in software and entertainment? Can we predict that France and Italy will remain the global centers for fashion and design? These issues are important to

strategists. They are also relevant as a matter of public policy as governments attempt to shape effective policies to attract and retain the most attractive industries, and companies must anticipate changes in global competition and locational advantage.

### **Minicase 2.1. Cemex's Globalization Path: First Cement, Then Services**

When Lorenzo Zambrano became chairman and chief executive officer of Cemex in the 1980s, he pushed the company into foreign markets to protect it from the Latin American debt crisis. Now the giant cement company is moving into services.<sup>3</sup>

Zambrano first focused on the United States. But attempts to sell cement north of the border were greeted by hostility from producers, who convinced the U.S. International Trade Commission to levy a stiff antidumping duty. Despite a General Agreement on Tariffs and Trade's (GATT) ruling in Cemex's favor, the company was still paying the fine a dozen years later.

Rebuffed in the world's biggest market, Zambrano turned to Spain, investing in port facilities and outmaneuvering European rivals for control of the country's two largest cement firms. When he discovered how inefficiently they were run, Zambrano sent a team of his Mexican managers to Spain to introduce his distinctive way of doing business. Called the "Cemex Way," it is a culture that blends modern, flexible management practices with cutting-edge technology.

From Spain, where profits increased from 7% to 24% during Cemex's first 2 years there, the company expanded around the globe. Blending state-of-the-art technology with the making and selling of one of the world's most basic products, Cemex has achieved remarkable customer service in some of the most logistically challenged countries. Whether Venezuela, Mexico, or the Philippines, Cemex trucks equipped with GPS navigational systems promise deliveries within 20 minutes.

After gaining a solid international footing, Zambrano went back to the United States. In 2000, he bought Houston-based Southdown Cement—one of the largest purchases ever by a Mexican company

in the United States. Soon, Cemex was the biggest U.S. cement seller. In less than two decades, Zambrano had transformed Cemex from a domestic company into the world's third-largest cement firm by investing heavily and imaginatively not only in plants and equipment, which is what one would expect in the cement industry, but also in information technology and particularly in Cemex's people.

The corporation has consistently been more profitable than either of its two biggest competitors, France's Lafarge and Switzerland's Holcim. Sales in 2008 were almost \$22 billion, with an operating margin of almost 12%.

Today, Cemex has a presence in more than 50 countries across 5 continents. It has an annual production capacity of close to 96 million metric tons of cement, approximately 77 million cubic meters of ready-mix concrete and more than 240 million metric tons of aggregates. Its resource base includes 64 cement plants, over 2,200 ready-mix concrete facilities, and a minority participation in 15 cement plants, and it operates 493 aggregate quarries, 253 land-distribution centers, and 88 marine terminals.

Zambrano's embrace of technology is central to Cemex's efficiency. Fiber optics link the system, and satellite communications are used to connect remote outposts. Whether at the Monterrey headquarters or on the road, the chief executive officer can tap into his computer to check kiln temperatures in Bali or cement truck deliveries in Cairo.

Because he believes many companies use technology ineffectively, Zambrano spun off Cemex's technology arm to sell its services. Organized under the CxNetworks Miami subsidiary, which is devoted to creating growth by building innovative businesses around Cemex's strengths, Zambrano formed a consulting service called Neoris. With more than half of its customers coming from outside Cemex, the operation has already become hugely profitable. It has been grouped with another start-up—Arkio, a distributor of building material products to construction companies in developing nations. "We're selling logistics," says the president of CxNetworks. "We can assure our customers that they can have the materials from our warehouse to their construction site within 48 hours."

## Clustering: Porter's National Diamond

The theory of comparative economic advantage holds that as a result of natural endowments, some countries or regions of the world are more efficient than others in producing particular goods. Australia, for example, is naturally suited to the mining industry; the United States, with its vast temperate landmass, has a natural advantage in agriculture; and more-wooded parts of the world may have a natural advantage in producing timber-based products. This theory is persuasive for industries such as agriculture, mining, and timber. But what about industries such as electronics, entertainment, or fashion design? To explain the clustering of these industries in particular countries or regions, a more comprehensive theory of the geography of competition is needed.

In the absence of natural comparative advantages, industrial clustering occurs as a result of a relative advantage that is created by the industry itself.<sup>4</sup> Producers tend to locate manufacturing facilities close to their primary customers. If transportation costs are not too high, and there are strong economies of scale in manufacturing, a large geographic area can be served from this single location. This, in turn, attracts suppliers to the industry. A labor market is likely to develop that begins to act like a magnet for “like” industries requiring similar skills. This collocation of “like” industries can lead to technological interdependencies, which further encourage clustering. Clustering, therefore, is the natural outcome of economic forces. A good example is provided by the semiconductor industry. Together, American and Asian firms supply most of the world's needs. The industry is capital intensive, research and development costs are high, the manufacturing process is highly complex, but transportation costs are minimal. Technology interdependencies encourage collocation with suppliers, whereas cost and learning curve effects point to scale efficiencies. Clustering, therefore, is mutually advantageous.

Only when transportation costs are prohibitive or scale economies are difficult to realize—that is, when there are disincentives to clustering—do more decentralized patterns of industry location define the natural order. The appliance industry illustrates this. Companies such as GE and Whirlpool have globalized their operations in many respects, but the fundamental economics of the industry make clustering unattractive. The production of certain value-added components, such as compressors

or electronic parts, can be concentrated to some extent, but the bulky nature of the product and high transportation costs make further concentration economically unattractive. What is more, advances in flexible manufacturing techniques are reducing the minimum scale needed for efficient production. This allows producers to more finely tailor their product offerings to local tastes and preferences, further thwarting the globalization of the industry.

Thus, classical economic theory tells us why clustering occurs. However, it does not fully explain why *particular* regions attract certain global industries. Porter addressed this issue using a framework he calls a “national diamond.”<sup>5</sup> It has six components: *factor conditions, home-country demand, related and supporting industries, competitiveness of the home industry, public policy, and chance.*

### **Factor Conditions**

The explanation why *particular* regions attract *particular* industries begins with the degree to which a country or region’s endowments match the characteristics and requirements of an industry. Such factor conditions include natural (climate, minerals) as well as created (skill levels, capital, infrastructure) endowments. But to the extent that such factors are mobile, or can be imitated by other countries or regions, factor conditions alone do not fully explain regional dominance. In fact, the opposite is true. When a particular industry is highly profitable and barriers to entry are low, the forces of imitation and diffusion cause such an industry to spread across international borders.<sup>6</sup> The Japanese compete in a number of industries that originated in the United States; Korean firms imitate Japanese strategies; and Central European nations are conquering industries that were founded in Western Europe. Industries that depend on such mobile factors as capital are particularly susceptible.

### **Home-Country Demand**

Porter’s second factor is the nature and size of the demand in the home country. Large home markets act as a stimulus for industry development. And when a large home market develops before it takes hold elsewhere in the world, experienced firms have ample incentives to look for business

abroad when saturation at home begins to set in. The motorcycle industry in Japan, for example, used its scale advantage to create a global presence following an early start at home.<sup>7</sup> Porter found that it is not just the *location* of early demand but its *composition* that matters. A product's fundamental or core design nearly always reflects home-market needs. As such, the nature of the home-market needs and the sophistication of the home-market buyer are important determinants of the potential of the industry to stake out a future global position. It was helpful to the U.S. semiconductor industry, for example, that the government was an early, sophisticated, and relatively cost-insensitive buyer of chips. These conditions encouraged the industry to develop new technologies and provided early opportunities to manufacture on a substantial scale.

### ***Related and Supporting Industries***

The presence of related and supporting industries is the third element of Porter's framework. This is similar to our earlier observation about clustering. For example, Hollywood is more than just a cluster of moviemakers—it encompasses a host of suppliers and service providers, and it has shaped the labor market in the Los Angeles area.

### ***Competitiveness of the Home Industry***

Firm strategies, the structure, and the rivalry in the home industry define the fourth element of the “national diamond” model. In essence, this element summarizes the “five forces” competitive framework described earlier. The more vigorous the domestic competition is, the more successful firms are likely to compete on a global scale. There is plenty of evidence for this assertion. The fierce rivalry that exists among German pharmaceutical companies has made them a formidable force in the global market. And the intense battle for domestic market share has strengthened the competitive position of Japanese automobile manufacturers abroad.

### *Public Policy and Chance*

The two final components of Porter's model are public policy and chance. There can be no doubt that government policy can—through infrastructure, incentives, subsidies, or temporary protection—nurture global industries. Whether such policies are always effective is less clear. Picking “winners” in the global marketplace has never been the strong suit of governments. The chance element allows for the influence of random events such as where and when fundamental scientific breakthroughs occur, the presence of entrepreneurial initiative, and sheer luck. For example, the early U.S. domination of the photography industry is as much attributable to the fact that George Eastman (of Eastman Kodak) and Edwin Land (of Polaroid) were born here than to any other factor.

### **Industry Globalization Drivers**

Yip identifies four sets of “industry globalization drivers” that underlie conditions in each industry that create the potential for that industry to become more global and, as a consequence, for the potential viability of a global approach to strategy.<sup>8</sup> *Market drivers* define how customer behavior distribution patterns evolve, including the degree to which customer needs converge around the world, customers procure on a global basis, worldwide channels of distribution develop, marketing platforms are transferable, and “lead” countries in which most innovation takes place can be identified. *Cost globalization drivers*—the opportunity for global scale or scope economics, experience effects, sourcing efficiencies reflecting differentials in costs between countries or regions, and technology advantages—shape the economics of the industry. *Competitive drivers* are defined by the actions of competing firms, such as the extent to which competitors from different continents enter the fray, globalize their strategies and corporate capabilities, and create interdependence between geographical markets. *Government drivers* include such factors as favorable trade policies, a benign regulatory climate, and common product and technology standards.

### *Market Drivers*

One aspect of globalization is the steady convergence of customer needs. As customers in different parts of the world increasingly demand similar products and services, opportunities for scale arise through the marketing of more or less standardized offerings. How common needs, tastes, and preferences will vary greatly by product and depend on such factors as the importance of cultural variables, disposable incomes, and the degree of homogeneity of the conditions in which the product is consumed or used. This applies to consumer as well as industrial products and services. Coca-Cola offers similar but not identical products around the world. McDonald's, while adapting to local tastes and preferences, has standardized many elements of its operations. Software, oil products, and accounting services increasingly look alike no matter where they are purchased. The key to exploiting such opportunities for scale lies in understanding which elements of the product or service can be standardized without sacrificing responsiveness to local preferences and conditions.

Global customers have emerged as needs continue to converge. Large corporations such as DuPont, Boeing, or GE demand the same level of quality in the products and services they buy no matter where in the world they are procured. In many industries, global distribution channels are emerging to satisfy an increasingly global customer base, further causing a convergence of needs. Finally, as consumption patterns become more homogeneous, global branding and marketing will become increasingly important to global success.

### *Cost Globalization Drivers*

The globalization of customer needs and the opportunities for scale and standardization it brings will fundamentally alter the economics of many industries. Economies of scale and scope, experience effects, and exploiting differences in factor costs for product development, manufacturing, and sourcing in different parts of the world will assume a greater importance as determinants of global strategy. At bottom is a simple fact: a single market will no longer be large enough to support a competitive strategy on a global scale in many industries.

Global scale and scope economics are already having far-reaching effects. On the one hand, the more the new economies of scale and scope shape the strategies of incumbents in global industries, the harder it will be for new entrants to develop an effective competitive threat. Thus, barriers to entry in such industries will get higher. At the same time, the rivalry within such industries is likely to increase, reflecting the broadening scope of competition among interdependent national and regional markets and the fact that true differentiation in such a competitive environment may be harder to achieve.

### *Competitive Drivers*

Industry characteristics—such as the degree to which total industry sales are made up by export or import volume, the diversity of competitors in terms of their national origin, the extent to which major players have globalized their operations and created an interdependence between their competitive strategies in different parts of the world—also affect the globalization potential of an industry. High levels of trade, competitive diversity, and interdependence increase the potential for industry globalization. Industry evolution plays a role, too. As the underlying characteristics of the industry change, competitors will respond to enhance and preserve their competitive advantage. Sometimes, this causes industry globalization to accelerate. At other times, as in the case of the worldwide major appliance industry, the globalization process may be reversed.

### *Government Drivers*

Government globalization drivers—such as the presence or absence of favorable trade policies, technical standards, policies and regulations, and government operated or subsidized competitors or customers—affect all other elements of a global strategy and are therefore important in shaping the global competitive environment in an industry. In the past, multinationals almost exclusively relied on governments to negotiate the rules of global competition. Today, however, this is changing. As the politics and economics of global competition become more closely intertwined, multinational companies are beginning to pay greater attention to the so-called nonmarket dimensions of their global strategies aimed at shaping

the global competitive environment to their advantage (see the following section). This broadening of the scope of global strategy reflects a subtle but real change in the balance of power between national governments and multinational corporations and is likely to have important consequences for how differences in policies and regulations affecting global competitiveness will be settled in the years to come.

### **Minicase 2.2. Global Value Chains in the Automotive Industry: A Nested Structure<sup>9</sup>**

From a geographic point of view, the world automotive industry, like many others, is in the midst of a profound transition. Since the mid-1980s, it has been shifting from a series of discrete national industries to a more integrated global industry. In the automotive industry, these global ties have been accompanied by strong regional patterns at the operational level.

Market saturation, high levels of motorization, and political pressures on automakers to “build where they sell” have encouraged the dispersion of final assembly, which now takes place in many more places than it did 30 years ago. According to Automotive News Market Data Books, while seven countries accounted for about 80% of world production in 1975, 11 countries accounted for the same share in 2005.

The widespread expectation that markets in China and India were poised for explosive growth generated a surge of new investment in these countries. Consumer preferences require that automakers alter the design of their vehicles to fit the characteristics of specific markets. They also want their conceptual designers to be close to “tuners” to see how they modify their production vehicles. These motivations led automakers to establish a series of affiliated design centers in places such as China and Southern California. Nevertheless, the heavy engineering work of vehicle development, where conceptual designs are translated into the parts and subsystems that can be assembled into a drivable vehicle, remain centralized in or near the design clusters that have arisen near the headquarters of lead firms.

The automotive industry is therefore neither fully global, consisting of a set of linked, specialized clusters, nor tied to the narrow geography of nation states or specific localities, as is the case for some cultural or service industries. Global integration has proceeded at the level of design and vehicle development as firms have sought to leverage engineering effort across regions. Examples include right- versus left-hand drive, more rugged suspension and larger gas tanks for developing countries, and consumer preferences for pick-up trucks in Thailand, Australia, and the United States.

The principal automotive design centers in the world are Detroit, Michigan, in the United States (GM, Ford, Chrysler, and, more recently, Toyota and Nissan); Cologne (Ford Europe), Rüsselsheim (Opel, GM's European division), Wolfsburg (Volkswagen), and Stuttgart (Daimler-Benz) in Germany; Paris, France (Renault); and Tokyo (Nissan and Honda) and Nagoya (Toyota) in Japan. This is just nine products sold in multiple end markets.

As suppliers have taken on a larger role in design, they have, in turn, established their own design centers close to those of their major customers in order to facilitate collaboration. On the production side, the dominant trend is regional integration, a pattern that has been intensifying since the mid-1980s for both political and technical reasons. In North America, South America, Europe, Southern Africa, and Asia, regional parts production tends to feed final assembly plants producing largely for regional markets. Political pressure for local production has driven automakers to set up final assembly plants in many of the major established market areas and in the largest emerging market countries, such as Brazil, India, and China. Increasingly, as a precondition to being considered for a new part, lead firms demand that their largest suppliers have a global presence.

Because centrally designed vehicles are manufactured in multiple regions, buyer-supplier relationships typically span multiple production regions. Within regions, there is a gradual investment shift toward locations with lower operating costs: the U.S. South and Mexico in North America; Spain and Eastern Europe in

Europe; and Southeast Asia and China in Asia. Ironically, perhaps, it is primarily local firms that take advantage of such cost-cutting investments within regions (e.g., the investments of Ford, GM, and Chrysler in Mexico), since the political pressure that drives inward investment is only relieved when jobs are created within the largest target markets (e.g., the investments of Toyota and Honda in the United States and Canada).

Automotive parts, of course, are more heavily traded between regions than finished vehicles. Within countries, automotive production and employment are typically clustered in one or a few industrial regions. In some cases, these clusters specialize in specific aspects of the business, such as vehicle design, final assembly, or the manufacture of parts that share a common characteristic, such as electronic content or labor intensity.

Because of deep investments in capital equipment and skills, regional automotive clusters tend to be very long-lived. To sum up the complex economic geography of the automotive industry, we can say that global integration has proceeded the farthest at the level of buyer-supplier relationships, especially between automakers and their largest suppliers. Production tends to be organized regionally or nationally, with bulky, heavy, and model-specific parts production concentrated close to final assembly plants to assure timely delivery, and with lighter, more generic parts produced at a distance to take advantage of scale economies and low labor costs. Vehicle development is concentrated in a few design centers. As a result, local, national, and regional value chains in the automotive industry are “nested” within the global organizational structures and business relationships of the largest firms. While clusters play a major role in the automotive industry, and have “pipelines” that link them, there are also global and regional structures that need to be explained and theorized in a way that does not discount the power of localization.

## Globalization and Industry Structure

Yoffie suggests 5 propositions that help explain how the structure of an industry can evolve depending on, among other factors, the dynamics that shape competition in the industry and the role governments play in stimulating or obstructing the globalization process.<sup>10</sup>

Proposition 1 is that when industries are relatively fragmented and competitive, national environments (factors of production, domestic market and domestic demand, and so forth) will largely shape the international advantage of domestically headquartered firms and the patterns of trade. A correlate to this proposition is that in emerging industries, country advantages also play a dominant role in determining global competitive advantage.

In other words, in fragmented industries relative cost is a key determinant of global success, and since countries differ in terms of their factor costs, as long as entry barriers remain low, production will gravitate to the lowest cost, highest efficiency manufacturing location. Another way of saying this is that the presence of multinational firms, by itself, should not influence the pattern of international trade in globally competitive, fragmented industries; other things being equal, country factors determine the location of production and the direction of exports. Oligopolistic global industry structures define a very different strategic context, as the next proposition illustrates.

Proposition 2 stipulates that if an industry becomes globally concentrated with high barriers to entry, then location, activity concentration, export, and other strategic decisions by multinational companies are determined to a greater extent by the nature of the global oligopolistic rivalry. Thus, while in concentrated industries country characteristics remain important, the dynamics of the global, oligopolistic competitive climate become the principal drivers of global strategy. This is intuitive. In global oligopolies, more so than in fragmented market structures, the success of one firm is directly affected by that of a few, immediate competitors. Entry into the industry is often restricted in some way—by factors such as economies of scale or scope, high levels of capital investment, and the like, or by restrictions imposed by governments. Furthermore, in many global oligopolies, participating firms earn above-average returns, which may make the difference in cost between producing locally and

exporting a less critical determinant of strategy. Opportunities to cross-subsidize businesses and geographies further reduce the importance of geography in production or export decisions. As a consequence, the moves and countermoves of direct, global competitors heavily influence company strategies. For example, it is quite common for companies to enter some other firm's home market, not just because that market is likely to generate additional profits but mainly to weaken its global competitive position. This line of reasoning directly leads to a third proposition, which relates organizational and strategic attributes of global competitors to global strategic choice.

Proposition 3 suggests that in global oligopolies, specific firm characteristics—the structure of ownership, strategies employed, and organizational factors, to name a few—directly affect strategic posture, the pattern of trade, and, sometimes, the competitiveness of nations. In global oligopolies with a relatively small number of competitors, issues such as *who* owns the resources necessary for creating value and *who* sets the global priorities take on a greater strategic significance. Executives from different cultures approach strategy differently—state-owned enterprises are often more motivated by public policy considerations, employment, and other nonprofit concerns. These differences can have a direct impact on the relative attractiveness of global strategy options. The influence of governments in global markets is captured further in the fourth proposition.

Proposition 4 suggests that extensive government intervention in global oligopolistic industries can alter the relative balance between firms of different countries—even in fragmented industries, it can alter the direction of trade and affect major corporate trade decisions. The degree and influence of government intervention varies from industry to industry. Whereas in fragmented industries the influence of governments is naturally somewhat limited by market conditions, government intervention can have a pronounced influence in industries with significant economies of scale effects or other market imperfections. For example, governments can protect “infant” industries with such characteristics. While a case can be made for the temporary protection of strategically important industries, in reality, such protection is rarely temporary. This can create a global strategic environment in which anticipating and capitalizing on the actions of governments become the driving forces of global strategy.

Proposition 5 suggests that in industries where firms make long-term commitments, corporate adjustments and patterns of trade tend to be “sticky.” This fifth and final proposition addresses the issue of corporate inertia. Although the global competitive climate changes every day, choices made by multinational companies and governments tend to have an enduring impact on the industry environment. This proposition has at least two implications. First, the study of how industries evolve globally and what decisions different competitors made and how they made them is relevant to understanding what drives strategy in a particular global context. Second, the commitments already made by industry participants and governments may spell opportunity or impose constraints for years to come.

These 5 propositions define 2 important dimensions for classifying globalizing industries according to the nature of the strategic challenge they represent: *the degree of global concentration and the extent to which governments intervene*. In industries with a relatively low degree of concentration and little government intervention, the classical economic laws of *comparative advantage* are the primary drivers of international competition. Here, factor costs are a primary determinant of global competitiveness. It would seem natural, therefore, to focus on a global strategy aimed at minimizing costs. But this can be extremely difficult in a fast-changing world. Comparative country costs change continuously. In cars, semiconductors, and computers, among other industries, the comparative (cost) advantage has shifted a number of times since World War II from the United States to Japan to East Asia to Southeast Asia. What is more, there is good reason to believe it will shift again, perhaps to Africa or Latin America. And, with new technological breakthroughs, Western nations may once again become the low-cost production centers. So what should companies do? While companies should definitely take advantage of opportunities to minimize costs, especially in their initial investments, Yoffie suggests that long-term global strategic choices should emphasize *commitments to countries that are likely to act as the best platforms over time for a broad array of activities*.<sup>11</sup>

In globally concentrated industries where the role of governments is limited, characterized by *oligopolistic competition*, company strategies are often heavily influenced by the moves and countermoves of direct competitors. Strategies such as making significant investments in competitors’

markets, regardless of their short- or medium-run profitability—which would not work in highly competitive markets—can only be explained in terms of a strategic posture aimed at maintaining a long-term global competitive balance between the various participants. Caterpillar invested heavily in Japan while Komatsu and European construction equipment manufacturing moved into the United States at a time when such moves offered limited immediate returns. In this kind of competitive environment, the potential for overglobalization—the globalization of different aspects of strategy well in advance of proven benefits—exists as the relatively small number of competitors and high barriers to entry encourage “follow-the-leader” competitive behavior. On the other hand, not responding directly to major competitors can be equally dangerous. Komatsu’s challenge to Caterpillar, in part, was made possible because, early on, Caterpillar focused its strategy on keeping John Deere, International Harvester, and Dresser Industries at bay rather than on beating Komatsu. This suggests a number of strategic implications. First, while imitation cannot be the sole basis for developing strategy, in oligopolies, it may be necessary, at times, to match a competitor in order to reduce the risk of competitive disadvantage. A related implication is that in global oligopolies, companies cannot allow their competitors to have uncontested home markets in which profit sanctuaries can be used to subsidize global competitive moves. This explains Kodak’s extraordinary efforts to pry open the Japanese market—it knew Fuji would be at a considerable advantage if it remained dominant in Japan. Finally, the use of alliances can make such global moves more affordable, flexible, and effective. Alliances can be powerful vehicles for rapidly entering new countries, acquiring new technologies, or otherwise supporting a global strategy at a relatively low cost.<sup>12</sup>

Dealing effectively with governments is a prerequisite for global success in oligopolistic industries such as telecommunications, where extensive government intervention creates a global competitive climate known as *regulated competition*. Here, nonmarket dimensions of global strategy may well be as important as market dimensions. Political involvement may be necessary to create, preserve, or enhance global competitive advantage since government regulations—whether in infant or established industries—are critical to success. As a consequence, strategy in global, regulated industries should be focused as

much on shaping the global competitive environment as on capitalizing on the opportunities it offers.

*Political competition*, characteristic of fragmented industries with significant government intervention, also calls for a judicious mix of market and nonmarket-based strategic thinking. In contrast to regulated competition, in which government policy has a direct impact on individual companies, however, government intervention in political competition often pits one country or region of the world against another. This encourages a whole range of cooperative strategies between similarly affected players and strategic action at the country-industry level.

Finally, it is worth remembering that patterns of competition are not static. Industries evolve continuously, sometimes dramatically. Similarly, the focus of government action in different industries can change as national priorities change and the global competitive environment evolves.

### Points to Remember

1. Industries and companies tend to globalize in stages, and at each stage, there are different opportunities for, and challenges associated with, creating value.
2. Simple characterizations such as “the electronics industry is global” are not particularly useful. A better question is *how* global an industry is or is likely to become; *industry globalization is a matter of degree*.
3. A distinction must be made between *industry globalization*, *global competition*, and the degree to which a *company has globalized* its operations. Porter explains industry clustering using a framework he calls a “national diamond.” It has six components: *factor conditions*, *home country demand*, *related and supporting industries*, *competitiveness of the home industry*, *public policy*, and *chance*.
4. Yip identifies four sets of “industry globalization drivers”—underlying conditions in each industry that create the potential for that industry to become more global and, as a consequence, for the potential viability of a global approach to strategy. These drivers are *market drivers*, *cost drivers*, *competitive drivers*, and *government drivers*.
5. Yoffie offers five propositions that help explain how the structure of an industry can evolve depending on, among other factors, the dynamics that shape competition in the industry and the role

governments play in stimulating or obstructing the globalization process. These propositions define two important dimensions for classifying globalizing industries according to the nature of the strategic challenge they represent: *the degree of global concentration* and *the extent to which governments intervene*.