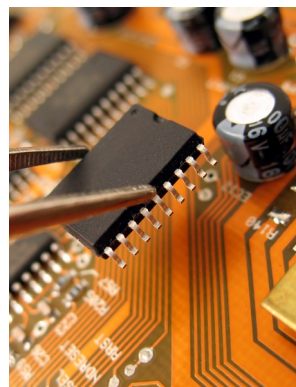


McKinsey Global Institute



March 2010

# How to compete and grow: A sector guide to policy



## The McKinsey Global Institute

The McKinsey Global Institute (MGI), established in 1990, is McKinsey & Company's business and economics research arm. MGI's mission is to help leaders in the commercial, public, and social sectors develop a deeper understanding of the evolution of the global economy and to provide a fact base that contributes to decision making on critical management and policy issues.

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MGI's current research agenda focuses on global markets (capital, labor, and commodities), the dynamics of consumption and demographics, productivity and competitiveness, the impact of technology, and other topics at the intersection of business and economics. Recent research has examined the economic impact of aging consumers and household debt reduction in developed countries, the emerging middle class in developing countries, health care costs, energy demand trends and energy productivity, and long-term shifts in world financial assets.

MGI's work is conducted by a group of full-time senior fellows based in offices in Beijing, Brussels, Delhi, London, San Francisco, and Washington, DC. MGI project teams also include consultants from McKinsey's offices around the world and are supported by McKinsey's network of industry and management experts and worldwide partners. In addition, leading economists, including Nobel laureates and policy experts, act as advisers to our work.

MGI is funded by the partners of McKinsey & Company, and our research is not commissioned by any business, government, or other institution. Further information about MGI and copies of MGI's published reports can be found at [www.mckinsey.com/mgi](http://www.mckinsey.com/mgi). Comments or inquiries are welcome at [mgi@mckinsey.com](mailto:mgi@mckinsey.com).

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# How to compete and grow: A sector guide to policy

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## Preface

*How to compete and grow: A sector guide to policy* builds not only on McKinsey & Company's industry expertise but on nearly two decades of sector-level analysis by the McKinsey Global Institute (MGI) in more than 20 countries and 28 industrial sectors. The report is part of a broader ongoing MGI research effort on the topic of growth and renewal. In the latest research, we have studied competitiveness and growth in six industries (retail, software and IT services, tourism, semiconductors, automotive, and steel) across eight countries in each case, including both emerging and high-income economies. Many governments have signaled their intention to become more proactive in the market in pursuit of sustainable growth and enhanced competitiveness. Our aspiration is to provide a fact base for such efforts and to inform the private sector's dialog with policy makers around the world.

Jaana Remes, MGI senior fellow, led this project, with guidance from James Manyika, Lenny Mendonca, Vitaly Klintsov, and Jörg Schubert. The project team comprised Kuntala Karkun, Stefan Klußmann, Christina Kükenshöner, Mikhail Nikomarov, Tilman Tacke, and Antti Törmänen. The team also benefited from the contributions of Janet Bush, MGI senior editor, who provided editorial support; Rebeca Robboy, MGI external communications manager; Vilas Kotkar, team assistant; and Marisa Carder and Therese Khoury, visual graphics specialists.

We are grateful for the vital input and support of numerous McKinsey colleagues around the world. These include Ruslan Alikhanov, Andreas Baumgartner, Frank Bekaert, Philippe Bideau, Stefan Biesdorf, Urs Binggeli, Francois Bouvard, Harry Bowcott, Dirk Breitschwerdt, Stefan Burghardt, Justin Byars, V. Chandrasekar, Michael Chui, John Dowdy, Karel Eloit, Christoph Eltze, Luis Enriquez, Daniel Feldmann, Christophe François, Steffen Fuchs, Christian Gschwandtner, Toralf Hagenbruch, David Hajman, Stefan Heck, Russell Hensley, Michael Herter, Martin Hjerpe, Scott Jacobs, Noshir Kaka, Osamu Kaneda, Axel Kalthoff, Martin Kolling, Stefan Knufer, Axel Krieger, Kevin Krogmann, Sigurd Mareels, Tim McGuire, Sarah Monroe, Nicolai Muller, Yuji Nakahara, James Naylor, Bettina Neuhaus, Becca O'Brien, Lorelei Osborn, Andreas Pecher, Tom Pepin, Niels Phaf, Luiz Pires, Philipp Radtke, Stefan Rehbach, Sergio Sandoval, Vishal Sarin, Yasushi Sawada, Sven Smit, Robert Stemmler, John Strevel, Yeonkyung Sung, Mourad Taoufik, Fraser Thompson, Davide Vassena, Ruben Verhoeven, Sanjay Verma, Uma Vohra, Bill Wiseman, Dilip Wagle, Jonathan Woetzel, Jiajun Wu, Simei Wu, and Andreas Zielke.

Distinguished experts outside McKinsey provided invaluable insights and advice. We would particularly like to thank Martin N. Baily, a senior adviser to McKinsey and a senior fellow at the Brookings Institution; Dani Rodrik, professor of International Political Economy at the John F. Kennedy School of Government, Harvard University.

This report contributes to MGI's mission to help global leaders understand the forces transforming the global economy, improve company performance, and work for better national and international policies. As with all MGI research, we would like to emphasize that this work is independent and has not been commissioned or sponsored in any way by any business, government, or other institution.

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## Executive summary

As we emerge slowly from the first global recession since World War II, governments and businesses share an overarching aim—to steer their economies toward increasing competitiveness and growth. Many business leaders advocate a greater role for government in this effort. Intel Corporation’s former chairman Craig Barrett has urged governments to implement policies “to grow smart people and smart ideas.”<sup>1</sup> Rolls-Royce chief executive Sir John Rose has argued for the credit crunch to be a catalyst for a sharper focus on industrial competitiveness.<sup>2</sup>

Many governments are already being more proactive in trying to boost growth and competitiveness. Given the fragility of the business and economic climate—and strained public coffers—the responsibility to get policy right, and thereby and create a solid foundation for long-term growth, is acute.

Fostering growth and competitiveness is a perennial challenge among policy priorities, but past experience shows that governments have, at best, a mixed record in this regard. There have been solid successes but also damaging failures—ineffective interventions that have proved costly to the public purse, and even regulation that has had negative, unintended consequences for the conduct of business.

An important reason why government intervention in markets has been hit or miss is that action has tended to be based on academic and policy research that has looked through an economy-wide lens to understand competitiveness—in other words, whether one country is “more competitive” than another.

The top-down analysis has all too often failed to capture the fact that the conditions that promote competitiveness differ significantly from sector to sector—and so therefore do the most effective potential regulations and policies. The McKinsey Global Institute (MGI) has analyzed the performance of more than 20 countries and nearly 30 industry sectors (see box 1 “Defining sector competitiveness and growth”). On the basis of our experience, we believe that effective policy making needs a new approach.

Only by analyzing what drives growth and competitiveness in different sectors of the economy—and then tailoring the policy response and executing policy in close collaboration with the private sector—can governments boost their odds of intervening effectively. This paper seeks to provide fact-based insights to help governments make the right decisions and trade-offs, drawing on MGI’s bottom-up, sector-based approach.

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1 Davos: Craig Barrett on the post-crisis world, January 29, 2009  
<http://blogs.intel.com/csr/2009/01/>.

2 “Made in Britain,” *World in 2009 edition*, *Economist*, November 19, 2008.

### Box 1. Defining sector competitiveness and growth

Competitiveness is a fuzzy term used to mean many different things. For each sector, MGI defines competitiveness as a capacity to sustain growth through either increasing productivity or expanding employment.<sup>3</sup> A competitive sector is one in which companies improve their performance by increasing productivity through managerial and technological innovations, and offer better quality or lower-priced goods and services, thereby expanding demand for their products. This approach enables us to shed light on the microeconomic dynamics behind growth in each sector, to identify variations in the relative competitive performance of different sectors, and to analyze the impact of different policy choices on growth and employment.

MGI's definition applies equally to sectors that produce tradable products, like cars, and those that produce nontradable services, such as retail.

**Capturing global market share.** For tradable goods and services, competitiveness makes intuitive sense as the attractiveness of a location for new investments and the capacity of local operations to compete regionally or globally, generating growth in their sector overall. For example, Brazil has become the largest poultry exporter in the world by combining global best-practice processes with low factor costs; the poultry industry created jobs and growth in the host economy as a result.

**Growing domestic market.** For local services, we also interpret competitiveness as the capacity to generate growth. However, in these sectors, growth comes from the creation and expansion of a domestic market. Those service sectors that offer appealing services and products at attractive prices to local consumers and businesses will create jobs and boost productivity. For example, a higher-cost and more limited restaurant and hotel offering in Sweden explains why consumers spend less than half as much of their consumption on these services as in the United Kingdom.

## PATTERNS IN SECTOR CONTRIBUTIONS TO GROWTH CHALLENGE CONVENTIONAL WISDOM

To reach a better understanding of the underlying drivers of competitiveness, and the policies that empirically have been successful in promoting it, we studied the competitiveness and growth of six industries (retail, software and IT services, tourism, steel, automotive, and semiconductors) across eight or more countries in each case, including both emerging and high-income economies. Drawing on national account data and McKinsey's global industry expertise, we measured differences in sector growth performance across countries and assessed what factors have been critical for explaining the competitiveness in each industry (e.g., skills and scale in semiconductor products; access to low-cost raw materials and energy, and efficient operations in steel). We then studied how different government policies have influenced the competitiveness levers and growth performance of different countries.

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<sup>3</sup> By sector growth, we mean increases in sector value added—the contribution of a sector to overall GDP growth. The economy-wide growth impact across sectors is a function of both individual sector growth contributions and the changes in shares of above- and below-average productivity sectors.



This report shares some of the key findings from the research. We believe that the lessons that emerge from our case studies are applicable to other sectors, both existing and emerging, and countries across different income levels.

By analyzing competitiveness at the sector level, we reach conclusions that run counter to the way many policy makers think about the task in hand. Many governments worry about the “economic mix”—and assume that if they achieve the “right” mix, higher competitiveness and growth will follow; our analysis finds that solving for mix is not sufficient. To avoid wasting their effort and resources, policy makers cannot take a one-size-fits-all view, proposing identical policy solutions for globally competed sectors—whose competitiveness is not easy for governments to influence directly—and largely domestic sectors where regulation is often decisive. While many policy makers see innovative technologies as the answer to the challenge of job creation, our analysis indicates that governments are likely to be disappointed in such hopes. It may not capture the popular imagination but the quest for new jobs is much more likely to bear fruit in large local business and household-services sectors. Policy makers also need to take account of the stage of development of their economy. Sector contributions to GDP growth vary at different stages of a country's economic evolution and policy makers need to learn different skills sets in their efforts to enhance growth and competitiveness.<sup>4</sup>

Some of the key insights arising from our research are:

### **The competitiveness of sectors matters more than the mix**

Some governments worry about the “mix” of their economies but our research finds that countries that outperform their peers do not have a more favorable sector mix that propels them to higher growth. Instead, their individual sectors are more competitive. The sectors that fuel growth by performing exceptionally strongly vary by country. What above-average growth countries have in common is that their existing large employment sectors—such as retail and restaurants; food processing; and construction—pull their weight by posting strong growth.

### **To generate jobs, service-sector competitiveness is the key**

Many governments are looking to manufacturing sectors as a new source for growth and jobs in the aftermath of the financial and real-estate sector bust. But our research finds that services will continue to be critical for job creation. Productivity improvements are a key factor in all sectors but most job growth has come from services. In high-income economies, service sectors accounted for all net job growth between 1995 and 2005. Even in middle-income countries, where industry contributes almost half of overall GDP growth, 85 percent of net new jobs came from service sectors. So policy makers should ensure that domestic service sectors also continue to pull their weight.

### **Policy impacts nontradable sector competitiveness directly—in tradable sectors, getting policy right is more complicated**

Policy makers should take into account the fact that their influence on largely nontradable “domestic” sectors is more direct than it is in those sectors that compete globally. In nontradable sectors, sector performance correlates closely with the local

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4 In the early post-agricultural phase, the industrial sectors of middle-income countries tend to peak and then decline. In these economies, goods-producing sectors contribute almost half of economic growth, with services accounting for the rest. As incomes rise, the share of services continues to grow. Almost 90 percent of overall GDP growth in developed countries came from services between 1995 and 2005.

policy environment that sets the “rules of the game” for competitive market dynamics. Whether in telecommunications or retail, MGI case studies show that the employment and productivity outcomes of countries reflect the incentives to companies set by regulation. Regulation that facilitates business entry tends to increase competition and productivity, while flexible hiring laws, lower minimum wages, and part-time employment arrangements correlate with higher employment and more rapid adjustment to change. Policy changes can impact sector performance in two to three years.<sup>5</sup>

In traded sectors, where success requires local companies to be competitive in the regional or global marketplace, policy requires broader understanding of the global industry landscape. Some regulations can unexpectedly halt sector growth—as obscure national security review requirements did for Russian software exports. In addition, financial incentives to failed initiatives can cost governments billions—as many semiconductor ventures have done around the globe. For the best odds for sustained growth, efforts to enhance competitiveness should target those activities with a realistic potential for competitive advantage and be based on solid business logic.

### **Competitiveness in new innovative sectors is not enough to boost economy-wide employment and growth**

Many policy makers are pinning their hopes today on innovative new sectors such as cleantech as the answer to the challenges of competitiveness, growth, and jobs. Yet the innovative emerging sectors themselves are too small to make a difference to economy-wide growth. Take the case of semiconductors. With employment of 0.5 percent or less even among mature developed economies, the sector’s direct contribution to GDP is limited. But ongoing innovations in the sector have contributed to the IT adoption that has improved business processes and boosted productivity in many other sectors—and therefore made a difference for economy-wide growth. Yet these broad user benefits often don’t require local suppliers. In fact, policy efforts to protect local sector growth—such as Brazil’s unique television standards—can halt growth if they increase costs and reduce the adoption and use of new technologies. For instance, low-tech, green jobs in local services—such as improving building insulation and replacing obsolete heating and cooling equipment—have greater potential to generate jobs than the development of renewable technology solutions. For policy makers concerned with abating carbon emissions in the near term, pushing the adoption and diffusion of low-carbon solutions is likely to make a bigger difference than technology production alone.

## **GOVERNMENTS NEED TO TAILOR POLICY TO EACH SECTOR**

Tailoring policy for the myriad of different sectors in an economy is a complex task. For this reason, MGI has produced a new framework that we hope will help bring some clarity to government approaches to growth and competitiveness and streamline the necessary analysis.

We have identified six sector groups that share characteristics and respond to similar approaches to enhancing competitiveness: (1) infrastructure services; (2) local services; (3) business services; (4) research and development (R&D)-intensive manufacturing; (5) manufacturing; and (6) resource-intensive industries (Exhibit E1).

In each of these groups, we document how competitiveness levers vary and how policy has influenced competitiveness in each. We believe that these six categories

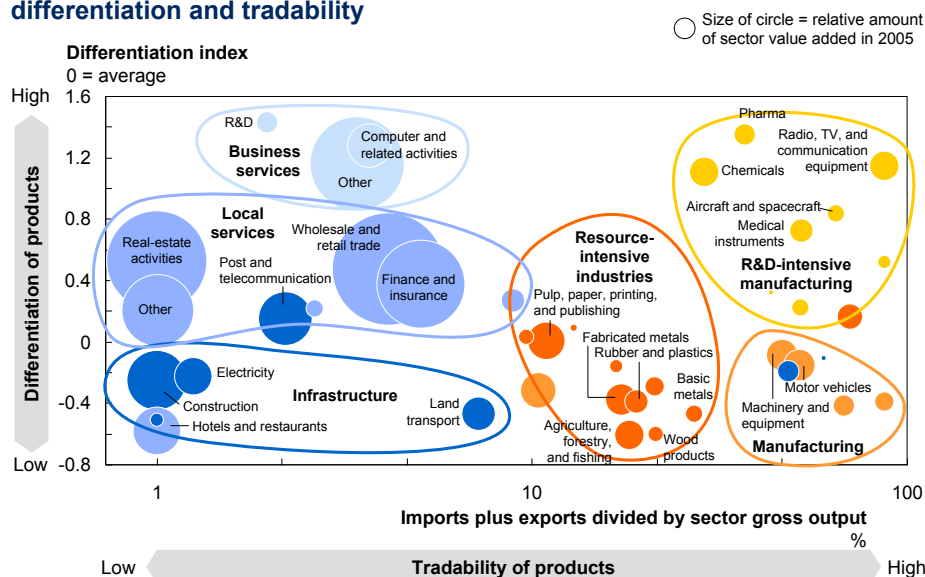
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<sup>5</sup> William Lewis, “The Power of Productivity: Wealth, Poverty, and the Threat to Global Stability,” Chicago University Press, new edition October 21, 2005.

provide a useful framework for understanding what determines competitiveness in different kinds of industries and what tangible actions governments and businesses can take to improve competitiveness.

### Exhibit E1

#### MGI categorizes sectors into six groups according to degrees of differentiation and tradability

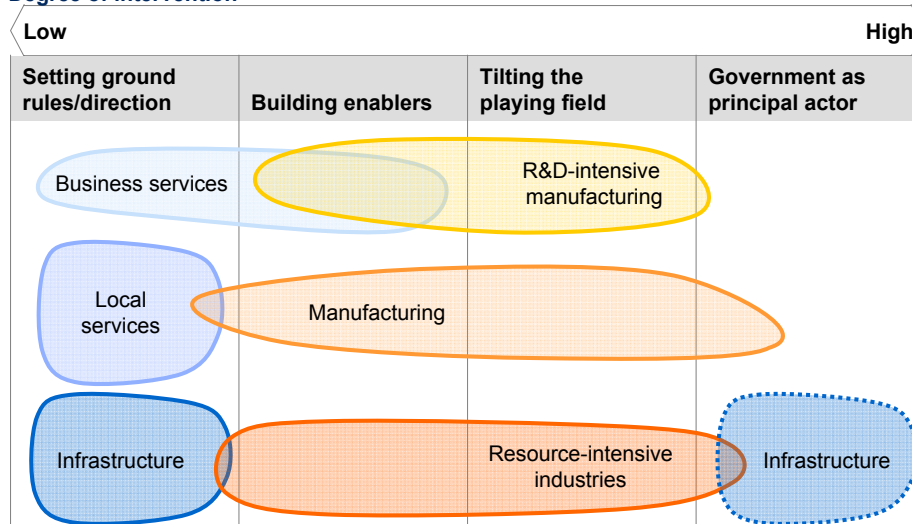


SOURCE: EU KLEMS growth and productivity accounts; OECD input-output tables; McKinsey Global Institute analysis

The spectrum of public policy interventions ranges from a hands-off approach limited to creating the necessary market institutions to being a central operator in a sector. We analyzed the policies used in different sectors in four categories that demonstrate an increasing intensity of intervention:

- 1. Setting the ground rules and direction.** Governments can limit sector policies to setting the regulatory environment including labor and capital-market and general business regulation, and setting broad national priorities and roadmaps.
- 2. Building enablers.** Without interfering with the market mechanism, governments can support the private sector by expanding hard and soft infrastructure; educating and training a skilled workforce; and supporting R&D.
- 3. Tilting the playing field.** Governments can choose to create favorable conditions for local production, typically through trade protection from global competition; through the provision of financial incentives for local operations; or by shaping local demand growth through public purchasing or regulation.
- 4. Playing the role of principal actor.** At the interventionist end of the policy spectrum, governments may play a direct role by establishing state-owned or subsidized companies; funding existing businesses to ensure their survival; and imposing restructuring on certain industries.

We found clear patterns linking sector competitiveness levers and effective policy, which governments need to factor into their design of competitiveness policies (Exhibit E2).

**Exhibit E2****Government policy tools need to be tailored to suit sector competitiveness drivers****Degree of intervention**

SOURCE: McKinsey Global Institute/Public Sector Office Competitiveness Project

In domestic sectors like telecommunications or retail that have limited trade, local regulation can directly determine the rules of the game and therefore guide both competitiveness and performance—yet in radically different ways in the various local sectors.

- 1. In infrastructure services like telecommunications**, large economies of scale require that the regulatory environment finds the right balance between the cost savings available from single large-scale operators (who can amortize network build-out costs at a lower cost per customer and save on other fixed operating costs) with the incentives created by competition to offer new, attractive, and affordable service packages to the consumer. Early on, the United States auctioned wireless spectrum licenses for relatively small geographic areas with the aim of promoting competition. As a result, the 50-plus fragmented operators that emerged had much smaller subscriber bases and higher per-user costs shortly after they won licenses than mobile operators in France or Germany—that had three and four operators, respectively. The goal of competitive infrastructure services is typically not only to boost sector growth but also to ensure the broad penetration of high-quality infrastructure services that can raise productivity and output growth elsewhere.
- 2. In a local service sector such as retail**, business turnover tends to be high and growth comes from more productive companies gaining share or replacing less productive ones. Competitive intensity is a key driver, providing an incentive for ongoing innovation and the adoption of better practices and ensuring that productivity gains are passed on to consumers in the form of more attractive products and lower prices. These more appealing offerings in turn boost demand, creating a virtuous cycle of expanding domestic demand and sector growth.

Productivity and employment in retail sectors around the world vary widely—largely due to regulation, MGI research shows. Regulation that allows the expansion of more modern retail formats raises productivity. After opening the sector to foreign investors, Russian retail productivity has more than doubled in the past ten years from 15 percent of the US level to 31 percent on the back of

gaining share of modern retailers. In Sweden, the liberalization of opening hours and zoning regulation unleashed competition, and productivity increased at an average of 4.6 percent for ten years after 1995. In contrast, France introduced more restrictive rules on the size of retail outlets in the 1990s, halting the sector's productivity growth. Flexible hiring laws, lower minimum wages, and part-time employment arrangements tend to boost retail employment and service levels, as we have seen in the United States and the United Kingdom.

In innovative, globally competing sectors such as software and semiconductors, global industry dynamics and competition between companies are the key factors driving overall performance. In such sectors, it is harder for governments to have as direct an influence. What matters more is creating a strong enabling environment for private-sector success. Yet actions to boost competitiveness and the odds of success vary widely depending on the underlying industry economics. For instance, despite sustained public support for the development of local semiconductor clusters in several countries in recent years, the strong winner-takes-all dynamic of this sector has been prohibitive to new entrants.

**3. In business services like software and IT services**, access to talent—at the right cost—is a necessary condition for competitiveness. India, the Republic of Ireland, and Israel, all countries with exceptionally rapid IT services export growth, had a pool of skilled engineers available at a globally competitive cost. Favorable demand conditions—through strong local industry links (e.g., wireless in Finland), or public defense or other contracts (as in the United States)—have also helped nurture growth in these sectors. However, while many regions provide tax incentives for inbound software multinationals, MGI research suggests that such incentives are less critical and often unnecessary. And direct public ventures have failed to sustain competitiveness in the global market.

**4. In R&D-intensive manufacturing such as semiconductors**, the right enabling environment is as important as it is in software, but the capital intensity and very large economies of scale change the competitive dynamic. All sustained semiconductor clusters have benefited from public support. Such support has included early defense contracts in the United States and the provision of public capital in South Korea and Taiwan, hosts respectively to the world's leading companies in the memory and foundry segments. Yet because of the very large economies of scale in new fabs and technology in today's mature industry, there have been no new semiconductor clusters in the past 15 years that have generated sustained growth—despite efforts in Singapore, China, Germany, and many other regions. Large public investment incentives have led to very low returns to capital in the industry overall.

In industrial sectors like automotive and steel, competitiveness depends on a broad set of factors that collectively determine the “value for money” delivered. The competitive advantage of a location varies depending on the subsegment or even step in the value chain. As a result, there is a much broader array of policy tools available. Even so, policy has a mixed track record. The odds of success depend on whether the efforts are targeting activities that can have an inherent competitive advantage in the location, and on the execution of policy.

**5. In manufacturing sectors like automotive**, sector performance relates to the capacity of locally based companies to continue to offer attractive products at a competitive cost. Yet government policy has fundamentally shaped the sector both through trade policies that have created the regionalized industry and through increasingly high industry subsidies that have encouraged investment and capacity

expansion globally. Experience shows that while trade protection has helped create local industries in many countries, it leads to low productivity. But when India, for instance, removed trade and investment barriers, productivity more than tripled. A range of other policies—from export promotion to state-owned car companies—have had mixed success and have been expensive. Host governments' subsidies of more than \$100,000 per job are provided in developed and developing countries alike, contributing to today's global overcapacity.

**6. In resource-intensive industries like steel,** government intervention has played a role in most countries, but the policy tools employed have evolved over time. In a sector's early development phase, governments have supported growth through trade barriers and financial support including subsidized funding and public investments. While most protected industries lag behind global best-practice productivity as a result, South Korea's Pohang Iron and Steel Company (POSCO) managed to develop from being a supported state-owned steel company into a leading global company today. In all cases, sustained competitiveness after the initial developmental phase has required increasing exposure to global competition. When the sector is mature, government's main role has been helping coordinate the downsizing of the industry. In the late 1970s and 1980s, the European Community (EC) responded to the sector's crisis by trying to protect it—a strategy that failed. When another steel crisis hit in the 1990s, the European Union (EU) rejected protection and was successful in supporting restructuring, helping more than half a million displaced workers to retrain and find work in other industries.

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MGI's work over the last two decades shows that, in country after country, getting regulation right has been the key to boosting productivity and competitiveness. Moreover, we think policy makers will boost their odds of success if they take a sector view and draw on experience to learn what kinds of approaches to improving competitiveness have been effective—and which have not—in different sectors and situations. This is the analytical route MGI has taken in this report. By design, this approach generates detailed, actionable recommendations for public policy. Understanding the microeconomic barriers to competitiveness and growth allows MGI to identify the policy changes needed to improve performance, as well as to highlight critical regulatory constraints affecting specific sectors. Neither of these sets of insights is available through more traditional aggregate economic analyses.

