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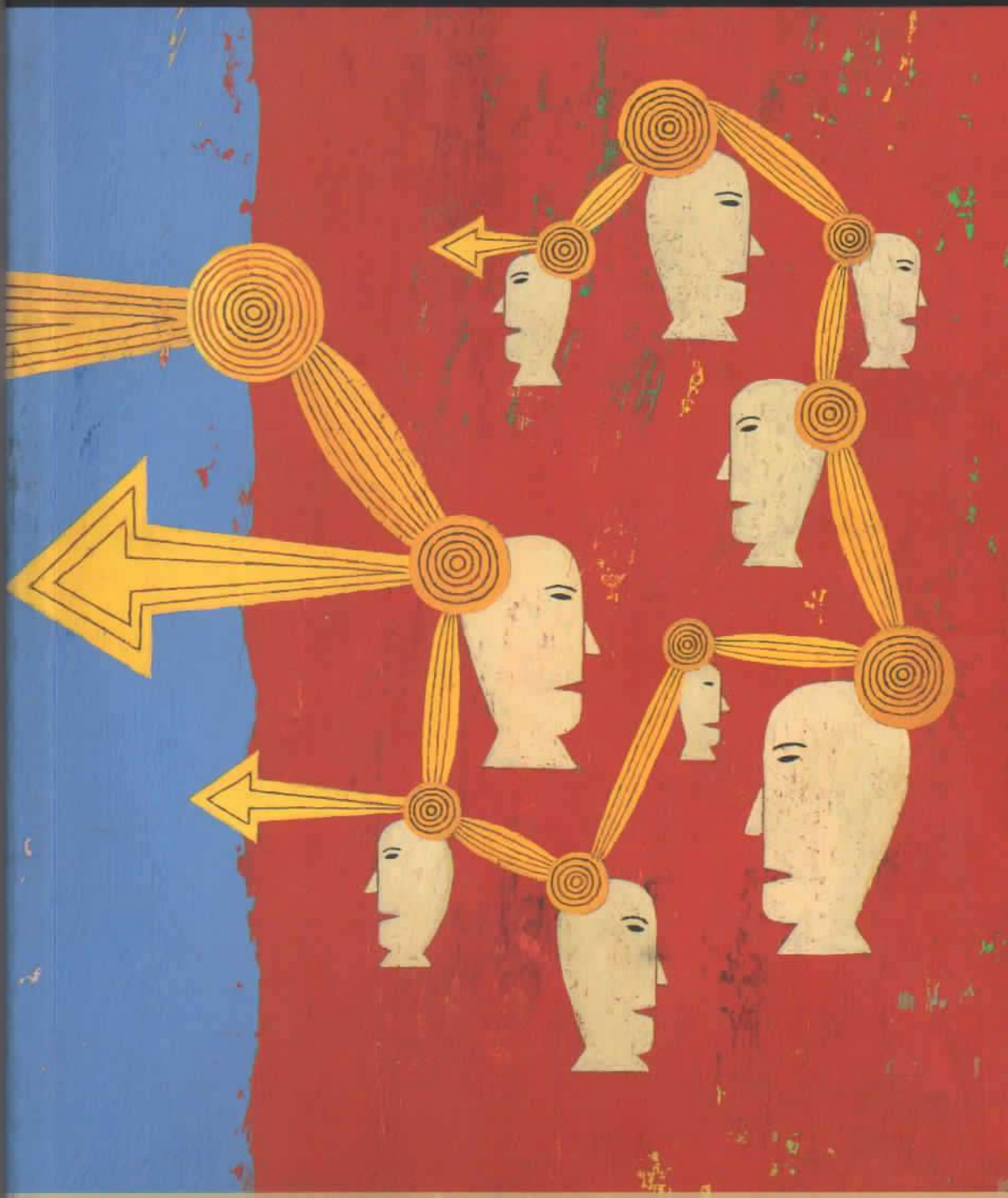
The McKinsey Quarterly

Asia's next export: Innovation



Also in this issue Extreme competition • Interview with Microsoft's CFO • Strategy survey • Fixing China's banks

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On the cover

Features

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Departments

This **Quarter**

Innovation from Asia

The threat of competition from Asia worries Western executives in nearly every product and service industry. The chief concern for many is the impact of low-cost Chinese manufacturing and Indian services on global pricing. Focusing on this concern alone represents a profound misunderstanding of the nature of the competitive threat.

As this issue of *The McKinsey Quarterly* makes clear, Asia is no longer merely a source of comparative advantage based on low-cost labor; it is fast becoming a source of competitive advantage based on management innovation. The implication is clear: Asia can now compete on much more than price.

Emerging markets might seem an implausible wellspring of innovation. Certainly, most of their companies must overcome significant obstacles to threaten those in developed ones. Yet the challenges of serving the developing world's harder-to-reach, more cost-conscious consumers—who are also typically less loyal to established brands—can force companies to design and deliver products comparable to the offerings of developed nations for as little as one-fifth the price. Doing so requires big changes to the design of products and processes, and these changes may soon affect developed markets dramatically.

In "Innovation blowback: Disruptive management practices from Asia," John Seely Brown and John Hagel III describe how companies are learning to innovate by serving low-income consumers in the developing world.

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These innovations, and the f component of increasingly in installment of The McKinsey clear, companies now face gre ever—and expect even more

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The emergence of developin profound and unsettling cha response—for companies ar with the flexibility, the speed a truly global perspective.

Lenny T. Mendonca
Director, San Francisco offi

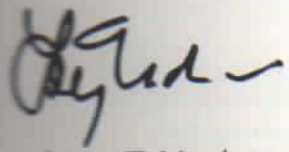
Many Western corporations, the authors suggest, will need to immerse themselves in it both to gain cost advantages and to build the capabilities they will ultimately need to compete at home.

These innovations, and the forces giving rise to them, are an essential component of increasingly intense global competition. As the latest installment of The McKinsey Global Survey of Business Executives makes clear, companies now face greater competition and pricing pressure than ever—and expect even more in the coming year.

In "Extreme competition," William I. Huyett and S. Patrick Viguerie describe the difficulties and opportunities of this environment, in which an oversupply of labor, infrastructure, production, and capital has weakened the performance of whole industries while helping upstarts to challenge established positions in global markets. The article urges companies to increase their organizational metabolism, cut their losses early, and focus on strategic flexibility.

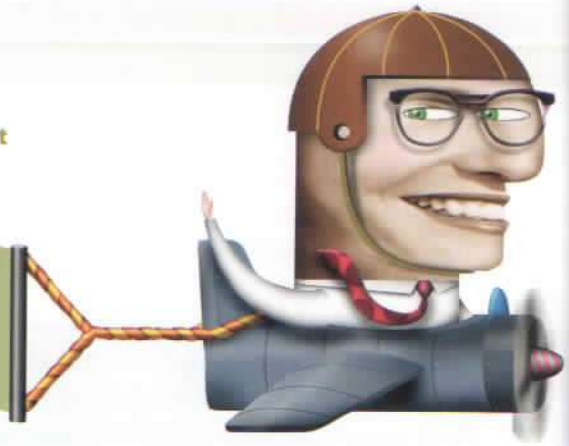
Although some business leaders underestimate the threat posed by competition from emerging markets, many policy makers, under pressure to protect domestic jobs, are overestimating it. In "Don't blame trade for US job losses," Martin Neil Baily and Robert Z. Lawrence explain that protectionism is misguided because trade and offshoring account for only a small fraction of the jobs lost during the past few years.

The emergence of developing markets as seedbeds of innovation is a profound and unsettling change for leaders in the developed world. The best response—for companies and countries alike—is to embrace this shift with the flexibility, the speed, and the openness to new ideas that accompany a truly global perspective.



Lenny T. Mendonca
Director, San Francisco office

A brief look at findings from recent McKinsey research projects



Research in Brief

The next wave in US **offshoring**

Ramnath Balasubramanian and Asutosh Padhi

For many US manufacturers, the biggest wave of offshoring is yet to come. Our analysis indicates that by 2015, 12 low-cost countries[1] could account for nearly half of US manufacturing imports, up from 42 percent in 2002—a shift worth hundreds of billions of dollars. Some industries will feel substantial pressure for the first time, and competition will lead many US manufacturers to source products from these countries or even move plants abroad. The following exhibits show where and to what extent these changes will occur.[2] The data cover the United States, but we believe that these trends apply to other developed markets as well.

[1] For the purposes of this article, the group consists of Brazil, China, India, Indonesia, Malaysia, Mexico, the Philippines, Poland, Russia, South Africa, Thailand, and Turkey.

[2] Import figures are used to measure the effects of outsourcing.

Offshoring rolls on

As the chart shows, wherever co
countries are favorable, manufact
to the skill-intensive sectors high
(such as apparel) or even skill-inte
affected by outsourcing to low-co
wave of sectors has thus far seer
China or India. In 2002 only 10 pe
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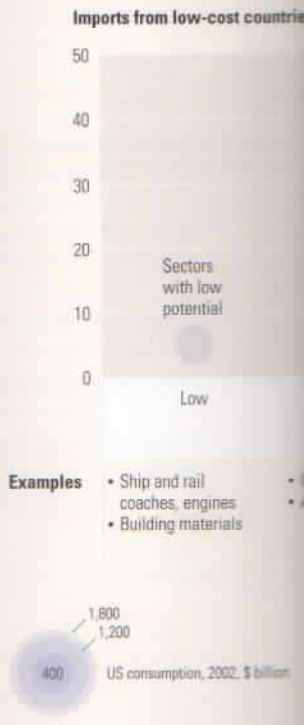
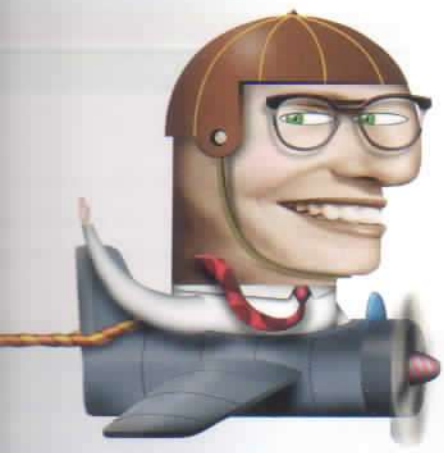
these industries represented 45 p
goods by the US economy.



[1] Considerations include cost to ship, intellectua

Source: Bureau of Economic Analysis (US De
McKinsey analysis



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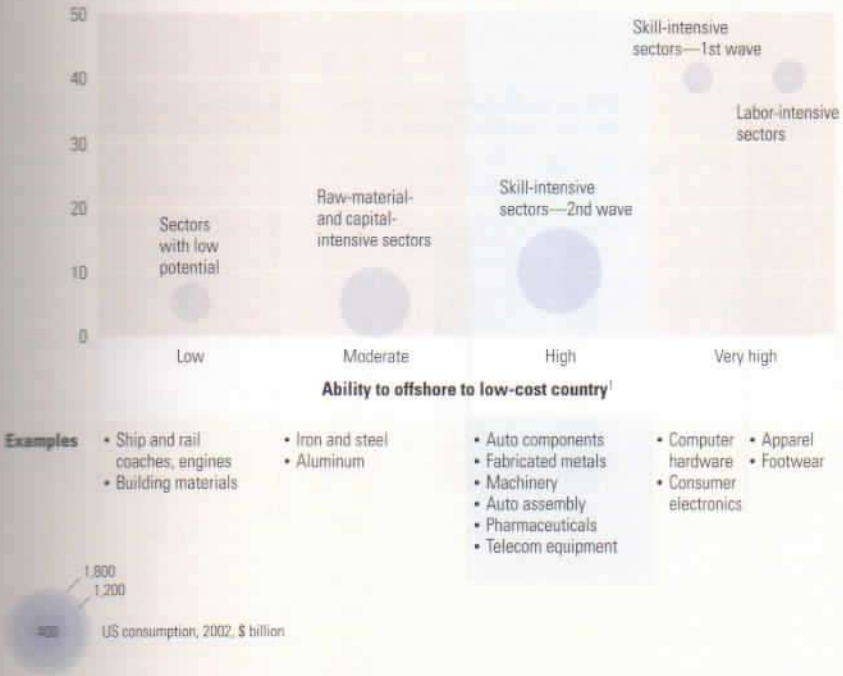
Offshoring rolls on

As the chart shows, wherever conditions for sourcing products from low-cost countries are favorable, manufacturers will follow. Which industries are next? Look to the skill-intensive sectors highlighted in blue. Unlike labor-intensive sectors (such as apparel) or even skill-intensive ones from the first wave of industries affected by outsourcing to low-cost countries (consumer electronics), this second wave of sectors has thus far seen relatively little competition from countries like China or India. In 2002 only 10 percent of the imports in second-wave sectors such as auto components and pharmaceuticals came from low-cost countries, although these industries represented 45 percent of the total consumption of manufactured goods by the US economy.

Imports from low-cost countries as share of US consumption, 2002, %

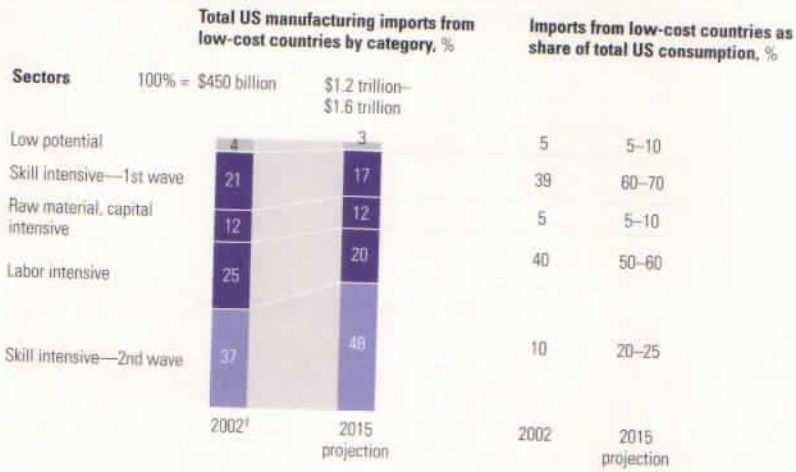


[1]Considerations include cost to ship, intellectual-property risk, maturity of supplier base, predictability of demand.

Source: Bureau of Economic Analysis (US Department of Commerce); US Census Bureau; World Trades Database; McKinsey analysis

Things change

By our estimates, this new wave of industries will account for nearly half of all US manufacturing imports from low-cost countries by 2015, compared with 37 percent in 2002. Three factors are broadly responsible. First, sophisticated supplier bases are emerging to meet the growing demand in sectors such as automotive components. In India, for instance, companies with strong engineering and design capabilities already draw substantial investment from global carmakers. Next, growth in emerging economies such as China will spur the construction of globally competitive manufacturing capacity there in the power-equipment and telecommunications sectors. Last, regulation plays a part: $20 billion worth of patents expire annually in the US pharmaceutical industry, and Indian drug companies will continue to reengineer their manufacturing processes to bring products to market faster and more cheaply than ever.



[1]Figures do not sum to 100%, because of rounding.

Source: Bureau of Economic Analysis (US Department of Commerce); Centre for Monitoring Indian Economy (CMIE); US Census Bureau; McKinsey analysis

The shape of things to com

As imports from low-cost countr soon look quite different. The ch pace of globalization within their manufacturing strategies in hope supply-chain-management skills supplier networks in low-cost co

Projected US imports from low-cost countri

	Rank low-
	40
Auto components	
Fabricated metals	
Auto assembly	
Semiconductors, electronic equipment	
Machinery manufacturing	
Telecom equipment	
Miscellaneous electrical equipment	
Industrial, medical electronics	
Engines, turbine equipment	
Pharmaceuticals	
Power transmission equipment	
Commercial air-conditioning, refrigeration	
Specialty chemicals	

[1]Consumption is assumed to grow in line with G

Source: Bureau of Economic Analysis (US Depa Economist Intelligence Unit; McKinsey analysis

Ramnath Balasubramanian is a co a principal in the Chicago office.

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Imports from low-cost countries as share of total US consumption, %

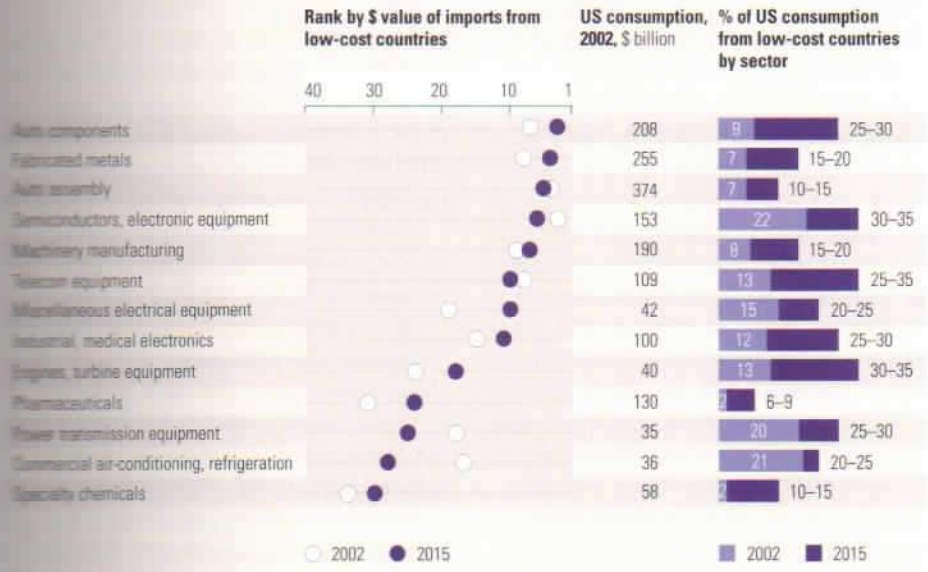
5	5–10
39	60–70
5	5–10
40	50–60
10	20–25
2002	2015 projection

r Monitoring Indian Economy (CMIE);

The shape of things to come

As imports from low-cost countries skyrocket, the manufacturing landscape could soon look quite different. The challenge for executives is to assess the extent and pace of globalization within their industries and then to reexamine their sourcing and manufacturing strategies in hopes of ferreting out competitive advantages. Global supply-chain-management skills will be crucial, as will the ability to build efficient supplier networks in low-cost countries.

Projected US imports from low-cost countries in 2nd-wave skill-intensive sectors,[1] 2015



[1]Consumption is assumed to grow in line with GDP.

Source: Bureau of Economic Analysis (US Department of Commerce); Centre for Monitoring Indian Economy (CMIE); Economist Intelligence Unit; McKinsey analysis

Ramnath Balasubramanian is a consultant in McKinsey's Mumbai office, and **Asutosh Padhi** is a principal in the Chicago office.

Can China **compete** in IT services?

Giuseppe De Filippo, Jun Hou, and Christopher Ip

China's spectacular economic success has prompted speculation that the country's software-outsourcing industry could soon compete with India's. A recent McKinsey study of China's software sector,[1] however, shows that it will be many years before the country poses a threat to its continental rival in this arena. For starters, the Chinese must consolidate their highly fragmented industry to gain the size and expertise needed to capture large international projects. Currently, there is little movement in this direction.

To be sure, signs of healthy expansion abound in China's IT industry. The number of engineering graduates and software-applications professionals has grown considerably in recent years. Since 1997, annual revenues in software and IT services have risen by 42 percent a year, on average, reaching $6.8 billion in 2003.[2] Moreover, the number of English-speaking graduates in the workforce—particularly crucial in software outsourcing—has doubled since 2000, to more than 24 million in 2004.

But shortcomings in the structure of China's IT industry prevent it from taking full advantage of these changes. Although revenues from IT services are rising, they are barely half of India's $12.7 billion a year. Growth is driven by domestic demand—most customers are small and midsize Chinese enterprises that want their software customized to their own needs. Moreover, the country's nascent foreign-software-outsourcing business accounts for just 10 percent of the industry's total revenue, compared with around 70 percent for India. Japanese customers, which seek mostly low-value application-development contracts rather than more lucrative ones for design, supply about 65 percent of this sector's income. And despite lower costs, operating margins in Chinese software-services companies average only 7 percent, compared with 11 percent at similar companies around the world, because many projects are below optimal scale, suppliers often compete on price, and collecting payments can be problematic.

To compete effectively in global outsourcing, China's software industry must consolidate. The top ten IT-services companies have only about a 20 percent share of the market, compared with the 45 percent commanded by India's top ten. Furthermore, China has about 8,000 software-services providers, and almost three-quarters of them have fewer than 50 employees. No company has emerged from this crowded pack; indeed, only 5 have more than 2,000 employees. India, on the other hand, has fewer than 3,000 software-services companies. Of these, at least 15 have more than 2,000 workers, and some—including Infosys Technologies, Tata Consultancy Services, and Wipro Technologies—have garnered international recognition and a global clientele.

Without adequate scale, Chinese players are unlikely to attract top international clients. In general, smaller companies

na compete vices?

ppe De Filippo, Jun Hou, hristopher Ip

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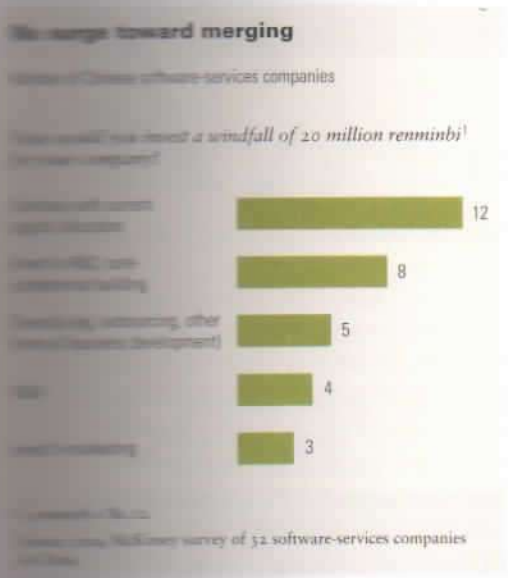


are riskier and less reliable partners. They are more vulnerable to the loss of key personnel, may not have the financial muscle to survive for the duration of a project, and often don't have the capacity or breadth to absorb large projects easily. Yet our study shows that only about 12 percent of Chinese software-services providers see mergers, acquisitions, and alliances as a priority (exhibit). Managers in China have little M&A experience, and although the culture tends to favor organic growth, relying on it to counter new competitors isn't realistic. Meanwhile, several Indian companies are considering expanding their operations by acquiring Chinese firms.

Fragmentation exacerbates the Chinese industry's other problems, including weak process controls and product management. Only 6 of China's 30 largest software companies are certified at levels five or four of the capability-maturity model (CMM);[3] by contrast, all of the top 30 Indian software companies have achieved these rankings. About a quarter of the Chinese companies we surveyed are trying to implement the CMM quality standards, but more than half of the companies in the survey said that such efforts weren't necessary, feasible, or worthwhile.

Chinese software-services providers will also have to manage their talent much better. Most do little to develop their employees, and very few use stock options, training programs, or other incentives to build talent. Among the companies in our sample, annual employee turnover was about 20 percent, compared with an average of 14 percent in the United States, which itself has a very fluid IT labor market. Scale would help—larger companies tend to attract more interesting projects, provide better training opportunities, and offer more generous incentives. All make it easier to attract and retain workers with valuable technical and linguistic skills.

With greater size and an improved talent base, Chinese software-services companies will be in a better position to address other issues, such as building credible brands in international markets and developing knowledge of specific industries, including finance and pharmaceuticals. Organizational and operational changes are also needed to protect the intellectual property of clients. Last, most companies will have to abandon their project-based mentality and adopt a new focus on giving clients long-term value.

Giuseppe De Filippo is an associate principal in McKinsey's Singapore office, **Jun Hou** is an alumnus of the Shanghai office, and **Chris Ip** is a principal in the Hong Kong office.

[1] We analyzed financial and corporate data and interviewed executives from 32 large Chinese software-services companies, including product developers and service providers. We also spoke with venture capitalists, government officials, managers at multinational corporations, and other industry observers.

[2] Estimates from International Data Corporation (IDC).

[3] A widely used framework that applies total-quality-management principles to software development. Created by the Software Engineering Institute, the CMM ranks processes at five levels, with five being the highest.

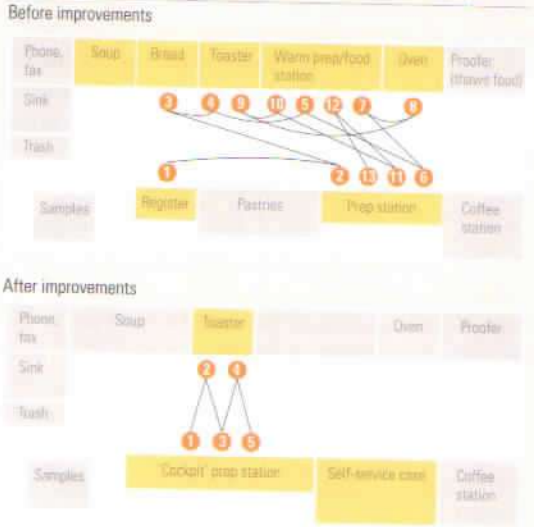
Snapshot

Lean cuisine

John R. McPherson and Adrian V. Mitchell

Beset by waste and operational variability, food service operators are taking a page from industrial manufacturers and applying lean-production approaches to their own operations. Lean techniques seek to improve product and service quality while simultaneously reducing waste and labor costs. For food service operators, the additional trick is to link such improvements to customer loyalty. For one operator, this effort meant tackling unpredictable demand and excessive error rates and wait times (ten minutes for simple sandwiches) on orders. The operator mapped daily changes in demand to highlight fluctuations, introduced a self-service counter, and redesigned kitchen and food preparation procedures to standardize sandwich making and eliminate waste, which consequently fell by 40 percent. Meanwhile, labor costs dropped by 15 percent and service times improved by one-third. Best of all, sales increased by 5 percent and margins on affected products more than doubled, since employees could spend more time influencing customers and less time apologizing to them.

Service steps for fulfilling order (example: hot chicken sandwich)



Time to prepare before/after improvements, minutes, seconds

John McPherson is a principal and **Adrian Mitchell** is a consultant in McKinsey's Dallas office.

The case for
medical d

Jon R. Duane and James Ka

Without significant suppo
the government and the private
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clinical-information networks—
dream of many health care expe
faces serious challenges. McKi
research shows that to build an
such networks profitably, large

EXHIBIT 1

Wiring health care

Typical data provided by participants in Internet-based cli
information networks[1]

Hospital provides
- Admissions, discharge, transfer notes
- Bedside chart information (vital signs, nurses' notes)
- Daily notes by physicians
- Hospital medication lists
- Laboratory/diagnostic test results
- Demographic information on patients
- Radiology results

Imaging center provides
- Images (eg, MRI,[2] ultrasound, X-ray)
- Transcribed reports
- Voice transcriptions

Laboratory provides
- Test results

Pharmacy-benefit manager provides
- Formulary lists (ie, lists of reimbursable drugs)
- Patients' medication lists

Physician group provides
- Billing information
- Demographic information on patients
- Insurance information on patients (when applicable)
- Transcribed, digitized physicians' notes

[1]Payers, pharmacies excluded because efficient informatio
systems are already in use (payers via providers, pharma
pharmacy-benefit managers).
[2]MRI = magnetic resonance imaging.

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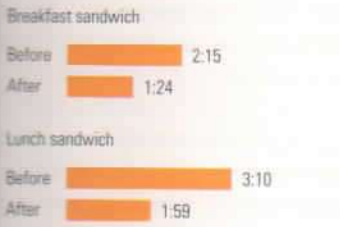
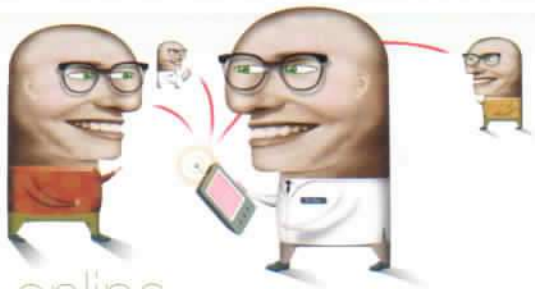
Time to prepare before/after improvements, minutes, seconds



nsultant in McKinsey's Dallas office.



The case for **medical data** online

Jon R. Duane and James Kalamas

Without significant support from the government and the private sector alike, the creation of Internet-based clinical-information networks—a longtime dream of many health care experts—faces serious challenges. McKinsey research shows that to build and operate such networks profitably, large health care institutions would have to spend $2.2 million annually. Only the most financially sound hospitals could afford such expenditures.[1]

Mining health care

Types of data provided by participants in Internet-based clinical-information networks*

Hospital provides
- Admissions, discharge, transfer notes
- Nursing chart information (vital signs, nurses' notes)
- Daily notes by physicians
- Hospital medication lists
- Laboratory/diagnostic test results
- Demographic information on patients
- Radiology results

Imaging center provides
- Imaging (MRI,† ultrasound, X-ray)
- Transcribed reports
- Voice transcriptions

Laboratory provides
- Test results

Pharmacy-benefit manager provides
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- Patients' medication lists

Physician group provides
- Billing information
- Demographic information on patients
- Insurance information on patients (when applicable)
- Transcribed, digitized physicians' notes

*Payers, pharmacies excluded because efficient information-sharing connections already in use (payers via providers, pharmacies via pharmacy-benefit managers).
†MRI = magnetic resonance imaging.

Over the past ten years, several high-profile yet unsuccessful efforts have attempted to use medical technology to link groups of patients, physicians, hospitals, and other providers. These networks, also known as community clinical-data exchanges, are intended to facilitate the sharing of digital medical records, laboratory results, prescriptions, and insurance information (Exhibit 1). They have been inspired by the belief that up-to-date, clear, and easily transmittable information—accessible to doctors and patients no matter what their location—would cut the number of medical errors, improve the quality of clinical care through the more consistent practice of evidence-based medicine, and make processes more efficient.

Potential members of such networks have been discouraged, however, by their expense and by the disincentives facing first movers. Indeed, only about 13 percent of US hospitals and a small number of doctors' offices have pursued this idea.[2] The slow pace of development has frustrated its advocates in government, including the Bush administration, which in 2004 appointed Dr. David Brailer as the nation's first health information technology coordinator. Community clinical-data exchanges are critical stepping-stones toward the creation of a national network that could save $140 billion a year on health care costs and help the federal

EXHIBIT 2

Finding the sweet spot

Predicted effects of community size and participation rates on net value of community clinical-data exchanges, $ per year

Community size[1]	Participation: Low • 15% of physicians • 33% of institutions		Participation: High • 35% of physicians • 66% of institutions	
Large • 5,000 physicians • 10 major hospitals	Benefits	$1,300,000	Benefits	$7,900,000
	Costs[2]	$1,000,000	Costs[2]	$2,200,000
	Net	**$300,000**	**Net**	**$5,700,000**
Midsize • 1,000 physicians • 6 major hospitals	Benefits	$900,000	Benefits	$2,600,000
	Costs[2]	$800,000	Costs[2]	$1,400,000
	Net	**$100,000**	**Net**	**$1,200,000**
Small • 200 physicians • 1 major hospital	Benefits	$180,000	Benefits	$600,000
	Costs[2]	$490,000	Costs[2]	$780,000
	Net	**–$310,000**	**Net**	**–$180,000**

[1]Determination of community size includes number of following in area: diagnostic imaging centers (large community, 5; small community, 1); independent laboratories (3, 1); major physician groups (5, 0); pharmacy-benefit managers (5, 5).
[2]Includes annual support costs and implementation costs amortized over 5 years.

government track trends, such as epidemics, more successfully.

Metropolitan and regional health care communities have thus far lacked sufficient data to justify the cost of building and operating health information networks. Our cost-benefit analysis demonstrates that even larger communities must overcome sizable financial and organizational hurdles, such as achieving a critical mass in numbers of participants, to gain financial benefits that would make the investment worthwhile.

Our analysis focused on quantifiable costs and benefits. Savings from work flow efficiencies and the concomitant reduction in the number of full-time equivalents[3] were included, for example, but anticipated though as yet unproven reductions in clinical-practice pattern variations[4] were not. We divided the networks' benefits into two categories. The intrinsic benefits are those a health care institution derives from posting its data on the Internet. The network benefits are the incremental advantages it gains when it receives relevant information from external sources. The costs of setting up and operating a system include network and site-specific hardware, software, and personnel. By analyzing a series of hypothetical information exchanges, we found that when penetration is low their net value is modest in large and midsize communities and negative in small ones. Substantial returns become apparent only as the size of the exchange grows and participation rates increase. The aggregate costs for a large community's network were $2.2 million a year, with benefits of $7.9 million (Exhibit 2).

Although our study found that large networks could reap a maximum annual net benefit of $5.7 million, first movers are at a distinct disadvantage. The network initiator would likely bear a significant portion ($290,000 annually) of the exchange's costs and derive too little reward to get its money's worth unless a full slate of constituents were on board from the start. While physicians have the most to gain from a network ($2,400 for a $40 investment per physician), they are also the least

participate, given their historical re
to pay for information technology
share data. The most likely netwo
organizers are hospitals, which w
substantially from the streamlined
of laboratory and radiology data.

Given the first-mover disadvantag
ever, we believe that hospitals w
not form data exchanges without
support from the government an
foundations, which, unlike many
can afford to finance the develop
health care information networks
states are already supporting suc
The California HealthCare Founda
and health care leaders in Santa
County, California, are in the proc
developing an information netwo
cooperation with CareScience, w
specializes in building these syst
Santa Barbara County Care Data
includes physicians' notes, demo
on patients, radiological images
reports, lab results, prescriptions
information on insurance covera
system, which is currently in the
phase of testing, should be oper
early 2005.

Many developing countries
necessity, concentrate on build
infrastructure such as airports,
and shipping ports to foster the
economies. But once the basic
place, less visible efforts to imp
flow of goods through a countr

munity clinical-data exchanges, $ per year

High	
• 35% of physicians	
• 66% of institutions	
Benefits	$7,900,000
Costs[2]	$2,200,000
Net	**$5,700,000**
Benefits	$2,600,000
Costs[2]	$1,400,000
Net	**$1,200,000**
Benefits	$600,000
Costs[2]	$780,000
Net	**–$180,000**

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n exchanges, we found that when
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e and midsize communities and
ve in small ones. Substantial returns
e apparent only as the size of the
nge grows and participation rates
se. The aggregate costs for a large
unity's network were $2.2 million
with benefits of $7.9 million
it 2).

gh our study found that large
rks could reap a maximum annual
nefit of $5.7 million, first movers
a distinct disadvantage. The network
r would likely bear a significant
n ($290,000 annually) of the
nge's costs and derive too little
to get its money's worth unless
late of constituents were on
from the start. While physicians
e most to gain from a network
0 for a $40 investment per

physician), they are also the least likely to participate, given their historical reluctance to pay for information technology and to share data. The most likely network organizers are hospitals, which would gain substantially from the streamlined transfer of laboratory and radiology data.

Given the first-mover disadvantage, however, we believe that hospitals would not form data exchanges without support from the government and private foundations, which, unlike many hospitals, can afford to finance the development of health care information networks. Many states are already supporting such efforts.[5] The California HealthCare Foundation and health care leaders in Santa Barbara County, California, are in the process of developing an information network in cooperation with CareScience, which specializes in building these systems. The Santa Barbara County Care Data Exchange includes physicians' notes, demographics on patients, radiological images and reports, lab results, prescriptions, and information on insurance coverage. The system, which is currently in the final phase of testing, should be operational in early 2005.

A way to assess how data exchanges improve the quality of health care is still lacking. Here again, local governments and foundations can play a critical role by investing in tools to measure such progress; the California HealthCare Foundation is conducting this kind of research. Studies that quantify the clinical benefits—from lives saved to medical errors avoided—might help persuade health care communities of all sizes to establish information networks.

Jon Duane is a director in McKinsey's Silicon Valley office, and **Jim Kalamas** is a principal in the San Francisco office.

[1] The study was conducted with Sam Karp, the director of the California HealthCare Foundation, a nonprofit dedicated to improving the delivery of health care in California.
[2] David G. Brailer and Tommy G. Thompson, "The decade of health information technology: Delivering consumer-centric and information-rich health care," US Department of Health and Human Services, July 21, 2004.
[3] A standardized accounting of the number of full- and part-time employees.
[4] That part of the doctor-to-doctor variation in the way a specific type of patient (one with heart disease, for example) is cared for that cannot be justified by each patient's situation, such as age, sex, or the severity of the disease.
[5] Daniel N. Mendelson and Eileen Miller Salinsky, "Health information systems and the role of state government," *Health Affairs*, 1997, Volume 16, Number 3, pp. 106–19.

Logistics in emerging markets

Nikolai Dobberstein, Carl-Stefan Neumann, and Markus Zils

Many developing countries, out of necessity, concentrate on building critical infrastructure such as airports, highways, and shipping ports to foster their growing economies. But once the basics are in place, less visible efforts to improve the flow of goods through a country can have a stronger economic impact than another pier, runway, or paved mile, a recent McKinsey study shows.[1]

Governments in markets such as Dubai, Hong Kong, and Singapore already understand the need to balance brick-and-mortar

EXHIBIT 1

The emerging-market disadvantage

Estimated total logistics supply chain costs as % of GDP

projects with policies, regulations, and enforcement measures. But many other developing nations have a single-minded devotion to expanding their hard infrastructure and thus overlook network components—such as efficient customs clearance and quality trucking services—that can have a strong impact on GDP. We estimate that one Asian country, for example, could increase its GDP by 1.5 to 2 percent as of 2010 if it reduced its logistics costs by 15 to 20 percent. Cutting indirect costs, such as excessive inventory resulting from inefficient supply chains, would account for the bulk of the savings. This estimate doesn't include multiplier effects,[2] which, we believe, could contribute an additional percentage point to GDP growth. Our experience in other countries shows that these savings are well within reach. By contrast, ongoing infrastructure projects, costing a total of about $10 billion, would generate only a 0.7 to 1 percent increase in this country's GDP over the same period.

Without question, countries in the early stages of development should focus on building serviceable roads and adequate ports. But initiatives to make supply chains more efficient should rapidly supplement core infrastructure programs. The time is right for a shift if, for instance, the domestic logistics industry is fragmented and has few international players despite a high-quality infrastructure. In other words, if old, rattletrap delivery trucks clutter up pristine multilane highways, there is substantial room for improvement.

In any economy, the logistics industry bears substantial direct and indirect costs. In emerging markets, where networks have significant shortcomings, they are even larger (Exhibit 1). Direct costs, including transportation, warehousing, and handling, tend to be transparent. Indirect ones, such as stock-outs, unnecessarily high inventories, and obsolescence, are much less visible and thus often overlooked, particularly by small or unsophisticated companies.

Governments looking to manage their logistics networks must first identify the system's pain points. For the Asian country cited earlier, we estimate that policy changes or better enforcement of existing regulations could cut annual transportation and logistics expenses by $600 million to $960 million. In just three years, the total value created could exceed 1 percent of GDP. The savings would either increase corporate profitability or reduce prices for customers. Both would fuel economic growth.

EXHIBIT 2

Old, overloaded, and slow

[1]Estimated; overload factor = ratio of excess cap
[2]Utilization of available truck capacity; ie, 50%
Source: Interviews; McKinsey analysis

Indirect costs account for the bulk savings, though direct ones can c as well. A close look at trucking c typical Asian market shows how approach could work (Exhibit 2). companies, up to a quarter of all c arrive late and 2 to 4 percent of al are damaged in transit. The root c problems is the overloading of tru causes them to age faster and to down more frequently. Late or da deliveries add $100 million to $14 a year in indirect costs to inland t tation. Paradoxically, trucks overl one direction are usually empty o trip, so overall asset utilization is price competition severe. This en fuels a vicious circle, since incum can't afford to invest in maintena equipment, and potential attacke incentive to enter the fray.

In emerging markets, no one pa make supply chains more efficie companies understand indirect

ficiencies in emerging markets

asset management results in
r utilization, productivity

logistics reliability/speed results in higher
tories, shortages, obsolescence costs

Asian emerging market Typical European developed market

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has few international players despite a
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EXHIBIT 1

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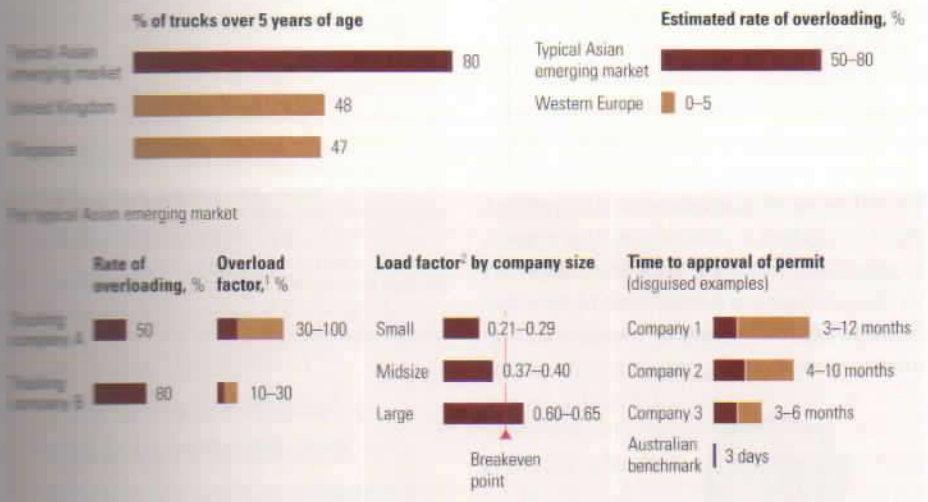

[1] Overload factor = ratio of excess capacity to allowed capacity.
[2] Utilization of available truck capacity: ie, 50% means truck is completely filled going one way, empty on return trip.
Source: Interviews; McKinsey analysis

Indirect costs account for the bulk of these savings, though direct ones can contribute as well. A close look at trucking costs in a typical Asian market shows how this approach could work (Exhibit 2). At some companies, up to a quarter of all deliveries arrive late and 2 to 4 percent of all goods are damaged in transit. The root of these problems is the overloading of trucks, which causes them to age faster and to break down more frequently. Late or damaged deliveries add $100 million to $140 million a year in indirect costs to inland transportation. Paradoxically, trucks overloaded in one direction are usually empty on the return trip, so overall asset utilization is low and price competition severe. This environment fuels a vicious circle, since incumbents can't afford to invest in maintenance or new equipment, and potential attackers have no incentive to enter the fray.

In emerging markets, no one party can make supply chains more efficient. Too few companies understand indirect logistics costs well enough to see the value in paying a premium for reliable trucking services, for instance, and those that do are hard-pressed to find quality suppliers. Generally, governments are responsible for enforcing weight limits more strictly (as in the example of trucking), reducing the corruption that allows overweight trucks on the road, and lowering barriers for new entrants. Other measures could improve the quality of a country's logistics network. Speeding up customs clearance and making processing times more consistent, for example, would allow companies to reduce their inventory levels, since they could depend on supplies arriving punctually. Or governments could educate logistics suppliers and customers—many of them mom-and-pop stores and other small businesses—about the benefits of better speed and reliability.

Improving logistics and encouraging a more efficient supply chain would provide an extremely attractive growth opportunity

for emerging economies. While such initiatives are relatively inexpensive and don't have to compete for capital with highly visible infrastructure projects, they do need attention. It is much easier for a government to approve and embark on an expensive infrastructure project involving only one ministry than to improve the efficiency of supply chains by carefully coordinating the work of several branches of government. But a close look at the numbers makes the advantages of a better logistics network for any developing country plain to see.

Nikolai Dobberstein is a principal in McKinsey's Kuala Lumpur office, **Carl-Stefan Neumann** is a director in the Frankfurt office, and **Markus Zils** is a consultant in the Cologne office.

[1] We examined 19 countries to weigh the impact of capital infrastructure projects, such as port expansions and new airports, and of initiatives to improve the quality of logistics networks and to make domestic supply chains more efficient.

[2] Lower costs from more efficient supply chains, for instance, could reduce consumer prices and increase demand. The World Bank estimates that a 10 percent reduction in transportation costs would raise international and domestic trade by 20 percent.

Reining in Brazil's informal **economy**

Joe Capp, Heinz-Peter Elstrodt, and William Bebb Jones Jr.

Why is Brazil's economic growth limited to 3 or 4 percent a year while fellow emerging giants China and India are increasing their GDPs by 7 to 10 percent? A major, often overlooked reason is Brazil's huge informal economy, which inhibits productivity, discourages business investment, and reduces the potential for growth. In fact, a study[1] shows that Brazil's economy could grow by an additional 1.5 percent a year if the government followed the lead of other countries and launched a concerted effort to reduce the size of the gray market.

In Brazil, the informal economy accounts for about 40 percent of gross national income, a much bigger share than it claims in China and India (Exhibit 1). Gray-market companies operate outside the law—partially or wholly—by avoiding taxes, ignoring product quality and safety regulations, infringing on copyrights, and sometimes even failing to register as legal entities. In this way, they gain cost advantages and can compete successfully with more efficient, law-abiding companies, despite achieving only 46 percent of the formal sector's productivity. In turn, formal companies lose out on profits and market share and therefore lack the means and incentive to invest in productivity-enhancing measures such as expanding capacity, adopting new technologies, and improving the organization. The result is a handicapped economic-development process.[2]

If, as we believe, reducing the size of the gray market is a prerequisite for accelerating Brazil's economic growth, it is worrisome that the level of informal employment has remained virtually unchanged. Despite the migration of workers from rural areas to towns, gray-market employment held steady at

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about 55 percent of the total from 1992 to 2002. During that time, 7 percent of the workforce left agriculture, but the level of informal employment in the sector remained at about 90 percent. Moreover, the jobs these migrants found elsewhere weren't legal, so informality increased substantially in sectors such as transportation, manufacturing, and construction (Exhibit 2, on the next page). Employment data for Brazil's largest metropolitan regions show that informal companies accounted for 87 percent of all jobs created from 1992 to 2002.

Sixty percent of Brazil's total employment comes from 11 sectors,[3] and in each of them more than half of the labor force is informal. In contrast, only 17 percent of Brazilians work in sectors[4] in which no more than 20 percent of the labor force is informal, the average in developing countries. Therefore the lion's share of Brazil's market economy is subject to the competitive distortions created by informal activity. Sectors such as residential construction, in which small companies serve individuals—an arrangement that makes auditing and tax collection difficult—are particularly hard-hit, as are labor-intensive sectors such as food processing, where the benefits of evading payroll-related taxes can be huge. In these kinds of sectors, modern and very small companies and individuals can profit greatly by operating informally. Food retailing is a case in point: Not surprisingly, 95 percent of the street vendors in Brazil operate outside the law, but we estimate that informal midsize groceries and minimarts account for an astonishing 60 percent of the Brazilian food-retailing market. Compared with Mexico, for example, Brazil has very powerful incentives for informality, as the evasion of income and social taxes can more than triple a supermarket's bottom line (Exhibit 3, on the next page).

Brazil's burdensome regulatory requirements, high corporate and social taxes, and weak legal and law-enforcement systems all contribute to the informal economy. The World Bank consistently places Brazil among the countries with the most onerous bureaucracies (opening a business there takes 152 days, for example, three times the world average) and regards its labor laws as among the most inflexible in the world. Moreover, according to the International Institute for Management Development (IMD), the overall tax burden in Brazil increased from 26 percent of GDP in 1992 to 36 percent in 2002—a level much higher than that of most developing countries. Companies, directly or indirectly, paid two-thirds of these taxes. The result is that many businesses choose to operate informally because the benefits outweigh the relatively small possibility and cost of being caught.

International experience suggests that when a government makes informality a top priority and tackles it broadly by carry-

EXHIBIT 2

Under the table

Informality in Brazil

Informality is increasing in key sectors of the market economy

Informality, % of labor force

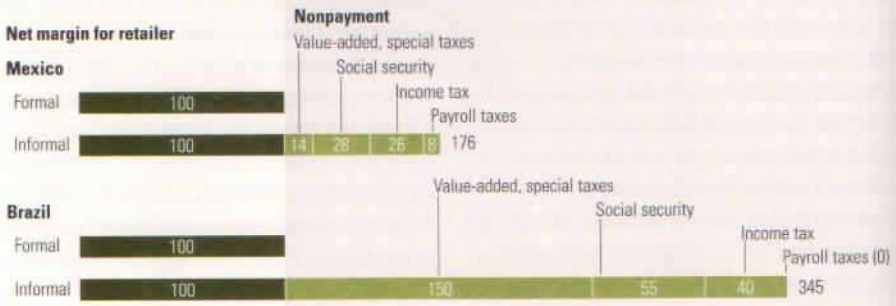
	1992	2002
Transportation, communication	28.5	42.0
Manufacturing	26.9	37.1
Construction	61.3	71.1
Retail	49.9	53.9
Services[1]	58.8	56.0

[1]Excludes public administration and social services.

EXHIBIT 3

A slanted playing field

Example of food retailers; index: formal retailer's net margin = 100[1]



[1]Assumes representative small supermarket in each case.

ing out structural reforms and tailoring its approach to each sector, significant advances can be made in a relatively short time. In the 1990s, Spain simplified its tax system and created a new agency to fight evasion—measures that increased the taxes collected from small companies by more than 75 percent. Its government also implemented more flexible labor laws that contributed to a 40 percent drop in unemployment in just six years.

Brazil's government, which has focused on restoring macroeconomic stability, should now step up its efforts to reduce informality. Several agencies are already

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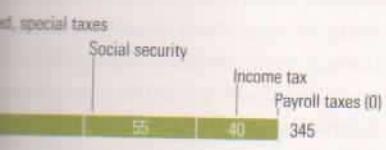

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adopting measures that zero in on the sector level; the federal tax-collection agency, for example, now requires leak-measurement devices to be installed in all Brazilian beverage plants. This regulation could cut the sector's estimated annual tax evasion of 720 million reais by 500 million reais. Brazil's legislature is debating structural measures, such as reducing social-security taxes on low salaries and streamlining the process for opening a business.

Joe Capp and **Bill Jones** are consultants in McKinsey's São Paulo office, where **Heinz-Peter Elstrodt** is a director.

[1] Undertaken in 2004 by the McKinsey Global Institute (MGI) and McKinsey's São Paulo office.
[2] Diana Farrell, "The hidden dangers of the informal economy," *The McKinsey Quarterly*, 2004 Number 3, pp. 26–37 (www.mckinseyquarterly.com/links/15395).
[3] Agriculture and livestock, clothing and accessories, construction, domestic services, furniture, gasoline retailing, lodging, personal services, recreational and cultural activities, retail and wholesale, and textiles.
[4] Automotive, financial services, and machinery and equipment.

Managing operational risk in banking

Robert S. Dunnett, Cindy B. Levy, and Antonio P. Simoes

Most international banks are increasing their operational-risk cover to comply with the new capital requirements in Basel II.[1] Operational risk is a financial institution's exposure to losses arising from mistakes (such as computer failure or breach of regulations) and conspiracies (including loan fraud and embezzlement) that affect its day-to-day business.

Banks generally calculate their operational-risk cover by estimating the probability that a particular event might occur and the resulting financial loss—such as the fine for breaking a rule or the sum pocketed by an embezzler. But operational crises also upset shareholders and can lead to a decline in market value.

Few institutions, however, factor such potential market losses into their risk-cover calculations or operational-risk-management plans. New research suggests that they should. The decline in market value following an operational crisis can be far greater than the financial loss. The first step for banks will be to measure and understand the full extent of their operational risk.

We analyzed operational crises at European and North American institutions for which the actual financial loss was more than $1 million.[2] The average actual loss for the sample was $65 million. In the short term, the decline in shareholder value was, on average, about equal to the financial loss. After 120 working days, however, the former figure had ballooned to 12 times the latter one, knocking almost 2 percent, on average, off an institution's total returns to shareholders (TRS) (Exhibit 1, on the next page). Even a small financial loss can be followed by a significant drop in the share price.

Different operational crises give rise to different degrees of market loss. Looking across the range of events,[3] we

found that the most harmful ones were embezzlement, loan fraud, deceptive sales practices, antitrust violations, and noncompliance with industry regulations (Exhibit 2). Just under half of the risk events in our sample fell into at least one of these five categories.

For European companies, the decrease in shareholder value was initially higher but tended to tail off, whereas North American institutions experienced smaller immediate losses that were still growing 100 days later. The fallout from an event may last longer in North America because of greater transparency: the market continues to receive details about a crisis long after it first hits the headlines, while in Europe subsequent findings are less likely to become public.

Losses also vary by subsector. Asset-management and corporate-finance companies are vulnerable to any incident that undermines the customer's faith in them and thus are heavily penalized for operational crises in both the medium and long term. For retail banks, an initial decline in share price may persist for the same reason. Indeed, the market seems to turn against these companies more during the second three-month period following an event than in its immediate aftermath.

In contrast, businesses without such a customer franchise—sales, trading, and, to some extent, retail brokerage—usually recover after an initial loss. In these subsectors, we believe, stock prices are already discounted because of the volatile nature of the companies' revenue streams.

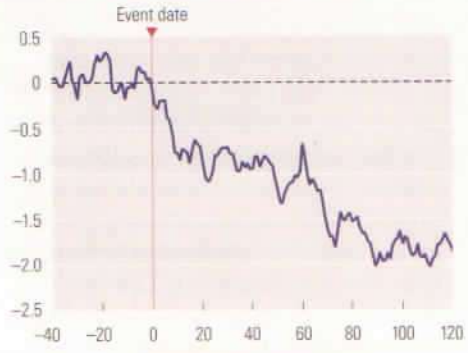
What triggers a risk crisis? About half of the operational-risk events in our sample arose from negligence, an unintentional failure to meet a professional obligation, or a defect in the nature or design of a product—problems that are largely within the institution's control. In particular, these issues stemmed from improper

EXHIBIT 1

It gets worse

Impact of operational-risk event on market returns[1]

Overall cumulative average of abnormal returns,[2] %



Actual loss vs abnormal returns,[2] %

[1] For 350 operational crises experienced by financial institutions in Europe and North America.
[2] Abnormal returns for each stock calculated daily as difference between actual and expected returns, adjusted for movements in broad market index; unweighted average of daily abnormal returns calculated across all operational-risk events to prevent "noise" of particular stocks from distorting overall results.
[3] As share of total market capitalization.

Source: Fitch Ratings; Thomson; McKinsey analysis

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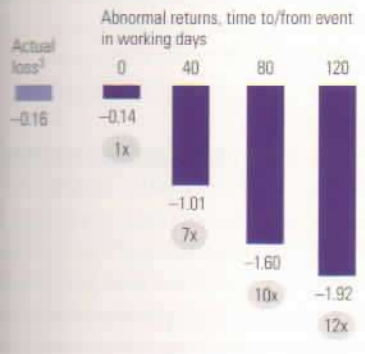


and North America.
ual and expected returns, adjusted for movements in
ed across all operational-risk events to prevent "noise"

Casting a long shadow

	Source of actual losses	Impact on market	Comments
	Internal fraud	Reporting losses led to aggregate fall of 3.5% in market returns 6 months following report	Perversely, value increases around date when event is first revealed, possibly because market doesn't realize exactly what happened
	Borrowers fraudulently obtain credit and later default	Reporting losses led to 3.5% reduction in total returns to shareholders (TRS) after 6 months	
practices, concealment	Penalties exacted by regulatory bodies for misbehavior, such as providing misleading equity research or miscalculating pension annuities	Negative market reaction tends to preempt settlements, making recoveries short-lived; event continues to reduce market value by up to 5.5% of TRS for 6 months after settlement	Market likely believes such events influence customers against brand or institution
	Settlements of legal actions brought against companies for price-fixing: eg, in commodities, credit card, or equities markets	Event generates 3.5% loss in market value in 1st month following settlement; however, most companies recover these losses in subsequent months	
with industry regulations	Regulators' fines for various breaches of industry rules	Market will discount approaching settlement, causing some market losses before fine itself; negative market reaction after fine can shave aggregate 5.5% off shareholder value, although some recovery may be observed after 3 months	Market apparently takes dim view of institutions that reveal such lack of management competence

business and market practices, such as breaking antitrust rules, and from equally preventable lapses, such as using deceptive sales practices or concealing a product's characteristics. External and internal theft and fraud were responsible for 20 percent and 14 percent of risk events, respectively, while 8 percent were caused by process failures, particularly in monitoring and reporting.

A company can soften the impact of a crisis on its market value by communicating clearly with its shareholders. We compared two cases in which unauthorized trading led to actual losses of several hundred million dollars, for example. One institution issued a series of gloomy statements, including upward revisions of the extent of the loss and news of various resignations and reorganizations. The market penalized it heavily in the six months following the incident. The other institution was clear from the outset about the size of its loss, disclosed all of the pertinent details, and issued no further bad news. This company suffered no long-term damage to its market value, and within six months its TRS had nearly returned to the estimated value had the event not occurred.

Operational crises can be unexpectedly costly and potentially catastrophic events. Financial institutions need to understand

the different kinds of operational risk they face and the amount of their potential losses in order to reduce their exposure. They can then apply the available management tools for controlling risk[4] in a more informed and systematic fashion.

Rob Dunnett and **Antonio Simoes** are consultants in McKinsey's London office, where **Cindy Levy** is a principal.

[1] Kevin S. Buehler, Vijay D'Silva, and Gunnar Pritsch, "The business case for Basel II," *The McKinsey Quarterly*, 2004 Number 1, pp. 82–91 (www.mckinseyquarterly.com/links/15188).

[2] The study assessed about 350 operational-risk events since 1990, with help in the early stages from Professor Ron Anderson of the London School of Economics. Fitch Risk Management's OpVar Loss database provided our sample of events.

[3] To categorize the types of events in our sample, we followed the Bank for International Settlement's (BIS) three-level classification scheme for actual losses stemming from operational-risk events.

[4] Kevin S. Buehler and Gunnar Pritsch, "Running with risk," *The McKinsey Quarterly*, 2003 Number 4, pp. 40–9 (www.mckinseyquarterly.com/links/15190).

Why some private equity firms **do better** than others

Joachim Heel and Conor Kehoe

Private equity firms have long promoted the virtue of active ownership—the hands-on style that distinguishes them from traditional portfolio investors. But what does active ownership mean, and does it really lead to superior performance?

Recent McKinsey research reveals a strong correlation between five steps that private equity firms can take to direct a company in which they invest and outperformance by that company—in other words, performance better than that of its industry peers. Many private equity firms have embraced these steps and execute them well, yet surprisingly few do so in the consistent and systematic way that would increase the returns from an active-ownership approach.

Eleven leading private equity firms, all boasting better-than-average track records, made up our sample. Each of them submitted five or six deals from which they had exited. The deals represented a range of returns from average to very good. To calculate the value generated by active ownership, we built a model to isolate the source of each deal's value: overall stock market appreciation, sector appreciation, the effect of extra financial leverage on those market or sector gains, arbitrage (a below-market purchase price), or company outperformance.

The main source of value in nearly two-thirds of the deals in our sample was company outperformance. Market or sector increases accounted for the rest (Exhibit 1).[1] Outperformance, which generated a risk-adjusted return twice that of market or sector growth, was the least variable source of value.

These results show that outperformance by companies is clearly the heart of the way private equity firms create value. How do top investors make this happen? Interviews with deal partners and with the CEOs of

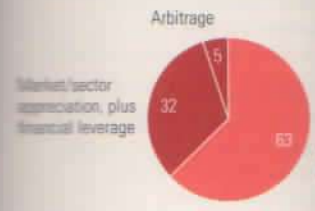
target companies—and the corre
of the results with cash-in/cash-o
multiples[2]—identified five comm
that could constitute a code of le
practice. The first two concern tr
private equity competencies, the
three a more engaged form of co
governance that we describe as
ownership.

EXHIBIT 1

Leading the pack

Primary source of value creation, %

100% = 50 deals from 11 leading private equity firms



First, successful deal partners s
expertise before committing the
in 83 percent of the best deals,
step for investors was to secure
knowledge: insights from the bo
management, or a trusted exter
In the worst third of deals, expe
was sought less than half of the
Second, successful deal partner
substantial and focused perform
incentives—usually a system of
equaling 15 to 20 percent of the
equity. Such incentives heavily
company's leading officers as w
a handful of others who report
to the chief executive. In additio
practice deal partners require C
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There is no standard formula, b
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) three-level classification scheme for actual losses
ming from operational-risk events.
in S. Buehler and Gunnar Pritsch, "Running with
," *The McKinsey Quarterly*, 2003 Number 4,
40–9 (www.mckinseyquarterly.com/links/15190).

ne private ns **do better** ers

achim Heel
d Conor Kehoe

eturns from average to very good. To
culate the value generated by active
nership, we built a model to isolate the
rce of each deal's value: overall stock
ket appreciation, sector appreciation,
effect of extra financial leverage on
se market or sector gains, arbitrage (a
w-market purchase price), or company
performance.

main source of value in nearly two-
ds of the deals in our sample was
pany outperformance. Market or
or increases accounted for the rest
ibit 1).[1] Outperformance, which
erated a risk-adjusted return twice that
narket or sector growth, was the least
ble source of value.

se results show that outperformance by
panies is clearly the heart of the way
te equity firms create value. How do
nvestors make this happen? Interviews
deal partners and with the CEOs of
target companies—and the correlation of the results with cash-in/cash-out multiples[2]—identified five common features that could constitute a code of leading-edge practice. The first two concern traditional private equity competencies, the other three a more engaged form of corporate governance that we describe as true active ownership.

First, successful deal partners seek out expertise before committing themselves. In 83 percent of the best deals, the initial step for investors was to secure privileged knowledge: insights from the board, management, or a trusted external source. In the worst third of deals, expertise was sought less than half of the time. Second, successful deal partners institute substantial and focused performance incentives—usually a system of rewards equaling 15 to 20 percent of the total equity. Such incentives heavily target a company's leading officers as well as a handful of others who report directly to the chief executive. In addition, best-practice deal partners require CEOs to invest personally in these ventures. There is no standard formula, but the most successful arrangements call for a significant commitment by CEOs while ensuring that the potential rewards don't make them too risk averse. Formulas that failed to account for the individual circumstances of a company's officers or that spread incentives too widely proved less effective.

Next, successful deal partners craft better value creation plans and execute them more effectively. Naturally, management's plan is a part of the process, but the best new owners view it skeptically and develop their own well-researched viewpoint that they use to challenge it. Once developed, the plan is subject to nearly continual review and revision, and an appropriate set of key performance indicators is developed to ensure that it remains on track. Firms implemented such a performance-management system in 92 percent of the best-performing deals and only half as often in the worst.

Fourth, the most effective deal partners simply devote more hours to the initial stages of deals. In the best-performing ones, the partners spent more than half of their time on the company during the first 100 days and met almost daily with top executives. These meetings are critical in helping key players reach a consensus on the company's strategic priorities: relationships are built and personal responsibilities detailed. A deal partner may use the meetings to challenge management's assumptions and to unearth the company's real sources of value. By contrast, lower-performing deals typically took up only 20 percent of the investors' time during this crucial period (Exhibit 2, on the next page).

Last, if leading deal partners want to change a company's management, they do so early in the investment. In 83 percent of the best deals—but only 33 percent of the worst—firms strengthened the management team before the closing. Later in the deal's life, the more successful deal partners are likelier to use external support to complement management than are the less successful deal partners.

EXHIBIT 2

Time well spent

Deals in which company outperformance was main source of value (n = 38 deals)

[1] Median time of deal partners in sample.

Source: Interviews with deal partners and CEOs of exited investments; McKinsey analysis

These research findings pinpoint the practices that distinguish great deals from good ones. The five steps are, in the main, uncontroversial. They are applied inconsistently, however, and their implementation seems to depend on the individual partner's beliefs and skills. A standard active-ownership process that applies and develops best practices is the next step for the private equity industry.

Joe Heel is a principal in McKinsey's Miami office, and **Conor Kehoe** is a director in the London office.

[1] In 3 of the 60 deals, value was created primarily through arbitrage. Since these deals are relatively rare, and interviews indicated that they are difficult to find, we excluded them from our analysis.

[2] Calculated by dividing the cash realized from a deal by the cash invested.

Getting **Belgium** back to work

Herman A. De Bode, Philip Eykerman, and Ruben J. Verhoeven

High labor productivity has afforded Belgians the luxury of working shorter hours and retiring earlier than do most other Europeans while still enjoying a standard of living in line with the EU average. As a result, only 26 percent of Belgians aged 55 to 64 years still work. This sweet trade-off cannot last. Like most Western countries, Belgium faces a demographic squeeze as fewer workers contribute to GDP and to the government's coffers at a time when the burden of supplying older people with costly pensions and health care needs is growing. Persuading more Belgians to work longer and creating more jobs will be vital if the country is to support its aging population, a study shows.[1]

Compared with the rest of the European Union, Belgium is particularly vulnerable because it already has one of the lowest employment rates—just 61 percent—and citizens who do have jobs work five days less each year than the EU average.[2]

deals)

ners who engaged in nteraction per week days	% of deals in which deal partner interacted regularly with both CFO and CEO
91	100
82	73
58	55

cKinsey analysis

e Heel is a principal in McKinsey's Miami ce, and **Conor Kehoe** is a director in the don office.

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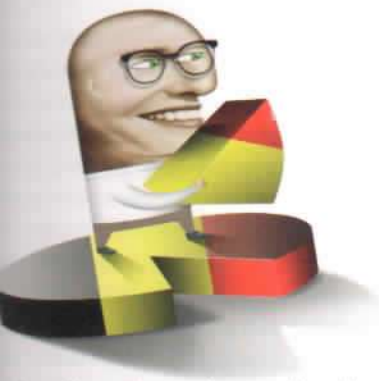

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The productivity of Belgian workers is 15 percent higher than that of their US counterparts and 20 percent better than the EU average, but productivity growth is slowing (Exhibit 1) and won't be enough on its own to tackle the demographic challenge. We estimate that if Belgium's current trends in labor participation, total working time, and productivity continue, its economic growth could drop to 1.1 percent annually over the next quarter century. As a result, by 2030 the country could face a budget deficit of up to 6 percent of GDP and a debt-to-GDP ratio of almost 180 percent—reversing Belgium's efforts to bring down the debt, which reached a high of 148 percent of GDP in 1993.

For Belgium to maintain a balanced budget, reduce debt, and absorb higher social costs, the economy needs to grow by an average of 1.8 percent a year—faster than the 1.5 percent rate achieved since 1990. To meet this goal, we propose a program that would put 440,000 more people to work (thereby raising the employment rate to 70 percent), stop any further substantial decline in average working hours, and achieve sustained productivity growth of 1.75 percent a year (Exhibit 2, on the next page).[3]

Creating so many new jobs while improving productivity won't be easy. Belgium's politicians, employers, union leaders, and ten million people must rally around a change program that promotes a favorable climate for economic growth. One of the most important reforms will be to reduce Belgium's high labor taxes,[4] which discourage the creation of new jobs. Another will be to simplify regulations and speed up bureaucratic procedures that stifle entrepreneurship and investment.

Exhibit 1

Losing ground

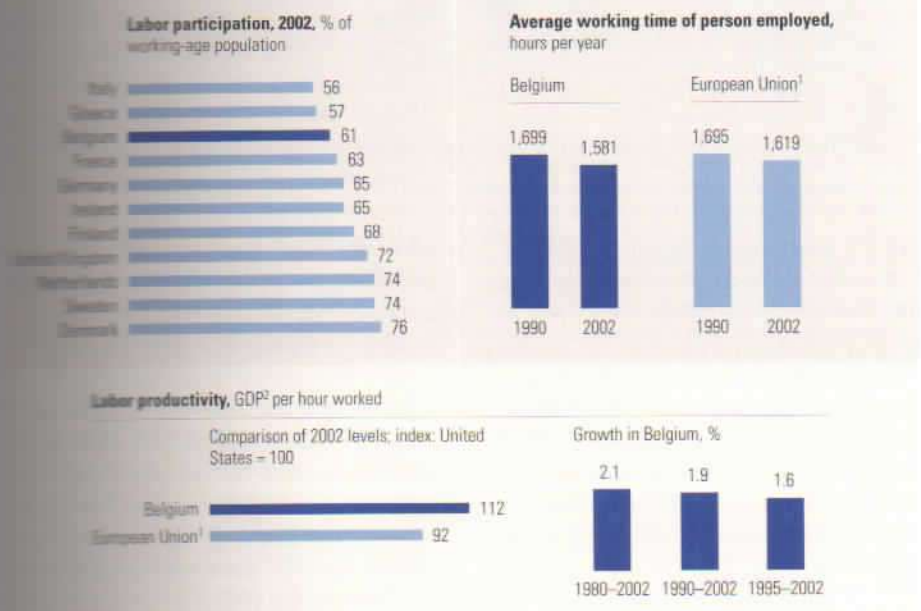


Exhibit new members as of May 2004.
Gross domestic product, adjusted for purchasing-power parity.
Source: Robert H. McGuckin III and Bart van Ark, *Performance 2002: Productivity, Employment, and Income in the World's Economies*, Research Report R-1328-03-RR, The Conference Board, New York, Mar 2003; Belgostat, National Bank of Belgium; Groningen Growth and Development Centre (GGDC); Organisation for Economic Co-operation and Development (OECD); McKinsey analysis

EXHIBIT 2

A plan for Belgium's future

[1]Aged 15–64 years.
[2]Forecast.
[3]Target.
[4]Target EU employment rate set by Lisbon Special European Council, Mar 2000.

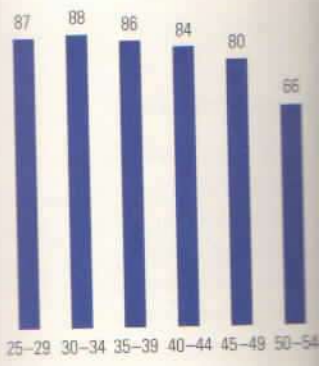
In 2002 excessive regulation cost Belgian companies about €9.1 billion—more than they paid in corporate taxes. The bureaucracy also creates time-consuming delays: it takes an average of 144 days to get approval for marketing a new drug, compared with 68 days in the Netherlands. Less and smarter regulation is one of the keys to boosting productivity in Belgium's services sector, where most new jobs will be created.

Increasing demand for labor isn't enough. Supply must be stimulated by reactivating the huge part of Belgium's working-age population that is unemployed or in early retirement. Of Belgians aged 55 to 64 years, only one in four is gainfully employed, compared with almost three out of four in Sweden. The situation is hard to justify, especially as this age group becomes a larger share of the population. Companies have restructured their pension schemes both to encourage early retirement and to maintain peace with the unions. The result is that for many employees, the effective pension age is 58 years, well below the legal pension age of 65.

We propose abolishing the various early-retirement schemes by gradually raising the effective minimum age for a pension

EXHIBIT 3

Retiring too soon?



Source: National Institute of Statistics, Belgiu
Organisation for Economic Co-operation and

to 65 years or by increasing the
number of work years needed
for a pension. The government
to adopt these guidelines for its
employees, and it is important
sector employers and unions c
follow suit. To gain acceptance
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older people, not to push the
retirement.

labor productivity = wealth creation

Creates ~440,000 net jobs in 28 years to achieve 70% employment rate[4] and counteract effects of aging on labor participation

Slow the rate of decline in average working hours from 0.6% annually (1990–2002) to 0.1% going forward

Boost labor productivity growth rate to 1.75% annually

Achieve targeted growth rate of 1.8% annually

2000.

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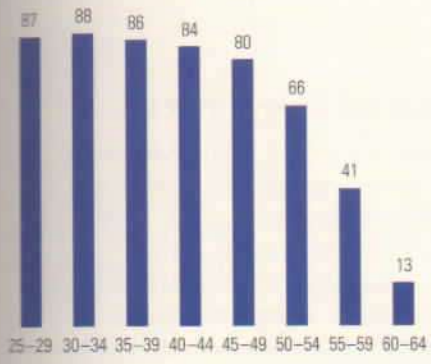
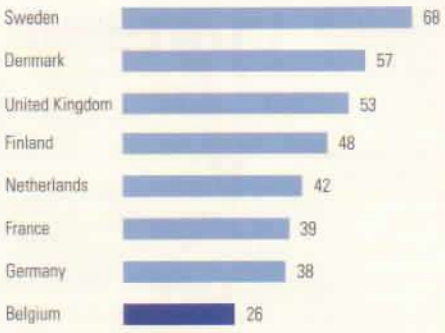
EXHIBIT 3

Retiring too soon?

Share of Belgium's population at work by age group, 2002, %



Employment rate of 55–64 age group in Europe, 2002, %



Source: National Institute of Statistics, Belgium; *Vieillissement et Politique de l'Emploi, Belgique*, Volume 2003, Number 7, 2003, Organisation for Economic Co-operation and Development (OECD); McKinsey analysis

to 65 years or by increasing the minimum number of work years needed to qualify for a pension. The government has started to adopt these guidelines for its own employees, and it is important that private-sector employers and unions quickly follow suit. To gain acceptance for this first step, however, it must be supported by complementary initiatives. A company's social contribution for workers older than 55 should be reduced each year until it eventually reaches zero. This adjustment would make it cheaper for companies to retain older employees, as would phasing out automatic age-based salary increases.

Moreover, all those older than 55 should receive help finding work, including part-time jobs, suited to their talents and needs. Last, the government needs to build awareness of the importance of this age group for the country's economy. One successful example was Finland's recent campaign, "Experience is a national asset," which encouraged companies to retain older people, not to push them into early retirement.

Herman De Bode is a director, **Philip Eykerman** is a principal, and **Ruben Verhoeven** is a director in McKinsey's Brussels office.

[1] The study, *Prospero: A New Momentum to Economic Prosperity in Belgium* (2004), is available at www.mckinsey.be/prospero. The work is based on data from established Belgian sources, such as the Federal Planning Bureau, the National Bank of Belgium, and the National Institute of Statistics; from international organizations, including the European Commission and the Organisation for Economic Co-operation and Development (OECD); and from discussions with union leaders, politicians, academics, and top executives at Belgium's private and public institutions.

[2] In this article, EU statistics exclude the ten new member countries that joined in May 2004.

[3] To free up the money needed to reach these targets, we also propose measures to make public administration more efficient—and thus less expensive—and to reduce Belgium's large informal economy, which robs the government of billions of euros in tax receipts.

[4] Personal income taxes and social contributions paid by workers and employers (a tax of 32.8 to 40.5 percent on top of employees' gross salaries) yield a total tax rate of 55 percent.

In the **Field**

Better **customer** service in banks

Marukel Nunez and Corey M. Yulinsky

How can banks improve the customer experience? A survey of 2,100 retail-banking customers in the United States suggests that institutions should start by examining the everyday events that most affect, for good or ill, a customer's perception of them. These "moments of truth" represent important opportunities for banks to assess their customer service capabilities and to ensure a proper alignment of investments with customer needs. The way such moments were handled was telling: mass-market customers who had a negative experience (say, an unexpected fee) during the previous 24 months kept 4 percent less with the bank than did those who had a positive experience (such as a deftly handled account opening). Worse, disaffected mass-affluent customers[1] were twice as punitive—especially devastating, since they generate 13 times more profit than mass-market customers did. Simple tools that expedite the opening of new accounts can help, but the way employees resolve problems is crucial. Clearly, banks must reexamine their broader service-recovery processes if they are to address the lapses that turn disgruntled customers into former ones.

[1] The 987 respondents who experienced "moment of truth" during past 24 months.
Source: 2003 McKinsey survey of 2,100 retail-banking customers in United States

Marukel Nunez is an associate principal and **Corey Yulinsky** is a principal in McKinsey's New York office.

[1] Customers with more than $100,000 in assets.

Balancing short- and long

performance

Devan,
Kristina Millan,
and Pranav S. Shirke

Many corporate leaders struggle to
long-term shareholder value. Th
comes as no surprise, given an increasin
competitive environment in which financ
leaders often evaluate a company and
CEO by the most recent quarterly result
But the cost of neglecting long-term
performance can be high in today's rapi
changing business world, where most
companies either do not survive or are
acquired.

companies listed on
the S&P 500 from 1984 to 2004 show
that some do achieve strong results in
the short and the long term. We ident
companies and grouped them in
companies that recorded
and long-term performance, th
performed poorly in the short te
over time, others that were stro
in the former but lackluster in the lat
companies that were mediocre in bo
(exhibit, on the next page).

examined how the compan
each quadrant performed along four
with long-term total returns to sha
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service in banks

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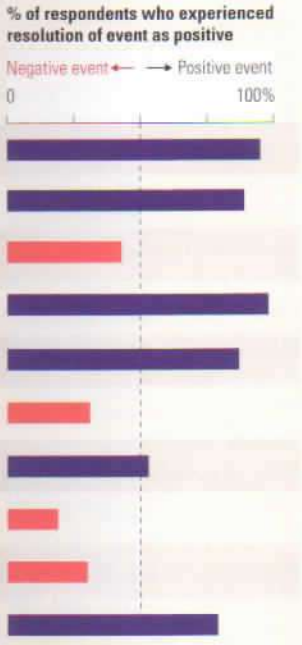

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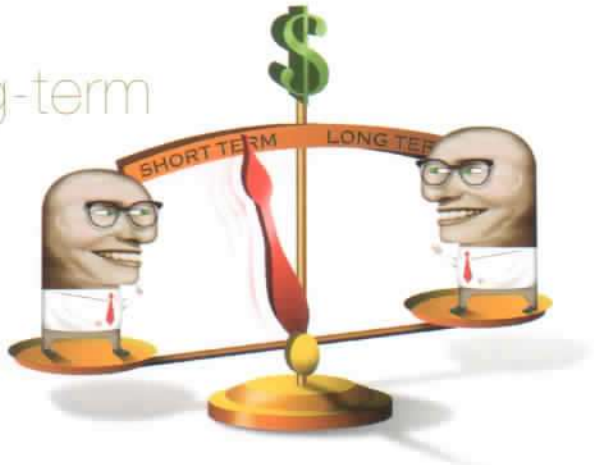
sky is a principal in McKinsey's New York office.

Balancing short- and long-term performance



Sanjeev Devan, Anna Kristina Millan, and Pranav S. Shirke

Many corporate leaders struggle to increase long-term shareholder value. This comes as no surprise, given an increasingly competitive environment in which financial markets often evaluate a company and its CEO by the most recent quarterly results. But the cost of neglecting long-term performance can be high in today's rapidly changing business world, where most companies either do not survive or are acquired.[1]

Our research into companies listed on the S&P 500 from 1984 to 2004 shows that some do achieve strong results in both the short and the long term. We identified 288 companies and grouped them in four quadrants: companies that recorded strong short- and long-term performance, those that performed poorly in the short term but well over time, others that were strong in the former but lackluster in the latter, and companies that were mediocre in both (exhibit, on the next page).

We then examined how the companies in each quadrant performed along four dimensions: long-term total returns to shareholders (TRS), survival rates, the tenure of current CEOs, and the volatility of share prices reflected in the beta deviation from the industry average.

Clearly, the ability to balance short- and long-term performance pays off handsomely. On average, companies with strong overall performance beat companies in all the other quadrants on most measures. The average TRS of the top corporations was 9.4 percentage points higher than the average of companies with mediocre short- and long-term performance, and the survival rate of the former was substantially higher: 73 percent were still around in 2004—the end of the analysis period—as opposed to 57 percent of the companies with mediocre performance. A CEO at the top performers remained in office almost three years longer, and those companies' stock prices were substantially less volatile.

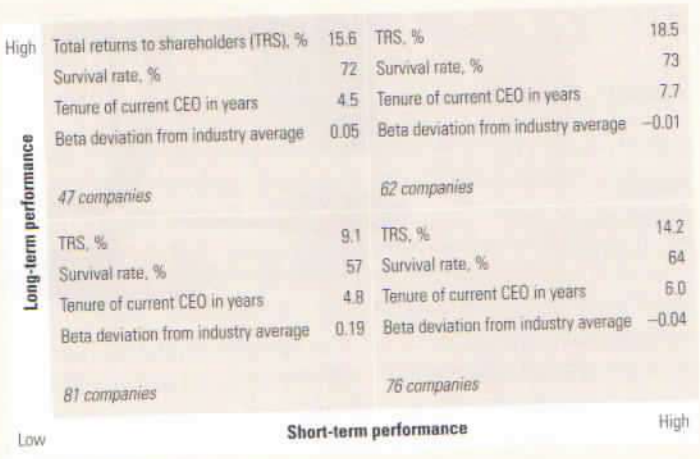
Companies with robust long-term but lackluster short-term performance had survival rates almost equal to those of the top performers but scored lower on each of the other measures. Companies with strong short-term but weak long-term performance had marginally less volatile stocks than did companies with strong performance overall but were weaker on the other three measures.

Living up to investor expectations for any length of time is usually demanding. Our analysis showed that, of the high-performing companies in our sample, a few owed their success to a prolonged sweet spot for their products or services rather than to a deliberate attempt to achieve balance. The rest skillfully juggled current opportunities

EXHIBIT

The long and short of it

Companies' performance from 1984 to 2004 (for companies listed in S&P 500 in 1990)[1]



Methodology

- Short-term performance measured as average return on capital employed (ROCE) for all but financial companies, where it was measured as return on equity (ROE)
- Long-term performance measured as average 5-year compound annual growth rate (CAGR) in sales from 1984 to 2004; individual averages of companies were compared with respective industry averages
- Long-term TRS calculated as rolling monthly average of 5-year CAGR between Jan 1989 and Oct 2004
- Survival rate measured as ratio of surviving companies vs total number of companies
- CEO tenure represents average tenures of individuals who were CEOs when research was completed
- Beta deviation calculated as average of difference between beta for each company and its respective industry beta[2]

[1]For 266 companies listed in S&P 500 in 1990; excludes 167 companies that were acquired or dissolved during period analyzed and 67 companies considered marginal cases for falling within + or −5% margin of defining lines of quadrants.
[2]Beta is measure of asset's risk relative to market; a given stock's beta is >1.0 if, over time, it moves ahead of market and <1.0 if it moves behind market.

Source: Barra; Bloomberg; Hoovers; Standard & Poor's; Thomson; McKinsey analysis

with others providing for long-term growth. This approach was relatively painless for companies with large pools of capital to finance long-term options. The majority of corporations, however, balanced both objectives only by making difficult trade-offs with limited resources and in the face of unrelenting shareholder pressure for an immediate return on equity.

Even sweet spots turn sour over time, and overflowing pools of capital occasionally run low. Regardless of whether (and how) companies may be juggling short- and long-term performance today, those aiming for longevity need to balance trade-offs between current earnings and shareholder value over an extended period of time. How can these goals be achieved?

We found that many successful companies instilled a long-term mind-set. They tended to appoint CEOs who kept an eye on short-term operational performance, for example, while also constantly emphasizing innovation that could produce long-term growth. These companies also typically introduced dynamic strategic processes to evaluate growth initiatives on an ongoing basis, thus enabling management to

in 1990)[1]

%	18.5
al rate, %	73
e of current CEO in years	7.7
deviation from industry average	−0.01
mpanies	
%	14.2
al rate, %	64
e of current CEO in years	6.0
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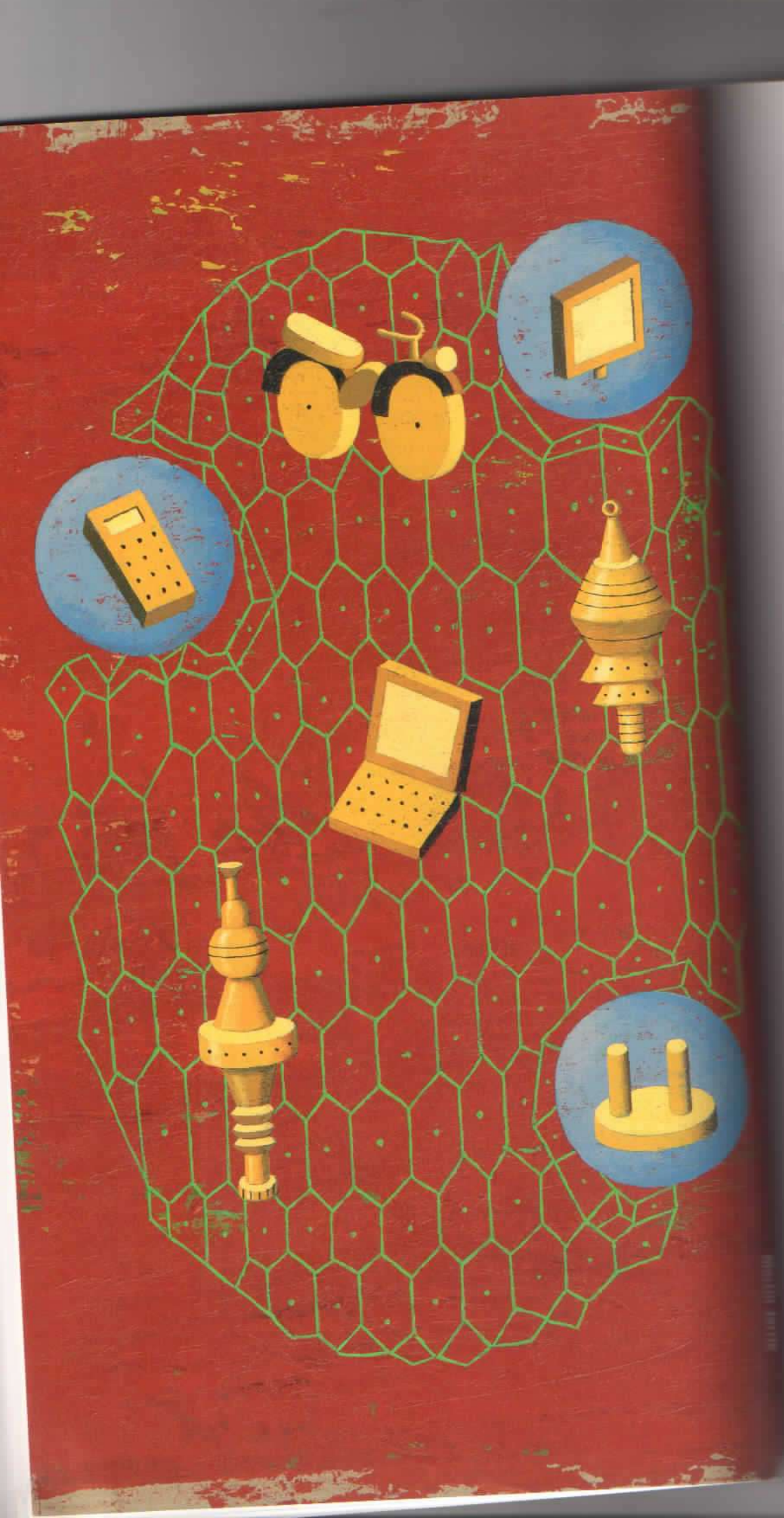
be nimble when it decided to abandon, accelerate, or accelerate them.[2] Successful companies also used financial incentives to attain both short- and long-term targets. While none of the levers, on its own, guaranteed success—a plethora of other factors was involved, such as managerial talent, organizational flexibility, and strong execution skills—together they are a starting point.

Devan and **Anna Kristina Millan** are consultants in McKinsey's Washington, DC, office, and **Pranav Shirke** is a consultant in the Singapore office.

[1] By 1998, the average estimated tenure of a company listed on the S&P 500 was ten years. If history is a guide, over the next quarter century no more than a third of today's major corporations will survive in an economically important way. See Richard N. Foster and Sarah Kaplan, "Creative destruction," *The McKinsey Quarterly*, 2001 Number 3, pp. 40–51 (www.mckinseyquarterly.com/links/15591).

[2] For a wide-ranging view of how to pick and manage the right set of long-term growth initiatives, see Lowell L. Bryan, "Just-in-time strategy for a turbulent world," *The McKinsey Quarterly*, 2002 special edition: Risk and resilience, pp. 16–27 (www.mckinseyquarterly.com/links/15592); and Lowell L. Bryan and Ron Hulme, "Managing for improved corporate performance," *The McKinsey Quarterly*, 2003 Number 3, pp. 94–105 (www.mckinseyquarterly.com/links/15593).

Illustrations by Kevin Curry.



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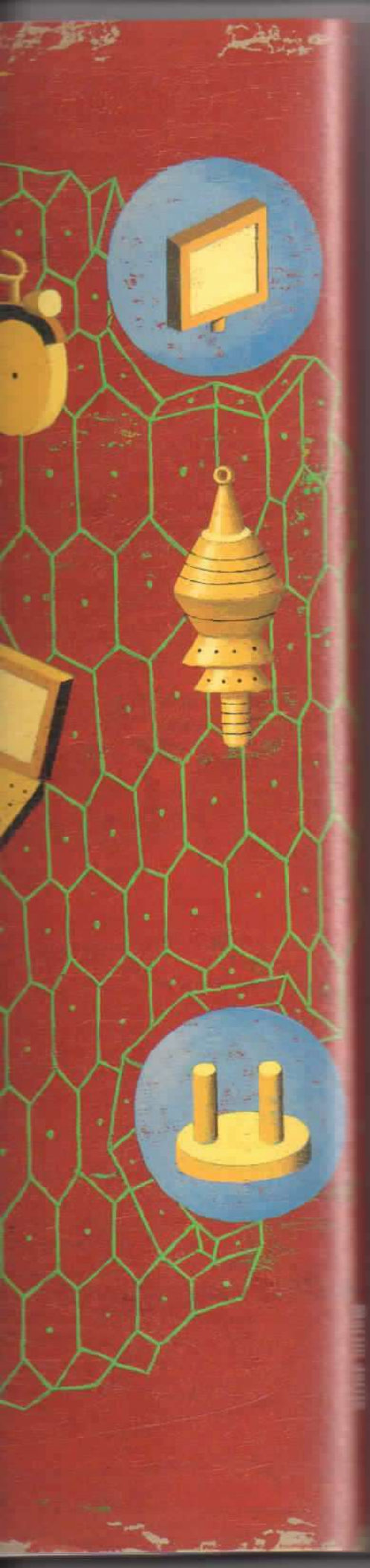
Gary Hamel and C. K. Prahalad
Harvard Business Review, Volume 74, Number 4, p



Innovation blowback: Disruptive **management** practices from Asia

Western companies think too narrowly about the emerging world. If they aren't careful, they may end up as defenders, not attackers.

John Seely Brown and John Hagel III

In the days of the rudimentary pistol, unlucky shooters were now and then hurt when unburned gunpowder escaped backward toward their faces. They came to describe this unpleasant experience as "blowback," a term that has subsequently gained wider application in military affairs—in any event that turns on its maker.

Blowback is an apt term for the unexpected consequences of the investments that Western companies have made in emerging markets. Since first entering them several decades ago, and to a remarkable extent today, these companies have tended to view them in what Kenneth Lieberthal and C. K. Prahalad[1] call "imperialistic" terms: as a beguiling mix of increasingly prosperous consumers and limitless pools of low-cost labor. Here, the thinking goes, companies can expect to harvest the fruits of the R&D and innovation skills painstakingly developed in their home countries.

That view is dangerously complacent. The very presence of Western marketers and the competition they create have inspired the emerging world's companies to raise their game in response. Far from being easy targets for exploitation, emerging markets are generating a wave of disruptive product and process innovations that are helping established

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[1] Kenneth Lieberthal and C. K. Prahalad, "The end of corporate imperialism," *Harvard Business Review*, Reprint series, Volume 81, Number 8, pp. 109–17 (www.hbr.com).

companies and a new generation of entrepreneurs to achieve new price-performance levels for a range of globally traded goods and services. Eventually, such companies may capture significant market share in Europe and the United States.

To be sure, these trends are in their early development, and most companies in emerging markets face formidable obstacles to competing effectively at home, let alone penetrating the developed world. Furthermore, most Western companies haven't yet begun to serve the emerging world's low-income segments, where crucial learning takes place. Even so, early indications suggest the "innovation blowback" from emerging markets could come soon:

- Wal-Mart Stores' imports from China already account for 1 percent of its GDP. Along with other value-conscious retailers, the company stands ready to help a new breed of manufacturer target its wares at shoppers in the United States and Europe.

- Citigroup's Chinese M&A unit reports that outbound deals make up the lion's share of its pipeline—a sign that companies in China are moving abroad.

- Still more significant, mounting evidence suggests that farsighted vanguard Western companies are not only acquiring key capabilities by serving low-income customers in emerging markets but also preparing to use that experience to attack the growing value segments of developed markets. These companies, wielding advantages based not on factor cost differences but on superior management, show that blowback is as much an opportunity as a threat.

Most of the developed world's companies must urgently reposition themselves to deal with this offshore challenge. The solution isn't just to bring their products and business practices to the developing world, where they will invariably fail to penetrate beyond small segments of relatively affluent consumers and miss out on the vast purchasing power of less affluent ones.[2] Nor can Western companies simply strip costs from existing products. They must instead redesign their products and processes from a "clean-sheet" perspective—one that amplifies their own distinctive capabilities and those of other companies—by participating in and orchestrating networks of highly specialized businesses. In fact, they can acquire the capabilities they will soon need at home only if they face the intense competitive pressures of serving the mass market in emerging economies.

[2] Dell, which in the United States epitomizes innovative production processes, admitted as much when price competition from local companies forced it to retreat last August from its efforts to sell low-cost consumer PCs in China.

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August 2003, Volume 81, Number

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Emerging-market hotbeds

Emerging markets are well known for their role in activities such as assembling consumer electronics products and providing low-level customer support through burgeoning call centers. They will become even more significant as catalysts for product and process innovation.

Two powerful factors are converging to transform them into catalysts of this kind. One is the low incomes of consumers in China and India—a total of 457 million households in 2002, with an average annual income of less than $6,000 a year. The other is the spending behavior of this immense group of consumers, who, by Western standards, are unusually youthful, demanding, open-minded, and adventurous. One study cited by Lieberthal and Prahalad, for instance, showed that Indian consumers sample an average of 6.2 brands a year of a given consumer product for every 2.0 brands their US counterparts buy.[3]

These demographics and consumer traits set a stern precedent. To penetrate this vast market, companies must charge prices that the majority of its consumers can afford. Furthermore, the climate of openness implies diminished loyalty to established brands and greater receptiveness to new participants and product features. Both will force companies to rethink the way they develop and deliver their offerings.

Mobile technology demonstrates both the opportunity and the challenge. China and India, thanks to their army of early adopters, have become two of the world's largest markets for mobile phones. But these markets differ from Western ones in important ways. According to Mouli Raman, the chief technology officer of OnMobile, an entrepreneurial company spun out of Infosys Technologies three years ago, the cost of equipment for mobile-telephone networks must fall by a factor of five for it to succeed in the Indian market. Pricing for mobile-network operators must also be restructured, with smaller up-front license fees and more emphasis on performance-based payments.

Established technology vendors such as Nokia or Sony Ericsson must decide whether products designed for more developed countries will succeed if merely adapted for Asia's emerging markets or a radical new approach to product and process design is required. A growing number of such companies now acknowledge that going back to the drawing board is the only choice in Asia. Products like mobile phones comprise many interdependent systems and subsystems. When the products are designed, their features require trade-offs and agreements about diverse systems

[3] Kenneth Lieberthal and C. K. Prahalad, "The end of corporate imperialism," *Harvard Business Review*, August 2003, Volume 81, Number 8, pp. 109–17 (www.hbr.com).

and components. Companies that attempt, say, to incorporate fewer features find that the second-order effects ripple across these previous trade-offs and agreements.

The new models to follow

As Western companies strip costs from their products, they will have to rethink the processes they use to design and deliver their offerings. Many will discover that their home-market organizations are no longer the primary locus of innovation. Big global companies, after specifying the performance parameters they expect, may outsource the innovation process entirely. Contrary to the belief that multinationals must enter the emerging world in a vertically integrated fashion to ensure quality, they may begin to *disintegrate* vertically there—not just to assembly but all the way to product design. To some Western executives this might seem like a radical notion, but the practice of outsourcing innovation is gaining ground. Gateway and Hewlett-Packard, for example, recognizing that they couldn't move quickly into consumer electronics markets, have turned to original-design manufacturers in Asia for their new consumer product offerings.[4]

Companies have many ways to manage product and process innovation in emerging markets, but three are especially promising. Although presented separately, they are not mutually exclusive; a company can amplify the impact of its own capabilities, and deliver greater value at much lower cost, by combining them. The first approach is described through a cautionary tale about how Japanese motorcycle makers went to China only to get beaten at their own game. But like the cases illustrating the other approaches, this one also describes an opportunity for Western companies: to turn blowback to their advantage by building distinctive capabilities in the low-income segments of emerging economies before other companies do.

Production-driven modularity

Few Westerners could find Chongqing on a map. Yet this central Chinese city is home to a network of companies whose vibrant new way of designing and manufacturing motorcycles is a prototype for disruptive innovation. The network uses a distinctive management process that economists at Tokyo University, who have studied such networks in great depth, call "localized modularization"—a loosely controlled, supplier-driven approach that speeds up a company's time to market, cuts its costs, and enhances the quality of its products. The heart of this new system is a series of "process networks" mobilizing specialized companies across many levels of an extended business process. Entrepreneurial and privately owned motorcycle assemblers

[4] John Hagel III, "Offshoring goes on the offensive," *The McKinsey Quarterly*, 2004 Number 2, pp. 82–91 (www.mckinseyquarterly.com/links/15773).

such as Dachangjiang, Longxin, and Cixi Zongshen Motorcycle orchestrate the networks.

These companies got their start by competing against established state-owned assemblers that had partnered with leading Japanese motorcycle makers such as Honda Motor, Suzuki Motor, and Yamaha. The private assemblers refined the Japanese companies' tightly integrated product architecture into one that was more flexible and modular but just as functional. The Chinese system makes it possible for the assemblers to modularize production in parallel by outsourcing components and subassemblies to independent suppliers. In contrast to more traditional, top-down approaches, the assemblers succeed not by preparing detailed design drawings of components and subsystems for their suppliers but by defining only a product's key modules in rough design blueprints and specifying broad performance parameters, such as weight and size. The suppliers take collective responsibility for the detailed design of components and subsystems. Since they are free to improvise within broad limits, they have rapidly cut their costs and improved the quality of their products.

The Chinese system lets assemblers modularize production in parallel by ***outsourcing work*** *to suppliers*

Locating major suppliers and assemblers in the same city helps to mobilize the appropriate specializations. Informal social networks, developed in crowded teahouses and restaurants, supplement more formal efforts to coordinate suppliers and assemblers. Throughout India and China, such emerging local business ecosystems play a major role in speeding up product and process innovation. In this production-driven form of modularization, suppliers of components and subassemblies—the frame, the engine, the suspension—take much of the responsibility for coordinating their work. Solving problems by combining people from diverse fields makes the solution more creative.

Thanks to these innovations, China has made rapid gains in motorcycle export markets, especially in Africa and Southeast Asia, and now accounts for 50 percent of all global production of motorcycles. The average export price of Chinese models has dropped from $700 in the late 1990s (already several hundred dollars less than the cost of equivalent Japanese models) to under $200 in 2002. The impact on rivals has been brutal: Honda's share of Vietnam's motorcycle market, for instance, dropped from nearly 90 percent in 1997 to 30 percent in 2002. Japanese companies complain about the "stealing" of their designs, but the Chinese have redefined product architectures, in ways that go well beyond copying, by encouraging significant local innovation at the component and subsystem level.

It isn't all upside for the Chinese. Price competition has eroded the profit margins of both assemblers and suppliers, jeopardizing their ability to invest in further product innovation. Some consolidation by assemblers—plus a move into marketing and service—seems likely.

Customer-driven modularity

Over the years, consumer packaged-goods companies have reduced their products' unit size in emerging markets to unlock demand among consumers who can't afford bigger portions. Coca-Cola, for example, began selling 200-milliliter bottles of Coke in India in 2003; Britannia launched Tiger Biscuits in 20-gram packages in 1999. What if companies took this approach with more expensive purchases, such as mobile phones, or even with products for low-income businesses?

Cummins, the producer of diesel engines and power generators, recently did just that in India. By modularizing a product for the distinct needs of different kinds of customers and channel partners, the company cut the total cost of ownership and of sales in the channel. The result: higher demand for Cummins products.

How Cummins did it. By 2000 the company had already captured 60 percent of the high-horsepower end of the Indian market. But it was only a marginal player in the large and rapidly growing low-horsepower (under 100-kilowatt) end, where buyers include small retailers, regional hospitals, and farmers requiring an assured power source in a country where outages are frequent. This big market was potentially lucrative, but its demands are daunting: each segment needs slightly different features. Farmers, for example, want engines protected against dirt, while noise is a bigger issue for hospitals. Cummins realized that it needed a low-horsepower engine that could affordably meet the needs of all these customers.

The company realized that it couldn't afford direct distribution, given the need for low prices. Instead it would have to use third-party distributors, all of them less skilled than its direct sales force and less able to help customize the product for the needs of particular end users. The solution was to create a series of smaller, lower-powered, modularized engines and to combine them with add-ons called "gensets" (generation sets) that could be customized for different segments. By packaging components in ready-to-assemble gensets, Cummins broadened the product's appeal to both customers and distributors. Customers liked the gensets because the product came tailor-made; the hospital version, for instance, had a noise-abatement hood that was omitted from the farm kit, which had dust and dirt guards not included in the hospital version. Gensets also appealed to

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distributors because they didn't have to source these add-ons themselves—something that would have been beyond their means and skills.

Modularizing the product to meet the needs of customers and channels also helped solve operational dilemmas. Customized products ordinarily mean smaller manufacturing runs, so Cummins faced an increase in the average unit cost of production for an offering that had to be cheap. By modularizing it, the company increased production runs of common subsystems and components, thus keeping overall costs low. It also pressed suppliers of peripherals, such as the noise-abatement hood, to standardize designs and cut costs.

Compared with the radical process innovations of the Chinese motorcycle assemblers, which outsource more of their core production, Cummins's strategy may seem familiar (see sidebar, "Beyond big bang innovation," on the next page). Western companies, after all, have long grappled with customization and "segment-of-one" challenges. Yet these efforts often end at the factory door. When modularization reflects only the need to cut manufacturing costs—rather than the problem of reaching small, dispersed segments of low-income customers through third-party channels—it typically fails to cut the cost of ownership for customers and the cost of sales in the channel.

Beyond India. The new genset engines have been an unqualified success in India, where Cummins has won 40 percent of the market over the past three years. Genset sales now account for 25 percent of the company's total power generation sales there. Despite the much lower unit prices of the new range, its net profitability is comparable to that of the high end. Exports began in 2002 to other parts of Asia and were later extended to Africa, Latin America, and the Middle East. Can it be long before Cummins introduces its low-horsepower generators in more developed markets?

If it does, it could leverage another advantage derived from competing in Asian mass markets: the high levels of reliability it had to design into the engines not only because its customers can't depend on the local power supply but also because the low prices they demand mean that its margins can't sustain an after-sales service unit. This higher reliability could prove competitively devastating in developed countries, where many vendors have competed away margins on their products and now depend on profitable

aftermarkets. An attacker selling products that don't require after-sales service could dry up that profit pool.

Process-driven services

Innovation in emerging markets won't be limited to manufactured goods. The desire to reach vast low-income segments of Asia's population is also pushing service organizations to new levels of achievement. One vivid example comes from the Aravind Eye Care System, at Madurai, in the south Indian state of Tamil Nadu. The Aravind system—dedicated to eradicating "needless blindness by providing appropriate, compassionate, and high-quality eye care for all"—includes a chain of hospitals and a manufacturing center for sutures, synthetic lenses, and eye pharmaceuticals.

Aravind, which occupies a highly specialized health care niche, developed efficient processes by treating huge numbers of extremely poor patients in a country where 12 million people are totally blind and an additional

Beyond big bang innovation

When Western executives discuss innovation, they tend to focus more on products than on processes and mostly on breakthroughs rather than incremental product innovations. Supercomputers, blockbuster pharmaceuticals, fuel cells, nanotechnology, lasers—innovations like these capture the imagination and attention of executives in developed countries.

Yet very few companies create significant shareholder value through breakthrough product innovations; most economic wealth comes from more modest ones that accumulate over time. Process innovations may be even more important for building competitive advantage and generating wealth. Dell and Wal-Mart Stores, for instance, have used them to generate enormous amounts of it.

In fact, most innovation involves creatively recombining existing components of technologies, products, or business systems. Schumpeter's "gales of creative destruction," for example, came not from isolated, discontinuous events but rather from ongoing efforts by entrepreneurs to find better ways of serving markets. Silicon Valley—for many, the epicenter of innovation—generates most of its economic wealth by incrementally enhancing technology.

If executives expand their view of innovation, they may be better prepared to see it in terms of institutional capacity and pace. For example, developing a more modular and loosely coupled product architecture—as Cummins and the Chongqing motorcycle assemblers did—increases the institutional capacity for innovation and thus promotes incremental improvement. Specialization, as in the example of the Aravind Eye Care System, helps an organization develop innovative processes more rapidly by providing it with lessons from a larger number of comparable experiences.

More important still, a broader view of innovation that values the role of incremental change communicates the power of bootstrapping. Companies that start out with limited capabilities—such as those in many developing economies—can rapidly build them over time through a series of modest process and product innovations. Ultimately, individual innovations may matter less than the institutional capacity to sustain a rapid series of improvements and the pace at which they are developed and disseminated through the network.

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8 million are blind in one eye. Its hospitals perform 200,000 operations a year—nearly 45 percent of all such operations in Tamil Nadu and 5 percent of those throughout India. High volumes are dictated by the affliction's scale and by the need to make the network's nonprofit hospitals viable and to generate funds for expansion.

Over the years, Aravind has carefully honed the flow of work through its outpatient departments and surgical wards—and both have reached impressive levels of efficiency. Cataract operations in Madurai, for example, are performed on four operating tables, side by side. Two doctors operate, each on two adjacent tables. When the first operation is over, the second patient is already in place. "Usually I do about 25 surgeries in a half-day session," a local doctor told the Indian writers of a case study.[5] "Most [doctors] do this number." The intense throughput doesn't seem to compromise quality. Indeed, major complication rates are highly satisfactory: in virtually all "event" categories—such as iris trauma or prolapse—Madurai's 2002 figures were better than those of the United Kingdom (as documented in a national survey by the Royal College of Ophthalmologists).

In this case, too, the need to serve low-income customers in challenging conditions spurred innovation. People in rural areas, for example, suffer from refractive blindness resulting from the prohibitive time, travel, and other incidental costs of getting a pair of glasses. Aravind studied data on the needs of patients, prepared lenses in advance, and set up mobile optical shops in remote villages so that patients could be examined near where they live and, if necessary, supplied with glasses on the spot.

Other Indian health care entrepreneurs, using processes developed in similar conditions, are already encouraging patients in more developed countries to get better value for money by traveling to Indian facilities for specialized services. Institutions such as the Narayana Hrudayalaya Foundation (a cardiac care facility in Bangalore) and Escorts Heart Institute and Research Centre, in New Delhi, are proving that services, though intangible, can be delivered in a surprisingly flexible way. A recent study by the Confederation of Indian Industry (CII) and McKinsey predicted that medical tourism in India could generate $2 billion a year in revenues by 2012.

The implications for Western companies

These models of innovation spell out a clear message for many companies in the developed world: if you're not participating in the mass-market segment of emerging economies, you're not developing the capabilities you will need to compete back home. Our first recommendation to Western companies is

[5] Sankara Manikutty and Neharika Vohra, "Aravind Eye Care System: Giving them the most precious gift," Indian Institute of Management case study, Ahmedabad, India, 2003 (revised 2004).

therefore to go offshore, not just to the affluent segments, and not just for wage cost differentials, but to serve the mass market. Only there will you be forced to innovate in the ways required to succeed in the future. The recommendations that follow build on this basic idea.

Specialize

It was Adam Smith who first noted the power of division of labor to increase productivity—the basis of the "dynamic economic theory" laid out in *Wealth of Nations*. As the economist Brian Loasby[6] points out, the power of specialization follows not from specialization itself but from the new capabilities it promotes. Viewed in this way, it becomes dynamic rather than static; it enhances incentives and opportunities for further innovation.

Companies can't have all the skills needed to deliver products or services; they must choose what they do themselves and collaborate with others for the rest. They should stick to one of three types of activities: managing infrastructure, managing customer relationships, or developing and commercializing innovative products.[7] Specialization requires businesses to find partners that enhance and complement their capabilities. Such cooperation calls for the better coordination of resources across and within enterprises as well as a fresh approach to managing processes. Offshoring in emerging markets accelerates the building of capabilities on a global scale by helping companies to participate in talent-rich process networks and then to orchestrate them.

Orchestrate process networks

Companies can best accelerate the building of capabilities in two stages. The first involves setting up, accessing, developing, and ultimately orchestrating true process networks of the kind used by the motorcycle makers in Chongqing and, in the apparel industry, by the Hong Kong–based company Li & Fung, which deploys a network of 7,500 specialized business partners to create customized supply chains for each new apparel line. Such process orchestrators decide which companies can participate in the network, define each party's role, and guarantee performance and fair rewards. This gatekeeper role distinguishes emerging process networks from more fluid aggregations of companies.[8]

The results are impressive. In the case of the motorcycle network, the undertaking is divided among independent activities, each with a clear owner accountable for performance. This "loose coupling" promotes flexibility (such as quicker responses to the customer's needs) and scalability (the

[6] Brian Loasby, *Knowledge, Institutions, and Evolution in Economics*, London: Routledge, 2002.
[7] John Hagel III and Marc Singer, "Unbundling the corporation," *The McKinsey Quarterly*, 2000 strategy anthology: On strategy, pp. 147–56 (www.mckinseyquarterly.com/links/15776).
[8] John Seely Brown, Scott Durchslag, and John Hagel III, "Loosening up: How process networks unlock the power of specialization," *The McKinsey Quarterly*, 2002 special edition: Risk and resilience, pp. 58–69 (www.mckinseyquarterly.com/links/15777).

ability to involve the largest possible number of participants and, hence, to access a wide range of specializations). Mobilizing process networks is a formidable challenge requiring robust "performance fabrics": technology- and business-based ways of reducing the cost of interaction among network participants. Successful orchestrators such as Cisco Systems, which has invested heavily in distributed learning platforms, focus hard on one key ingredient: creating shared meanings. The ability to build trust quickly is also a part of the recipe.

Orchestrate innovation networks

Moving from orchestrating processes to orchestrating innovation is the second stage of efforts to speed up the building of capabilities. Orchestrators like Li & Fung are learning to build them more quickly across enterprise networks, not just gaining access to specialized resources. To succeed, companies must generate the friction that shapes and sharpens learning when people of different backgrounds and skills collaborate on real problems. Clear performance targets, an unconstrained environment for finding solutions, and the sharing of prototypes across organizational boundaries generally produce the most beneficial results. Processes must be developed, with the help of new generations of information technology, to ensure that innovations are disseminated across the network. As productive friction expands within it, a virtuous cycle reinforces shared meanings and trust.

Western companies go offshore for many reasons: among others, to cut wages (and thus costs), to gain access to distinctive skills that accelerate the building of capabilities, and to seek new markets.[9] Too often, however, investments in new markets focus only on the affluent segments of emerging economies. By targeting instead the specific and demanding needs of lower-income consumers, Western companies can address a far bigger emerging-market opportunity and create the ability to take innovative products and services from the emerging world and use them in new categories at home. Q

[9] Vivek Agrawal, Diana Farrell, and Jaana K. Remes, "Offshoring and beyond," *The McKinsey Quarterly*, 2003 special edition: Global directions, pp. 24–35 (www.mckinseyquarterly.com/links/15937).

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This article is adapted from their upcoming book, *The Only Sustainable Edge: Why Business Strategy Depends on Productive Friction and Dynamic Specialization*, with permission from Harvard Business School Press.

David Williams

Special section:

Extreme

The forces of globalization,
combining to make life har

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Extreme competition

The forces of globalization, technology, and economic liberalization are combining to make life harder than ever for established companies.

William I. Huyett and S. Patrick Viguerie

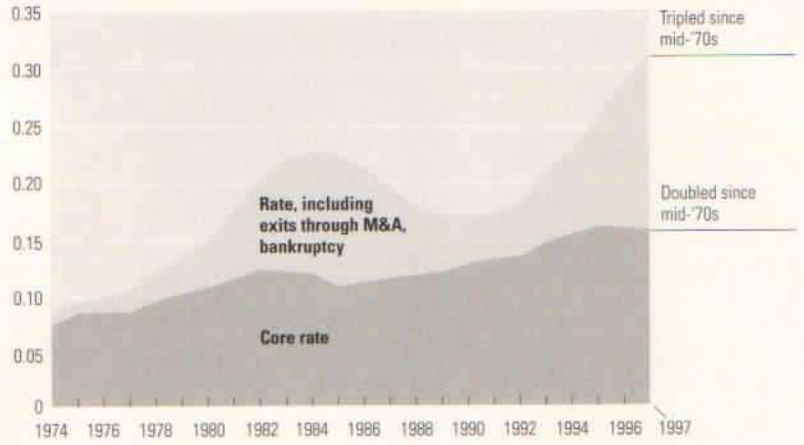
Jack Welch once said that the 1980s would be a "white-knuckle" decade of intensifying industrial competition—and that the 1990s would be tougher still. Despite history's greatest bull market, rising incomes, and unprecedented prosperity throughout much of the world, the former GE chairman was proved right. The "topple rate," at which companies lose their leadership positions, doubled in the 20 years to the mid-1990s (Exhibit 1, on the next page). New technologies eclipsed long-established industry champions, and nimbler competitors with sharper value propositions and lower costs emerged, seemingly from nowhere, to take their place.

In many ways, however, the 1990s were just the start of a massive reshaping of the global economy that will continue for the next 10 to 20 years. Three supply-side forces will combine to unleash innovation and to expand productivity and GDP on a scale never seen before: globalization, particularly the integration of large, low-cost economies into the world's supply-and-demand base; technology, coupled with the exploitation of the networking and communications infrastructure created in the 1990s; and economic liberalization. The pie is still growing, and growing fast, but the increasingly uncomfortable reality is that the distribution of growth—and profits—is anything but uniform or predictable.

David Williams

EXHIBIT 1

Vulnerability at the top



[1]Weighted 5-year rolling average of 35 industries; year shown is final year of rolling average (ie, 1997 includes data through 2002).

Welcome to the world of extreme competition, where supply-side trends that have been on the march for years are accelerating the pace of economic change and expanding its scope. Some industries are more exposed than others, but mature companies with seemingly dominant industry positions are particularly vulnerable: they face a double whammy of more intense competition and declining average industry performance. A comparatively gentle decline—like that of US automakers during the past 30 years as they lost market share to Japanese rivals with lower costs and better quality—isn't likely.

Few incumbents are in a position to respond well to the challenge. Decision-making processes are often slow, backward looking, and incremental. Too many companies need nothing less than a new competitive approach built on speed, flexibility, and resilience—an approach that isn't found in most strategy textbooks or, for that matter, in the experience of business leaders who won their spurs at a time of more incremental change.

Everything in oversupply

Let's take a closer look at the dynamics of supply-side growth—a term familiar to politicians and economists but used less often in managerial contexts. Every corporation requires, to varying degrees, labor, raw materials, a communications infrastructure, production facilities, and

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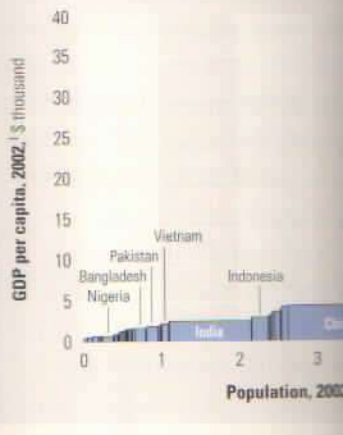
EXHIBIT 2

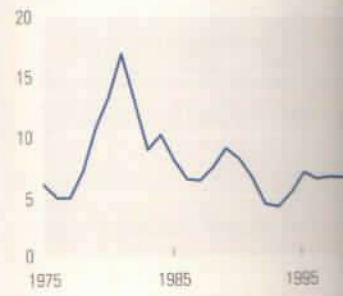
Too much of everything?

Labor: Large low-cost labor pools



Capital: Very cheap

Real federal funds rate, 1975–2004, %



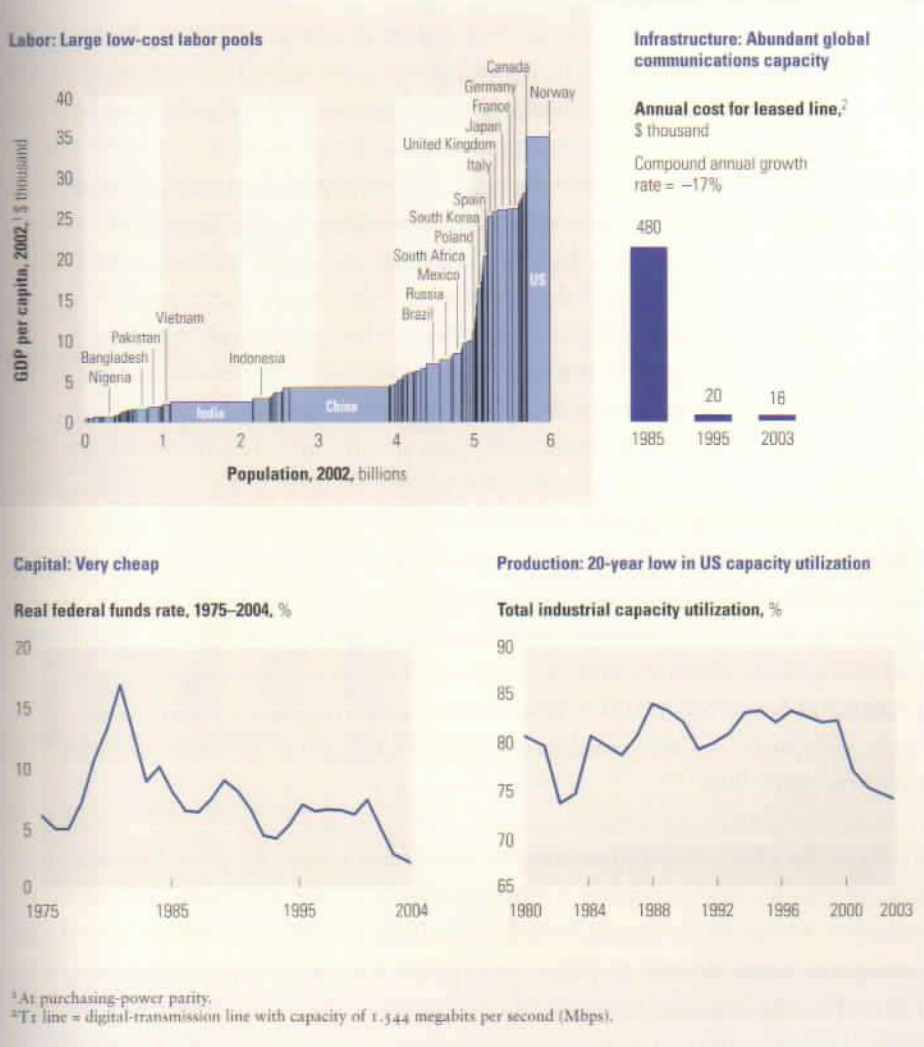
[1]At purchasing-power parity.
[2]T1 line = digital-transmission line with capaci

capital. Over time, these factors of production and the way they combine in business systems have changed dramatically (Exhibit 2).

Take labor, for example. More than one-third of the world's six billion inhabitants live in China or India, but 25 years ago their population pools were out of reach for the developed world's companies. Technology, in the form of vastly more efficient communications and computing power, has now made large numbers of people in these countries available for an astonishing array of physical and knowledge work. The buildup of North American industrial capacity in the second half of the 1990s was equally unprecedented. Finally, capital is both cheap and mobile. The federal funds rate, 15 percent in real terms in 1980, is close to zero today.

EXHIBIT 2

Too much of everything?



[1] At purchasing-power parity.
[2] T1 line = digital-transmission line with capacity of 1.544 megabits per second (Mbps).

Three industry effects

Plentiful, cheap, and global labor, capital, capacity, infrastructure, and information have affected industries profoundly. In microeconomic terms, this growth in supply has had three broad consequences: the aggregation of formerly distinct markets, enhanced market clearing and efficiency, and greater specialization, particularly in supply chains.

Aggregation takes place when competitors in one geography can compete in another because of falling shipping costs, lower search costs for consumers (as a result of the ability to find sellers on the Internet, for example), or both. Technology or deregulation can also bring about convergence, a different kind of aggregation: like the geographic variety, it can quickly create substitutes and new competitors. Technology-driven convergence is common in consumer electronics—cell phones, for instance, are now cameras and Web browsers too—and will become even more so as communications, computing, and storage technologies continue their forward march. Deregulation, as well, drives convergence: with the stroke of a pen, and some subsequent litigation on both sides, US long-distance and local telecom providers could invade each other's markets.

Enhanced market clearing means that buyers can make more efficient purchasing decisions. While sophisticated purchasing practices and the scale of the buyers have long driven corporate purchasing power, widespread information and the presence of new supply alternatives with radically different economics now take the traditional "supplier squeeze" to a new level. These forces promise to reshape the economics of many industries as the products and services of competitors with dramatically different cost structures become acceptable substitutes for dominant offerings.

The combination of aggregating markets and enhanced market clearing creates the third effect: increased specialization in the supply chain. As transportation, communication, and coordination costs fall, suppliers can more easily spread production across facilities and geographies, and companies learn to optimize production by taking greater advantage of scale, proximity to end consumers, and differing costs of labor, capital, and raw materials.

Perhaps the clearest glimpse into the way these forces shape industries and the companies that compete in them comes from the personal-computer industry. In the early 1990s, it had three leaders—IBM, Compaq, and Apple Computer—and dozens of other assemblers. During the past ten years, the market aggregated dramatically. Geographically, demand for PCs became global; functionally, major players clearly came to recognize the trend

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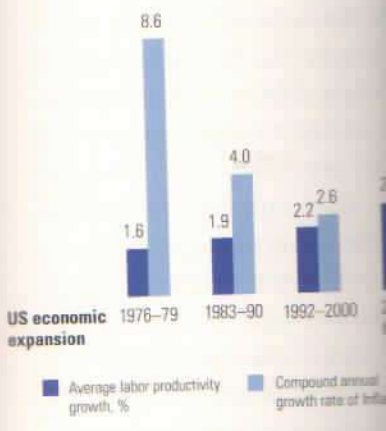
company's margins fell by 40
cost-to-serve increases.

EXHIBIT 3

A fundamental shift



trend. Exhibit 3 shows that
during each period of econo
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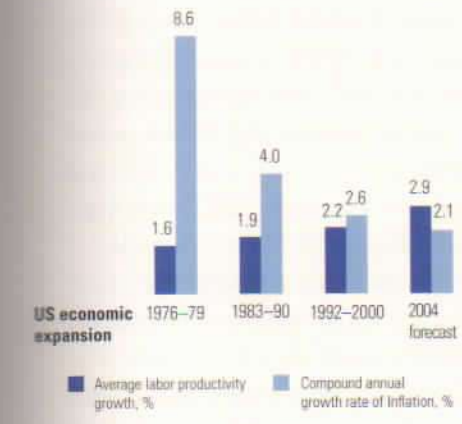
toward digital convergence across PDAs, music players, and other devices and the threats and opportunities it will pose. The increasing sophistication of the buyers, low-cost sources of supply, and the widespread information access facilitated by the relatively transparent component architecture of the product itself have made PC manufacturing one of the world's most competitive businesses. Finally, open standards for the PC platform, coupled with rapid innovation and short product life cycles, have fueled the expansion of geographically distributed, highly specialized supply chains.

This transition to extreme competition was hard for many companies—just look at Apple's near-death experiences as personal computing coalesced around the Windows-Intel platform, Compaq's acquisition by Hewlett Packard, and IBM's pending exit from the business. Yet the industry's dynamism masked some of the harshness of the shift. For more mature industries with legacy production capabilities and investments, a sudden supply-led transition can be brutal. Consider the case of a US-based white-goods manufacturer whose story will resonate with many midsize manufacturers. In the late 1990s, the company, building on momentum established through improved operational effectiveness, was posting record results. By 2001, however, its principal customers were demanding major price concessions in view of credible Chinese alternatives. In that year, the company's margins fell by 40 percent because of pricing concessions and cost-to-serve increases.

EXHIBIT 3

A fundamental shift



Its response—major cost reductions through increased Asian sourcing and painful cuts to overhead—seemed appropriately dramatic. But even that wasn't enough. The company's Chinese competitors made products of comparable quality for 15 to 20 percent less, leaving it with a stark and fundamental choice: to move closer to their cost structure, to find and exploit innovations they couldn't copy immediately, or to exit the industry.

A broader trend

US macroeconomic data suggest that such anecdotes are part of a broader trend. Exhibit 3 shows that as productivity increased, inflation fell steadily during each period of economic expansion during the past 30 years. The effect of these trends has been most dramatic in manufacturing, where globalization

and technology have also had their greatest direct impact. In the 1990s, however, the productivity gains spread to the services sector.

Supply-side growth and its accompanying turbulence will continue and even accelerate over the next 10 to 20 years. After all, the world economy is nowhere near the end of the line in the search for new disruptive technologies and for low-cost, high-talent labor to generate new products, higher productivity, or both. China now accounts for a relatively small part of the global supply base. Our analysis of the country's role in ten significant industrial segments indicates that Chinese exports represent about 5 percent of total global production. While these share positions may not seem significant, the trajectory is: more than half of this share has been won during the past five years. Consider too the still unexploited opportunities for outsourcing to the developing world and the impact their eventual exploitation will have on costs and productivity. The transition to the new regime is reflected, to some extent, in the rising price of inputs such as steel as China's economy grows.

Zones of extreme competition

Extreme competition comes in three flavors (Exhibit 4). The first is traditional "trench warfare," common in mature, undifferentiated industries when demand is shrinking or can't keep pace with rapid growth in supply. Either way, the result is shrinking profits caused by intensifying competition but few changes among the market leaders.

The second flavor—"judo competition"—is just the opposite: the overall industry pie grows, but the scoreboard is constantly changing. Companies on top often win big but face the perpetual risk that smaller or more nimble attackers will topple them using product innovation or new business models that compensate for a lack of scale or scope. Many newer industries, such as software, fall in this category. So do older trend-based industries, like restaurants and branded apparel.

Finally, "white-knuckle competition" combines the worst of both worlds: a shrinking industry pie and high churn on the industry scoreboard. Our analysis of industry leaders and rising topple rates suggests that many industries are migrating north along the vertical axis of the matrix of Exhibit 4. There is also an "eastward" pull toward the white-knuckle quadrant as a result of several supply-side forces, notably major innovations that spill over and disrupt adjacent industries. The telecom industry is a good example. The growth of wireless telephony, the rise of broadband, and the advent of VoIP (Voice over Internet Protocol) are forcing companies to rethink their business boundaries. As telecom service providers know all too well, their traditional wireline businesses can only shrink

EXHIBIT 4

Tough sailing

Driven by the 3 supply-side forces of globalization, technology, and economic liberalization, a number of industries are moving north and east

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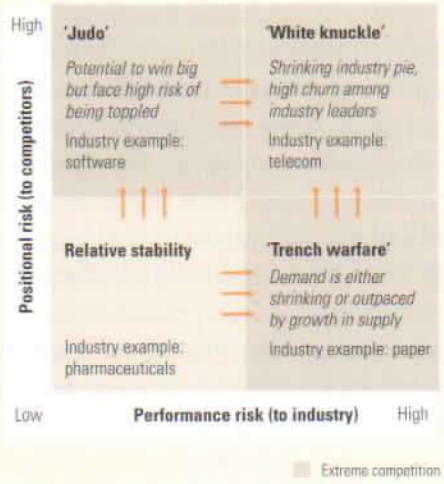

as competitive offers gain ground. Growth calls for a broader set of offers, including wireless, broadband, and even entertainment. Such a redefinition brings with it major investments, new competitors—and considerable uncertainty. Risks to the industry's performance and to the market positions of specific competitors rise alarmingly.

Six ways to win

Executives who develop responses to extreme competition should bear in mind the breadth of the threats as well as the personalities of the new competitors—mostly young, fit, and flexible. The strategic patterns they are weaving are new, and their behavior is fresh and uninhibited. Mature companies in the firing line—experience and pedigree notwithstanding—must therefore learn their businesses anew to be ready for the seemingly rash moves of competitors with no regard for traditional pricing behavior.

Speed, flexibility, resilience, and energy are all attributes of youth. They will be needed to make the transition to extreme competition and must be built into the strategic and operational thinking of all vulnerable companies. The ability to cut through a world of information overload and uncertainty—in other words, foresight—will be among the most important requirements for the tasks ahead.

The list of companies that have failed in this respect may be longer than that of the successes, but executives can still take heart. Although the challenges are formidable and the pressures more intense than they were ten

years ago, the freedom to act and the scope for new approaches are greater than ever. Let's consider what companies need to do differently and why they must move quickly.

Retool strategy and restore its importance

Competitive strategy has taken a backseat at many companies during the past five years: first came e-commerce and then the downturn—neither conducive to longer-term planning. Now, however, the growing uncertainties created by converging supply-side pressures, together with the aggregation of industries and the shifting boundaries between them, demand a much more explicit and high-level strategic response.

In many companies, strategy means nothing more than a plan based largely on today's markets, today's product set, and today's competitors and emphasizing the financial forecast. Such a strategy may successfully identify opportunities to capture the upside of the current business over the next few years but can rarely anticipate extreme competition, much less show how to reposition a business to face it. Effective strategy should steer companies toward where an industry is heading, not where it is today.

Corporate leaders should therefore challenge business units to move quickly and flexibly in new directions by creating a portfolio of response options rather than building incrementally on existing ones. Chief executives should intervene more regularly in conversations within business units and stretch the imagination and urgency of their leadership teams. A readiness to contemplate and execute extreme solutions must start with the CEO and the top team and then be integrated across all layers of the company.

Manage transition economics

The economics of the shift to extreme competition must focus on cost positions, productivity, and the relationship between prices and margins as well as how they should all change over time. The significance of transition economics derives from both the aggregation of markets and the increasing efficiency of market-clearing mechanisms; the pace and scope of industry change drive the timing.

At the heart of this managerial challenge is the age-old trade-off between margins and market share. When does it make sense to hold prices steady in the face of new competition or to reduce them in the interest of holding the customer base? Will reducing them now provide a more secure long-term

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competitive position? The answers, we believe, vary even within different product segments of the same company. A leading telco, for example, has followed distinct pricing strategies in different segments of its core business—"margin maximizing" in some, "share maximizing" in others. These pricing decisions are always carefully thought through in the context of broader industry transitions. By striking a careful balance between near-term profitability and longer-term strategic positioning, this company has enjoyed strong performance in both profitability and share prices.

Costs too are an important factor in transition economics. Building lower-cost positions earlier and more radically than seems necessary almost always pays off. Moreover, a healthy cost structure provides the headroom needed to cut prices or to invest in innovative products and business models should the market require them. When an incumbent transforms its cost structure, a deep understanding of the attacker's business model should inform the way it does so. Take, for example, the attacker Southwest Airlines: the enhanced productivity that comes from eight takeoffs and landings per aircraft daily (as opposed to the usual four or five) enables the airline to generate up to 40 percent more revenue per aircraft a day than a traditional carrier does. Had major US airlines recognized the significance of this productivity advantage a decade ago—and of course hindsight is always 20-20—would they have been quicker to rethink their business models?

No part of the cost structure should escape scrutiny; radically cheaper alternatives are often possible for "below-the-line" expenses such as R&D and selling, general, and administrative costs. Software engineering and the development of pharmaceuticals are but two of the knowledge-intensive undertakings to which Western companies have successfully brought the power of Indian talent—and its lower costs.

Fight aggregation with disaggregation

As powerful forces of aggregation and integration reshape entire industries and create a raft of unlikely new competitors, supply chains—for physical as well as knowledge work—are fragmenting and specialized new players are forming around each link. Every incumbent should reexamine its product portfolios, customer segments, and geographies in this light and treat them less homogeneously by looking for the sharp edges where its value proposition is more attractive or the competition less intense.

Scale advantages may push some companies in the other direction, toward the further aggregation of markets, but we believe that most will benefit by creating more differentiated value propositions to serve microsegments. Production processes may often be uniform, but markets rarely are. Disaggregation helps to expose value propositions that are stuck in the

middle—dangerous territory when most markets are clustering around either high excitement (Apple computers, Porsche cars) or high value and productivity (Dell computers, Toyota cars).

Seek out new demand and new growth

One upside to the new environment of extreme competition will be new sources of demand creating many opportunities for flexible and alert companies. Think of the one billion fledgling consumers in China alone and the scale of the opportunity as demand becomes universal. Executives must identify novel customer segments and geographies, help form their consumer trends, and spot emerging competitors (and partners) early. Although the economics of this new demand may well be unusual, lower prices and potentially lower margins shouldn't be an automatic excuse to stay out. For leaders of business units, the challenge will be to create new, less expensive business models and to make new trade-offs between capital and labor.

Extreme competition isn't a signal to bury the old tool kit. Tried and trusted techniques for moving quickly into position—acquisitions, alliances, and licensing, for example—are more important than ever, since in many industries purely organic business building will be a day late and a dollar short.

Expanding the scope of a business through diversification is another way to tap new demand and an important strategic consideration as product life cycles become ever more compressed. Research suggests that moderately diversified companies not only outperform more diversified ones but also perform at least as well as—if not better than—more focused companies.[1]

Use the portfolio of initiatives to increase speed and flexibility

At least implicitly, every corporation owns a portfolio comprising initiatives to launch new products, enter new segments, or reduce the cost of supply chain processes as well as corporate-wide efforts to improve pricing, bolster account management, or build a presence in emerging geographies. Collectively, these initiatives represent where, how, and when the corporation will create value.

A realigned and actively managed portfolio of initiatives is central to a corporation's response to extreme competition. By "realigned," we mean the decisive responses already discussed, together with a rich set of initiatives to hedge major uncertainties; "actively managed" means more frequent senior-executive reviews of the portfolio and its initiatives. Both the speed and the depth of the challenge to established ideas and assumptions must increase: this

[1] Neil W. C. Harper and S. Patrick Viguerie, "Are you *too* focused?" *The McKinsey Quarterly*, 2002 special edition: Risk and resilience, pp. 28–37 (www.mckinseyquarterly.com/links/15837).

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Bill Huyett is a director in McKins
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is no annual planning process but rather a dynamic approach that challenges leaders to reallocate scarce talent and money across business units and puts the spotlight on innovation and developing the next business model, not just on new products, processes, and services within the company's existing approach. These wider reviews should include as broad a range of leadership experience as possible: increasingly, familiarity with specific businesses is less important than the ability to develop more and creative responses.

By helping the leadership team cut through layers of management, bypass formal reviews, and force a wider and more urgent discussion of uncertainty and the available options, the portfolio-of-initiatives approach can speed up and increase the flexibility of a company's response to the pressures of extreme competition.

Count on strategic risk

Extreme competition means more volatile earnings—something that worries equity markets obsessed by predictable earnings per share. Most businesses monitor and control operational risks but pay too little attention to the more complex range of strategic ones. Four in particular merit attention: the value proposition risk (will a cheaper product knock the company out of the water?), the cost curve risk (will a low-cost competitor steal the company's market share?), the bad-conduct risk (will a price war destroy the company's profitability?), and the bad-bet risk (will the company's assumptions prove too optimistic?). Companies should assess the source, extent, and timing of all these risks, communicate them appropriately to investors, and define the activities that will help mitigate them. Two things are fundamental to making such an assessment: a dispassionate view of businesses whose trajectory indicates that they will never generate satisfactory returns and a willingness to close or divest them.

Powerful supply-side forces—globalization, technology, and liberalization—are increasing the pace and altering the shape of competition across the world. Traditional players will be toppled if they don't respond by embracing the spirit of youth, by adopting a forward-looking perspective, and by implementing radical solutions rapidly. Those that make the transition will find a world of bright new opportunities. Q

The authors would like to thank Rich Steinmeier and Carrie Thompson for their contributions to this article.

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Bill Huyett is a director in McKinsey's Boston office, and **Patrick Viguerie** is a director in the Atlanta office.

The McKinsey Global Survey of Business Executives

As competition gets tougher, innovation may be the only route to organic growth.

Questions about strategy and competition form the nucleus of the latest McKinsey Global Survey of Business Executives, conducted in November 2004. At the broadest level, this survey of some 16,500 business executives from 148 countries aims to shed light on the nature of competition in a wide range of industries and regions and on the way it has changed during the past five years. Readers won't be surprised to learn that competition is becoming more intense and that executives think it will continue to do so. Respondents voiced concern about pricing pressures, the ever faster development of new products and services, the entry of new competitors into many businesses, and the globalization of markets and supply chains. Taken together, these forces will make companies innovate more aggressively to realize the organic growth that executives from all industries and regions say they desire. Several articles in this issue—including "Innovation blowback: Disruptive management practices from Asia" and "Extreme competition"—present fresh perspectives for companies that want to revisit their approach to innovation as global competition intensifies.

For readers wishing to explore the results of the survey in greater depth the principal findings are presented in the charts on the following pages. Additional results can be found at www.mckinseyquarterly.com/links/15916.

About the research

% of respondents (100% = 16,476)	
By region	
North America[1]	
Europe	
Developing markets	
Asia-Pacific[1]	
By industry[2]	
Business services	
IT, telecom	
Banking, finance	
Consumer	
Heavy industry	
Other	
By revenues[3]	
>$5 billion	
$1 billion–$5 billion	
$500 million–$1 billion	
$250 million–$500 million	
$10 million–$250 million	
<$10 million	
Not applicable	

[1] North America includes Bermuda, Canada, an
Japan, New Zealand, Singapore, South Korea,
[2] **Banking, finance**: asset management, banking, i
construction, consultancy, engineering, legal,
packaged goods, health care, media/entertain
automotive, chemicals, manufacturing, metal
software, telecommunications; and **other**: acad
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Source: Nov 2004 *McKinsey Quarterly* surve

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About the research

% of respondents (100% = 16,476)

By region	
North America[1]	38
Europe	28
Developing markets	20
Asia-Pacific[1]	14

By industry[2]	
Business services	19
IT, telecom	19
Banking, finance	15
Consumer	13
Heavy industry	11
Other	23

By revenues[3]	
>$5 billion	23
$1 billion–$5 billion	12
$500 million–$1 billion	6
$250 million–$500 million	7
$10 million–$250 million	23
<$10 million	28
Not applicable	2

By number of employees	
>10,000	30
1,000–10,000	21
500–999	6
100–499	12
50–99	6
1–49	25

By respondents' titles[4]	
Manager/supervisor	21
Department head	14
Owner/partner	13
CEO	9
Vice president	8
Board director	7
Managing director	7
General manager	7
President	4
Senior vice president	3
Chief financial officer	3
Chairperson	3
Chief operating officer	2
Chief marketing officer	2
Executive vice president	2
Chief technology officer	1
Lawyer/judge	1
Other	9

[1] North America includes Bermuda, Canada, and United States; Asia-Pacific includes Australia, Hong Kong, Japan, New Zealand, Singapore, South Korea, and Taiwan.
[2] **Banking, finance**: asset management, banking, financial services, insurance, private equity; **business services**: construction, consultancy, engineering, legal, real-estate management; **consumer**: agriculture, consumer packaged goods, health care, media/entertainment, pharmaceuticals, retail, travel/logistics; **heavy industry**: automotive, chemicals, manufacturing, metals/mining; **IT, telecom**: computers and technology, IT services, software, telecommunications; and **other**: academia, nonprofits, public sector, among others.
[3] Figures do not sum to 100%, because of rounding.
[4] Figures do not sum to 100%, because more than 1 answer was permitted.

Source: Nov 2004 *McKinsey Quarterly* survey of 16,476 global business executives

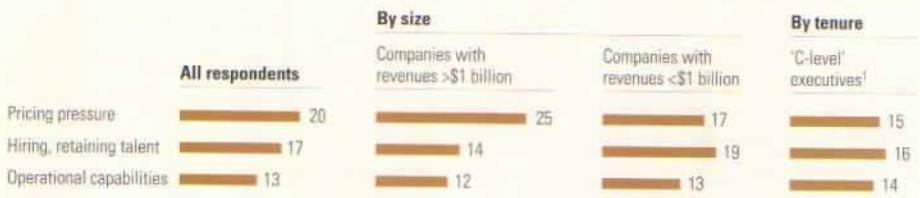
Sources of concern

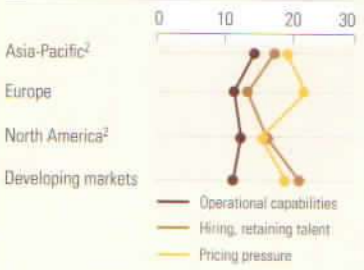
What is the single most pressing business concern your company faces during the next 12 months?

In the world as a whole, the top three concerns are pricing pressures, hiring and retaining talent, and operational effectiveness. Respondents from the largest companies feel the strongest pricing pressures, while those from developing markets and midsize companies are most concerned about talent. Finally, respondents from 10 percent of the US companies—more than from any other region—say that the cost of health and social benefits is their biggest problem.

What is the single most pressing business concern your company faces during the next 12 months?

% of respondents





[1] Senior-level excutives—eg, CEOs, CFOs.
[2] North America includes Bermuda, Canada, and United States; Asia-Pacific includes Australia, Hong Kong, Japan, New Zealand, Singapore, South Korea, and Taiwan.
[3] **Banking, finance**: asset management, banking, financial services, insurance, private equity; **business services**: construction, consultancy, engineering, legal, real-estate management; **consumer**: agriculture, consumer packaged goods, health care, media/entertainment, pharmaceuticals, retail, travel/logistics; **heavy industry**: automotive, chemicals, manufacturing, metals/mining; **IT, telecom**: computers and technology, IT services, software, telecommunications; and **other**: academia, nonprofits, public sector, among others.

Source: Nov 2004 *McKinsey Quarterly* survey of 16,476 global business executives

Degree of competition

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How has competition in your industr

% of respondents[1]

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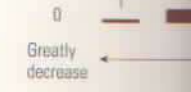


[1] Figures do not sum to 100%, because of rounding.

Source: Nov 2004 *McKinsey Quarterly* surv

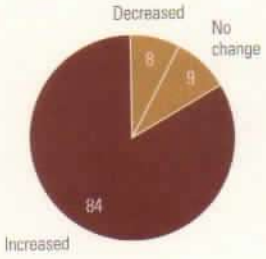
Degree of competition

How has competition in your industry changed over the past five years? How do you expect it to change in the next year?

Competition has increased significantly across the board, and executives expect that it will continue to intensify. Executives from the largest companies are feeling the strongest competitive pressures.

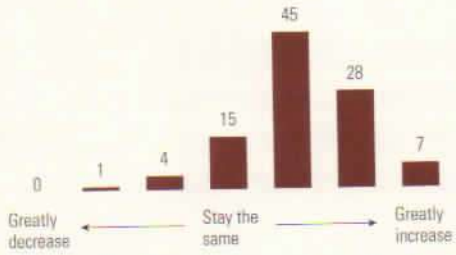
How has competition in your industry changed over the past 5 years?

% of respondents[1]



How do you expect competition to change in your industry in the next year?

% of respondents



[1]Figures do not sum to 100%, because of rounding.

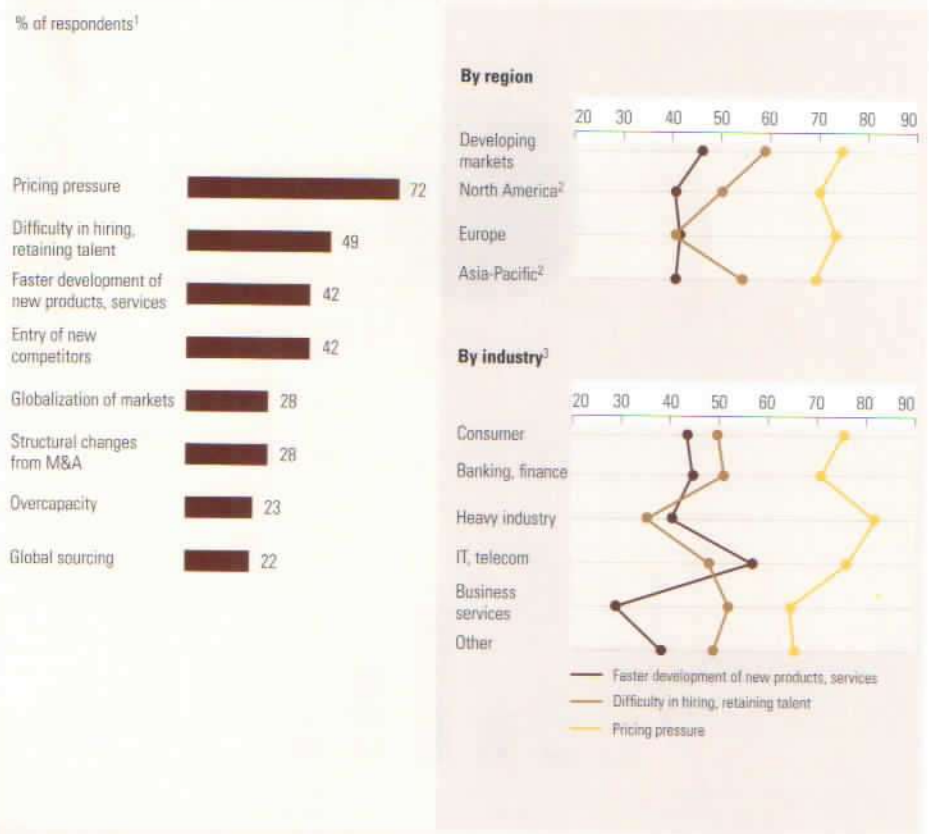
Source: Nov 2004 *McKinsey Quarterly* survey of 16,476 global business executives

Pressure on prices

Which competitive pressures do you feel in your business?

In addition to being a concern of more respondents than any other issue, pricing pressures are also the area in which more of them feel the impact of competition. The fact that only 28 percent of the respondents described the globalization of markets as a competitive concern might be explained in at least two ways. For one thing, pricing pressures themselves reflect globalization, since the price of many goods is set at a world level. Also, survey participants in service businesses might be less concerned about globalization than are their counterparts in manufacturing businesses because many services are not traded across borders and so are less subject to global forces.

Which of the following competitive pressures do you feel in your business?



[1]Figures do not sum to 100%, because more than 1 answer was permitted.
[2]North America includes Bermuda, Canada, and United States; Asia-Pacific includes Australia, Hong Kong, Japan, New Zealand, Singapore, South Korea, and Taiwan.
[3]**Banking, finance**: asset management, banking, financial services, insurance, private equity; **business services**: construction, consultancy, engineering, legal, real-estate management; **consumer**: agriculture, consumer packaged goods, health care, media/entertainment, pharmaceuticals, retail, travel/logistics; **heavy industry**: automotive, chemicals, manufacturing, metals/mining; **IT, telecom**: computers and technology, IT services, software, telecommunications; and **other**: academia, nonprofits, public sector, among others.

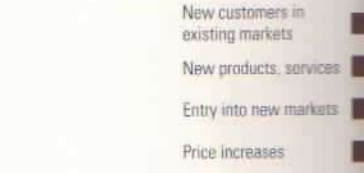
Source: Nov 2004 *McKinsey Quarterly* survey of 16,476 global business executives

Sources of growth

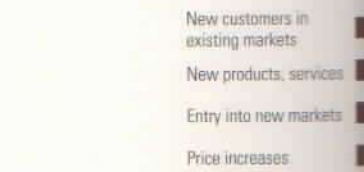
What will be the most importa company in the next 12 month through M&A?

Executives from all industries a to M&A. Their views may in pa making deals work; many studi to generate gains for the shareh developing markets are the mos most open to M&A for that pur and of companies in North Am opportunities lie in existing ma

Which of the following will be the mos growth for your company in the next 1



What is your preferred method for obt in this area?



[1]Figures do not sum to 100%, because more than

Source: Nov 2004 *McKinsey Quarterly* surv

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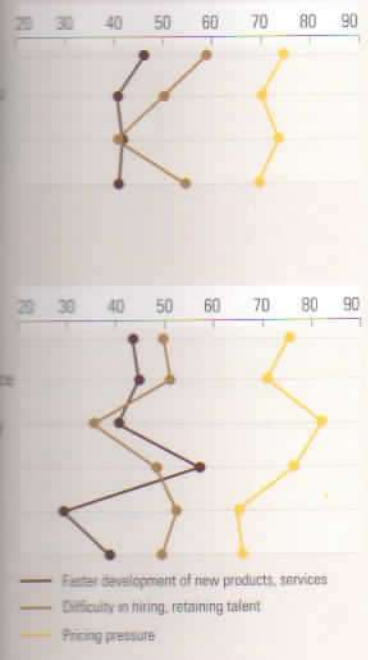


ludes Australia, Hong Kong, Japan, New Zealand,

ate equity; **business services:** construction, consumer packaged goods, health care, automotive, chemicals, manufacturing, metals/mining; ons; and **other:** academia, nonprofits, public sector,

siness executives

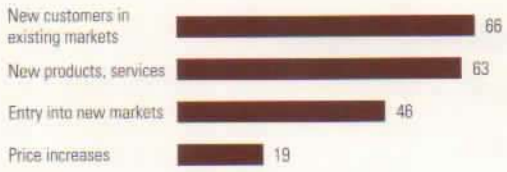
Sources of growth

What will be the most important sources of earnings growth for your company in the next 12 months? Do you prefer growth to be organic or through M&A?

Executives from all industries and regions strongly prefer organic growth to M&A. Their views may in part reflect concern about the difficulty of making deals work; many studies have shown that a majority of them fail to generate gains for the shareholders of acquiring companies. Executives in developing markets are the most eager to move into new regions and the most open to M&A for that purpose. Executives of the smallest companies and of companies in North America think that their biggest growth opportunities lie in existing markets.

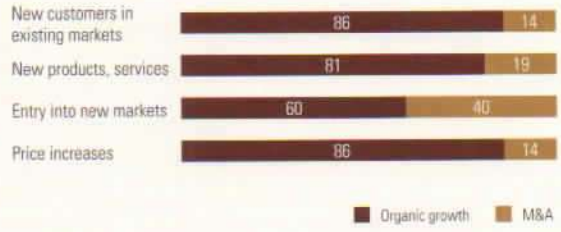
Which of the following will be the most important sources of earnings growth for your company in the next 12 months?

% of respondents[1]



What is your preferred method for obtaining growth in this area?

% of respondents



[1]Figures do not sum to 100%, because more than 1 answer was permitted.

Source: Nov 2004 *McKinsey Quarterly* survey of 16,476 global business executives

Emerging-market investment criteria

If you are developing new markets in emerging economies, what is the single most important factor in determining where you invest?

For all executives, the classic factors—the size and growth of markets—are by far the most crucial for expansion, even though emerging markets still hold a range of significant, well-publicized risks. It's notable that considerations such as incentives, on which some governments spend billions, barely register.[1]

If you are developing new markets in emerging economies, what is the single most important factor in determining where you invest?

[1]Respondents whose companies are not developing new markets in emerging economies are not shown.
[2]**Banking, finance:** asset management, banking, financial services, insurance, private equity; **business services:** construction, consultancy, engineering, legal, real-estate management; **consumer:** agriculture, consumer packaged goods, health care, media/entertainment, pharmaceuticals, retail, travel/logistics; **heavy industry:** automotive, chemicals, manufacturing, metals/mining; **IT, telecom:** computers and technology, IT services, software, telecommunications; and **other:** academia, nonprofits, public sector, among others.

[1]Diana Farrell, Jaana K. Remes, and Heiner Schulz, "The truth about foreign direct investment in emerging markets," *The McKinsey Quarterly*, 2004 Number 1, pp. 24–35 (www.mckinseyquarterly.com/links/15326).

Source: Nov 2004 *McKinsey Quarterly* survey of 16,476 global business executives

Short-term versus long-

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[2]North America includes Bermuda, Canada, a
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Source: Nov 2004 *McKinsey Quarterly*

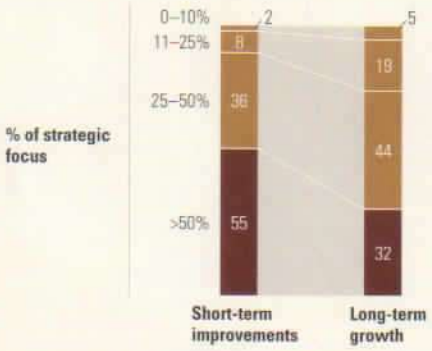
Short-term versus long-term focus

Out of 100 percent, how much of your strategic focus is on short-term operating improvements versus long-term growth?

Upward of half of all respondents say that their companies focus more on the short than on the long term. A higher percentage of respondents from Europe than from any other region say that their companies focus primarily on short-term improvements—a somewhat surprising result in view of European corporate-reporting requirements, which tend to favor a longer-term view. The survey's findings could reflect the fact that many European companies are giving attention to restructuring efforts that have already been mounted in the United States.

Out of 100%, how much of your strategic focus is on short-term operating improvements vs long-term growth?

% of respondents[1]



% of respondents with >50% strategic focus on short-term improvements, by region

[1]Figures do not sum to 100%, because of rounding.
[2]North America includes Bermuda, Canada, and United States; Asia-Pacific includes Australia, Hong Kong, Japan, New Zealand, Singapore, South Korea, and Taiwan.

Source: Nov 2004 *McKinsey Quarterly* survey of 16,476 global business executives

David Williams

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Leadership as the starting point of strategy

Even the best strategy can fail if a corporation doesn't have a cadre of leaders with the right capabilities at the right levels of the organization.

Tsun-yan Hsieh and Sara Yik

When it comes time to implement a strategy, many companies find themselves stymied at the point of execution. Having identified the opportunities within their reach, they watch as the results fall short of their aspirations. Too few companies recognize the reason.

Mismatched capabilities, poor asset configurations, and inadequate execution can all play their part in undermining a company's strategic objectives. Although well-regarded corporations tend to keep these pitfalls squarely in their sights, in our experience far fewer companies recognize the leadership capacity that new strategies will require, let alone treat leadership as the starting point of strategy. This oversight condemns many such endeavors to disappointment.

What do we mean by "leadership"? Whereas good managers deliver predictable results as promised, as well as occasional incremental improvements, leaders generate breakthroughs in performance. They create something that wasn't there before by launching a new product, by entering a new market, or by more quickly attaining better operational performance at lower cost, for example. A company's leadership reaches well beyond a few good men and women at the top. It typically includes the 3 to 5 percent of employees throughout the organization who can deliver breakthroughs in performance.

Since bold strategies often require breakthroughs along a number of fronts, a company needs stronger and more dominant leadership at all levels if these strategies are to succeed. A defining M&A transaction, for example, requires leadership throughout an organization's business units and functions in order to piece together best practices and wring out synergies while striving to carry on business as usual. In addition, leaders throughout both companies must transcend the technical tasks of the merger to rally the spirits of employees and to communicate a higher purpose.

As the number of strategic dimensions and corresponding initiatives increases, so does the pressure on leadership. Not surprisingly, our work in many industries with companies of all sizes has shown that high-performers, especially those with lofty aspirations, have the most difficulty meeting their leadership needs. Of course, companies that perform poorly are also lacking in leadership capacity. The higher a company's aspirations or the more radical its shift in strategic direction, the larger the leadership gap. This rule holds true for high performers and laggards alike.

The consequences of inattention

Most CEOs will agree that leadership is important, yet few assess their leadership gap precisely. Fewer still build an engine to develop the right quantity of leaders with the right mix of capabilities, at the right time, to match opportunities.

If the number of leaders needed to achieve a strategic goal—for example, expanding current operations or developing new businesses—were set against the number of existing leaders, a company could uncover the numeric leadership gap it must address. Even if an organization has enough leaders, it may discover a shortfall in their capabilities. A company expanding internationally, for example, could find that its current leaders lacked the cultural sensitivity to operate in unfamiliar geographies. Or a corporation entering new markets could find it had too many engineers and not enough business builders.

The failure to assess leadership capacity systematically before launching strategic initiatives can leave top executives scrambling to fill gaps at the last minute—with significant consequences.

In the short term, companies that undertake new strategies without the right leaders in place are forced to burden their existing ones with additional responsibilities. As such leaders take on the new challenges, the demands from day-to-day operations invariably increase, leaving less time for other tasks. Often these leaders drop the activities with less tangible outcomes,

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Leadership first

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such as staff development, for which the effects are not immediately evident. If a company stretches its existing leaders too far, their overall effectiveness takes a nosedive. From the start, this trade-off compromises strategic objectives. Companies executing strategies under these circumstances assume either that they can get by with suboptimal leadership or that achieving just part of their initial objectives will capture a corresponding percentage of the strategy's net present value. We know from experience that these assumptions can be fatally wrong: one critical misstep can jeopardize the entire investment.

In the longer term, a persistent leadership gap will be responsible for an inexorable decline in the number and quality of leaders. Companies create a vicious cycle in which good leaders become overextended or are moved haphazardly and thus have less time to develop younger talent. The day will come when they hand over the reins to a less experienced, ill-prepared group of successors. Left unchecked, this cycle can ultimately put the company's core operations and strategic growth at risk.

Leadership first

Given the severe consequences of a leadership gap—the best-planned strategy is no more than wishful thinking if it can't be translated from concept to reality—why do so many companies discover their leadership shortfall only when executing their strategies? This question raises another, more fundamental one regarding strategy and leadership: which is the chicken and which is the egg? Companies have taken a number of useful approaches to this puzzle.

One successful US conglomerate with global operations routinely holds discussions that integrate both strategy and leadership. Any consideration of a strategic initiative invariably includes the question, "Who exactly will get this done?" If the company does not have a sufficient number of the right leaders, the plan does not proceed.

Another approach is to weigh a corporation's strategic options against its ability to launch new businesses, new approaches, and other forms of breakthrough performance—in other words, its leadership. Consider, for example, the global-expansion strategy for a successful resource company. The effort included identifying the leadership required to drive breakthrough performance over five years in areas such as running and expanding existing businesses, developing new ones, renovating corporate processes such as risk management, and providing overall change leadership. The company then gauged its leadership gap by comparing these requirements with the qualities of its current leadership bench. It made a number of

strategic decisions to determine, among other things, which path was best for realizing the strategy, whether to revise its aspirations, and whether to develop leaders internally or hire them from outside.

A third approach is to plan the path toward a predetermined strategic goal by taking into account the quantity, timing, and mix of leaders that the various alternatives require. Companies using this framework may rule out some possibilities if developing the requisite depth of leadership is unrealistic in the time frame dictated by the marketplace. A leading food company in Asia, for example, aspired to become the dominant regional player. With five strong national brands, it had at least three clear options for how to achieve that goal: take a cautious approach by launching one brand as a pilot in each overseas market before introducing other brands; focus on China by building a beachhead with one brand in a single city, then sequentially rolling that brand out region by region within China; or, finally, acquire a player in one regional Chinese market, thus gaining outlets and local expertise, and use this opening to roll out all five brands to more markets in China over time.

While many factors, including the company's appetite for risk, weigh on these decisions, in this case each option had distinct leadership requirements. The first, for example, would initially require at least five to ten well-rounded leaders—entrepreneurs capable of establishing local networks, operating under unfamiliar conditions, and managing all five brands. The second option called for a business builder who was deeply familiar with the beachhead city to direct a team of four to six emerging leaders who could spearhead the subsequent expansion. A business-development leader would also be helpful in seeking an alliance partner to speed up the company's pace and bolster its confidence during the regional expansion. The third possibility, by contrast, would immediately require an expert to structure, valuate, and negotiate deals and, in the medium term, a few executives capable of operating in each of the regional Chinese markets. After the company critically reviewed its current and potential leaders, it made the decision to adopt the third of those options.

***Thinking** about leadership up front can affect the direction, the path, and the actual outcome of a strategy*

These three cases illustrate how thinking about leadership up front can affect a strategy's direction, path, and outcome. But can a company bring leadership considerations into its strategic discussions even earlier, before it chooses a general direction? To do so, the company must think

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Filling the gap

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Long term: Position

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rigorously about its current leadership pool—the types of leaders and their mix of capabilities—and lay out the strategy accordingly. If a manufacturer's strong suit is leaders with superb marketing capabilities, for example, a market-driven strategy would be implied and might include selling another manufacturer's products. Taken to this level, leadership becomes the true starting point for strategy.

Filling the gap

A clear picture of the leadership gap can help guide strategic thinking, but to retain as many options as possible, companies must also consider ways to fill that gap. To reduce the risk of strategic failure, they need to direct their approach to leadership with three time horizons in mind.

Long term: Position

Companies need to position themselves today to meet their strategic objectives during the next three to five years. In an 18-month period, for example, a South Korean consumer goods company successfully expanded its core business into Japan, where it diversified into noncore sectors such as low-cost lodging. It achieved such deep penetration of this notoriously closed and mature market so quickly by building its leadership bench in advance. At least five years before the initiative's launch, the company began hiring managers and sending them to Japan—through exchanges with friendly Japanese partners—thereby creating a cadre of South Korean leaders trained to operate in Japan.

In many of Asia's key growth markets, local leaders with a global perspective are highly sought after and often unavailable at almost any price. Returning nationals, typically trained in Europe or the United States, may be another option, but many companies have found these prospects to be expensive and lacking in the tacit knowledge needed to operate successfully in the cultures of many corporations—and the industries they compete in. A company must hire and groom potential leaders as much as a decade or more ahead of market need and then help them build the internal networks necessary for long-term success.

To cite another example, for decades a US financial-services giant systematically hired the best global talent, regardless of the market, and rotated these leaders through every critical aspect of its operations. This investment in human assets paid off handsomely. In most of the new economies the company enters, it enjoys an almost unparalleled ability to field full-service teams with strong leaders in the vanguard. Competitors, by contrast, are forced to expand more selectively or to offer expensive packages to lure top talent.

Medium term: Cultivate

Companies must also begin cultivating leaders for specific roles one to two years down the road. This effort requires recognizing the skills, behavior, and mind-set that leaders must possess to be prepared for future roles. Many executives spend years building their technical skills and industry knowledge but rarely develop expertise in areas such as managing stakeholders and building networks. In a prominent resources company, for example, top executives identified potential successors for key leadership positions. It highlighted the measures needed to bring each one up to speed, including counseling, training, and new assignments, by considering individual profiles (strengths and weaknesses, past experience, and skills) as well as the key success factors for upcoming leadership positions (industry or functional expertise, personal or change-management skills, and local knowledge).

Another company informed appointees of their next assignment six months ahead of time and then enrolled them in self-directed preparatory programs. All of the leaders wrote a personal-development contract related to the challenges of the new role and created a list of learning opportunities and developmental activities that would prepare them for their new responsibilities. These tasks could include, for instance, seeking advice from veterans or drawing up a plan for the first 100 days in the new role. The company also provided four categories of learning modules: "lead self," for self-awareness, skill mastery, and developmental planning; "lead others," for getting the best performance from colleagues in specific settings; "lead context," for understanding and identifying trends in the competitive environment; and "lead change," for aligning key stakeholders, steering the organization to breakthroughs, and challenging conventional approaches and thinking.

Short term: Match

Job experiences and stretch assignments are the primary development vehicles for leaders. Opportunities to achieve performance breakthroughs are critical not just for reaching a company's performance goals but also for developing its best people. Unfortunately, corporations that are particularly risk-averse often match their people to opportunities by looking at track records and job experiences, which they see as indicators of future performance. But such an approach is unlikely to succeed, since the experience and skills needed for earlier successes are not necessarily

precursors for those required to
subsequent opportunities.

A better approach is to use corp
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Tsun-yan Hsieh is a director and S

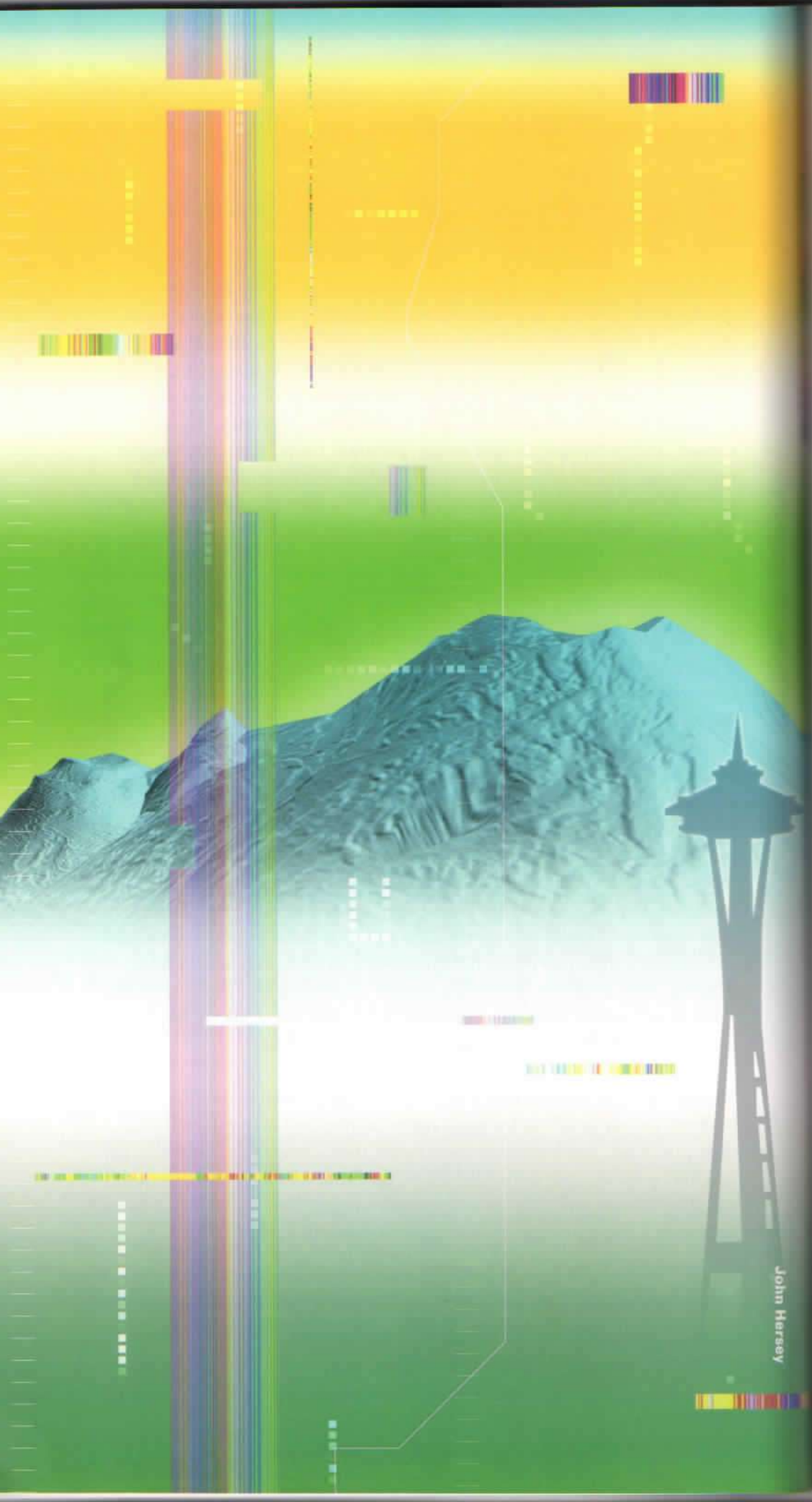
precursors for those required to achieve performance breakthroughs in subsequent opportunities.

A better approach is to use corporate-performance objectives and personal-development goals to match current and potential leaders with opportunities. This multifaceted approach uncovers a better fit between the individual and the opportunity. For this process to be successful, top managers need to acquire a holistic understanding of each individual, including professional abilities, such as leadership qualities, track record, and potential, as well as key personal traits, such as style and preferences, character and motivation, and current attitudes and mindset. Companies can assess these qualities through information—objective and subjective—from superiors, peers, mentors, and other sources.

To help leaders develop throughout any of these three time horizons, a company must first accurately identify who its leaders are and then convince them of an opportunity's potential. Companies often underestimate this challenge. Top managers typically assume they know which of their best people are willing and able to take on new challenges, but the reality is often very different. At one multinational corporation with an ambitious growth agenda, the CEO asked the 20 members of his management committee for written nominations to fill leadership positions for 30 initiatives. Most committee members couldn't confidently name more than five to ten candidates, and large overlaps existed among the members' lists. Each had nominated the "usual suspects"—managers who were well known in the executive suites. If the company pursued all 30 initiatives simultaneously, it would overload these candidates while denying other potential leaders the chance to develop and shine. Corporations must instead look out along the three time horizons we have described to build a more systematic leadership engine.

Strategy will not succeed in a void, and leadership often makes the difference between merely reaching for great opportunities and actually realizing their potential. Top managers must assess their company's leadership gap and find ways to close it over the short, medium, and long term. Better still, they should integrate leadership with strategy development and thoughtfully match their portfolio of leaders with opportunities. Q

Tsun-yan Hsieh is a director and **Sara Yik** is a consultant in McKinsey's Singapore office.



Finance 2.0: with **Micro**

Microsoft is paying cash to s diverse businesses, and emb explains why.

When Microsoft announce legendary cash reserves to ret immediately began scramblin about the software giant's str of the entire high-technology

For John Connors, Microsof to pay a onetime special divi to buy back as much as $30 next four years was merely th have positioned it at the cutti industry. In 2002 Connors h reporting processes around s its own CFO and profit-and- degree of organizational stab company surprised many pe pensating employees with sto

Connors believes that this co a stronger value culture at M on performance in the compa interview at Microsoft's hea with McKinsey's Bertil Chap

Finance 2.0: An interview with **Microsoft's CFO**

Microsoft is paying cash to shareholders, stressing transparency in its diverse businesses, and embracing Sarbanes-Oxley. CFO John Connors explains why.

Bertil E. Chappuis and Timothy M. Koller

When Microsoft announced, in July 2004, that it would tap its legendary cash reserves to return some $60 billion to shareholders, analysts immediately began scrambling to understand what the move might say about the software giant's strategy, its growth prospects, and the maturation of the entire high-technology sector.

For John Connors, Microsoft's chief financial officer, however, the decision to pay a onetime special dividend amounting to about $30 billion and to buy back as much as $30 billion of the company's own shares over the next four years was merely the latest in a series of financial moves that have positioned it at the cutting edge of financial innovation in the high-tech industry. In 2002 Connors helped reconfigure Microsoft's financial-reporting processes around seven clearly defined business units, each with its own CFO and profit-and-loss statement, to offer investors a greater degree of organizational stability and transparency. The following year, the company surprised many people by announcing that it would stop compensating employees with stock options and would instead issue stock awards.

Connors believes that this combination of initiatives has helped build a stronger value culture at Microsoft while permitting management to focus on performance in the company's increasingly diverse business lines. In an interview at Microsoft's headquarters, in Redmond, Washington, he talked with McKinsey's Bertil Chappuis and Tim Koller about the thinking behind

Microsoft's finance moves, the company's plans for growth, and the role of finance in the next era at Microsoft.

The *Quarterly*: *The first dividends for Microsoft come out in December. What was the strategic rationale for how much cash Microsoft holds onto, disburses in dividends, and applies to share buybacks?*

John Connors: The first thing was to keep enough cash on hand to give us flexibility to manage things like a severe short-term economic dislocation or investment opportunities. We haven't publicly said how much cash that will be, but it's probably fair to assume that, after the upcoming distribution, we will still have around $25 billion to $40 billion on hand.

Even holding that much back, we still have a lot of money to distribute. We also had a number of constituencies pushing us to do different things with it: growth investors wanted a very large-scale buyback; income-oriented investors were clamoring for an increase in the regular dividend; and some investors just wanted all the money back so that they could decide what to do with it. Of course, we also had our employees, who now have stock awards as well as options from our legacy program.

We concluded we had enough cash to do something substantial on all fronts, but we decided against a huge buyback. Not only would that have disappointed the investors who simply wanted the cash but it would also

John G. Connors

Vital statistics
- Born February 6, 1959, in Miles City, Montana
- Married with 4 children

Education
- Graduated in 1984 with BA in accounting from University of Montana; is a certified public accountant

High-tech finance innovator

Career highlights
- Deloitte Haskins & Sells (1984–86)
  - Staff auditor
- Safeco (1986–87)
  - Staff accountant
- PIP Printing and Document Services (1988)
  - Corporate controller
- Microsoft (1989–present)
  - Various management positions (1989–94)
  - Corporate controller (1994–96)
  - Vice president of Information Technology Group, chief information officer (1996–98)
  - Vice president, Worldwide Enterprise Group (1999)
  - Senior vice president of finance and administration, chief financial officer (1999–present)

Fast facts
- Received Distinguished Alumni Award from University of Montana in 1997
- Serves on board of directors of Avanade, Bellevue High School Football Boosters, Nature Conservancy of Montana, and University of Montana Foundation
- Served as cochairman of Washington state finance committee for 2004 Bush/Cheney presidential campaign and for Dino Rossi gubernatorial campaign

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The *Quarterly*: *Any rules
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John Connors: I don't
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have been a monumental undertaking. Our analysis also showed that if we had committed ourselves to a $60 billion share buyback, we could have ended up purchasing 5 to 8 percent of our stock every day that the Nasdaq allows us to buy our own shares for the next three years, and some of that inevitably would have been uneconomic. So we decided to take that $60 billion and use roughly half of it for a special onetime dividend, with the rest committed to a multiyear buyback. That's a pretty significant percentage of the enterprise value, and a fairly decent percentage of the shares.

We believe that this strategy will reward all of our investors. It will also increase growth in profits and cash flow, which are what drive our valuation and our return to shareholders.

The *Quarterly*: *Any rules of thumb about how much cash companies need to remain flexible?*

John Connors: We have a relatively unique model, in that our business is not capital-intensive. What drove our approach is that Bill [Gates] and Steve [Ballmer] and the board are pretty conservative. We don't want to be in the position where we have to make decisions because of the balance sheet. And while we don't anticipate that we would ever have a year with expenses but no revenue, we'll probably keep at least one year of operating expenses and cost of goods sold in cash on hand—that's around $20 billion in cash and short-term investments.

We also want to have enough for acquisitions. We have made a series of acquisitions, some of them for cash. And while most of them have been fairly small, we also want to be able to make some game-changing investments if we so choose. Any large acquisition would likely be a combination of cash and equity.

The *Quarterly*: *The high-tech industry is seriously underleveraged. Are we seeing the beginning of a fundamental change in capital structure? Do you think the industry will take on more debt over the next couple of years in order to increase returns on equity?*

John Connors: I don't think we have seen any large-scale move in that direction yet, primarily because tech companies still have high P/Es relative to most other industries. The growth rate assumption priced into tech companies' stock is that tech will continue to grow faster than other industries, although the differences in growth assumptions between tech and other industries have begun to narrow.

The real question would be whether the market starts assessing technology companies the way it measures companies in other industries. For start-ups, the last thing in the world a company like Google is worried about right now is whether or not it should have debt. While there will continue to be great start-up home runs, I don't see why the Wall Street analysis of mid-size and large tech companies would be different from that of companies in other industries five or ten years from now. So if the market starts to measure technology in terms of returns on equity, capital, and assets, you will probably see more financial engineering of technology companies to bring them in line with companies in other industries.

The *Quarterly*: *It has been a couple of years since Microsoft reorganized its financial reporting along business-unit lines. What has the impact been and has it lived up to expectations?*

John Connors: One of the most positive outcomes is the transparency the reorganization created. Prior to 2000, Microsoft was viewed largely as a two-product company or a desktop company with phenomenal success in Windows and Office. But in the mid-1990s, we had expanded into gaming and mobile devices and into business applications for small to midsize companies. By 2001 people were not really certain which businesses we were involved in. Today the outside world can easily see Microsoft's business units and how well they are doing against their competitors. Now investors can answer the following questions every quarter: How is our Home and Entertainment Division competing against Sony? MSN against Yahoo! and Google? Our server and tools business against IBM and Oracle? How are we competing with Nokia in mobile devices? Investors can also easily track the performance of Windows and Office as well as the company's growth beyond those two products.

The P&L focus also forced some improvements in resource allocation. One of the big challenges we faced in 2001 was that, because of the company's orientation toward long-term investment, our research and development efforts had created a broad range of new products that often outpaced our capacity to sell and support them. Complicated products like the BizTalk server created a great opportunity to automate many business processes,

EXHIBIT

Investors can see clearly now

Quarterly revenues for Microsoft's 7 core business un

Windows Client—includes Windows XP desktop operating system, Windows 2000, Windows embedded operating system

Information Worker—includes Microsoft Office, Microsoft Publisher, Microsoft Visio, Microsoft Project

Server and Tools—includes Windows Server System, integrated server software, software-development tools, Microsoft Developer Network (MSDN)

Business Solutions—includes Great Plains and Navision business-process applications, central business services

Home and Entertainment—includes Microsoft Xbox, consumer hardware/software, online games, TV platform

Microsoft Network (MSN)—includes MSN network, MSN Internet access, MSN TV, MSN Hotmail

Mobile and Embedded Devices—includes Windows Powered Pocket PC, Mobile Explorer microbrowser, Windows Powered Smartphone software platform

Source: Microsoft Web site

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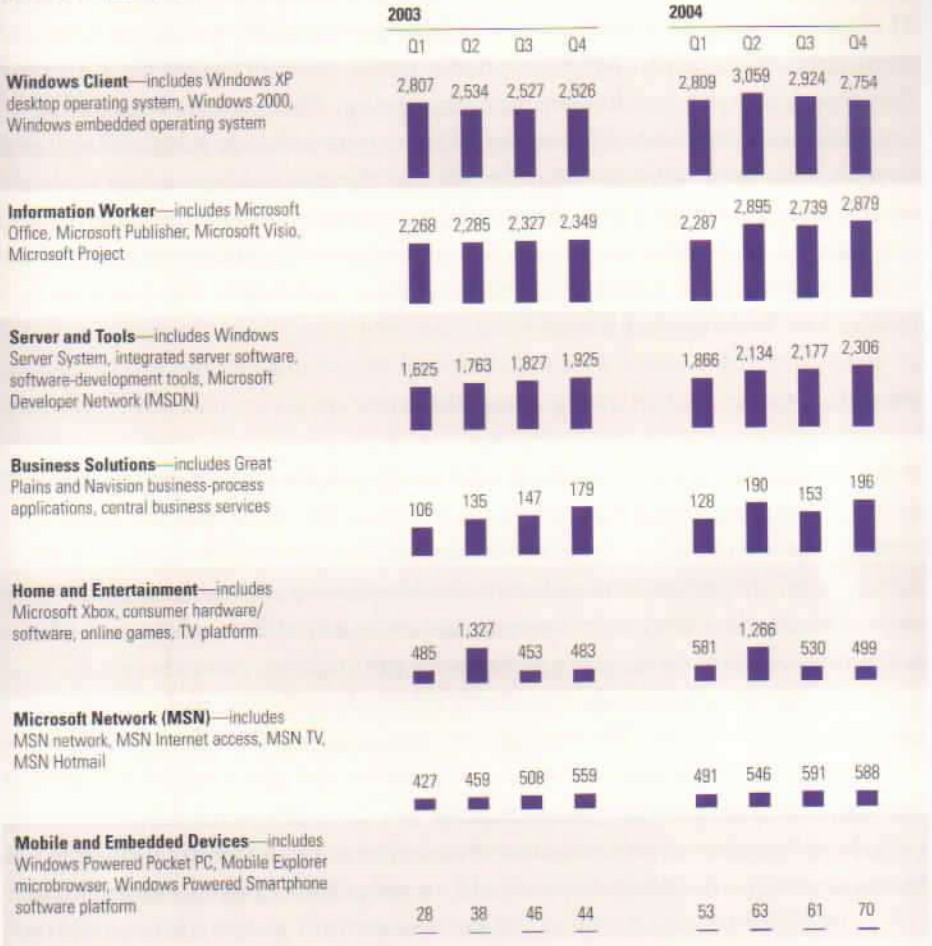
EXHIBIT

Investors can see clearly now

Quarterly revenues for Microsoft's 7 core business units, $ million



Source: Microsoft Web site

but in order for our customers to earn the best returns on the purchase of our products they also needed specialist salespeople who understood the supply chain, data warehouses, and financial flows. In some rapidly growing categories, we also lacked a coherent worldwide brand proposition for certain unique products, compared with our brand proposition for the company as a whole. In the end, we had to decide what areas required continued investment—and what areas did not.

As the bubble collapsed and technology spending slowed, it became very clear that we could not continue to invest at the same levels. Today we all

know how much money we have to invest, and we all have to agree on how much will go into R&D, sales, marketing, and tactical initiatives.

The restructuring also forced a degree of organizational stability and continuity. Historically, Microsoft had a major reorganization once a year that coincided with our budgeting in the spring. This process worked very well when we were smaller, had fewer units in fewer geographies, and weren't invested in so many segments. But as the company got larger and more complicated, we heard from customers and partners that Microsoft was hard to keep track of. So once we organized around these seven business groups and reported along those lines, customers and partners believed we were serious about them.

The *Quarterly*: *Did anything about the move surprise you?*

John Connors: It was surprising how many people within the company didn't really understand how intensely analysts, investors, and the press would follow each of these seven businesses. A lot of our businesses had flown under the radar, and while we would talk about their long-term opportunities in a way that investors appreciated, after a while they also wanted to see how those investments were performing. Now there's a quarterly scorecard that reports—both relatively and absolutely—how we are doing.

Second, it was surprising how difficult it was to synchronize what we called the "rhythm of the business" between our field organization and the business groups. Traditionally, our field, or geographic, organizations could move both people and marketing around to take advantage of opportunities and to adjust to changing market conditions. While the P&Ls of our field organizations still matter today, and they still have a revenue quota, the business groups now have the ultimate financial accountability and make the final resource allocation decisions. The field is secondary in authority. That was a big shift, and if you look at companies that have had collapses in financial performance, it often has to do with the shifting of financial reporting from product to geography or vice versa. So we took a relatively measured step over a two-year period.

*'Now there's a quarterly scorecard that **reports**—both relatively and absolutely—how we are doing'*

The *Quarterly*: *What about the impact of the restructuring on the finance function specifically?*

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John Connors: It has allowed us to push much harder on performance because the finance folks in those groups report solid line into the business, dotted line back to the finance function in the center of the company. And it's much easier now for the center of the company to push on financial performance.

It's also helpful that this model can easily accommodate growth. When we want to do a deal, it's very clear that the CFO and the business-unit leader are on point for that deal. If we want to add new businesses, we have a model that will scale.

Last, the restructuring has allowed us to talk about the role of finance in the next generation of Microsoft, which is quite different from its traditional role.

The *Quarterly*: *How will finance at Microsoft differ in the next generation?*

John Connors: When we restructured, we decided very early on to designate as CFO the lead finance person in each of our seven businesses. This model is fundamentally different from the one Microsoft had in the past.

Historically, the top position outside the center of the company was a controller, whose role was to control and measure. But today the finance function must do more. For example, if you look at the incredible diversity of the company now—the number of businesses, the different models, and the economics of some of the new businesses—Microsoft today requires much stronger strategy and business-development functions. Business units like MSN and Home and Entertainment are entering into multibillion-dollar contracts and alliances over long periods of time. Our mobile-devices business requires a very different alliance model with handset carriers and telecom operators than any we have had. Add the requirements of the Sarbanes-Oxley legislation and you find that the control and risk-modeling function has to be at a much higher level than it was three or four years ago.

In practical terms, that means we have a greater number of senior business leaders in finance than we had prior to 2002. Of 125 corporate vice presidents, for example, 9 are now from finance, whereas before there would have been 2 or 3. And corporate-finance leaders at that level also have different requirements: they have to be able to nurture other great business leaders, who then move into marketing, services, and sales, and they have to be articulate spokespeople for the company at technology conferences and industry events.

The *Quarterly*: *What's the most value-added role a CFO can play in a high-tech company?*

John Connors: We are in an era today when technology isn't really different from any other industry. In the 1990s it was just growing a heck of a lot faster than GDP. In the late 1990s the dot-com and telecom meltdown made it pretty clear that such growth had been part of a bubble. It's unrealistic to expect that an industry this large will grow substantially faster than GDP.

So a technology company's CFO must be good at both top- and bottom-line growth. The skills that a CFO has at Wal-Mart or GE or Johnson & Johnson are much closer to what will be expected at technology companies now.

Technology also resembles other industries in that its consolidation focuses mostly on cost synergies rather than growth synergies. At least in the near term, Sarbanes-Oxley requires CFOs of companies in every industry to spend a significant amount of time on how a company's ethical or business-integrity tone emanates across the organization. How does its internal-control structure operate? How does its disclosure-control process operate? And is it being really, really clear with investors in its SEC filings and press releases? Sarbanes-Oxley tends to make CFOs focus on similar tasks regardless of the industry.

The *Quarterly*: *Speaking of Sarbanes-Oxley, what are the costs versus the benefits when it comes to implementing Section 404, for example?*[1]

John Connors: Publicly traded US companies have historically had a premium on the equity side and a discount on the debt side relative to other markets because of the value of transparency and trust that investors had in US markets. That trust and transparency got violated, and we all have to bear the cost of earning it back. Microsoft accepts that.

Of course, there are negatives in Sarbanes-Oxley. For example, there isn't much guidance on what is material for public-company financial statements—not in the legislation itself or in the regulations or rules yet—nor is there any case law defining this. There are far too many areas where companies could take a reasonable risk with good business judgment but still be subject to litigation.

[1] Section 404 of the Sarbanes-Oxley Act of 2002 requires all public companies to give the Securities and Exchange Commission (SEC) an annual assessment of the effectiveness of their internal controls. In addition, the independent auditors of a corporation are required to review its management's internal-control processes with the same scrutiny as its financial statements.

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Yet there are real benefits to Sarbanes-Oxley. In our case, we knew what our key controls were, we knew what our materiality threshold was, we had tight budgeting and close processes and strong internal and external audits, but we didn't document everything in the way that Sarbanes-Oxley legislation requires. So we have done a complete business-process map of every transaction flow that affects the financials. In so doing, we have improved our revenue and procurement processes, and we can use controls to run the company in a more disciplined way. So we have gotten real business value out of all that process documentation.

Sarbanes-Oxley also really forces you to evaluate the policies that are in place and whether they make sense. One of its requirements is that if a company has a written management policy, people are expected to follow it—whether or not it has a financial impact. For example, how much can people discount contracts? Even if a company can record that contract exactly right from a GAAP[2] perspective and the financials are correct, are people following the discount policy? At Microsoft, we have taken a really fresh and invigorating look at our management policy.

The *Quarterly*: *Apart from the accounting issues, what was behind the decision to give employees restricted stock rather than options? What effect has the decision had?*

John Connors: The options program was originally designed to give employees enough money for retirement or a vacation home or to pay for their kids' education—goals that usually take 15 or 20 or 25 years to achieve. Yet because of the stock performance, people were making enough money to send 3,000 kids to college or build 30 vacation homes. Then the bubble burst, our stock declined by half, and roughly half our employees had loads of money but were sitting in the same offices and doing the same jobs as the other half, who would likely earn nothing from their options.

It was the worst of all possible worlds. At the same time, we were diluting the heck out of shareholders, who were telling us loud and clear that we

[2] Generally accepted accounting principles.

should rethink the long-term value proposition of our options program. Of course, shareholders hadn't paid much attention to that dilution when it was outstripped by growth, but when growth lags behind and expectations change, that dilution looks a lot different.

In the end, we wanted a program that aligned employee and shareholder interests over the long term. So we came up with the stock award program, and we were very clear with employees about how many shares they would get, how the stock would have to perform for them to be worse off, and how the program would work over a multiyear period.

The reaction has been pretty positive, and I think we have a good model. We will have been wrong if Microsoft really outperforms the market and the market performs extraordinarily well over the next seven years—then a number of employees would have been better off with options. That was a bet we were willing to make. If you look at the market in the 14 months since we made the announcement, and the predictions of most market prognosticators, the bet is pretty good so far.

*'If I got **hit by a bus**, got fired, or decided not to work here anymore, someone could step in and he or she would be really successful'*

The *Quarterly*: *Having tackled such an ambitious agenda in your tenure, what challenges are next for you?*

John Connors: The big challenge is probably institutionalizing the finance function and the finance 2.0 model we have been developing. And I feel the company is in a good place right now; if I got hit by a bus, got fired, or decided not to work here anymore, someone could step in and he or she would be really successful. That's important to me because I will have worked here for 16 years in January, and I believe people should leave a job in better condition than it was when they started.

Second, while it's essential to be viewed as a leader in investor relations, treasury, tax, and corporate reporting, it's also rewarding to be viewed as a leader in creating great finance talent. Keith Sherin from GE was here last week, and that corporation is just a machine for producing great talent. In the Puget Sound area alone, the CFO at Amazon is from GE; the CFO at Washington Mutual is from GE. The company takes good people and makes them great, and its ability to export these business leaders is phenomenal.

I'm happy to say that we have also had some success along these lines. In the past six months, two of our business-unit CFOs have left for CFO positions at other corporations. It's tough to lose good people, but what a great thing it is for people who are five or six years into their careers here to be able to say, "I can become a CFO—either at Microsoft or somewhere else. I can be a business leader."

And, on a personal note, I'd like to figure out how to have more time for my wife and our four kids so that I don't wake up someday and find that my kids are off to college and I'm too old to climb Mount Rainier again. Q

Bertil Chappuis is a principal in McKinsey's Silicon Valley office, and **Tim Koller** is a principal in the New York office.

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[1]Lou Dobbs, "A home advantage for U

Don't blame trade
for US job losses

A new look at US trade and employment data shows why it's wrong to believe that foreign competition accounts for weak job growth since 2000.

Martin Neil Baily
and Robert Z. Lawrence

The US recession officially ended in late 2001, and ever since, despite recent gains, aggregate job creation has been extremely weak—weaker even than during the "jobless recovery" that followed the 1990–91 recession (Exhibit 1, on the next page). Contributing most to the overall number of US jobs lost since 2000 has been the manufacturing sector, which shed 2.85 million of them from 2000 to 2003, notwithstanding the relatively mild nature of the recent downturn in the economy as a whole.

Many people in the United States have looked at the enormous US trade deficit and concluded that a flood of imported goods from China and the offshoring of services to India are to blame for the loss of US jobs. CNN's Lou Dobbs has called the problem "a clear call to our business and political leaders that our trade policies simply are not working."[1] The issue isn't the concern solely of US policy makers: the same fears about trade are rampant throughout Europe and Japan, while protectionist sentiment is rising around the world.

But trade, particularly rising imports of goods and services, didn't destroy the vast majority of the jobs lost in the United States since 2000. We analyzed detailed trade and industry data to estimate the extent of job dislocation due to offshoring in the manufacturing and service sectors from 2000 to 2003. This work was the first complete analysis of how the

[1] Lou Dobbs, "A home advantage for US corporations," CNN, August 27, 2004.

EXHIBIT 1

Weaker than before

Total US nonfarm payroll employment associated with selected business cycles; index: trough = 100[1]

[1]Troughs identified by business-cycle-dating committee of National Bureau of Economic Research (United States).
Source: Employment survey statistics, July 2004, US Bureau of Labor Statistics

economic downturn, imports, exports, and global competition interact—directly and indirectly—to affect employment.[2]

Our research shows that, in fact, only about 314,000 jobs (11 percent of the manufacturing jobs lost) were lost as a result of trade and that falling exports, not rising imports, were responsible. Service sector offshoring destroyed even fewer jobs. These figures are tiny relative to the millions of positions lost and created every year in the United States by normal market forces.

The real causes of job losses were weak domestic demand, rapid productivity growth, and the dollar's strength, which dampened US exports. It is vital that policy makers understand the forces at work, for otherwise there will be a temptation to apply quick fixes, such as protectionism, that won't restore employment, because they do not address the underlying problems. The real solutions—stimulating domestic demand, cutting the budget deficit, and pushing countries with artificially cheap currencies to let them appreciate against the dollar—are harder to implement but more likely to boost employment.

[2]For the full details of our analysis, see Martin Neil Baily and Robert Z. Lawrence, *What Happened to the Great US Job Machine? The Role of Trade and Offshoring*, a Brookings Paper on Economic Activity to be published in April 2005.

The decline of manufactu

Manufacturing's share of total
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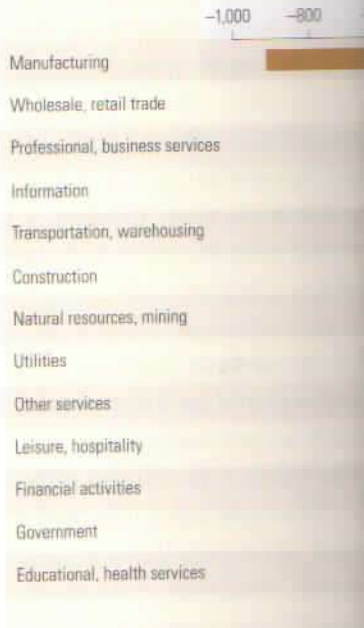
EXHIBIT 2

Tough times for US manufactur

US employment gains and losses by sector, 2000–03



Source: Employment survey statistics, July 2004,

[3]Prior to 2000, the largest decline, from 19

The decline of manufacturing jobs

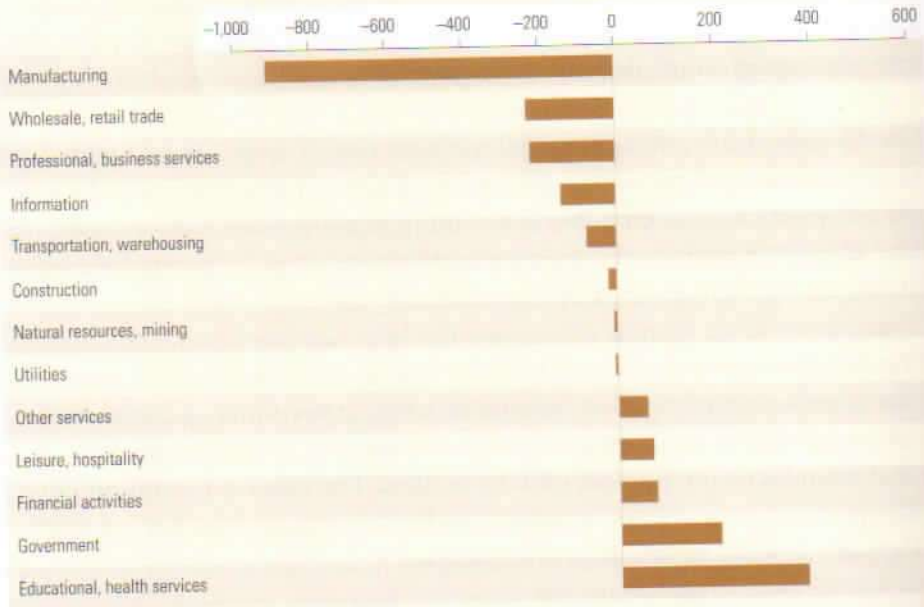
Manufacturing's share of total US employment has been falling for at least half a century—a trend that is typical not only of developed economies but also of many developing ones. In the 1990s, manufacturing employment was fairly stable. From 2000 to 2003, however, payroll employment in manufacturing fell by 16.2 percent, the largest decline since the end of World War II[3] and steeper than the declines experienced by other sectors (Exhibit 2).

While the job losses were concentrated among producers of capital goods and apparel, every major manufacturing sector saw payrolls fall. The bursting of the high-tech bubble resulted in the loss of half a million jobs in computer and electronics production. Other large declines occurred in machinery, fabricated metal products, and textiles.

EXHIBIT 2

Tough times for US manufacturers

US employment gains and losses by sector, 2000–03, thousands of jobs per year



Source: Employment survey statistics, July 2004, US Bureau of Labor Statistics

[3] Prior to 2000, the largest decline, from 1979 to 1983, was to 17 million, from 19.4 million—about 12 percent.

For many observers, trade was the obvious culprit. Since 1992 the United States has run an increasingly large trade deficit, which reached $403 billion in 2003. The size of this deficit and its pervasiveness across economic sectors make it tempting to believe that trade played a major role in the manufacturing recession. What these observers have missed is the subtle relationship among productivity growth, domestic demand, exports, and imports. It is this interplay that leads us to the counterintuitive conclusion that the influence of trade has been minor.

The role of trade

During the late 1990s, trade wasn't a significant cause of job losses, because the United States enjoyed full employment. A shortage of labor, not unemployment, was the problem of the day. The trade deficit in part reflected the fact that the country was producing less than it was consuming.

After 2000, as the economy fell into recession, US exports fell. We estimate that more than 3.4 million manufacturing workers were producing goods for export in 2000; by 2003, this number had fallen below 2.7 million. All told, the export slump destroyed 742,000 US manufacturing jobs.

On the import side, though, the picture was very different. It isn't true that manufactured goods flooded into the United States after 2000. In fact, growth in manufactured imports was quite sluggish from 2000 to 2003. And as we will explain, this weakness in imports actually boosted manufacturing employment in 2003 by some 428,000 jobs.

Overall, then, trade accounted for a net loss of no more than 314,000 jobs (a reduction of 742,000 because of weak exports and an increase of 428,000 owing to weak imports), representing only 11 percent of the total manufacturing job loss of 2.85 million. The other 2.54 million jobs disappeared because of the economy's cyclical downturn, which dampened domestic demand for manufactured goods.

The effect of productivity growth

How did imports boost US employment from 2000 to 2003? The answer lies in the rapid growth of productivity in the United States. To understand how this dynamic played out, we will first explore the more intuitive link between productivity and the jobs generated by domestic demand and by exports and then turn to the relationship between productivity

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and imports. Some economic mechanisms can allow productivity increases to boost output and employment—for example, by making companies and industries more competitive. But from a purely arithmetical standpoint, if productivity (output per employee) is rising, output must increase at least as fast to keep employment from falling. After 2000, domestic US demand grew much less than productivity, so companies needed fewer workers to fill their domestic orders. It was a similar story with exports. They fell sharply in 2001, declined again in 2002, and rose only slightly in 2003. With rising productivity and reduced orders, exporters could meet demand using far fewer employees.

In the case of imports, the impact of productivity is actually reversed because imports displace US jobs rather than create them. The higher the productivity of US industries that compete with imports, the smaller the number of jobs displaced by a given volume of imports. We estimated the number by figuring out how many US workers would have been employed had the same products been made in the United States. When we examined statistics on the productivity of industries that compete with imports, we found that it increased so rapidly from 2000 to 2003 that the number of jobs displaced by imports actually declined.[4]

From 2000 to 2003, the number of jobs displaced by imports to the United States actually ***declined***

Although it might seem surprising that net trade played only a small role in the loss of manufacturing jobs after 2000, it actually isn't. Economists often say that international trade acts as an automatic stabilizer in an economy. During a downturn, consumption and investment fall, which mostly affects domestic production and employment; imports, however, are dampened too, and this softens the impact on the domestic economy. International trade might actually have had a positive effect on US employment over this period if not for the fact that US exports were so weak.

Why did exports fall?

Trade's small role in the loss of manufacturing jobs from 2000 to 2003 is a powerful rebuttal to critics of free trade, but that is not the end of our inquiry. Knowing why exports fell is important, since this was the reason for all the job losses associated with trade—albeit only 28 percent of the total decline in manufacturing employment.

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[4] US manufactured imports rose much more slowly than productivity over these three years. Hence fewer US jobs were displaced by imports in 2003 than in 2000.

Dogs that don't bark

The global growth recession after 2000 and the outright recession in leading markets such as Continental Europe would appear to be the obvious candidates to explain declining US exports. If a slowdown in the global economy were matched by a slowdown in global trade, US exports would weaken even if the United States maintained its share of that trade. To test this hypothesis, consider what actually happened.

According to UN commodity trade data, US exports fell by $46.2 billion, or about 7.2 percent, from 2000 to 2003. Meanwhile, non-US world trade in merchandise *grew* by 23.5 percent. If the ratio between US and non-US trade had remained constant, US exports too would have risen by the same amount. But they didn't, and the question is, why not?

One possible explanation is that US exports might have been concentrated in commodities for which demand was growing relatively slowly. US exports of high-tech goods rose rapidly in the 1990s, for example, but then dropped sharply when the technology sector slumped. Our research shows, however, that this "commodity" effect was quite small—in fact, it helped the United States slightly, boosting its exports by 0.6 percent (about $4 billion). Yes, the United States sells products (such as high-tech gear) that didn't keep pace with the overall rise in world trade. But it also sells goods, such as aircraft (including military aircraft and helicopters), auto parts, automobiles, and medical products, in which world trade grew rapidly. Overall, this commodity effect was nearly a wash.

Another possibility is that demand was weak in countries to which the United States exports—perhaps it was competing in the "wrong" markets. It is indeed true that demand in important US export markets, such as Brazil, Canada, and Europe, was soft. Yet trade with China and Mexico was positive for US exporters. On balance, US export markets grew somewhat more slowly than did total world trade, so this "country" effect does explain a little of the weakness of US exports, but only a little.

Competitiveness and the dollar

Or perhaps US companies simply became less competitive compared with producers in other countries. Loss of competitiveness is a vague term that can reflect a number of factors, including the entry of new competitors such as China and India, an improvement in the quality of foreign goods, or a change in the sourcing patterns of US multinationals away from US goods. Such structural factors, though, have been at work for some time. They therefore seem unlikely to be the main reasons for the rather abrupt

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What role did offsh

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shift from rapid export growth in the 1990s to falling exports in 2001 and 2002.

Much the most important reason US exports became less competitive was the high value of the dollar, which rose from the late 1990s through early 2002, boosted by private capital inflows in the 1990s. Even though the US economy later weakened, these inflows continued after 2000, since foreign investors still hoped to find higher returns in the United States than elsewhere. As time went on, the dollar was propped up more by capital inflows from foreign governments purchasing US Treasuries and other dollar assets. (Prime examples of this trend were Asian countries with currencies pegged to the dollar and countries that bought dollars in an attempt to limit the appreciation of their own currencies as the dollar started to weaken in 2002.) The dollar has now fallen sharply against the euro, but the damage has been done. Experience shows that there is a long lag (about three years) before changes in exchange rates have their full effect on export volumes.

We estimate that if the dollar hadn't increased in value after 2000, exports would have risen by $29.3 billion over the next three years rather than falling by $50.7 billion. Productivity was growing so fast that this export growth wouldn't have halted the loss of manufacturing jobs, but the number lost as a result of the country's export performance would have been 447,000 instead of the 742,000 actually recorded. After adding back the 428,000 jobs related to changes in imports, trade's impact on manufacturing employment would have been practically zero.

In short, the appreciation of the dollar accounts for most of the erosion in the US share of world markets. It is by far the most compelling explanation for the weakness of US exports and, hence, for the number of manufacturing jobs lost to trade.

What role did offshoring play?

The development of India's business-process-outsourcing sector, which is heavily geared toward exports to the United States, has added a new layer of concern about US jobs, particularly good ones. With large numbers of college-educated, English-speaking, highly motivated workers in India, even

white-collar workers in the United States feel threatened.[5] But the figures so far suggest that the number of jobs transferred to India is tiny relative to employment in the US service sector. One powerful indicator of this reality is the relative health of employment in computer services during recent years, given the weakness of domestic US demand for technology services.

A drop in the bucket

Adding software and business-process jobs together, about 274,000 jobs,[6] at most, moved to India from 2000 to 2003—equivalent to an annual average change of about 91,500 positions. Although the costs were substantial for the displaced employees, a job shift of this size is small compared with the 2.1 million service jobs created every year during the 1990s and minor compared even with the net annual job increase of about 327,000 from 2000 to 2003.

Employment in IT and IT-enabled occupations has actually been surprisingly strong in the past few years. A look at employment patterns in the IT occupations that offshoring might have affected (Exhibit 3) reveals that total employment in computer-related service occupations dropped only modestly from 1999 to 2003.[7] Moreover, the job decline after 2000 followed a huge technology boom in the late 1990s, culminating in the surge of employment and investment needed to resolve the Y2K problem. The employment levels reached in 2000 were unsustainable regardless of what happened to US trade in services with India.

Winners and losers

While the overall change was small, important shifts did take place in the mix of employment within computer occupations. The biggest losers were computer programmers and computer support personnel. For the latter group, employment surged from 1999 to 2000, strongly suggesting a Y2K effect; employment in 2003 was still above the 1999 level.

EXHIBIT 3

Small change overall

Change in employment by IT occup

Computer software engineers (applications/systems software)

Computer programmers

Computer/network systems analysts (including data communications)

Computer support specialists

Total

Change in employment for low-wag

Switchboard operators, including answering services

Computer operators

Telemarketers

Word processors, typists, data-entry clerks

Total

Total for IT and IT-enabled occupations

[1]Excludes database, computer, and netw
[2]Excludes production workers in IT har
fell very sharply after 2000.

Source: Occupational employment stat

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over the same period.

[5]The literature on the impact of offshoring is extensive. See, for example, Charles L. Schultze, *Offshoring, Import Competition, and the Jobless Recovery*, Brookings Institution Policy Brief Number 136, August 2004 (www.brookings.edu); Lael Brainard and Robert E. Litan, *"Offshoring" Service Jobs: Bane or Boon—and What to Do?* Brookings Institution Policy Brief Number 132, April 2004 (www.brookings.edu); Jagdish Bhagwati, Arvind Panagariya, and T. N. Srinivasan, *The Muddles over Outsourcing*, Washington University at St. Louis Economics Working Paper, International Trade Series, Number 0408004, August 2004 (http://econwpa.wustl.edu); Martin N. Baily and Diana Farrell, *Exploding the Myths about Offshoring*, McKinsey Global Institute, April 2004 (www.mckinsey.com/knowledge/mgi/exploding_myths); and Robert D. Atkinson, *Meeting the Offshoring Challenge*, Progressive Policy Institute, New Economy Policy Brief, July 2004 (www.ppionline.org).

[6]This estimate is an upper bound. Roughly 134,000 of the jobs were in software and 140,000 in other business processes.

[7]Note that this estimate doesn't include production workers in the IT hardware industry. Manufacturing employment in the computer and semiconductor industries fell very sharply after 2000.

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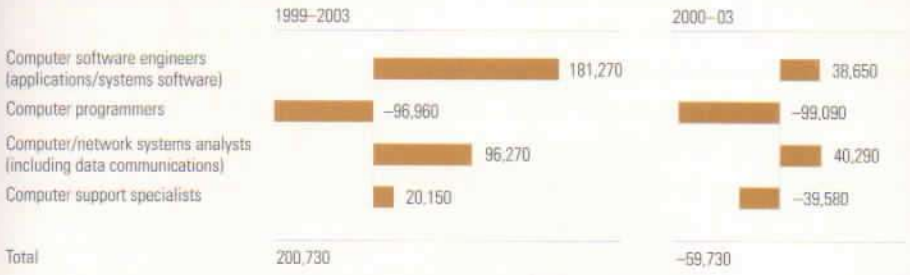
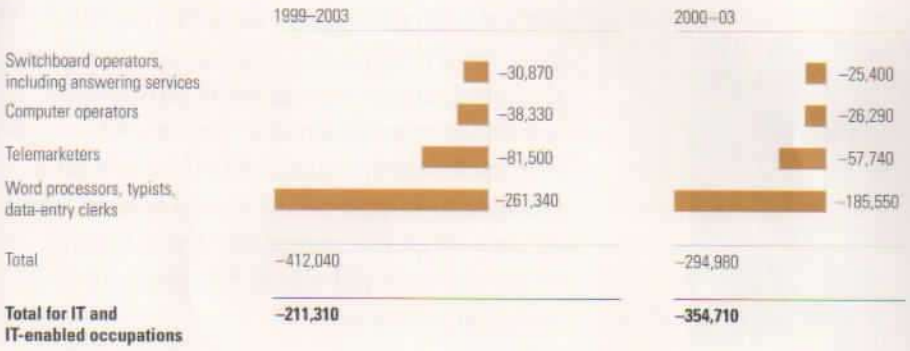
EXHIBIT 3

Small change overall

Change in employment by IT occupation,[1] number of workers



Change in employment for low-wage IT-enabled occupations,[2] number of workers



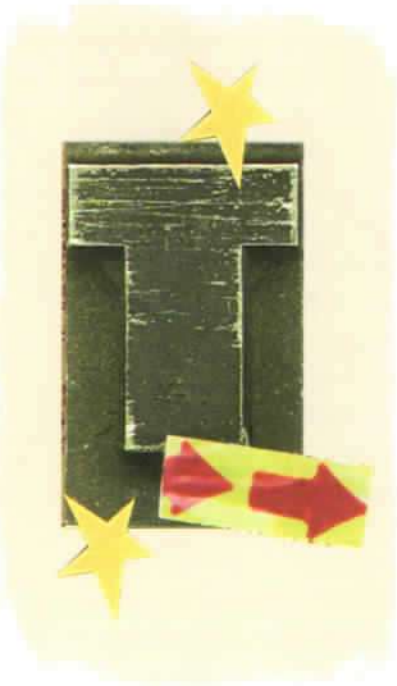
[1] Excludes database, computer, and network systems administrators as well as computer, information scientists/researchers.
[2] Excludes production workers in IT hardware industry; manufacturing employment in computer, semiconductor industries fell very sharply after 2000.

Source: Occupational employment statistics, US Bureau of Labor

For computer programmers, however, the decline of 99,090 jobs probably was the result of offshoring to India. We estimate that as many as 134,000 software-related jobs were created in India to serve the United States—roughly equivalent to the number of US software sector jobs lost. As trade in services with India became cheaper and easier, the computer-programming sector followed the laws of comparative advantage, with basic programming jobs moving to low-wage countries. At the higher end of the spectrum, though, jobs continued to proliferate in the United States. From 2000 to 2003, the number of US computer software engineers and computer and network systems analysts, who work on higher-end applications and systems, actually increased, thereby offsetting the loss of computer-programming and computer support jobs over the same period.

How to get back on track

Our research focused on understanding the causes of job losses rather than identifying prescriptions to improve the situation. Nevertheless, this work holds a powerful implication for government leaders. Since trade and offshoring weren't the primary reasons for the weak post-2000 US employment performance, they shouldn't be the focus of policies to create or restore jobs. In particular, imports didn't cause the job losses, so there is no case for trade restrictions. Instead, policy makers should attack the real roots of declining employment: weak domestic demand and a dollar-driven decline in exports.



One task should be to stimulate domestic demand, whose weakness helped account for 89 percent of lost manufacturing jobs. Recent expansionary fiscal and monetary policies have been moving the economy in the right direction; now it is a matter of letting them aid the economy's natural recovery. Once it is well established, a sustained effort to reduce the federal budget deficit would help to lower interest rates and reduce the overvaluation of the dollar—and would be good economic policy in any case.

Since the strong dollar was in large part responsible for the falling level of exports and thus for some of the loss of manufacturing jobs, US policy makers should continue to promote exchange rate flexibility on the part of other countries. Asian governments that have been intervening in foreign-exchange markets to prevent their currencies from appreciating against a declining dollar (and therefore from damaging exports to the United States) should be encouraged to let dollar depreciation run its course. The dollar might need to decline further against other currencies, including the euro.

Although stimulating demand and encouraging exchange rate flexibility will address the root causes of US job losses, we recognize that these policies will not restore every lost job or help every displaced worker. The best strategies for dealing with the adverse effects of trade-related job dislocation are trade-adjustment-assistance programs that give workers opportunities

to improve their skills.[8] Su
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to improve their skills.[8] Such initiatives should have the added benefit of helping to defuse protectionist pressures. Defusing them is critical because protectionism isn't merely the wrong answer to US job losses; it is a response to the wrong question. Q

[8] Lori Kletzer and Robert E. Litan, "A prescription to relieve worker anxiety," Policy Brief 01-02, Institute for International Economics, Washington, DC, February 2001 (www.iie.org).

The authors wish to thank Jacob Kirkegaard and Katharina Plück, of the Institute for International Economics, and Magali Junowicz for their assistance in the preparation of the underlying paper.

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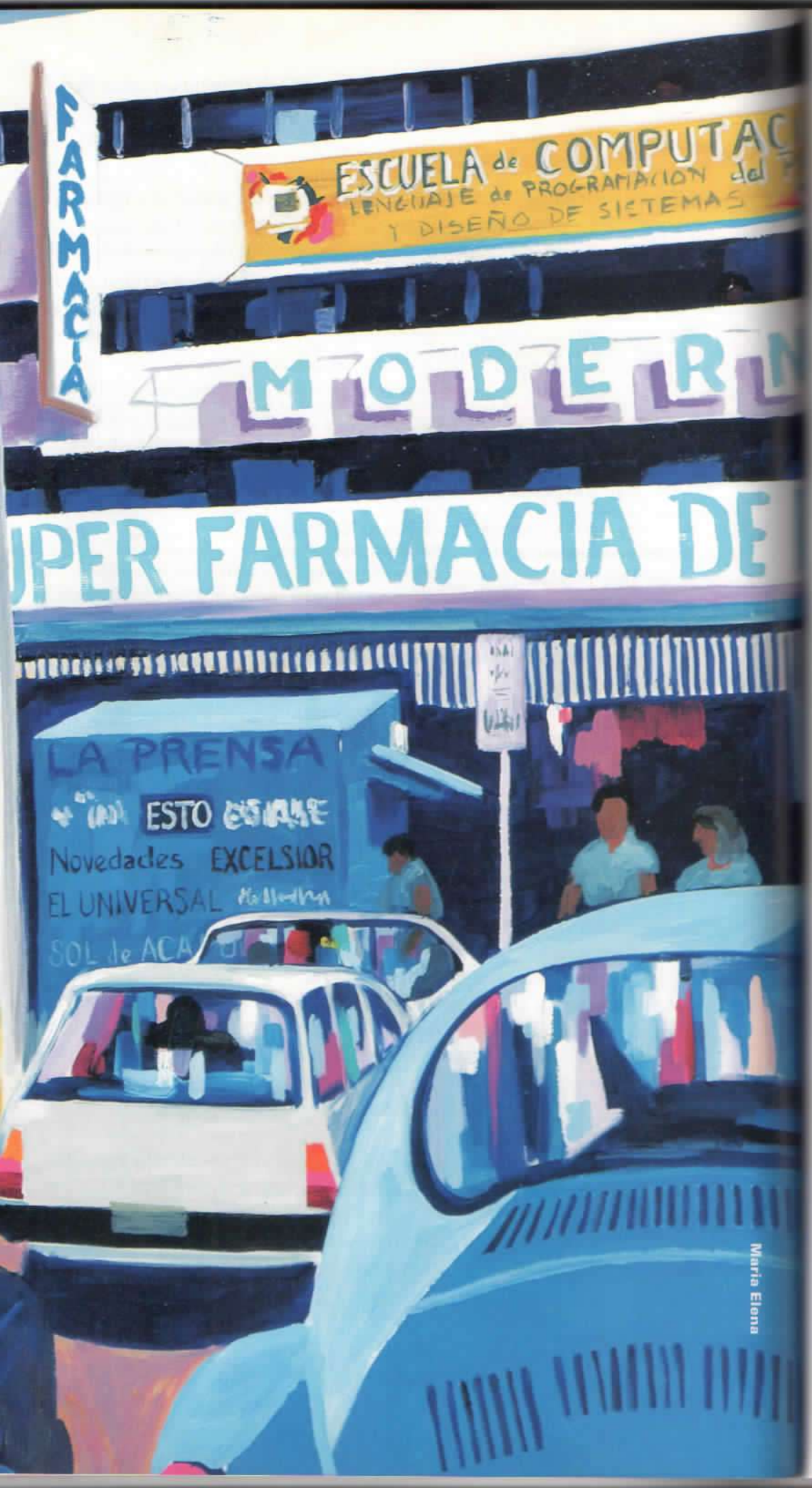
Martin Baily, a senior fellow at the Institute for International Economics and chair of the President's Council of Economic Advisers under President Clinton, is a senior adviser to the McKinsey Global Institute;
Robert Lawrence is Albert L. Williams professor of trade and investment in the John F. Kennedy School of Government, Harvard University, and a senior fellow at the Institute for International Economics. This article is based on the authors' *What Happened to the Great US Job Machine? The Role of Trade and Offshoring*, a Brookings Paper on Economic Activity to be published in April 2005.



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Beyond cheap labor: Lessons for **developing** economies

How can middle-income countries like Mexico compete with China? By adding higher value.

Diana Farrell, Antonio Puron, and Jaana K. Remes

Buoyed by the North American Free Trade Agreement (NAFTA), Mexico in the 1990s was the bustling factory floor of the Americas. But since 2000, as China rose to assume that role, more than 270,000 Mexicans have lost assembly jobs, hundreds of factories have closed their doors, and Mexico's trade deficit with China has grown to more than $5 billion. The ubiquitous "Made in China" stamp, found on everything from toys to textiles to statues of Our Lady of Guadalupe, has become the incarnation of the single greatest perceived threat to Mexico's economic prosperity—and a symbol of the pitfalls of globalization.

Mexico's fears are not unique. China's economic surge and its entry into the World Trade Organization have sparked alarm across the developing world. In middle-income countries such as Brazil, Poland, Portugal, and South Korea, a rising standard of living makes their position as low-wage producers and exporters increasingly tenuous.

Rather than fixating on jobs lost to China, these countries should remember a fact of economic life: no place can remain the world's low-cost producer forever—even China will lose that title one day. Instead of trying to defend low-wage assembly jobs, Mexico and other middle-income countries should focus on creating jobs that add higher value. Only if more productive companies with higher-value-added activities replace less productive ones can middle-income economies continue down the development path. Even

so, being part of the global economy requires these countries, like Lewis Carroll's Alice in *Through the Looking Glass*, to do a lot of running just to stay in the same place. Unfortunately, for too many of them the focus on China—and, more broadly, political rhetoric against globalization—are blocking reform efforts.

Blame China?

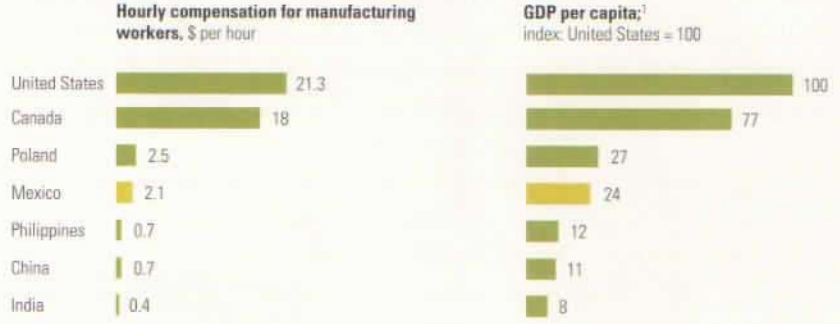
To developing countries watching foreign investors head east, China's economic prowess might seem invincible, but history suggests otherwise. Only 20 years ago, for example, the United States was convinced that the superior business models and industrial policies of Germany and Japan would shutter every last domestic factory door. In the 1990s, the United States fretted about the threat from the high-tech industries of South Korea and Taiwan, while presidential candidates warned of the "giant sucking sound" made by the migration of jobs to Mexico under NAFTA. These days, the United States is more concerned about the effect of China's economy on its trade balance and employment rate.

Nearly all countries worry about jobs lost to others—a fact often exploited for political ends. The demagoguery obscures the fact that countries must evolve to meet the challenges presented by new competitors outside their borders.

Mexico is a case in point. Like most middle-income countries, it has grown more prosperous through freer trade and liberalization. Its average household income is now more than twice the level in China and other low-wage countries, and its manufacturing wage rates reflect this increasing

EXHIBIT 1

Mexico moves on up



[1] At purchasing-power parity.

Source: IMD's *World Competitiveness Yearbook*, 2003

EXHIBIT 2

Bumping along the bottom

Flow of foreign direct investment (FDI) to Me

[1] Includes retained earnings of multinationa

Source: Secretaría de Economía (Mexico)

prosperity (Exhibit 1). But the US border—often the economy—are only a sm effect, in 1994, the count direct investment—more Yet less than 15 percent (Exhibit 2); the vast majo Mexico's large domestic Our research shows that a wide range of benefits competition and producti choice.[1] Consider the imp market: consumers can n with just a few of them b food in Mexico City is 4 NAFTA opened up the ec countries where jobs are of low-wage employment

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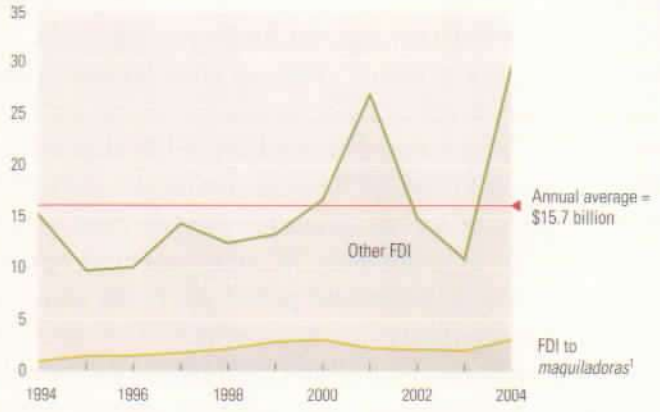
[1] The full research report, *New Horiz* is available at www.mckinsey.com/k

EXHIBIT 2

Bumping along the bottom

Flow of foreign direct investment (FDI) to Mexico, $ billion



[1] Includes retained earnings of multinational corporations' local operatives.

Source: Secretaría de Economía (Mexico)

prosperity (Exhibit 1). But the *maquiladora* assembly operations that line the US border—often the most visible face of Mexico's entry into the global economy—are only a small part of the cause. Since NAFTA came into effect, in 1994, the country has received upward of $170 billion in foreign direct investment—more than three times the amount that India attracted. Yet less than 15 percent of this investment has gone to the *maquiladoras* (Exhibit 2); the vast majority has been motivated by a desire to sell into Mexico's large domestic market, not to produce cheap goods for export. Our research shows that non-*maquiladora* investments have generated a wide range of benefits for Mexico's economy by creating jobs, boosting competition and productivity, lowering prices, and enhancing consumer choice.[1] Consider the impact of foreign investment on Mexico's automobile market: consumers can now choose from dozens of models, compared with just a few of them before. In the retailing industry, the price of fresh food in Mexico City is 40 percent below its level in 1993, the year before NAFTA opened up the economy. The lesson for Mexico and for other countries where jobs are going offshore is this: don't overestimate the value of low-wage employment.

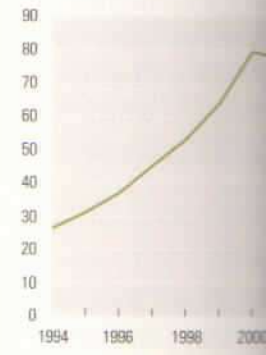
Furthermore, even if these jobs were worth protecting, it would not make sense for Mexico to see China as the source of its woes. El Salvador,

[1] The full research report, *New Horizons: Multinational Company Investment in Developing Economies*, is available at www.mckinsey.com/knowledge/mgi/rp/globaleintegration/newhorizons.

Guatemala, and Honduras have wage rates just 25 to 40 percent of Mexico's and offer almost the same advantages of proximity. Economists at the Federal Reserve Bank of Dallas have shown that increases in Mexico's wage costs relative to these non-Chinese competitors and the decline in US industrial production together account for 80 percent of the *maquiladora*[2] jobs lost since their peak in 2000.[3] Offshore assembly operations, by their very nature, are exceedingly sensitive to changes in the global business cycle, since multinational companies tend to adjust production volumes abroad before doing so at home. Foreign investment thus poured into Mexico during the boom years of the late 1990s but then dropped with the US downturn of 2001–02. Just as predictably, Mexican assembly operations started to grow again in 2004 as US demand picked up. In the first five months of the year, *maquiladora* exports rose by more than 20 percent and employment turned to growth as well (Exhibit 3). But Mexico shouldn't be content with this recovery; policy makers must still push reforms to move the country up the economic ladder.

EXHIBIT 3

Growing again



[1] Annualized data from Jan–May.
[2] Data for May 2004.
Source: Banco de México; Estadística Comercio Exterior, Instituto Nacional

The road to adding higher value

Rather than try to win back low-wage, low-skill assembly jobs, middle-income countries should undertake three essential steps to further their economic development. They must encourage the transition to higher-value-added activities, identify and exploit their comparative advantage, and push forward with reforms that create more competition, entrepreneurship, and flexibility.

Encouraging the transition

The experience of developed countries suggests that expansion into higher-value-added activities comes not from a shift into entirely new industries, such as high tech, biotech, or nanotech, but from the natural evolution of companies within existing industries.

As countries around the world develop, a similar series of events has played out: companies start out in the simple, labor-intensive parts of an industry but over time hone their skills to compete in more profitable areas, such as marketing, product design, and the manufacture of sophisticated intermediate inputs. In northern Italy's textile and apparel industry, for example, the majority

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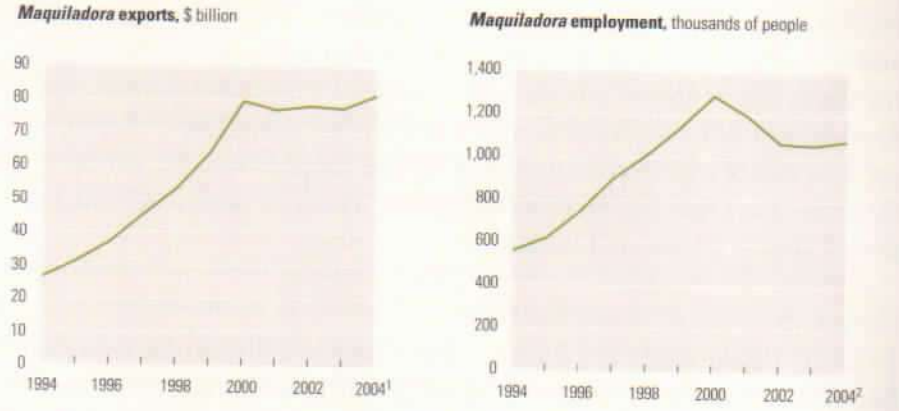
[2] As part of the Border Industrialization Program, in 1965 the Mexican government authorized the creation of the *maquiladoras* to help boost employment and the overall economy. These foreign-owned assembly plants were allowed to import duty-free machinery and materials temporarily for production or assembly by Mexican labor and then to export the goods, primarily back to the United States. To reduce transport costs, most of the plants were on the Mexico-US border. The benefits and constraints of *maquiladora* operations changed over time, culminating in the elimination of the category in January 2004 as part of NAFTA's final phase of implementation. The government continues to track them separately, however, and the *maquiladora* database is frequently used for economic analyses.
[3] See www.dallasfed.org.

EXHIBIT 3

Growing again



[1] Annualized data from Jan–May.
[2] Data for May 2004.

Source: Banco de México; Estadística Mensual de la Industria Maquiladora de Exportación and la Dirección General de Comercio Exterior, Instituto Nacional de Estadística Geografía e Informática

example, the majority of garment production has moved to lower-cost locations, but employment remains stable because companies have put more resources into tasks such as designing clothes and coordinating global production networks. In the US automotive industry, imports of finished cars from Mexico increased rapidly after NAFTA took effect, but exports of US auto parts to it have quadrupled, allowing much of the more capital-intensive work—and many of the higher-paid jobs—to remain in the United States.

Unfortunately, governments in both developing and developed countries often do a poor job of encouraging this transition. In the United States, for instance, the offshore assembly program (OAP) requires goods produced abroad to use a certain percentage of US components (typically 80 percent) to qualify for reduced tariffs. Since this stipulation is the basis of the *maquiladora* regime itself, Mexico allows foreign companies to import machinery, raw materials, and parts duty-free if the final products are exported. As a result, imported inputs represent 76 percent of these goods' total export value, and most of the rest is labor; locally produced intermediate inputs represent less than 2 percent of production value. Moreover, while allowing foreign competitors into the export segments, the government of Mexico sheltered the rest of its economy from the benefits of global competition. Today fewer than 50 companies, most of them foreign, dominate Mexican exports—Petróleos Mexicanos (Pemex) being the main exception.

Furthermore, many countries unintentionally hamper the transition to higher-value-added activities by adopting regulations aimed at creating positive spillover effects from foreign investment in local industry. Mexico, for instance, instituted local-content requirements in the automotive and consumer electronics industries; it also capped foreign ownership in the latter. Yet in almost all cases, these policies have failed to spark the development of strong local suppliers or domestic companies; they merely serve to create a protective umbrella for the supplier sectors, which therefore don't flourish. In these industries, Mexico's experience mirrors that of Brazil, China, and India.[4]

Exploiting a comparative advantage

To justify higher wages in a globalized economy, middle-income nations must find their comparative advantage. The former Eastern Bloc countries, for instance, have highly educated, moderately paid scientists and engineers and are therefore a natural offshoring base for Western European companies.[5] India's well-educated, English-speaking workforce gives it a comparative advantage in information technology and business outsourcing. Members of the Association of South East Asian Nations (ASEAN) have a common market the size of Europe and thus offer foreign investors not just a low-wage export base but also a huge domestic market. Brazil and India too have the advantage of market size.

Fortunately, Mexico also has a unique advantage: it sits next to the world's largest consumer market. Some Mexicans may see that as a political or social liability, yet the country is an ideal location for designing and producing items for which proximity to the end user matters.

Proximity is important for many reasons. Some goods, such as large-screen TVs and white goods, have high transportation costs.[6] A very different example is the almost $4 billion market for the plastic bottle caps that seal most of the soft-drink and water bottles sold in the United States. They may be small and light, but their aggregate bulk makes for high shipping costs, so it is more economical to produce them in the United States.

Time sensitivity is another consideration. Fresh food can spoil, and fashionable items or promotional materials can miss their window of

[4] Diana Farrell, Jaana K. Remes, and Heiner Schulz, "The truth about foreign direct investment in emerging markets," *The McKinsey Quarterly*, 2004 Number 1, pp. 24–35 (www.mckinseyquarterly.com/links/15326).
[5] Michal Kwiecinski and Thomas Rüdel, "Poland's investment challenge," *The McKinsey Quarterly*, 2004 Number 3, pp. 19–21 (www.mckinseyquarterly.com/links/15328).
[6] On a broader level, the white-goods sector provides an interesting example of NAFTA's impact. Mexico's leading white-goods companies, Acros and Mabe, dominated the protected local market until the 1990s, when they were acquired by Whirlpool and GE, respectively. The Mexican plants were incorporated into the new owners' global production, and as a result this sector's productivity in Mexico rose by 16 percent annually from 1996 to 2001.

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[7] Ronald C. Ritter and Robert A. Sterni
Quarterly, 2004 Number 4, pp. 124–
[8] Frederick H. Abernathy, John T. Dunl
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relevance.[7] In a fast-evolving market, goods such as computers have slim margins and depreciate rapidly in value after production. This factor helps explain why many of the PCs sold in the United States are assembled in North America, though most of the components are produced in Asia.

Products that require extensive interaction among different players in the value chain also benefit from proximity. Sales of customized products—from personal computers to tailor-made clothing to look-alike bobble-head dolls—are expanding rapidly thanks to the online channel.

What's more, lean retailing in the United States demands shorter delivery times for a wider range of products, since suppliers must replenish their stock more frequently in response to changes in sales and inventory volumes. This factor, combined with the growing number of consumer goods that retailers offer, means that many suppliers face an exponential increase in the complexity of their logistics. Consider the Lands' End pinpoint cotton Oxford dress shirt, which offers the usual choices of neck and sleeve length, five different collar types, and two cuts. Even if the shirt were available to consumers in only blue and white, that still generates hundreds of possible combinations. Add other fabrics, colors, and patterns, and this simple shirt quickly goes into the tens of thousands of SKUs (stock-keeping units). As a result, the optimal strategy for most apparel makers is to split production between nearby locations and lowest-cost countries. Thus Mexico's share of time-sensitive goods like jeans for teenagers increased during the 1990s, while China's production of commodity items such as knit pullovers has also grown.[8]

*To justify **higher wages** in a global economy, middle-income nations must find a comparative advantage*

Pushing reform

As low-skill, labor-intensive operations head elsewhere, middle-income countries may try to lure them back with tax breaks and other financial incentives. They should resist this temptation. Such initiatives are not likely to influence foreign investment significantly and won't compensate for rising wage rates over the longer term. Enticements of this sort merely divert resources from the government and society to multinational companies. In some cases they can lead to counterproductive

[7] Ronald C. Ritter and Robert A. Sternfels, "When offshore manufacturing doesn't make sense," *The McKinsey Quarterly*, 2004 Number 4, pp. 124–7 (www.mckinseyquarterly.com/links/15417).
[8] Frederick H. Abernathy, John T. Dunlop, Janice H. Hammond, and David Weil, "Globalization in the apparel and textile industries: What is new and what is not?" in Martin Kenney and Richard Florida, *Locating Global Advantage*, Stanford: Stanford University Press, 2003.

overinvestment. In Brazil's auto sector, foreign carmakers responded to subsidies worth more than $100,000 for each new job by adding many more workers—and saddling the industry with 80 percent overcapacity a few years later.[9]

Instead of spending tax money to offer financial incentives to foreign investors, governments should use the funds to improve transportation networks, power grids, and telecommunications lines. Beyond that, policy makers must boost competition in the broader economy so that companies are compelled to improve their operations, adopt best practices, innovate, and move up the economic value chain. Too often, developing countries concentrate on special economic zones or preferred export industries while competition languishes in the remaining sectors. Price controls, tariffs, licensing requirements, and other product regulations limit market entry and reduce competition.

As India's $5 billion auto industry demonstrates, the gains from removing these stifling regulations can be dramatic. Twenty years ago, two state-owned carmakers—Hindustan Motors and Premier Automobiles Limited (PAL)—dominated the market and offered just a handful of outdated models. In 1983 the government allowed Suzuki Motor to take a minority stake in a joint venture with the small state-owned automaker Maruti Udyog, and in 1992 nine more foreign automakers were allowed to invest in India. This infusion of new capital and technology created serious competition for the two incumbents, eventually forcing PAL out. The industry, one of the fastest growing in the world, now produces 13 times more cars than it did 20 years ago. Tata Motors hit a milestone in 2004 by exporting 20,000 cars to the United Kingdom, to be sold under the MG Rover brand. Meanwhile, prices for consumers in India have fallen by 8 to 10 percent annually, unleashing a burst of demand and allowing steady employment despite rapidly rising productivity.

The reform agenda for each middle-income country will vary. In Brazil, for example, a major obstacle to growth is the informal economy, which consists of businesses that fail to comply with tax and regulatory obligations. The World Bank estimates that this gray sector employs 55 percent of all labor in Brazil and shows no sign of diminishing: according to our research, it has grown rapidly in some industries, such as construction. The unearned cost advantage that informal businesses

[9] Diana Farrell, Jaana K. Remes, and Heiner Schulz, "The truth about foreign direct investment in emerging markets," *The McKinsey Quarterly*, 2004 Number 1, pp. 24–35 (www.mckinseyquarterly.com/links/15326).

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[10] Diana Farrell, "The hidden dange
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[11] World Bank, *Doing Business in 2*
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enjoy allows them to undercut the prices of more productive competitors and stay in business despite very low productivity.[10] Butchers, for instance, can save nearly 30 percent of their costs by skirting hygiene and quality standards. Modern supermarkets have found that acquiring informal grocers is unprofitable once value-added and labor taxes are paid. The informal economy thus distorts competition and disrupts the natural evolution in which more productive companies replace less productive ones. We estimate that if Brazil reduced the size of its informal economy by 20 percent, GDP growth would increase by as much as 1.5 percent annually. The potential benefits to Portugal and Turkey are similar.

In Mexico's case, the main barriers to movement up the economic value chain are a thicket of burdensome regulations and an inadequate infrastructure. According to a World Bank report,[11] it takes an average of 58 days to start a business in Mexico, compared with 8 in Singapore and 9 in Turkey. It takes 74 days to register a property in Mexico but only 12 in the United States. Enforcing a contract requires 37 different procedures and takes 421 days to wind through the legal system, while closing an insolvent business can drag on for more than a year and a half. Moreover, Mexico's corporate-income-tax rate of 34 percent is twice as high as China's. These problems not only discourage foreign investment but also stifle local entrepreneurship and the growth of domestic companies.

Since capital-intensive production is highly sensitive to factor costs, Mexico must invest in infrastructure. Electricity costs are, on average, 10 percent higher than US levels, for example, and more than 40 percent above China's. By some estimates, the country should invest $50 billion to upgrade its power grid. Mexico's telecommunications network is equally lamentable—a prime reason the country isn't a more prominent location for offshore operations serving Spanish-speaking customers. Mexico's ground, air, and sea transportation systems all need improvement to build on its advantage of proximity to the United States.

Development: One company at a time

Although government reform can create the conditions for economic development, one company must act as a catalyst for change within an

[10] Diana Farrell, "The hidden dangers of the informal economy," *The McKinsey Quarterly*, 2004 Number 3, pp. 26–37 (www.mckinseyquarterly.com/links/15395).

[11] World Bank, *Doing Business in 2005: Removing Obstacles to Growth*, Oxford University Press, 2005 (www.worldbank.org).

industry. As individual plant managers assess the competitive environment, they react by improving their operations.

US semiconductor players, for instance, responded to competition from Japanese companies in the late 1980s. Japan quickly became dominant in sectors such as memory chips, spurring a public outcry in the United States over unfair competition and the loss of high-paying white-collar jobs. But US chip makers reinvented themselves. The big players—Intel, Motorola, and Texas Instruments—abandoned the dynamic-random-access-memory (DRAM) business and then invested more heavily in the manufacture of microprocessors and logic products, the next wave of growth in semiconductors. Intel became an even more significant global force in microprocessors, while TI became a dominant player in digital signal processors (the "brain" in mobile telephones). Motorola gained a strong position in microcontrollers and automotive semiconductors. Throughout this shift toward higher-value-added activities, the total number of US jobs in semiconductors and closely related electronics fields held constant at around half a million.[12]

*Some Mexican companies have shown that they can **compete** by producing more lucrative goods*

The experience of a handful of Mexican companies has already shown that they too can compete by shifting their production to more advanced and lucrative goods for the North American marketplace. Their success should provide a dose of optimism for their compatriots as well as for businesses in other middle-income nations anxiously watching cost advantages erode.

One such company is Jabil Circuit, a contract manufacturer of electronics products for the likes of Dell and Nokia. Few Mexican industries have been hit harder over the past few years than electronics. As orders were lost to Asia, Jabil saw its workforce of 3,500 shrink by half from 2001 to 2002.[13] Instead of trying to win back lost orders, it learned to make more complex and customized products (computer routers and handheld credit-card machines, for example) that were traditionally made in the United States.

Managers at one of the company's Mexican plants very deliberately studied the US market to ascertain the necessary performance levels and the areas in which lower-cost labor could create an advantage. As a

[12] Employment data from the Semiconductor Industry Association (SIA) and the US Bureau of Labor Statistics.
[13] David Luhnow, "Challenges from China spur Mexican factories to elevate aspirations," *Asian Wall Street Journal*, March 5, 2004.

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result, the factory retooled its inventory system and trained workers to undertake more than one task at a time, so the number of items it was able to produce rose to more than 6,000, from 600. Orders have flooded in, and employment is now 10 percent higher than it was at its peak in 2001. Other companies in Mexico have made similar transitions.

Some of the country's most promising growth opportunities might arise in unexpected areas. Software engineers at Universidad Nacional Autónoma de México, for example, played an important role in commercializing the Linux operating system through their Gnome project, which opened the door for more possibilities in this arena. And Wal-Mart Stores' acquisition of the food-retailing chain Cifra will provide Mexican suppliers with a global distribution network; Brazilian apparel manufacturers have already used Wal-Mart's reach to establish a global presence.

China's rapid rise as a global exporter seems to have caught some business leaders in middle-income nations by surprise. If they are to create a niche in the global economy, they cannot panic or close their borders; rather, they must restart their reform agenda. If they fail to do so, other more responsive countries will be ready to take their place. Q

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How to fix China's **banking system**

Old bad debt hasn't been fully resolved. New bad debt is piling up. Yet the problems can be cleared up without a systemic crisis.

Matthias M. Bekier, Richard Huang, and Gregory P. Wilson

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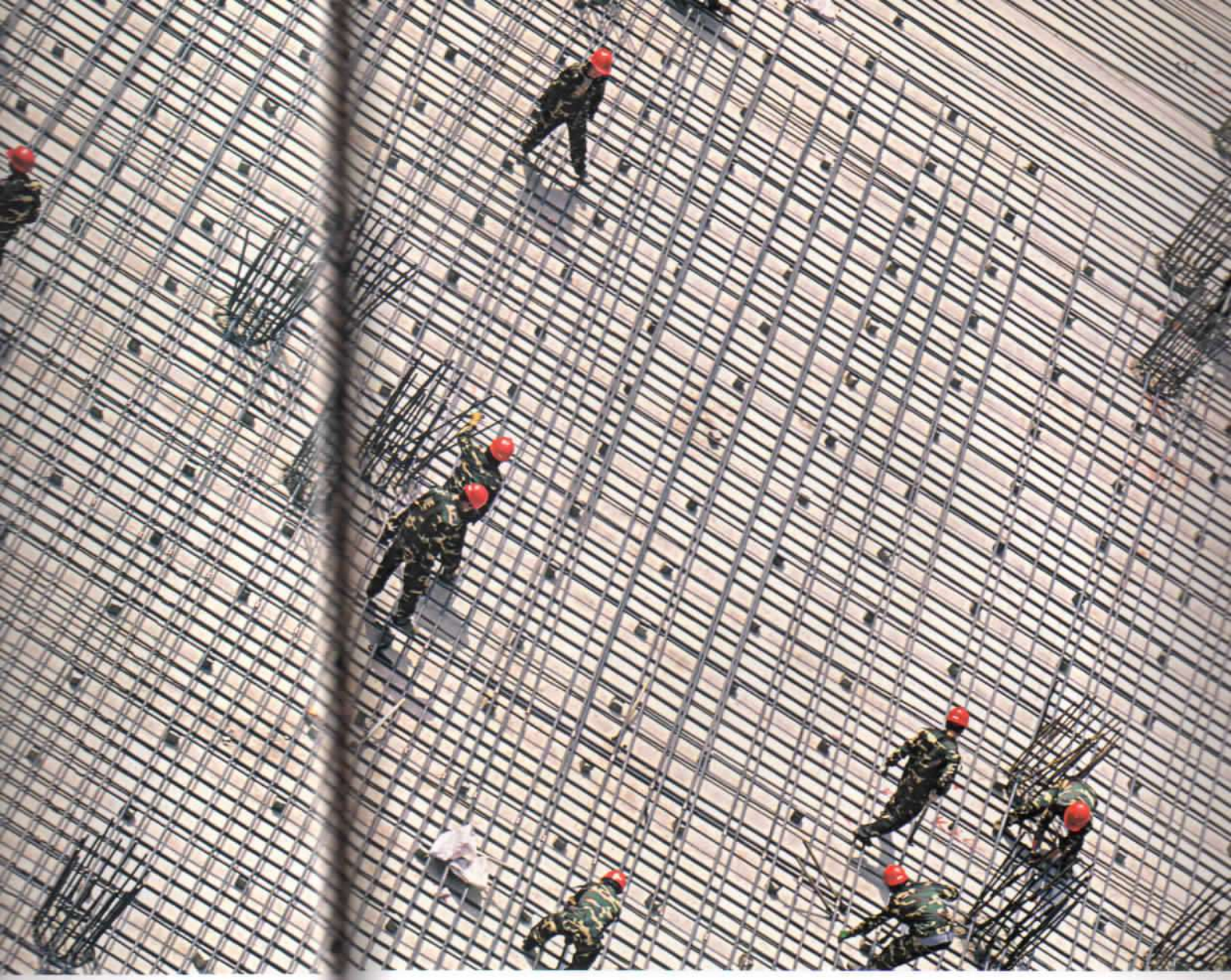

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China is slowly coming to terms with the enormous stock of bad loans that burden its banking system. Its financial regulators—the People's Bank of China and the Chinese Banking Regulatory Commission—have upgraded the country's loan classification system to uncover problem loans more quickly and consistently, established asset-management companies to help banks dispose of their nonperforming loans, and used billions of dollars from China's vast foreign reserves to sustain insolvent banks until the problems can be resolved.

Actively managing the current stock of nonperforming loans—especially cleaning them up more quickly—is a critical first step in righting China's banking system. The Chinese regulators must, however, go beyond merely fixing the mistakes of the past and confront an additional source

of instability: a flow of new bad debt. Our frontline experience tells us that Chinese banks continue to make astounding numbers of questionable loans atop the existing pile. Any failure by regulators to control these bad lending practices may put China's future prosperity at risk.

Since the country's capital markets remain largely underdeveloped, banks serve as the primary source of long-term funds. Bank lending would have to expand by about 15 percent a year for China to meet its target of 7 to 8 percent annual growth in GDP. Yet as a result of the amount of bad debt that must be written off—to say nothing of the banks' low profitability and limited credit skills—we estimate that China's banking system can safely sustain annual loan growth of only 5 to 7 percent, which is far below the level needed to maintain economic momentum and keep unemployment in check. The higher growth rate can be sustained only if regulators, banks, and investors collaborate to achieve a step change in risk-management skills.

*China's banking system can safely sustain annual loan **growth** of only 5 to 7 percent, far below the level needed to check unemployment*

China's regulators must overhaul the banking industry if they are to get a handle on this new generation of bad debt. Our banking experience in China and other developing markets leads us to recommend a specific series of actions. The regulators must introduce better corporate-governance practices to curb the ability of influential organizations and people to meddle in the lending decisions of banks, improve their risk-management practices, and limit fraud. Banks must recognize their new problem loans more rapidly. They and those who work for them must become more accountable for their lending decisions. Finally, they must adapt and manage their loan portfolios by the lights of explicit, world-class credit-risk-management guidelines and strictly enforce compliance.

Accelerate the cleanup of existing nonperforming loans

In recent years, bad loans have soared alarmingly. By the end of 2004, their value, as reported by the Chinese Banking Regulatory Commission, had reached $205 billion—13 percent of total banking assets. Even these figures may underestimate the extent of the problem.

Nevertheless, China's banks have proved surprisingly resilient. While their stock of bad debt is high by any measure, it doesn't seem likely to pose an immediate threat to the banking system's stability. Yes, most banks in China are technically insolvent, as their nonperforming loans far exceed their equity. But these institutions are still highly liquid thanks to a large

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Chinese authorities have also demonstrated a willingness to fend off bank failures by drawing from the country's more than $400 billion in foreign reserves. In 2003, for example, the central bank injected $22.5 billion into both the Bank of China and China Construction Bank (CCB), two giant state-owned institutions weighed down by bulging bad-debt portfolios. Some of these funds helped resolve loans made to state-owned and quasi-state-owned enterprises and to provincial development projects.

If the economy holds up, the bad-debt problem may be manageable, but regulators still can't relax. Despite recent efforts to speed up the recovery of these loans, China's asset-management companies have sold only a small fraction of those transferred to them. Inexperience in this area and the lack of a vibrant vulture-fund industry that specializes in buying distressed assets partly explain the lack of progress.

In addition, banks in China have a disincentive to sell their distressed assets because once they do, they must recognize a loss. Nevertheless, experience elsewhere suggests that the quick disposal of such assets is the right way forward, since the longer a bank waits, the less value it recoups from the sale. Faster recovery of nonperforming loans will also remove a drag on bank earnings by reducing charge-offs and the need to build up reserves. It will also free capital and therefore improve the ability of banks to supply the credit that China's businesses so desperately need.

To increase the amount of bad debt ready for disposal and to have it disposed of more quickly, regulators should give banks and asset-management companies specific targets. Progress—or the lack of it—should be made public, and the senior managers of these institutions should be held accountable.

Stanch the flow of new nonperforming loans

As banking regulators push to speed up the disposal of nonperforming loans, they must also fix a more serious problem: the flow of new ones into the system. If such loans should continue to increase at the current rate, or if the economy slows dramatically, bank failures may be inevitable.

Smaller institutions—a particular problem—have relatively little financial capacity to withstand shocks as well as fewer skills and less money to build them than large banks do. They also get less attention from regulators. If they continue to generate nonperforming loans, depositors may lose

confidence and withdraw money in favor of stronger institutions or newer investment opportunities such as mutual funds and insurance. Until now, Chinese bank customers have had few alternatives to a small number of underperforming state-owned banks that offer identical bread-and-butter products, such as savings accounts, deposits at regulated rates, and mortgages. But this shortage won't last as the banking market is opened to meet China's commitments to the World Trade Organization, rates are liberalized, and new bank and nonbank competitors (such as mutual-fund providers) emerge.

Resolving current bad debt has been tough, but regulators will probably find that actively managing the continuing flow is even harder—because doing so will require nothing less than the creation of a modern banking industry with a strong credit-risk-management culture. Regulators should expect enormous resistance on several fronts: provincial and municipal governments that rely on banks to finance local businesses, banking executives who fear a loss of power because they will no longer be able to make lending decisions relatively free of supervision, and the industry's hundreds of thousands of employees, who worry about job security in a changing world. To build a modern system, regulators must revamp the corporate governance of banks to improve their risk-management practices and diminish the government's influence over lending, increase their financial transparency (especially the reporting of nonperforming loans), and strictly enforce compliance with world-class lending guidelines.

Improve corporate governance and cut state influence in lending

Effective corporate governance—the first line of defense in managing bank risk—ensures that authorized, accountable people make decisions and establishes checks and balances that minimize conflicts of interest, collusion, and fraud. Many Chinese banks lack even the most basic components of good corporate governance. The problem runs deep, extending well beyond the highly publicized examples of governance failures at larger institutions exposed to the scrutiny of capital markets. The prevalence of fraudulent lending in many Chinese banks is stark evidence of the gaps in governance, oversight, and risk management: at one bank, fraud was involved in about a third of new nonperforming mortgages (as opposed to less than 1 percent in most developed countries). Many loans had fictitious addresses, with no property as collateral. Some mortgage holders received money for properties they didn't own. Poor governance, left unaddressed, makes it

*Many Chinese banks lack even the most **fundamental components** of good corporate governance*

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harder to implement tighter risk-management policies, and such problems erode the investor confidence that Chinese banks rely on to raise funds in global markets.

Even so, there has been some progress. The boards of some of the largest banks, such as the CCB and the Bank of Communications, have been restructured to a certain extent: they are smaller now, and foreign bankers have replaced a number of government officials. But these measures have largely failed to address the heart of the problem, which is the state's pervasive hand in often well-intentioned though unprofitable lending decisions. The government not only fully owns the big four banks but also, directly or indirectly, controls 95 percent of the assets of most others through shares held by local municipalities and state-owned enterprises outside the banking sector. There are no private banks, and foreign ownership is still extremely limited, despite a handful of high-profile investments by the likes of Citibank, HSBC, and Standard Chartered.

Nonetheless, the state's influence over lending decisions has become more transparent. A little over a decade ago, banks existed essentially to disburse money for the Communist Party. Doling out loans to finance loss-making state-owned factories in far-off provinces was accepted practice to maintain centrally planned production targets and employment levels. Today, some banks try to understand and monitor their real risk-management skills and performance by tagging bad loans (in their books) to distinguish between those made on commercial grounds and those extended, historically, at the behest of the central authorities or local governments. Although state-directed lending has slowed down significantly, certain banks and their officers still feel pressure from local party officials or local businesses with political connections to make uneconomic lending decisions.

Unfortunately, the measures adopted to improve corporate governance focus on the largest banks scheduled for initial public offerings in the next few years. Exercising tighter control over a handful of large banks is far simpler than transforming corporate governance in the 120 or so smaller regional and local banks and the nearly 30,000 credit cooperatives, which command 40 to 50 percent of total banking assets in China. These smaller institutions are particularly prone to corrupt lending practices but harder to regulate because they are so numerous and geographically dispersed.

Despite these challenges, regulators must address the fundamental issue of state interference by working with the government. Until now, its approach has been to sell small stakes in several banks—a practice that hasn't eliminated its influence over lending—rather than sell banks outright. The

government should devise a plan for the orchestrated and rapid sale of its direct or indirect stake in the 120 institutions not slated to go public in the near future. Many should be sold to private investors, including foreign banks and private equity funds.

Permitting foreign ownership would inject fresh capital into the industry and remove moral hazards by taking the state completely out of credit decisions; a private owner can make them without considering government objectives such as the development of certain regions or sectors. Privatization would also give Chinese institutions a chance to see how foreign companies run the banks they acquire: in November 2004, for instance, Newbridge Capital—which had recently bought an 18 percent stake in Shenzhen Development Bank, thereby effectively gaining control—replaced the CEO and other top managers and installed a new executive team. Foreign banks don't necessarily target the most senior positions in the Chinese banks they acquire; rather, they tend to install their own people in critical roles such as risk management. Western banks also rotate people frequently (every five years for branch managers in some markets) to avoid fraud and "capture" by clients.

Removing the state from bank lending will be neither quick nor easy. Even as the Chinese government privatizes other sectors of the economy, it is reluctant to relinquish control over this one, since lending has traditionally been its chief instrument for controlling the economy. True, the government has begun to loosen its grip on interest rates by letting banks adjust them more freely within a widening range. But it has a long way to go before it, like central banks in the West, manages the economy solely through macroeconomic tools. Moreover, the government remains unwilling to let banks fail, because of the impact not only on thousands of employees but also, possibly, on millions of depositors.

The Chinese government should start reducing its stake in the banking system now, even if, given the size of the job and its political and economic ramifications, it might take many years to complete. In the meantime, regulators can improve bank governance by taking immediate action, such as setting explicit standards for the nature and composition of various bank committees (such as those for audits and risk management), the qualifications and mix of executive and outside directors, and the role and rotation of auditors. Regulators should also take an active role in monitoring compliance and make their findings public.

We acknowledge that the privatization of banks presents potential issues, including anxiety on the part of depositors about the absence of state backing and the misuse of depositor funds by the new owners. But we think

the long-term risk of inaction outweighs the difficulties associated with privatization. Until the government removes itself from the ownership of banks—and the accompanying direct influence over them—it will never really act to improve their corporate governance and risk management or to create a credit culture that supports rational lending.

Increase transparency around bad debt

Many Chinese banks don't recognize bad loans, because even if they are nonperforming on a cash-flow basis they don't meet certain technical criteria. Case in point: a loan whose interest is being paid by a business that isn't generating the cash needed to repay the principal. In China, some banks often consider such a loan to be performing, though the principal is clearly at risk. If a bank doesn't recognize a loan as nonperforming, it won't take the appropriate charges on its books, and reported profits will mislead regulators, investors, and customers. Actually, the bank should be building up reserves in the expectation that the loan won't be repaid.

Since introducing a consistent loan classification system several years ago, the regulators of China's banks have made some progress getting them to report their nonperforming loans. The system defines different levels of risk classes and establishes when banks must reserve funds and how much: for example, a bank has to build up reserves equal to 100 percent of a loan's book value if the principal isn't paid. This new system represents progress, but much work lies ahead to improve financial transparency in general and the reporting of nonperforming loans in particular.

Drawing on lessons from South Korea, the United States, and other countries, regulators can take several additional steps. First, they can put any bank with bad loans under specific supervisory action requiring the bank to report more frequently on its progress in resolving its asset problems. Second, they can insist that such a bank undergo strategic reviews to explain in detail its plans to resolve its bad assets. Third, they can hold progress meetings with its officers every month rather than every quarter. Finally, the bank can be encouraged or required to set up its own internal workout unit or separate "bad bank" to manage its problem-loan portfolio, just as Mellon Bank did successfully in the United States during the 1980s. This final step allows the bank to go on serving customers while isolating its bad-debt problem.

Enforce compliance with lending guidelines

If China hopes to stem the flow of new bad loans without starving its economy of the capital needed to grow, it will have to face up to the core issue: poor credit-risk-management skills, which are hard to overstate. When a major bank reviewed 60 percent of its lending in one region, for

example, it couldn't determine which industry had received a given loan, what collateral was provided for it, or even who had made the lending decision.

Promoting the development of appropriate skills in assessing and pricing credit risk must therefore be at the top of the list for banking regulators. Unlike the disposal of existing bad debt through asset sales and securitization—tasks that can be accomplished at the stroke of a pen—improving credit risk management is a massive, multiyear effort in any market. In China, the magnitude of the undertaking is all the greater because so many banking assets are fragmented across institutions and geographies.

In the short term, banking regulators ought to cooperate with industry leaders to develop and implement detailed risk-management guidelines. At the very least, the guidelines would require every bank to appoint its own chief risk officer (a position that is increasingly common in the banks of developed markets) and to be capable of reporting, on a weekly basis, the loans it approves and the new risks it adds to its books. In addition, they should set out the minimum level of skills and qualifications required of bank officers involved in lending decisions. Some of the larger and more sophisticated Chinese banks have already made such changes; many others, particularly smaller regional institutions, have not.

Significant IT investments will eventually be required to bring Chinese banks up to best practice. Nevertheless, the recent experience of some of the largest state-owned institutions shows that risk-management systems can be substantially improved, using existing resources, within months. Unlike most Western banks, many Chinese ones have relatively modern core banking systems and simple products. Much of the required improvement involves process changes rather than a rebuilding of the IT infrastructure.

To make banks fall into line, regulators will have to monitor compliance and, after an appropriate transition period, consider the idea of publicly listing those that don't comply. This kind of monitoring can be undertaken fairly quickly and requires relatively limited investments in IT. But Chinese banks that will remain unlisted have no apparent interest in improving their risk-management practices and are likely to resist moves by banking regulators to focus the lens of accountability on their past and current lending decisions. As a result, the regulators must act more forcefully than they have in the past, by exercising their power to demand corrective action, issuing cease-and-desist orders against certain bad practices, and,

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as a last resort, revoking bank licenses. Until now, regulators have given Chinese banks a free ride regardless of their performance—not a single license has been revoked.

Moving to a performance- and risk-based supervisory system is another necessary step. China's regulators can learn from Southeast Asia, where many countries require credit processes to be certified and only banks that meet certain standards can have their licenses renewed. But a lack of skills often makes it hard for Chinese banking regulators themselves to distinguish between good and bad credit-risk-management systems. The regulators must upgrade their own capabilities now and move to adopt internationally recognized best practices. Pressure to become more vigilant will grow as banks gradually move into the hands of private investors and the banking market becomes increasingly competitive.

China's banking system is not in immediate danger of collapse but does face serious problems. Letting them fester will increase both the risk of a large systemic financial crisis and the cost of the remedy. In our experience, most governments find it hard to act decisively without a crisis. Still, regulators can take any number of steps to improve the lending decisions of banks and to put the financial sector on a stronger foundation so that it can support sustained economic growth. No plan will work unless the government makes a complete and unwavering commitment to go on accelerating the disposal of existing bad loans, to stop the flow of new ones, and, ultimately, to build a stronger banking system through better governance and risk management. Q

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