

## FORTUNE Vol. 152. No. 2

## FEATURES

R. SIKORYAH

BOY! IT TURNS OUT THAT GETTING A PH.D. IS BETTER THAN STEROIDS! THOSE HOTSHOTS FROM I.I.T. WON'T SHOVE ME AROUND AGAIN!



#### **COVER STORIES/CAN AMERICANS COMPETE?**

#### 70 The 97-Pound Weakling?

In the relentless, global, tech-driven, cost-cutting struggle for business, America isn't ready. Here's what to do about it. A call to arms. *BY GEOFFREY COLVIN* 

- 78 Teenagers in India Have Big Ambitions—and the Confidence to Match
- 80 Cushioning the Blow From Outsourcing: Can Uncle Sam Help Create New Careers?

**85 Viewpoint: This Superpower Isn't Doomed to Decline** Yes, the rise of Asia is a challenge. But it's not the end of the world. *BY JUSTIN FOX* 

#### 89 Why China Scares Big Oil

In the battle for Unocal, state-backed CNOOC has Beijing's deep pockets behind it. Is that fair? *BY NELSON D. SCHWARTZ* 

**58** Clash of the Corporate Kingmakers Tom Neff, fresh from bagging John Mack for Morgan Stanley and Jim McNerney for Boeing, is the headhunter of the moment. But his archrival Gerry Roche won't stand for that. *BY PATRICLA SELLERS* 

62 John Mack on His Plans for Morgan

#### TECHNOLOGY SPECIAL REPORT/AN ORAL HISTORY

**144** Remembering Netscape: The Birth of the Web Picture a world without Google or eBay or Amazon. That was reality just a decade ago. The company that changed it—bringing us into the Internet age—was a brilliant flash in the pan called Netscape. For the tenth anniversary of its IPO, FORTUNE recruited dozens of players to tell the story of the startup in their own words. *BY ADAM LASHINSKY* 



#### 97 A Big Year

Joining these ranks got a lot harder this year, as the revenue needed to make No. 500 rose to \$12.4 billion—more than the GDP of Jordan or Jamaica. *BY JANET GUYON* 

**104** The Great Wal-Mart of China For the world's biggest company, the key to growth lies in the world's biggest country. BY CLAY CHANDLER

**119 The World's 500** Largest Corporations Wal-Mart retains its spot at the top of the list.

#### BOOKLET

**The World of Ideas** Where do good ideas come from? For Global 500 companies, the answer could be anyplace.

**140** The 500 Ranked by Performance The profits kept gushing. Exxon Mobil (No. 3 by revenues) had earnings of \$25.3 billion, a record for any Global 500 company.

FORTUNE (ISSN 0015-8259) is published biweekly by Time Inc. Principal office: Time & Life Building, Rockefeller Center, New York, N.Y. 10020-1393. Ann S. Moore, Chairman and CED; Richard Atkinson, Treasurer and CFO; John S. Redpath, Jr., Secretary, Subscriptions: U.S., possessions: 26 issues, \$59.95; Canada: 26 issues, \$79.00. Canada Post Publications Mail Agreement No. 40110178. Periodicals postage paid at New York, N.Y., and at additional mailing offices. Return undeliverable Canada addresses to: Dostal StN. A, PO Box 4321, Toronto, ON, M5W 3G8. GST #122781974RT. Member, Audit Bureau of Circulations. POSTIMASTER; Send address changes to FORTUNE, P.O. Box 30604, Tampa, Fla. 33630-0604. CUSTOMER SERVICE and SUBSCRIPTIONS: For 24/7 service, please use our website: www.forfune.com/customerservice. You can also call 1-800-621-8000 or write to FORTUNE at P.O. Box 30604, Tampa, FL 33630-0604. @2005 Time Inc. R/Ingits reserved. FORTUNE is a registered mark of Time Inc. R/INTED IN THE U.S.A. Subscribers: If the postal services alert us that your magazine is undeliverable, we have no further obigation unless we receive a corrected address within two years. Mailing List: We make a portion of our mailing list available to reputable firms.

## In the relentless, global, tech-driven, cost-cutting struggle for business ...

# AMERICA ISN'T READY HERE'S WHAT TO DO ABOUT IT

**BY GEOFFREY COLVIN** IT'S A CRISIS OF CONFIDENCE unlike anything America has felt in a generation. Residents of tiny Newton, Iowa, wake up to the distressing news that a Chinese firm— What's it called? Haier? That's Chinese?—wants to buy their biggest employer, the famed but foundering Maytag appliance company. Two days later, out of nowhere, a massive, governmentowned Chinese oil company muscles into the bidding for America's Unocal. The very next day a ship in Xinsha, China, loads the first Chinese-made cars bound for the West, where they'll compete with the products of Detroit's struggling old giants.

All in one week. And only two months earlier a Chinese company most Americans had never heard of took over the personal

70 • FORTUNE



computer business formerly owned—and mismanaged into billions of dollars of losses—by the great IBM.

"Can America compete?" is the nation's new No. 1 anxiety, the topic of emotional debate in bars and boardrooms, the title of seminars and speeches offered by the liberal Progressive Policy Institute, the conservative economist Todd Buchholz, and countless schools and Rotary Clubs. The question is almost right, but not quite. We're wringing our hands over the wrong thing. The problem isn't Chinese companies threatening U.S. firms. It's U.S. workers unable to compete with those in China—or India, or South Korea. The real question is, "Can Americans compete?"

The stakes are mammoth: Respectable analysts believe it's possible—not certain, but possible—that the U.S. standard of living, after decades of steady ascent, could stall or even begin to decline. More worrisome is the chance that if the world's most powerful nation finds itself getting poorer rather than richer, some kind of domestic or even global political crisis could follow.

As for the big question at the center of it all—Can we compete?—the answer isn't obvious. The don't-worry-be-happy crowd points out that our last national fit of wailing and garment rending, when Japan was going to smite us in the 1980s, proved unfounded. We adapted and prospered, as we always had (and Japan didn't). But today's situation is so starkly different that it's tough to find comfort in our experience then.

We're not building human capital the way we used to. Our pri-

mary and secondary schools are falling behind the rest of the world's. Our universities are still excellent, but the foreign students who come to them are increasingly taking their educations back home. As other nations multiply their science and engineering graduates—building the foundation for economic progress—ours are declining, in part because those fields are seen as nerdish and simply uncool. And our culture prizes cool.

No one is saying that Americans can't adapt and win once more. But look at our preparedness today for the emerging global economy, and the conclusion seems unavoidable: We're not ready.

To understand better whether Americans are destined to be the scrawny and pathetic dweebs on the world's economic beach, it's necessary to refine the question. Who is most threatened? How come? What will it take to make America stronger in a new economic world? What political forces could propel—or derail—progress?

Many iconic U.S. firms—Coca-Cola, Procter & Gamble, Texas Instruments —already do most of their business and employ most of their workers outside the U.S. Conversely, some of the most American brands you can think of— Hellmann's mayonnaise, Jeeps, BV California wines—are owned by non-U.S. companies (Unilever, DaimlerChrysler, and Diageo, respectively). To complicate matters further, many products of U.S. companies are made outside the U.S.—Maytag refrigerators are no longer made in Galesburg, Ill., but in Mexico—while many non-U.S. companies make products here—your new Toyota may have come from Kentucky. Now add a few more twists: Your Dell laptop may have been assembled in Malaysia from parts made by American companies in Thailand.

The truth is that large companies transcended nationality long ago, and globalization gives them as many opportunities as problems. It increasingly lets them hire, source, and sell wherever they like, and that is basically good news no matter where the incorporation papers are filed.

For American workers, globalization is a radically dicier proposition—far more so than most of them realize. The fast-changing economy is exposing vast numbers of them to global labor competition, and it's a contest millions of them can't win right now.

Three main factors are changing the game. First, the world economy is based increasingly on information, bits and bytes that have to be analyzed, processed, and moved around. Examples: software, financial services, media. Second, the cost of handling those bits and bytes—that is, of computing and telecommunications—is in free fall. Wide swaths of economic activity can be performed almost anywhere, at least in theory.

Turning theory into reality is the third factor: Low-cost countries—not just China and India but also Mexico, Malaysia, Brazil,



### Don't worry about U.S. companies. Worry about U.S. workers.

and others—are turning out large numbers of well-educated young people fully qualified to work in an informationbased economy. China will produce about 3.3 million college graduates this year, India 3.1 million (all of them English-speaking), the U.S. just 1.3 million. In engineering, China's graduates will number over 600,000, India's 350,000, America's only about 70,000.

The result is that many Americans who thought outsourcing only threatened factory workers and call-center operators are about to learn otherwise. That is a giant development, because information-based services are the heart of the U.S. economy. With 76% of its jobs in services, America's economy is the most service-intensive of any major country's. Of course many of those jobs can't be shipped abroad: Chefs, barbers, utility and NFL linemen, and many others know they can't be replaced by even the smartest person in Bangalore.

But growing numbers of other service jobs are not safe. Everyone has heard about the insurance-claims processors, accountants, and medical transcriptionists in India and elsewhere who've taken away U.S. jobs by doing the same work for much less money. More alarming is that the value of outsourced jobs is steadily rising. Morgan Stanley is hiring Indian bond

#### CAN AMERICANS COMPETE?

cal sciences has been declining as a percentage of GDP for 30 years. The Council on Competitiveness, consisting of CEOs, university presidents, and labor leaders, wants federal research spending increased substantially, to 1% of GDP about \$110 billion a year.

Incredible as it seems, America's infotech infrastructure is no longer world-class. We rank only 12th globally in the number of broadband connections per 100 inhabitants. Look closer and the situation is even worse. South Korea is not only more wired (No. 1 globally) but its connections are far faster than ours and are available not just through wires but also through virtually every cellphone. And speaking of our cellphone infrastructure—please don't. Anyone who travels globally knows it's awful by world standards.

Fixing all these problems would be a project of overwhelming proportions, yet it still might not make American workers competitive in today's global labor market. The reason, again, is cost. American workers are enormously more expensive than their peers almost anywhere but in Western Europe. So they must confront what may be the most important question of their working lives: How can they be worth what they cost?

As increasing numbers of them find that they can't be, at least in the short run, the result could be political up-

heaval. A return to protectionism is looming. When the end of global textile quotas earlier this year caused the rapid loss of 17,000 U.S. jobs—a tiny number in a nation of 141 million workers—the administration found a loophole in the trade treaty and quickly reimposed restrictions. Senator Charles Schumer (D-New York) introduced a bill to impose a 27.5% tariff on Chinese imports, and five Republican Senators signed on as co-sponsors. The Central America Free Trade Agreement, the impact of which would be minuscule in the U.S., is struggling to pass Congress. (No one in Washington seems to think NAFTA would stand a chance of approval today.)

If it all sounds terribly gloomy, it's important to remember that gloominess has a very poor record in predicting the U.S. economy. Many traits that have helped us meet previous challenges are still with us: flexible labor markets, the world's most highly developed capital markets, and a culture that moves on from failure and embraces new ideas. Companies aren't standing still. Trilogy, a business software company in Austin, realized almost three years ago that hiring programmers in the U.S. no longer made sense because it could get them in India for onefifth the cost. So it offered to help its U.S. coders learn higherlevel work, becoming business experts who could help Trilogy customers make more money—for example, by showing Goodyear how to price tires more intelligently. As a general prin-



BOY! IT TURNS OUT THAT GETTING A PH.D.

### The time has come for a massive, urgent American response.

ciple, learning higher-level work is what American workers have to do.

And exactly what work would that be? No one is sure, though history says not to panic. Economic crises rarely reveal their solutions, but the solutions usually come along. When U.S. business went through the trauma of restructuring in the 1980s, millions of middle managers got cashiered and wondered what they'd do next. Undreamed-of new industries developed (cellphones, biotech, Internet services), and by the mid-'90s the unemployment rate was the lowest in decades.

That's history. It offers hope but no assurances. History says the rise of China, India, and other developing economies could someday lead to a new equilibrium that's better for everyone. With resources deployed globally to their best use, prices could come down and living standards could eventually increase everywhere. After all, America's rise didn't impoverish Europe. On the contrary, the success of each continent helped the other get richer.

What happens next in the U.S. depends on how workers respond. Trilogy CEO Joe Liemandt recalls what happened when he told programmers he wouldn't need them as programmers anymore: "We told them they could react in one of three ways. They could get really pissed, they could be in denial, or they could work with us to retool their

skills. And we had people in each group."

It's time for a massive, urgent American response to the global challenge. As Cisco chief John Chambers says flatly, "We are not competitive." Where to start? Venture capitalist John Doerr, one of America's most passionate competitiveness campaigners, calls education "the largest and most screwed-up part of the American economy." He'd start there. GE chief Jeff Immelt has attacked America's newly restrictive student visa rules. Others focus first on R&D spending or the broadband infrastructure. But the greatest challenge will be changing a culture that neither values education nor sacrifices the present for the future as much as it used to—or as much as our competitors do. And you'd better believe that American business has a role to play—after years of dot-combust- and scandal-driven reticence, more corporate leaders need to summon the courage to lead.

While optimism has always been the best guide to predicting the U.S. economy, today's situation is unprecedented. Global product markets have been with us forever and continue to expand. Global capital markets are still developing—watch out, Unocal and Maytag. But global labor markets on a broad scale are a new phenomenon that could, for better or worse, transform the country. How we respond—in our businesses, our government, and our culture—will shape America in the deepest way.