STANFORD BUSINESS FEBRUARY 2004

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DAZZLED OR DIZZY?

Facing Choices in Today's Marketplace

PLUS: CREDIT RISK TRADING ENTERS THE MAINSTREAM

STANFORD BUSINESS

FEBRUARY 2004 • VOLUME 72, NUMBER 2

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STANFORD BUSINESS

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A Community of Teachers

ONE OF THE PLEASURES OF EDITING A MAGAZINE for alumni/ae of a school of general management is the variety of business experiences to learn from. In this issue, for instance, we have Lisa Nitze, MBA '87, sharing some of her secrets for managing a highly public project with a diverse set of stakeholders. Nitze is involved in saving Ellis Island for posterity, but her management tips apply more broadly to projects with multiple masters.

We also have Loring Knoblauch, Sloan '73, MBA '74, demonstrating how someone with a liberal arts background leads engineers in a venerable American company that must go global. Among the tips we learn from him are the importance of reading body language and not being afraid to ask dumb questions.

Chris McGarry, MBA '00, gives us a welcome perspective on how to retrieve value from a failed startup. Caught with a good idea and bad timing, this entrepreneur converted a for-profit business into a mega volunteer project that fed many imaginations and expanded his own appreciation for community.

Faculty work featured in this issue adds to the diversity of business topics. From marketing faculty we learn why there are so many models of cars and dozens of flavors of yogurt in today's marketplace. In another article, two finance faculty members provide insight into the booming new market in credit derivatives. Their textbook is for the pros in that field, but in our magazine they explain credit derivatives to the rest of us.

The primary goal of this magazine is to keep the GSB community connected. These examples underscore its related role in providing ongoing education. You can read about business celebrities and those fallen from their pedestals in plenty of magazines. Here we hope you can find not just tidbits of news about your classmates but some general management ideas that you can put to work.

EDITOR

BY DEAN ROBERT L. JOSS

Faculty Ideas Impact Real World Practices

I AM CONSTANTLY IMPRESSED BY THE IMPACT our faculty have on the world around us—both by influencing opinion leaders on current business issues and by developing lasting scholarship that advances and deepens our understanding of management practice. I want to share some of these contributions with you and also tell you that, in addition to the research highlights we include in each issue of this magazine, the School now makes these ideas and other material available to you through a free monthly email newsletter, *StanfordKnowledgebase.* You may subscribe at *gsb.stanford.edu/news/knowledgebase.html*

Since 9/11, national security has been front of mind for the government. Some of the same kinds of mathematical studies that are used to make factory lines work efficiently also can be applied to preparing better logistical responses to bioterror attacks. In 2003, operations professor Lawrence Wein, who has applied his research to medical issues before, had the ears of U.S. Department of Homeland Security officials interested in his analysis of responses to a potential anthrax terrorist attack. Earlier, federal officials had changed their guidelines for mass smallpox immunization after Wein and colleagues demonstrated convincingly that previous policy was inferior.

Like Wein, Stefanos Zenios is an operations scholar and expert in health care delivery systems. His work should, in the future, literally save lives by helping increase the number of donated kidneys available for transplantation. Senior faculty member Alain Enthoven, the father of managed competition in health care, led a 30-person California task force on managed care reform in 1998 and has advised and written extensively on medical management issues.

The business community continues to benefit from other major contributions by GSB faculty. Mentioning them in such a short column barely does them justice. Nonetheless, I want to remind you of the important role the GSB plays in generating new ideas—the legacy of knowledge it creates. In 2001, former dean and economist Michael Spence won a Nobel Prize for his signaling theory, which helps explain how markets work, including those on the Internet. Economist Myron Scholes captured a 1997 Nobel for his work on the Black-Scholes Option Pricing Model, a benchmark formula for stock option valuation. In 1990, Bill Sharpe earned a Nobel for his Capital Asset Pricing Model, which still helps fund managers benchmark fund performance.

Economists Robert Wilson, John McMillan, and Jeremy Bulow did work in auctions and market design that paved the way for deregulation of telecommunications, energy, and other markets. Economist Paul Romer developed "new growth theory," which demonstrated that economic growth is driven by new ideas and advances in technology. Prior to his work, economists assumed economic growth was constrained by diminishing returns and a scarcity of resources.

Management professor Michael Hannan's work gave rise to a new field called organizational ecology, the study of the development of industries over time, which has challenged old assumptions about competition. In human resources, organizational behavior professor Jeffrey Pfeffer has penned 10 books, including the *Knowing–Doing Gap.* Economist Edward Lazear documented the emerging area of personnel economics in his 1995 book of the same title, which explains worker incentives such as pensions and other forms of compensation. Preeminent economist Kathryn Shaw has done important research on human resources.

POLLY BECKER

I am constantly impressed by the impact our faculty have on the world around us.

Over the years, GSB faculty also have written important textbooks. You may remember James Van Horne's *Financial Management and Policy,* now in its 12th edition. Accounting giant Charles Horngren published *Cost Accounting,* now in its 11th edition. That tradition continues: In 2003, economist David Kreps, senior associate dean for academic affairs and a noted game theorist, published *Microeconomics for Managers,* a text that no doubt will influence thousands of future MBA students. (I could list at least a half-dozen other leading texts authored by our faculty if space permitted.)

While other top institutions also have cultivated research, the GSB has consistently developed the most cross-disciplinary and deepest collection of knowledge. This world-renowned tradition will continue to enlighten the management leaders we develop here. *Stanford-Knowledgebase* gives us another avenue through which to share these important ideas with you. ■

Spreadsheet

WHAT'S UP | News About the GSB and Its Graduates

First Impressions

Laura Lewis, guest instructor for the School's Management Communication program, shakes hands with Meetpaul Singh, a second-year MBA student, as part of a workshop held last fall on business etiquette. Topics included business introductions, the art of small talk, appropriate dress and dining, the proper way to accept a business card, and dealing with evolving gender roles in the workplace.

STEVE CASTILLO

School Volunteers Thanked, Thankful

ALUMNI WEEKEND IS A TIME TO tell old stories, but it's also a time to honor those whose volunteer efforts have contributed enormously to the School. A new award known as the John W. Gardner Volunteer Leadership Award was presented October 18 to Arthur Roth, MBA '49, and John Svoboda, MBA '83. The award recognizes alumni volunteers with more than 20 years of service whose efforts have made a significant impact on the School.

Roth has been a volunteer with the Alumni Consulting Team (ACT) since 1991, an alumni/student mentor for more than six years, and a reunion committee volunteer. He is incoming president of the Stanford Business School Alumni Association Board of Directors.

"This should really be happening in reverse," said Roth. "I should be giving the GSB the award. As a volunteer I am continually thrust among the best minds, who are often the youngest minds and the brightest. This kind of contact goes along with a daily aerobic workout for keeping you healthy. It enriches your life. Your inner life gets fed."

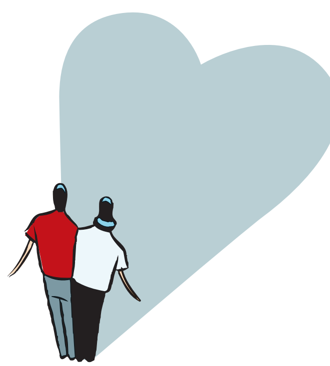
Svoboda is a past president of the School's Chicago alumni chapter, the inaugural chair of the Business School Management Board, and an alumni/student mentor. He has served as a committee member for his 10th and 20th reunions and as chairman of the Business School Trust.

"Volunteering for the GSB gives me the opportunity to come back here more than I would ever do otherwise," Svoboda said. "I always come away very energized. It is the quality of the people, the quality of the faculty and administration, the quality of life on campus. There is no other place on earth like it."

Students Learn From Military Vets

VOLUNTEERS WITH THE Stanford-based United Students for Veterans Health (*www.usvh.org*) spend their time getting to know veterans in local VA hospitals. Spearheaded by Andre Vanier, JD/MBA '04, a group of Business School classmates offered to produce a book reflecting on the value of their intergenerational experiences, which was paid for by the U.S. Department of Veterans Affairs.

Living Memories: Reflections of Students Volunteering in VA Hospitals is the 54-page result—a



MARK MATCHO

collection of 12 essays and 26 photos that bears the handprints of several MBA '03 alums: Clinton Chan served as the project's sole photographer, Lisa Rutherford designed the book, and Kristin Lundquist designed the cover. Vanier served on the editorial board.

Working with elderly veterans "gave me a profound appreciation of the importance of giving back," Vanier says. "With this book, we wanted to tell other young people across the country what a meaningful experience volunteering can be." For ordering information contact: *livingmemories@usvh.org*

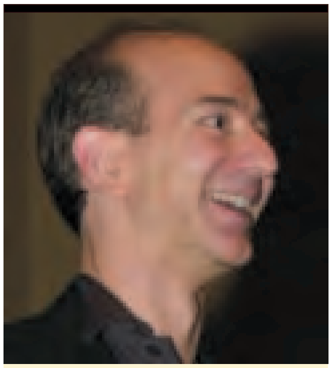
Tech Customers Want More Than Glitz

THE INFORMATION technology industry is no longer the brash young kid on the block. Maturing tech companies face the reality that large parts of their market are outside the United States, that customers are no longer dazzled just because a product is new, and that a global workforce is here to stay, Bruce Chizen, president and CEO of Adobe Systems, told a Business School audience.

Introducing Chizen at his October 23 speech, Dean Robert Joss estimated that one of Adobe's products, Acrobat Reader, runs on 500 million computers worldwide. Tech companies generally sell more of their products outside the United States than to the domestic market, Chizen said.

"We can no longer build products for the U.S. market and hope other countries adopt them. We have to tailor our products to the way they work, collaborate, and communicate."

In addition to relying on international sales, firms like Adobe rely on international workforces. When a quality engineer earns $15,000 in India and $90,000 in Silicon Valley, Chizen said, those hired for U.S. jobs must demonstrate leadership, a willingness to be a team player with coworkers in other



STEVE CASTILLO

Lessons from Laundry

The Internet is where the washing machine was nearly 100 years ago—made of two barrels with no off switch—suggests Amazon.com founder Jeff Bezos. Speaking to a large audience in Memorial Auditorium, the well-known CEO said he encourages small-team experimentation at Amazon because no one knows for sure what will be the best ways to use new infrastructure.

When electric appliances first hit the market, makers introduced flops like shoe warmers and tie presses until they found appliances consumers needed and wanted, he said. Similarly, many Internet businesses have come and gone. Bezos's mantra: "Maximize invention per unit of time" or "let builders build."

countries, and a passion for the job and desire to think outside the box. "If we just want someone to follow the rules, we can hire them elsewhere and for less money," he said.

School Launches Undergrad Institute

IT'S A FIRST: THE BUSINESS School will offer a summer institute for undergraduate students this year. The goal is to give a selected group of young people a solid foundation in core business and general management disciplines, says human resources management professor and economist Ed Lazear, who will codirect the program with professor of economics Kathryn Shaw. Designed for liberal arts and sciences college students who have completed their junior or senior year and want to build their resumes and secure jobs, the summer institute will run June 20–July 16.

GSB faculty will teach in the four-week, $8,000 residential program, which offers introductory general management sessions in accounting, finance, statistics, human resource management, and organizational behavior as well as workshops in career planning and management communication.

Applications are due April 1. For more information see: *gsb.stanford.edu/si*

GSB Named Social, Environmental Leader

STANFORD BUSINESS SCHOOL was named a school on "the cutting edge" in a biannual survey conducted jointly by the Aspen Institute and the World Resources Institute (WRI). The study—"Beyond Grey Pinstripes 2003: Preparing MBAs for Social and Environmental Stewardship"—defined cutting-edge schools as those that set the bar for the infusion of environmental and social impact management into their MBA coursework, extracurricular activities, institutional setting, and research agenda.

"Stanford is one of only six schools that have reached a new frontier of innovation on social and environmental issues in business," said Meghan Chapple, business education manager at WRI.

Building on its 32-year-old Public Management Program, Stanford trains MBA students to translate their business acumen to either the public or nonprofit sector. All students, for example, are required to take courses like *Production and Operations Management, Strategy in the Business Environment,* and *Managerial Economics,* which address various social and environmental problems around the world, including corporate transparency, and give students analytical tools to reduce social and environmental impacts. Many innovative electives cover ethics, corporate social responsibility, environmental sustainability, international development, social and environmental entrepreneurship, and public and nonprofit management.

The School's Center for Social Innovation provides support to sustain research, course development, and activities around corporate responsibility and social sector issues.

Library Constructs GATT Digital Archive

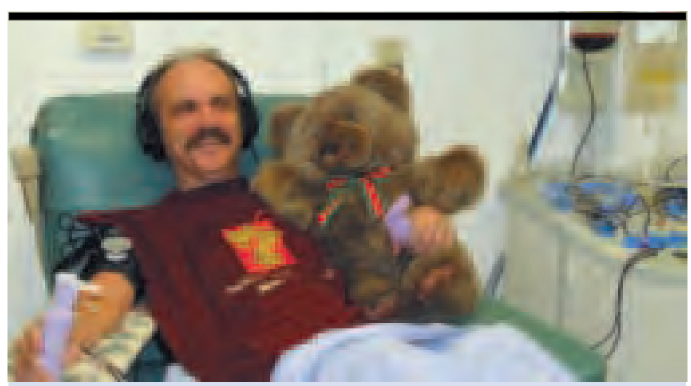
A DIGITAL ARCHIVE of the General Agreement on Tariffs and Trade, the World Trade Organization's (WTO) predecessor that negotiated tariffs on world commerce from 1947 to 1994, has been produced by Stanford University Libraries. So far, 80 percent of about 2 million documents and hundreds of historic photographs have been scanned by Stanford students working summers at WTO headquarters in Switzerland under the library's direction.

In return for permission to scan the materials, Stanford promised the WTO a set of digitized searchable files. Scholars, subject to approval from the WTO, have access through the University to the historical material on the rules governing trade between nations. For political science professor Judith Goldstein, the archive confirmed her belief that "trade is political from the top to the bottom. It's more about politics than it is about economics."

MARK MATCHO

Alums Help School Find New Home

WHEN PALO ALTO'S PUBLIC school district reclaimed the site of the 13-year-old Mid-Peninsula Jewish Community Day School in 2002, the parents of the displaced K–8 students swung into action. They looked without luck at more than 200 locations and temporarily split the school into two rental spaces, one in San Jose. Eventually, because of the sagging real estate market, they were able to negotiate to buy three gutted office buildings on a 3-acre site in Palo Alto, says David Arfin, MBA '91, who was president of



The Giver Who Keeps Giving

Jim Skrydlak, MBA '75, reached a landmark 200 blood donations at Stanford's blood center last summer. He started donating in the early 1970s and chose Stanford because of his time at the GSB. Jim gives blood through a special kind of donation called apheresis, which allows the center to collect specific blood components such as platelets. When asked what keeps him donating regularly, he said, "I've heard and read stories about people who might not have lived if I hadn't given platelets."

Spreadsheet

FOR THE RECORD

Placement Report: MBA Class of 2003

Industry	Percentage of Class	Median Base Salary	Median Total Compensation
SERVICE (75 PERCENT)			
Management Consulting	29	$100,000	$130,000
Private Equity	7	$100,000	$175,000
Hedge Funds	6	$ 82,500	$147,500
Financial Services/Diversified	5	$ 84,000	$129,000
E-Commerce/Internet	4	$ 81,250	$121,250
Entertainment/Media	4	$ 80,000	$130,000
Investment Banking/Brokerage	4	$ 85,000	$125,000
Nonprofit/Government	4	$ 90,000	$ 97,500
Consumer Services	3	$ 87,500	$131,500
Investment Management	2	$ 82,500	$147,500
Venture Capital	2	$130,000	$170,000
Other	5	$ 85,000	$119,000
MANUFACTURING (25 PERCENT)			
Consumer Products	7	$ 82,000	$105,200
Computers (Software)	6	$100,000	$130,000
Biotech/Pharm/Medical	4	$105,000	$135,000
Computers (Hardware)	2	$ 95,000	$121,500
Industrial/Equipment	2	$ 95,000	$123,500
Networking/Telecom Products	1	$103,500	$133,500
Other	3	$105,000	$135,000

Top functions
Consultant: 31 percent
General Manager/Founder: 15 percent
Business Development/
Strategic Analyst: 9 percent

Total compensation
Median: $135,000 (down 3.6 percent from previous year)
Range: $41,000-$350,000

Base salary
Median: $100,000
Range: $41,000-$175,000

Source: *Stanford Business School Career Management Center. For further details: www.gsb.stanford.edu/cmc/reports/report03.html*

the school's board until recently.

The school has been renamed Gideon Hausner Jewish Day School in honor of the former attorney general of Israel who prosecuted war criminal Adolph Eichmann and who is a cousin of school philanthropist Gary Lauder, MBA '90. Other primary movers in the campaign to help the 350-student school included Estee Solomon Gray, MBA '84; Stuart Klein, JD/MBA '83; Jerry Behar, MBA '88; Ellie Byrd, MBA '88; and Daniel Leemon, MBA '75.

Hot Ticket Venue

"WE'VE HAD TO BE very Darwinistic," Eric Baker, MBA '01, says of the Internet business he and classmate Jeffrey Fluhr founded as students just after the NASDAQ fall from its heights in 2000. Baker says he recalls Professor Chuck Holloway advising the audience at the Business School's entrepreneurship conference that spring to "get back to monitoring the cash flow," while Professor Irving Grousbeck urged would-be entrepreneurs to always be thinking about ways to extend their business.

MARK MATCHO

Baker and Fluhr have done both with StubHub.com, formerly LiquidSeats, which allows people to resell tickets to sporting events and concerts without standing outside the venue on the day of the event. Thirty-eight states, including California, have no legal restriction on secondary sale of tickets, said Baker, the company president. Organizations as varied as the Seattle Mariners and the Stanford Athletics Department have signed agreements with StubHub to facilitate their fans' resale of tickets.

StubHub helps its cash flow by spreading the information about its service through 70 online partners, and it has expanded into the side business of helping celebrities such as singer Christina Aguilera run charity auctions for special tickets, including backstage passes. The service charges 15 percent of face value to sellers and 10 percent to buyers. Sporting teams like it because it helps keeps seats full and concession stands busy.

"It also helps teams sell more season tickets when they can help people resell the seats they can't use," Baker says.

e-Newsletter Debuts

A FREE ONLINE NEWSLETTER, *StanfordKnowledgebase,* filled with summaries of cutting-edge academic research, books, conferences, and speeches at the School, is now being offered to business and opinion leaders.

The monthly publication, launched in October, includes links to papers, video clips, and audio presentations. "This publication helps us expand our mission of creating ideas to deepen and advance the understanding of management and transferring that intellectual capital to the broader community," said Dean Robert Joss. "We package the most relevant material available in a digestible and accessible format," said Cathy Castillo, editor of *Stanford-Knowledgebase*. This is another way busy people can scan for information they may have missed previously." Subscribers can register online at *gsb.stanford.edu/news/knowledgebase_service*

QUOTABLE

"Your values only get tested when you're truly in situations where those values can cause sacrifices. If you don't have those values deeply imbedded in you, it's really easy to say, 'I don't want to know about it, just get it done.'"

Timothy Ling, MBA '89, COO of Unocal, giving advice to MBA students during a September View from the Top speech

Toigo Fellows Expand Finance Networks

IF HE WERE TO APPOINT A personal board of directors for a lifetime of advice, first-year MBA student James Gutierrez believes it would be dominated by other, slightly older Toigo fellows—business school graduates who have signed a contract to be lifetime mentors and friends to other Toigo fellows.

"These are people who don't just want to be successful in finance but also on boards as community leaders," says Gutierrez, 26, who started a student organization while at Yale and then a business helping technology startups and Hispanic students match their interests and skills.

Toigo fellowships are competitive, partial-tuition awards for business students representing ethnic groups that are nearly absent from the decision-making levels of the finance industry. Founded by a respected husband and wife team in equity fund management, the Robert Toigo Foundation has solicited cash and summer internships from large financial institutions. Toigo fellows are selected from applicants nominated by business schools. They must demonstrate an interest in finance and community involvement and work at least a year in finance after graduation. So far Toigo has selected about 400 fellows, 51 of whom are or were GSB students.

The organization's networking, which includes workshops, conferences, and mentoring, is more important to minority business students at this level than the financial assistance, Gutierrez says. Philip Alphonse, MBA '99, a senior associate who structures and monitors private equity investments at Sterling Capital Partners in Chicago, agrees.

"I come from a middle-class family that values education, but that doesn't translate into a successful career in finance," says the African American son of a Methodist minister and a librarian. "It wasn't that I was a neophyte in finance, but Toigo gave me access to people slightly older who provided introductions and helped me understand the nuances and culture of the business. Without that, the person sitting in my chair would be the nephew of a guy who ran a venture firm 20 years ago." ■

Bradford in Boston

Popular School lecturer David Bradford taught a Lifelong Learning leadership workshop for alumni/ae on building high performance teams last October in Boston. Besides on- and off-campus events for alums, the School's Lifelong Learning program offers Web seminars and online video of educational sessions held with faculty and students. See *alumni.gsb.stanford.edu/lifelonglearning/*

HARRY STUART CAHILL

Aaron Slettehaugh, MBA '02, with pump developed for subsistence farmers.

PETER STEMBER

Trickling Up

AARON SLETTEHAUGH, MBA '02

COMBINING PROFESSIONAL AND personal passions is a vocational luxury that Aaron Slettehaugh, MBA '02, hasn't always enjoyed.

In 1999 he traveled to Guatemala through his church and, among other things, helped train a local mason to build efficient indoor stoves. He left a few weeks later feeling his contributions improved living conditions and helped citizens save money but didn't offer them a chance to earn more money. "I feel those in need might have been better off if I'd just written a check instead of traveling down there," Slettehaugh says.

A Business School summer internship in East Africa helping with manufacturing and distributing $75 pedal-powered water pumps proved to be a better fit for him and led to a full-time job after graduation. Two versions of the simply constructed pump sold to subsistence farmers in Kenya and Tanzania replace less effective irrigation methods like carrying water in buckets. Once farmers are able to irrigate more of their land, productivity increases and things like building a home, sending children to college, and employing others become a reality.

"These are new technologies we're introducing," Slettehaugh says. "But unlike a social engineering project, if we were to pull up stakes in East Africa tomorrow, the pumps would still be working." That's what keeps Slettehaugh at San Francisco–based ApproTEC, where he is director of business development. Another appeal is that the company, headed by Stanford engineering graduate Martin Fisher, is a nonprofit, but its structure is much like a conventional business with manufacturing, product development, distribution, and marketing.

Currently, Slettehaugh and Fisher are looking for donors to help the company develop a stronger pump, increase market penetration in East Africa, and expand to more countries. Every dollar donated to ApproTEC turns into $20 in profits and wages over a three-year period, according to follow-up studies conducted by the firm. Slettehaugh says this type of trickle-up economics already has created $30 million a year in new profits and wages.

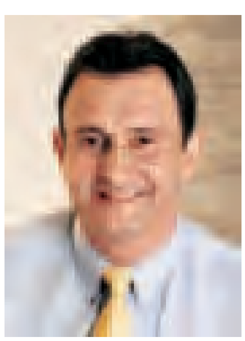
"I couldn't have designed a better job myself," he says. "Not only does this fulfill my business interest and passion for international development, but ApproTEC is transforming the way people farm in Africa and subsequently improving their living standards." —ARTHUR PATTERSON

Archive and Shred

AL TRUJILLO, MBA '88

FOR A 28-YEAR OLD MBA STUDENT, waste management proved to be an auspicious career choice. It led Al Trujillo, now 44, to the top job in one of the largest information management companies in the world.

"The waste business is a great place to develop your management skills," says Trujillo, MBA '88, president and CEO of Atlanta-based Recall Corp. "You not only have to deal with the normal business forces—customers, shareholders, employees, suppliers—but you've got the regulators too. You've got to learn how to balance all five."



After learning the waste business at American NuKem in New Jersey, Trujillo took on ailing CyanoKem in Detroit, then the largest treater of cyanide-bearing waste in the United States. It wasn't pretty. "Detroit was so rough," he says, "we had a line budget item every year for bullet hole repairs in the reactor tanks." After Trujillo turned around CyanoKem financially, the company was sold from under him and Trujillo swore off the waste business. "You get very little reward," he says. "Customers don't call you up and tell you you run a great waste company." But the giant Australian multinational Brambles Industries found him, and after talking Trujillo back into waste for a few years, offered him its global information management division, where Trujillo now manages more than 3,000 people in 23 countries.

"We deal with the entire information management life cycle," Trujillo says. "We don't produce information, but once an organization has created it, we organize it and structure it, either physically or in digital form." Most of the material Recall preserves and protects is paper-based. "People have been forecasting the end of paper for a long time," he says, "but it is still in many ways the most efficient way to capture and store information."

At the end of a document's useful life, Recall destroys it. "Information is like a financial item," Trujillo says. "It can be an asset, but if it's not managed correctly it can be a liability." Worldwide, Recall destroys the equivalent of 90 million reams of paper a year.

Data backup is another of the company's services, one that, for security reasons, it rarely publicizes. Few can forget the horrific loss of life suffered by the bond investment firm Cantor Fitzgerald in the World Trade Center bombing. But despite losing more than half its employees, the company was up and running offsite shortly after the disaster. "They were a client of ours," Trujillo explains simply, "and we were able to get them back online the following day." —JANET ZICH ■

BY ANN THERESE PALMER

The Art of Rustproofing a Household Icon

A non-engineer leading a tech-heavy organization, Loring Knoblauch fires up a venerable nonprofit institution to take on profitable, global competition.

A mattress burns behind Loring Knoblauch in an Underwriters Laboratories testing facility.

RALF FINN HESTOFF

As a student in the Sloan Program 31 years ago, Loring Knoblauch was unusual, some of his classmates recount. Most American students would socialize primarily with their compatriots, they say. Not Knoblauch.

"He liked to stay more with the non-Americans," recalls Alberto Piloto, Sloan '73, MBA '74, an Italian business executive. "He had a real sense for understanding different cultures."

"We had teams with students from other countries, solving problems in different ways," recalls Knoblauch, a 62-year-old Minneapolis native and Harvard Law School–educated former tax attorney. "I realized that how we do things in the U.S. might not be the right way. It made me a globalist and a cultural relativist."

That talent for cultural understanding has paid off for Knoblauch, who learned to speak Japanese and became a Sumo wrestling and Kabuki theater enthusiast when he was negotiating licensing agreements in Japan for Honeywell Corp.'s camera auto-focus business.

Now, Knoblauch is dealing with another different culture. He is the first non-engineering CEO to run Underwriters Laboratories Inc., an unusual 109-year-old hybrid firm that's not-for-profit in the United States but for-profit elsewhere with 55 testing laboratories and service facilities worldwide.

UL was established to formulate standards and test electrical products for manufacturers, after organizers of the 1893 World's Fair contracted with William Merrill, company founder, to check the fair's electrical apparatus. With 100 percent market share until 1985, the company, headquartered in Northbrook, Ill., near Chicago, was the undisputed, but lethargic, leader in product safety testing for decades.

"Loring has really shaken up the place," says Frank Kitzantides, engineering vice president at the National Electrical Manufacturers Association in Roslyn, Va. "He's managed to instill a new kind of *business* attitude into an old company. He's emphasizing competition in the international marketplace and service to customers."

Since March 2001, when Knoblauch arrived at UL, the company has embarked on significant domestic and foreign acquisitions. Among the most notable: a Chinese joint venture, launched last year to provide product safety testing of Chinese-manufactured products, and fiber optic and automotive electromagnetic compatibility product testing labs to increase business in those sectors.

"You could do a riveting case study on this company," says Mark Breimhorst, MBA '03. He is UL's business development director for North America. "Because UL now has to function in a competitive, worldwide environment, systems and processes have to change dramatically and quickly. It's a wonderful opportunity to be part of change management in action."

"There's also constant pressure from manufacturers," says Kitzantides, the trade association executive. "Some complain UL testing takes too long. Some industries want to make one product line and sell it throughout the world instead of modifying products for each regional market. They want UL to harmonize its standards with international product safety standards."

Since Knoblauch became CEO, product testing turnaround time has decreased from 76 days on average to 67 days. His goal is 20 days by 2006. UL also has worked with the European Union's electrotechnical commission, adopting 57 of its standards for equipment, appliances, and portable tools.

Friends say traits that distinguished Knoblauch as a Sloan student and as an executive at Honeywell, where he established and grew its Hong Kong–based Asia Pacific operations into a $2 billion annual enterprise, are evident as he manages UL's changes.

"Loring is a big man physically," says Bob Lord, Sloan '73, a Melbourne, Australia, management consultant. "But his physical bigness is a metaphor for what's inside. There is a bigness of soul, an extraordinary ability for connectiveness with others." This "connectiveness with others" takes many innovative forms.

When Margaret Lee, China country leader for Honeywell's aerospace division and a Shanghai native, prepped Knoblauch for trips to China when she worked for him in Hong Kong, "he was the only one who asked me how to interpret customer body language," she recalls. "He wanted to know appropriate things to say and do and how customers would react to them. He's very intuitive."

At UL, any of the 6,000 employees worldwide can send him a direct email without signing their names or giving their email address. Daily he receives about 50 emails, "many containing useful and innovative ideas," which he answers himself.

"In the old days, people managed by walking around," Knoblauch says. "This is the substitute. The people who know what's wrong with a company and how to fix it are in the trenches."

That's not all in Knoblauch's email queue.

"Because we have the same name, I'm constantly amazed at emails I receive from people who worked for my dad 20 years ago, who think that they're writing to him," says his son, Loring Knoblauch Jr., MBA '99, a general partner at Bay Partners, a Cupertino, Calif., venture capital firm. These are people still turning to his dad for advice or coaching, he says.

This coach analogy is apt, agrees UL's chief financial officer, Michael Saltzman. "He offers support when I need it, like a good coach. But he doesn't smother me. He asks questions that force me to think more."

A 1964 Yale University cum laude graduate in American studies with a penchant for duplicate bridge, classical languages and literatures, crossword puzzle design, golf, and softball, Knoblauch readily admits the strategy behind his tactics.

"Because I'm not an engineer, I can afford to ask questions that might seem stupid if I were an engineer," he says. "I can ask basic, underlying questions that no one else would ask. It's amazing how many stupid questions don't get asked because people are embarrassed to ask them."

That strategy contributed to Knoblauch's success with change at Honeywell's test instruments division, says retired Honeywell Corp. chairman and CEO Edson W. Spencer.

> Since Knoblauch became CEO, product testing turnaround time has decreased from 76 days on average to 67 days. His goal is 20.

"Loring showed a real ability there to manage technical people," Spencer recalls. "They don't like to be run by non-techies. He's a damned good manager and has a great touch with people. He's very entrepreneurial."

This knack for entrepreneurship and turning around companies is in Knoblauch's blood—literally.

In 1908, Pillsbury-Washburn Flour Mills Co. underwent "big financial difficulties and the company went into receivership," reports General Mills' corporate archivist Katie Dishman. Albert C. Loring, Knoblauch's great-grandfather and a Minneapolis milling company president, was hired as president and revitalized the firm.

Knoblauch has another tie to the Twin Cities. Since 1993, he has been a director and audit committee chairman at the Bemis Co., the publicly held NYSE flexible-packaging manufacturing giant. "Since enactment of the Sarbanes-Oxley Act with its stringent new audit committee requirements, the job of audit committee chairman has gone from quiet and insignificant to extremely time-consuming and highly skilled," he notes.

Knoblauch credits his entrepreneurial ability to a Sloan course ("the best course I ever took") on the dynamics of managing small and growing businesses.

"It taught me that you've got to create a special environment, a special attitude," he says. "You have to put people in a highly nutritive environment where they can dare to fail and, in so doing, succeed."

He has translated this concept into a business development incubator at UL where two-person teams leading new business ventures identify, evaluate, and nurture growth opportunities. "When each venture under consideration hits a milestone, they have to present their findings to members of different business venture teams," says Breimhorst, the business development manager. "There's mutual accountability, a sense that we're all in this together."

This plan is beginning to pay off, Knoblauch says. Soon UL will launch windmill testing to capitalize on the power source in California, the East Coast, and Europe.

UL is also considering going into consulting, capitalizing on its reservoir of knowledge in safety products. "We've really been consulting with our clients for 109 years, only we haven't called it that," he says. "But we must make sure there aren't perceived or actual conflicts of interest."

Since Knoblauch's appointment, half of UL senior management is new, as is almost half of its board of trustees. About 30 percent of the workforce has been replaced with "the best and brightest we could find," Knoblauch adds. "I felt badly about letting people go, but UL had never done housecleaning."

UL doesn't release earnings so it's difficult to assess whether the strategy is succeeding. Conversations that Kitzantides, the trade association executive, has with his members indicate "the new team seems to be working," he reports. "Evaluation of products seems to be faster."

That's good news for Knoblauch, whose own career has required lots of changes. He and his wife, Carol, have lived in 10 cities during their 39-year marriage.

In 1972, after five years at a Minneapolis law firm, Knoblauch opted for a major career shift and enrolled in the Sloan Program. "I didn't like what I was doing," he confesses. "I wanted to work with people, less with technical niceties. Unlike most students sent there by their firms, I was there on my own nickel, without a salary for a whole year. It was a major gamble, but ended up being a great investment."

Now Knoblauch says he finds change fun. "It's fun to take an old-line, conservative company and get it moving, changing, and growing," he concludes. "You've got to learn to love change. If a company is not in a perpetual state of change nowadays, it won't survive." ■

Anne Therese Palmer is a Chicago attorney and a freelance business writer.

Rescuing a Part of American History

Lisa Nitze uses her private–public sector project experience to tackle restoration of unrenovated buildings on Ellis Island.

WHEN THE RESTORED great hall of Ellis Island opened to the public in 1990, most people didn't realize how much of the historic site had been left untouched: more than 22 acres with 30 decrepit and crumbling buildings, including a massive hospital complex, ferry building, and laundry. It wasn't until eight years later, after the U.S. Supreme Court ruled that those other acres belonged to New Jersey, not New York, that then–Gov. Christine Todd Whitman convened an 18-person commission to decide what to do with the rest of the island. The coordination and running of that effort fell largely in the hands of Lisa Nitze, MBA '87, an experienced director of private–public sector projects.

It was a gargantuan task, one that might have overwhelmed most people. Previous renovation proposals already had met with ferocious public opposition. And coming up with a plan that wouldn't meet the same fate meant getting the blessing of a dizzying number of interest groups, from Congress and the National Park Service, which owned and operated the island, to the mayor of Jersey City, historic preservation groups, and historical societies.

But Nitze, who was tapped for the job by commission chair and former Beneficial Corp. chairman Finn Caspersen, was in her element. "She's probably one of the best strategic thinkers I've ever been around," says Liz Jeffery, a commission member who now directs program development and administration for the fundraising organization Save Ellis Island! (*www.save ellis island.org*). And in just one year, the New Jersey Governor's Advisory Committee on the Preservation and Use of Ellis Island not only came out with a series of five proposals that were all warmly received by the public but also helped raise more than $10 million to stabilize and begin rebuilding the tottering buildings.

Even the most ambitious effort has to begin somewhere. Nitze's first major step was, along with the rest of the commission, to tour the site, a massive array of interconnected buildings including sections for immigrants with specific contagious diseases, a maternity ward, operating rooms, and a morgue. What they found was startling. The General Services Administration had awarded the National Park Service ownership of the island in the 1960s—after its former owner, the Coast Guard, gave it up—but without any budget for maintenance. As a result, "The buildings were one to five years away from collapse," says Nitze. Trees had sprouted in the middle of hallways and had burst through walls; windows were shattered; doors were hanging off their hinges; owls had taken up residence in various locations. "We reported back to Gov. Whitman that any rescue plan was academic unless we could immediately stabilize the buildings," she says.

Preservation efforts continue on more than 30 buildings and structures at Ellis Island, many of which are near collapse (opposite).

PHOTOGRAPHS BY EVAN KAFKA

Whitman allocated a third of the money needed and asked Congress and the National Park Service to contribute the rest, for a total of more than $6 million. Nitze won two government grants to restore the ferry building, a metal-domed edifice housing the ferry that immigrants took to New York City, and the laundry. Including matching funds from the state of New Jersey, those grants came to about $3.9 million. The ferry building is due to open this spring.

At the same time, however, Nitze and the commission couldn't get any of that money for at least four months. With the buildings on the verge of collapse, Nitze enlisted the aid of the Department of Corrections, which donated inmate volunteers to help with the initial cleanup.

That step was easy compared to the next: developing a rescue plan that would win public approval. Between 1892 and 1954, about 12 million immigrants came to the United States through Ellis Island. About 40 percent of Americans have a direct link to at least one of those people, so feelings about the site run high. Over a 12-year period, a previous developer had come up with three recommendations. But thanks to a mix of public opposition and confusion about who had sovereignty over the land, the plans were all scrapped. The upshot: For the new plan to work, it had to win the widespread support of skeptical stakeholders, including congressional leaders, state politicians, ethnic groups, and preservation societies.

Nitze had a carefully honed strategy: Pinpoint all important potential players and meet with each one. "There's a trick to a successful private–public sector process," she says. "You study the mistakes of the past, identify the key stakeholders, the areas of agreement and the common goals you can adhere to, and cast a wide net for gathering input." First stop was with representatives of the New York Landmark Conservancy, National Trust for Historic Preservation, and World Monuments Foundation. They were national leaders in the effort to save the abandoned buildings and, she figured, particularly influential players. Total number of meetings: more than 50 in 10 months.

Nitze carefully assigned commission members to participate in specific meetings. The idea was to match appropriate committee representatives with stakeholders from the same community of interests. So, Clement Price, professor of history at Rutgers, met with historians. Assemblyman John Kelly arranged for fellow committee members to make a presentation to the New Jersey state assembly.

About 12 million immigrants came through Ellis Island. About 40 percent of Americans have a direct link to at least one of those people, so feelings about the site run high.

Private meetings had to be only part of the picture, however. There also had to be a larger public forum in which participants could voice their opinions—and committee members could visibly demonstrate their willingness to be flexible and open. Plus, they could take the opportunity to explain their guiding principles—that the plan would be in keeping with the historical significance of the island, economically self-sustaining, and open to the public. So, early on, Nitze arranged for a hearing to be held in Trenton. "Stakeholders could see we were in line with the things they felt were important," she says. "That got everyone working with us instead of looking at us with suspicion. We weren't going to open a McDonald's on Ellis Island."

A year after they started, the committee submitted its report to Whitman, whose administration submitted it to the National Park Service as part of the environmental impact statement process related to developing a final reuse plan for the unused buildings. That plan is due to be issued in early 2004. If the plan follows the committee's suggestions, it will include building a national learning and conference center focusing on issues related to immigration, racial diversity, and public health—what Nitze calls "a national Versailles."

Above all, say committee members, it was Nitze's resourcefulness, persistence, and patience that saw them through the effort. And those qualities didn't just help them through the complex process of public persuasion. They also came in handy during internal meetings. Professor Price recalled a commission meeting early on in which one member suggested they build a center for conservationists. "Lisa gently challenged that idea, explaining that the island needed to be able to draw the broad public to it," he says. "We couldn't include things that wouldn't serve the greater public." The committee member withdrew the suggestion without his feelings being ruffled, and the meeting moved on to other subjects.

Masterminding such public–private sector projects is something Nitze has done before, but it wasn't until well after graduating from Stanford when she got a job developing a state biotechnology plan for Maryland, that she really began honing those skills. After that, she worked as executive director of Maryland's World Trade Center Institute where she coordinated a public–private partnership for international trade and, later, as executive director of a statewide partnership for economic development in New Jersey.

Still, even Nitze admits Ellis Island was "vastly more complex than I'd thought." She recalls moments of frustration at the glacierlike pace. "When you're dealing with all these large bureaucracies, it's a slow process," she says. "That was the most difficult thing to grapple with on certain days."

Nitze's next step may be the most ambitious. In 2000, she helped set up a nonprofit called Save Ellis Island! to be a fundraising partner with the National Park Service. The mission: to raise $300 million needed to renovate the other buildings and the grounds and put the rescue plan into action. The group plans to launch the campaign as soon as the park service releases its final proposal. A large part of the effort will focus on finding corporate sponsors and business leaders willing to help. She is now cochair of the reuse committee, which is in charge of implementing the renovation plan.

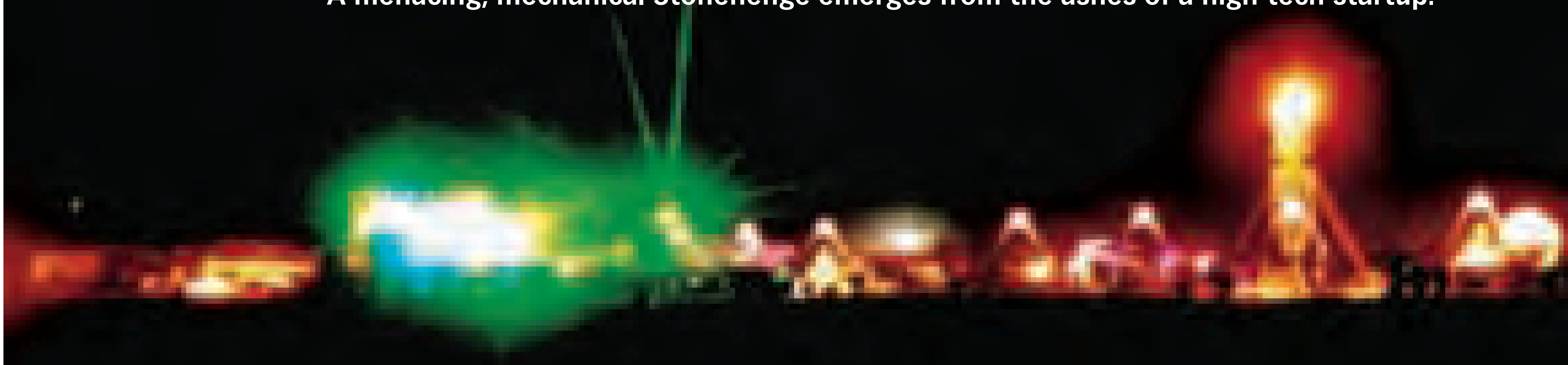
"For nearly half of all Americans, Ellis Island is a personal touchstone, so it's very important to find a way to restore and open these buildings up to the public," she says. "The time to start doing that is now." ■

Anne Field is a New York–based freelance writer.

 BY CHRIS MCGARRY, MBA '00

An Entrepreneurial Journey into the Desert

A menacing, mechanical Stonehenge emerges from the ashes of a high-tech startup.



In 2001, GSB classmate Shamal Ranasinghe and I started an audio technology company called SoundIron. Last summer, we completed the last leg of the unlikely entrepreneurial journey that followed. On August 23, I loaded one week's worth of food, water, and sunscreen into a rented RV and drove seven hours to meet Shamal in the heart of the Black Rock Desert, a 25-by-15-mile expanse of federal land 340 miles northeast of San Francisco and one of the largest tracts of flat land on the planet. It is also the home of an annual arts festival called Burning Man and, not coincidentally, the place where we were about to debut a project called Sol System.

Sol System was a sprawling, carnivalesque audio-visual spectacle designed by more than 50 audio, electrical, mechanical, and civil engineers, sculptors, animators, programmers, painters, laser artists, welders, and contractors, and using more than 20 tons of audio gear, metal, wood, and other materials. The functional and technical centerpiece was one of the largest, most sophisticated sound systems ever assembled: an experimental 60-kilowatt, multichannel system powered by proprietary software and controls.

In 2001, Shamal and I set out to build a groundbreaking audio technology company. Two years later, we broke ground—literally—on a parched patch of Nevada earth 5,000 feet above sea level. Somewhere in between, a commercial venture aspiring to Sand Hill financing, mainstream brand recognition, and market leadership became a weeklong, not-for-profit exhibition at a sandswept, countercultural bacchanal.

As students at the GSB, we learned that entrepreneurs walk a path of almost constant change that challenges them, but it is also their lifeblood. The most effective entrepreneurs—Andy Grove, Phil Knight, Oprah Winfrey—displayed a superior ability to provoke, process, and profit from changes in their environment.

When we wrote our business plan a year after graduating from the GSB, we anticipated that market forces and input from investors, partners, and employees would take our company in unexpected directions. We resolved to embrace change—to treat the process as an adventure whose outcome we could not entirely control or predict. In short, we braced for a wild ride.

Only we wildly underestimated it.

In SoundIron's first nine months, we scored several victories. We closed a modest round of seed financing, recruited key technical hires, and assembled a blue-chip advisory board of digital audio thought leaders. We landed strategic partnerships with industry powerhouses Dolby and Digidesign and secured the creative endorsement of high-profile recording artists.

Over the next nine months, the ride turned rocky. We pursued a single, critical deal, which we ultimately lost to a late-emerging competitor. When we could not quickly identify an alternative deal, we forfeited financing that was contingent upon the deal's close. Within months SoundIron was insolvent.

In early 2003, Shamal and I met with the other members of the SoundIron team to assess our situation. We had built a formidable network of multichannel audio experts and were developing software that we believed would enhance the live music experience. We wanted to showcase our applications and domain knowledge—to convert our time and energy into something tangible and to make a statement about the future of music. For our swan song, we decided to produce a one-off multichannel music exhibition.

We approached several Bay Area venues, but each presented prohibitive acoustical and financial obstacles. Then we contacted the Burning Man organization, which granted us their real estate and flexibility. In deference to their noncommercial strictures, we renamed the project Sol System.

We then turned our attention to financing a large sound stage off the grid in the Black Rock Desert. With eight months until Burning Man, we slated fundraising events starting with a 150-person cocktail party in a private loft space featuring live music and DJs. It generated several thousand dollars and an unexpected benefit: 18 of the attendees expressed an interest in participating in the project. Artist Amit Kapadiya asked if we would be willing to incorporate a sculpture. We gladly assented, and our audio installation became an audio-visual installation.

With each subsequent benefit event, our numbers and vision similarly expanded. By spring, the blueprint for Sol System included, besides the sound system, the aforementioned four-story metal sculpture, two 30-foot geodesic domes, a massive aerial trapeze rig, a 32-by-16-foot stage, five ornate pyramids, a 20-foot-tall, 34-foot-wide white octagonal observation deck adorned with Olympian columns, a battery of high-powered lasers, and a 1,000-foot, light-pulsing runway designed by Pixar animators and programmers to strobe musical beats at the speed of sound.

A nocturnal desert oasis in Nevada was created in five days for the Burning Man Festival, resulting in a visual and aural celebration.

If Sol System was growing, then so was its budget. Redoubling and diversifying our fundraising efforts, the prospering project's bank account dwarfed those of its founders but still needed to grow. We planned a final, late summer fundraising foray into virgin territory—New York.

It was increasingly apparent that growth was straining our organization as dozens joined the project team. Although Sol System's ranks included employees of companies like Musicmatch, Pixar, Electronic Arts, and Dolby, Sol System itself more closely resembled an unruly bohemian guild than any of those respected organizations. Efforts to implement processes or to define roles and responsibilities met with good-natured but firm resistance. Sol System appealed to many participants because it afforded them a creative and social outlet that did not impose the structure and accountability they encountered in their day jobs. Most team members cheerily disregarded deadlines, and as the summer progressed, guarantees and good times became increasingly fungible. Critical tasks were eventually completed, but Shamal and I worried that the project was doomed to cave under the weight of its growing complexity and Sol System's casual culture.

Regardless, we forged on to our New York fundraiser—*Ignition*—and in July a small troupe of performers and I traveled east. The ambitious program included original film screenings, choreographed dance and live music performances, and even an aerial trapeze show accommodated by the outsized dimensions of the brick-walled Brooklyn waterfront theater we rented.

Our staffing plan called for 24 volunteers. Thirty minutes before showtime, we had confirmed eight. We doubled shift lengths and pressed several early arriving attendees into service. At 1 a.m., the venue's security staff informed me that they suspected someone of selling counterfeit tickets.

The security team and I intercepted the alleged scalper on a corner two blocks away, in the shadows of the prewar warehouses crowding the street. The chiseled, 6-foot-2-inch head of the security detail confronted the suspect. After a brief argument in which the suspect declaimed his innocence, the bouncer plucked a polished 6-inch blade from a concealed sheath, pressed the flat of the knife against the man's temple, and ordered the scalper to empty his pockets. The scalper immediately produced a stack of unsold tickets and $800 in wadded cash.

When we returned to the venue, I told the head of the security team—in delicate, respectful terms—that his handling of the situation was totally inappropriate and unacceptable. He only seemed confused by my criticism.

Back in San Francisco for the final month of preparations we shifted our focus to construction. By August, our team had ballooned to more than 150 participants. We gathered on weekends to assemble and test components at four sites in San Francisco, Santa Clara, and the East Bay. The week before Burning Man, we disassembled the installation and loaded it into four 24-foot trucks.

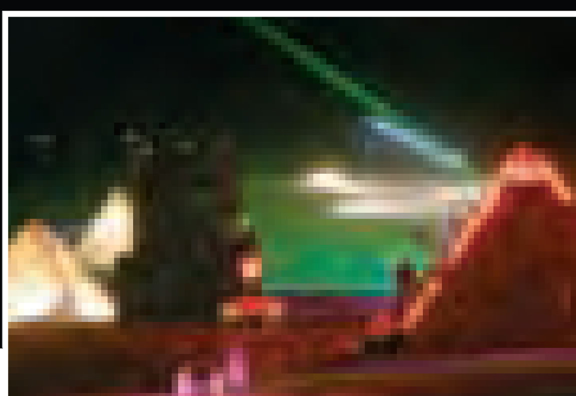
On Sunday morning, August 24, the last of the four trucks arrived at our campsite. Six-inch red flags placed by Burning Man's surveyors demarcated the boundaries of our alkaline canvas.

Breaking into teams, we unloaded the sound system and plotted the position of the speakers. One crew manned trenchers to dig deep furrows where miles of cable would lie undisturbed by the 30,000 attendees.

By 10 a.m. the temperature topped 90 degrees. We paused frequently to rehydrate and to wash the dusty heat from our mouths. Short, scouring sandstorms punctuated periods of productivity and sent us to our tents and RVs for cover. As the day wore on, the desert swelter, high altitude, and hard labor tested our resolve, but anticipation, camaraderie, and a sense of urgency motivated us to persevere.

By nightfall Sunday we had finished a sort of menacing mechanical Stonehenge: eight towering speaker pilings precisely placed in a circle with a diameter of 120 feet. Forearm-thick black cables descended from the speaker stacks into the soil like oily roots searching for power from the amplification racks housed behind the stage.

The visual effect was striking, but the circular array offered another advantage. Coupled with proprietary software and mixing tools, the configuration enabled musicians to manipulate the location of sounds in the circle—to create the illusion that a



"We created the value that follows from exercising one's imagination, from committing to an inclusive process, from bringing something extra-ordinary into being."

sound emanated from a specific point within the circle or was swooping along a path behind, over, or around the listener. Similar experiments had been conducted in research facilities and other places, but Sol System was employing state-of-the-art tools and methods to achieve more dramatic sonic effects on a larger, unprecedented scale.

Finally, on Thursday night, Shamal and I stood on a corner of the stage and surveyed the results of our team's eight-month collaboration. Several hundred feet to our left, the four-story aluminum Chakra sculpture bounded one side of the installation. The circular sculpture was ablaze; tubing concealed within its welded frame fed propane to its fiery outer ring.

In front of us lay the "Sonic Runway," which was actually more of a triangular tunnel. The tunnel's white ribs of PVC tubing stretched over 1,000 feet into the desert like the beached, bleached skeleton of some prehistoric creature. Rays of light synchronized with music from the sound system pulsed down the runway's spine at the speed of sound. In the tunnel, people paused to ponder the fact that regardless of their position, the musical beats and light rays emanating from the stage reached their ears and eyes at exactly the same instant.

A trapeze rig staked to 15,000 square feet of ground flanked the right side of the installation. The tethered apparatus tapered to slender spires spiking 60 feet into the air as aerial acrobats illuminated by powerful red and orange spotlights cut arcs against the night sky.

Behind the stage, a rainbow-hued pyramid sprayed an emerald canopy of laser light over the crowd from an all-seeing eye carved into its façade.

Encircled by these pieces and enveloped by sound, thousands filled the floor in front of the stage—the jumping, twisting, twirling, clapping, laughing, heaving heart of the installation. On a chest-high plywood platform anchored to the middle of the floor, artist Greg Kalamar captured the scene in acrylic paint on a 3-by-5-foot canvas.

Throughout the week, the stage featured over 60 musical and dance acts, from emcee Shahid Buttar to Bay Area jam band *The Flying Other Brothers,* to self-described "Ethno-Techno-Tribal-Trance-Dance-Chants Band" *Lost at Last,* to the pyrotechnic dance troupe *Future Trybe,* to famed international DJs.

In the end, each day proved to be a microcosm of the entire journey that began with SoundIron: None of the days or nights unfolded as planned, but we coped, adapted, and took both lessons and satisfaction from the process. That the final stretch of our journey occurred in the extreme, quasi-anarchistic social and creative laboratory known as Burning Man made it that much more memorable.

As GSB students, Shamal and I studied entrepreneurs who turned their passions into successful businesses: people like Chip Conley, Dan Gordon, and Dean Biersch. With SoundIron, we failed to convert our love of music into a livelihood. Although we did not build shareholder value, we ultimately found a way to generate a different kind of value. With the help of many talented and generous individuals, we created the value that follows from exercising one's imagination, from committing to an inclusive process, from bringing something extraordinary into being, from sharing that gift with others, and from accepting the impermanence of that creation.

And we thoroughly enjoyed the wild ride along the way. ■

Chris McGarry is a media and technology analyst at EGM Capital, an investment management firm based in San Francisco. The following GSB students and alumni contributed to Sol System: Lani Fritts, '00, Matt Goldberg, '00, Nicole Lorenzo, '01, Ezra Perlman, '00, Katie Rollins, '00, Drew Sanocki, '00, Todd Shaiman, '04, Helen Song, '02, Madhu Tadikonda, '00, Rebecca Tadikonda, '00, LaVonda Williams, '04.

PHOTOS ARE COURTESY OF ANDREW POLSON, CHRISTOPHER SCHARDT, AND J. WARREN TREZEVANZT.

Marketing CHOICE

Whether they sell credit cards or snowmobiles, companies keep expanding their product lines so that consumers face more and more choices. But Business School professors are beginning to ask: **DOES ANYONE REALLY BENEFIT FROM SO MUCH CHOICE? WHAT INCENTIVES SHOULD PRODUCT MANAGERS BE OFFERED?**

By THERESA JOHNSTON • Photographs by NOLA LOPEZ

IN THE 1984 FILM *Moscow on the Hudson,* Robin Williams plays a Russian musician who impulsively decides to defect during a tour in New York City. A local family takes him in, and to thank them, the young man volunteers to do the grocery shopping—only to pass out in the coffee aisle. The choices in the American supermarket simply overwhelm him.

Twenty years later, Moscovites have adjusted to having choices also, but the array of products facing U.S. shoppers is more bewildering than ever. Colgate, which sold two types of toothpaste in the early 1970s, today offers 17, from Total Whitening Plus and Sensation Deep Clean to Wild-Mint and Berrylicious. The credit card industry, which promoted a handful of cards in the 1960s and 1970s, now offers hundreds of ways to say "charge it." But is it truly worthwhile for firms to offer so many different options? Do weary consumers really favor product lines that carry more items? Or might firms benefit from cutting back?

Michaela Draganska, assistant professor of marketing at the Business School, recently coauthored research that can help companies decide just how long their product lines should be in a competitive environment. Draganska's work with Dipak Jain, dean of the Kellogg School of Management, has produced an innovative mathematical model that challenges conventional wisdom about maximizing consumer choice. While regional and store brands are likely to benefit from longer product lines, the model suggests that big firms such as Procter & Gamble probably would be better off if they offered less variety. Using a different approach, Business School Professor Itamar Simonson also raises questions about the wisdom of maximizing consumer choice. *(See related story, next page.)*

Draganska has been fascinated with the subject of product proliferation ever since she came to America in the late 1990s to pursue a doctorate in marketing at Northwestern University. A native of Bulgaria, she had her own supermarket epiphany one day while shopping for yogurt. "It was my first trip to Dominick's, which is now part of Safeway in Chicago, and I wanted to buy some normal plain yogurt with fat. But after 15 or 20 minutes of first trying to find the aisle, and then looking through all the varieties, I was absolutely exasperated," the young scholar recalls. "In Bulgaria, life was very simple. You'd go to the store and ask for milk, and there would be one type of milk. Or there were two types of cheese—yellow and white—and that was that."

These days, she notes, companies typically extend their product lines in one of two different ways. They can vary one brand in terms of price and quality (e.g., BMW's series 3, 5, 7), an approach known as vertical line extension. Or they can keep their products within the same price and quality range and vary other attributes such as color, fragrance, or flavor, a process known as horizontal line extension (Classic Coke, Diet Coke, Caffeine Free Coke, Caffeine Free Diet Coke, etc.).

Companies often extend their lines because they think it will keep customers from switching brands and allow firms to charge higher prices. As Draganska says, "It's a widely held belief that unless you constantly introduce new products you cannot stay in the game." Products with new flavors or scents also tend to produce short-term sales spikes that look good on resumes. That's important to product managers, who typically have only about a year to deliver results. *(See related story on financial incentives for product managers on this page.)* If Colgate introduces a new berry-flavored toothpaste, it makes shoppers curious, Draganska says. "They buy it once, sales go up, and the product manager gets promoted."

Some studies do suggest that the more items in a product line, the more likely consumers will consider it. After a certain point, though, additional profits from that berry-flavored Colgate may not be worth the extra cost of manufacturing it. And psychological studies suggest that too many choices actually can overwhelm shoppers and turn them completely off a brand. So how can a firm determine the perfect number of toothpaste flavors or detergent fragrances to offer?

To find out, Draganska and Jain focused on the world of yogurt—two years' worth of Nielsen data on prices, quantities, flavors, coupons, and displays at grocery stores in Sioux Falls, S.D. They built a mathematical model, taking the cost factors and competitive considerations into account, to establish the link between consumers' choices and the length of the yogurt product lines.

As it turned out, only 3 of the 13 yogurt brands they analyzed would benefit from an increased line length—all of them no-frills products that currently offer limited variety at a low price. For such store brands and local brands, the researchers suggest, "a longer product line might be a signal of higher quality and boost their image in comparison to the other lower-priced alternatives." In contrast, they determined that nationally known companies offering a large variety at a premium price (e.g., Dannon and Yoplait Original) actually would benefit from reducing their line lengths.

Draganska eventually hopes to turn the subject of product line management into a regular marketing course. She offered a one-week pre-term seminar last fall in which students took a close look at products ranging from Nissan sedans and Palm handheld organizers to potato chips, tampons, and Nike golf balls. Then the students made recommendations about whether the product lines should be cut back or extended. In the end, most came to the same conclusion as Draganska: When it comes to complex consumer behavior, simplicity sells.

Consumers Don't Always Know **WHAT THEY WANT**

By JOYCE ROUTSON

SINCE THE LATE 1980s, Business School marketing professor Itamar Simonson has looked for ways to understand how consumers make choices. Much of his work debunks the accepted theory that giving consumers what they want and making a profit are the most basic principles of marketing.

Customers may not know what they want, and second-guessing them can be expensive, says the professor who teaches MBA and PHD marketing and consumer decision-making courses. In Simonson's words, "The benefits and costs of fitting individual customer preference are more complex and less deterministic than has been assumed." That's because "customer preferences are often ill-defined and susceptible to various influences, and in many cases, customers have poor insight into their preferences."

In one of his recent papers, Simonson tackles the issue of one-to-one marketing and mass customization. Supporters of these marketing approaches have suggested that learning what customers want and giving them exactly what they want will create customer loyalty and an insurmountable barrier to competition.

In an example taken to the extreme in the 2002 movie *Minority Report,* Tom Cruise's character runs through a shopping mall past talking billboards that recognize him by name and urge him to buy products he had earlier expressed an interest in such as jeans and Ray-Bans—the ultimate in personalized advertising. But Simonson has this to say: "The fact that consumer preferences are often fuzzy, unstable, and manipulatable is unlikely to change. So, the effectiveness of methods to give customers exactly what they (say they) want has been grossly exaggerated." His take on the long-held assumption that individual marketing will supplant targeted marketing is "not so fast." In studies, he has learned that "even when customers have well-defined preferences and receive offers that fit those preferences, it is far from certain that the response to such offers will consistently be more favorable than those directed at larger market segments."

It's all psychology. Consumers with well-defined preferences may be skeptical that a marketer could match expectations. Those who don't know what they want may not ever see the fit with what the seller wants them to buy. So, individualized offers depend on customers' preferences—how the offer was extended—and on trust. "Effective individual marketing requires not only an understanding of individual preferences and matching offers to those preferences, but also a thorough familiarity with the various factors that impact customers' responses," Simonson writes.

This is a tall order, one that some companies have been able to fill, at least to some extent. For example, Amazon keeps track of customers' purchases and suggests other books they might like. Dell builds computers from mass-made parts to customers' specifications. But Simonson argues some companies can take the concept too far, like the Custom Foot chain of shoe stores that took detailed measurements and specifications from each customer to design one-of-a-kind shoes. Custom Foot didn't take into account that some customers were put off by the individualized attention, Simonson says, and felt obligated to buy the shoes because the store went to so much trouble. They often didn't come back. Indeed, an Internet search produces no Web site.

"In Bulgaria, life was very simple. You'd go to the store and ask for milk, AND THERE WOULD BE ONE TYPE OF MILK. Or there were two types of cheese—YELLOW AND WHITE—and that was that."

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"Self-Control for the Righteous: Toward a Theory of Pre-Commitment to Indulgence," **Ran Kivetz and Itamar Simonson**, *Journal of Consumer Research*, SEPTEMBER 2002

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"In Search of Negative Customer Feedback: The Effect of Expecting to Evaluate on Satisfaction Evaluations," **Chezy Ofir and Itamar Simonson**, *Journal of Marketing Research*, MAY 2001

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"Extend Profits, Not Product Lines," **John A. Quelch and David Kenny**, *Harvard Business Review*, SEPTEMBER–OCTOBER 1994, REPRINT NO. 94509

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Also, see *www.gsb.stanford.edu/news/research/marketing.shtml*

Economic Incentives Inspire New Products— BUT ONLY TO A POINT

By MARGUERITE RIGOGLIOSO

THE MARKETING SUCCESS of some companies relies on continuously creating new items or ever more novel iterations of old ones. Nissan, for instance, has succeeded in a tough automotive market by focusing on frequently designing attractive new models. Logitech has produced a string of ever-changing computer mice and keyboards in the computer industry.

This emphasis on rapid change means that finding ways to motivate product development managers has become critical to some businesses. In a recently published study of the medical devices industry, Antonio Davila, assistant professor of accounting at the Business School, reports that salary bonuses hovering in the 30 percent range tend to work—but if the stakes are high in a difficult technical market, a smaller bonus might get better results.

"Traditionally, there have been two ways of looking at the issue" of financial incentives, explains Davila. "The more psychological school asserts that if you give financial incentives to people working in creative areas, they'll focus on simply meeting the requirements necessary to obtain bonuses—such as making deadlines—rather than on creating truly innovative products. The economic school, in contrast, argues that if you don't offer incentives, people are not going to be inspired to be creative at all."

Until now, little empirical research has been conducted to figure out which view might be correct. Davila's study put some hard numbers to the debate. He found that both schools are, in a sense, right. "Economic incentives do improve performance among new product development managers, but only up to a point," he says. "If you make the financial incentive too large, managers concentrate on the goal rather than on creativity, and performance goes down. However, if you give them no financial incentives, their performance also deteriorates."

Davila contacted supervisors and product development managers in the United States and Europe who were working on 56 products ranging from syringes to pacemakers to x-ray and MRI machines. Through questionnaires and interviews, he gathered data on salary bonuses and evaluated new project managers' performance on 10 measurements. These included whether they met product specifications, deadlines, and budget goals as well as the degree to which they fulfilled customer needs, created a business success, and captured a new market.

He found the optimal bonus for maximizing managerial performance averaged about 30 percent of a person's annual salary. That number, however, was influenced by factors such as the complexity of the technology involved in the new product, the duration of the project, and whether the product was completely new or merely a refinement of a previous version.

If a product is complex and involves a good deal of technological and market uncertainty, the optimal bonus for inspiring performance was less than 30 percent. "Instead of paying the manager a base of 70 percent of his salary, with the other 30 percent forthcoming only if he meets the project goals," Davila explains, "the company might offer to pay a base of 90 percent and the other 10 percent upon goal attainment." The lower bonus in such cases involving risk provides new product managers with just enough incentive to inspire them in creative work, but not enough to tempt them to ignore innovation or quality considerations in their desperation to secure more money.

On the other hand, says Davila, if the project is relatively easy—requiring, for instance, just minor changes to an older product—then the optimal bonus can be even higher than 30 percent and might be linked to performance factors such as achieving rapid time to market or producing a product with exceptional functionality. "You don't want to make the mistake of offering too little a bonus on any given project, because then people won't put effort into their work," he reiterates.

"The basic message of my study," Davila concludes, "is that economic incentives do indeed provide a creative spur for new product development. Companies don't have to ignore such incentives, but they don't have to abuse them either." Davila hopes that his study will inspire further research on incentive policy design and performance measurement. ■

Theresa Johnston, Joyce Routson, and Marguerite Rigoglioso are freelance writers living in the San Francisco Bay Area.

Spreading the risk of default

Fueled by the world's economic problems—especially the largest number of corporate loan defaults since the 1930s Depression—a new industry in credit risk trading has been growing over the past several years.

BEFORE LONG, YOU WILL PROBABLY BE IN IT.

By **Kathleen O'Toole**

Photograph by PETE MCARTHUR

In his job on the trading desk of an investment bank in Singapore, David Ling often finds money managers asking for his bank's latest credit risk offerings. The market is developing new products all the time, but the customers always want more.

"Our clients tend to bypass the older, simpler products," says the 1994 MBA graduate. His job involves figuring out what price the bank should charge for credit risk derivatives—investment products based on the probabilities that a company or country will default on its creditors or, more generally, experience a change in its credit rating.

At a time when interest rates are low and plenty of A-rated American and European companies have declared bankruptcy or defaulted on loans, Ling's mostly Asian-based customers want more credit risk derivatives of Asian companies in their portfolios. "There isn't enough to go around," he says, "and most of the ready-made deals are based on American or European credits."

What is available may have changed by the time you read this article. Invented less than a decade ago, the market in credit risk derivatives produces new products every month. There are collateralized debt obligations—CDOs for short—and credit default swaps, or CDSs. Indeed, a large fraction of CDOs are constructed synthetically from default swaps. By late 2003, institutional investors also could trade "baskets" of credit risk, including indexes of debt derivatives—100 companies in Europe, for instance, or 20 in an industry. Unlike the Lehman Bond Index, which investors can't buy, these indexes can be traded and could someday dominate indexed corporate bond funds, including those that individuals buy as they near

retirement and seek fixed income vehicles, says Business School finance professor Darrell Duffie.

The credit derivatives market has been growing at the rapid rate of 50 to 100 percent annually since almost a year before the stock market bubble burst in the spring of 2002. It was expected to cover at least $2 trillion of corporate and sovereign debt by the end of 2003 and to reach $4 trillion by the end of this year. Exactly when it slows down may depend on the world economy, say Duffie and finance professor Ken Singleton, the coauthors of a new book, *Credit Risk,* published by Princeton University Press. Their latest research projects indicate credit markets are strongly affected by the business cycle or, perhaps more precisely, investors' knowledge and fears of the effect of the business cycle on corporate default risk. Ling gives this example: "Because some Asian investors got burnt on U.S. and European defaults and others have read about the problems, customers here now want to buy Asian risk."

"My parents think I'm a stockbroker," Tracey Benford, MBA '95, says with a chuckle. Like others who deal in credit risk derivatives, she says she gets little opportunity to talk about her work in this hot new market. "When the Enron and WorldCom bankruptcies were in the news, people would ask me about what I did, but fixed income investment in general seems to be a mystery to most people," Benford says.

While Ling says he was drawn to this career because of its technical challenges, Benford says she likes the excitement of rapidly changing, innovative products. (The money is good too, according to the *Wall Street Journal,* which reported last year that four to seven years' experience in credit structuring skills can bring salaries of $800,000 plus bonuses.) Benford sells mostly investment-grade U.S. bonds or credit derivatives in the Chicago office of Goldman Sachs to money managers who are trying to match or beat benchmark yields in their particular niche. "Originally, the main users of these products were banks and hedge funds, but the market has exploded in the last several years," she says.

In the not-so-old days, lenders or companies with outstanding receivables from customers would sometimes buy insurance against not collecting what was due to them, in much the same way a homeowner insures against his or her house burning down or a farmer insures against a hailstorm. Today, the more liquid credit derivatives are replacing credit risk insurance, say School alumni and academics in this field.

Institutions take positions in other, older types of derivatives as well. For instance, as global business increased in the seventies and eighties, companies that did business across borders worried not just about being paid but also about being paid in a currency whose value could drop against their own. That prompted a market in currency derivatives, in which institutional investors would take on the currency risk and charge a premium for the protection. If companies were worried about losses from interest rate volatility, they could also buy risk protection in the form of interest rate derivatives. Over time, standard contracts helped buyers and sellers agree on the conditions under which each had to pay or collect.

The protection available through what are now called credit default swaps, in which a lender sells off default risk and, more recently, baskets of credit risk from multiple bank loans and bonds, is regulated differently than insurance. More important to investors, these derivatives trade on an ongoing basis, so they can go long or short with a goal of making more money or reducing their risk. The International Swaps and Derivatives Association sets contract standards under which the buyers and sellers agree on what type of event is treated as a default, triggering payments from one counterparty to another. Banks that hold corporate loans and large lines of credit to corporations often sell off parts of their risk in pieces. Investors buy partly because, unlike generic equity offerings available through exchanges such as the New York Stock Exchange, derivatives can be tailored to particular institutions' requirements.

The market's initial growth, however, was triggered by the world's recent economic problems. A major reason for the timing is that speculative-grade corporate default rates reached their highest level since the Great Depression and made investors more sensitive to credit risk, says Duffie. Pending changes to banking regulations are also an impetus. International rules known as the Basel 2 Accords are slated for implementation in 2006. They would require banks in participating countries to set aside capital for unexpected losses while continuing to set aside cash to cover anticipated losses.

Most banks will apply a new standard formula, but those with their own credit risk modeling capabilities—the largest investment and commercial banks—might be able to reduce their capital requirements by developing quantitative models of their credit risks, says Duffie. Since there is no final agreed-upon formula yet for the amount of capital that banks would be required to hold as backing for the credit risk in their loan portfolios and other lines of business, the area is a rich subject for academic research. *[See related story, page 26.]* The trend has prompted executives of banks, investment banks, central banks, rating agencies, insurance companies, hedge funds, and pension funds to sign up for the Credit Risk Modeling Executive Education course, next offered in April, that Singleton and Duffie codirect and teach. "Investors want to understand the latest developments in this market," Singleton says.

One of the hottest topics in investment banking now is how to allow for the added risk of correlated defaults in a portfolio; for example, the failure of a Japanese bank might trigger the default of a Korean derivatives broker in the same portfolio, he says. Alumni/ae in the field agree.

WHY BUY RISK?

IF YOU HAVE NEVER TRIED to buy someone else's risk of losing money on a loan or bond, you may wonder why there are buyers for credit risk. Duffie gives this example: "Suppose if you take on this risk it's going to cost you 1.5 percent per year of your capital, and I'm willing to pay you 4 percent per year for carrying that loss. You say to yourself, 'On average, I'm going to profit by 2.5 percent. There is a small chance that I am going to lose a heck of a lot of money if this firm goes under, but an expected profit of $2.50 per $100 is a good incentive for taking that chance.' I may do it either because I like earning money on average—a likely strategy for insurance companies—or because I have done a lot of fundamental analysis of this firm and I think the probability of its default is much lower than suggested by the pricing—a common strategy of hedge funds."

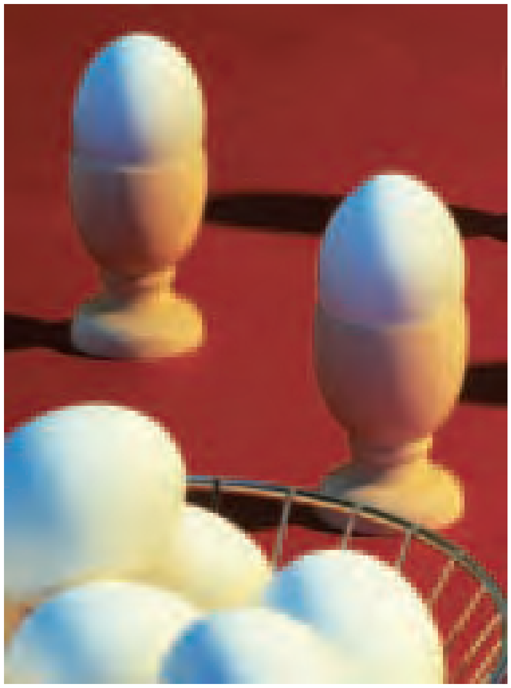
"There is a lot of interchange right now between practitioners and the academic community, and certainly the Stanford team is in the forefront of this," says Leonard Brous, MBA '89, the product manager for structured credit, which includes credit derivatives, at Morgan Stanley in New York, one of the banks where Duffie and Singleton have given recent seminars.

As customers become more sophisticated, they are part of the innovation process, says Singleton. "When customers approach investment banks for price quotes on new products, their research and risk departments have to figure out what to charge. It's a matter of survival and competition."

Some insurance and reinsurance companies have been criticized for taking on too much credit risk in the form of default swaps, but Duffie says they are often among the best positioned to do it. "By the nature of their businesses, some hold a lot of capital against large rare losses. If they sell protection on highly rated borrowers, they can make a hefty average risk premium and plan on incurring large occasional losses. This is not dramatically different from insurance against catastrophes, although insurance firms selling default protection would want to develop some degree of expertise in analyzing business risks, which are, of course, different than natural catastrophe risks."

"The users of credit derivatives have become very diverse," says Brous of Morgan Stanley. "There are no official statistics, but the kinds of players range from global commercial and investment banks to regional and foreign banks, hedge funds, insurance companies, fixed income mutual funds, and institutional investment managers, and more recently, big pension funds and endowments." With wider participation, the liquidity of credit derivatives continues to improve, he adds, and in many cases is now comparable to that of corporate bond and loan markets. Some institutional investors use credit swaps as a "proxy for corporate bonds when derivatives are available on more attractive terms and/or in the timeframe and quantity they want," Brous says. Because it takes time to assemble a fixed income portfolio, a money manager may decide to use the most liquid derivative products like TRAC-XSM—a series of credit derivative index products created and sponsored by Morgan Stanley, JP Morgan, and other banks—to park cash temporarily while shopping for other more permanent investments.

Eventually, says Duffie, credit swap index funds are likely to appear in a form similar to bond index funds that companies like Vanguard and Fidelity could market to individuals seeking a fixed income fund. "An index fund of credit derivatives offers roughly the same kind of diversified portfolio risk, but the credit derivatives market is becoming so much more liquid that it probably will be the more efficient way to do it," Duffie predicts.



Federal Reserve Chairman Alan Greenspan lauded derivatives in general last year for making financial institutions **"less vulnerable to shocks from underlying risk factors and the financial system as a whole more resilient."**

He explained the liquidity advantage this way:

"Suppose you are a broker. I call you and say I would like to buy corporate bonds of Italia Telecom, the Italian phone company. You might say, 'Well, I don't have any of that particular bond right now, but I'm sure I can find some in a day or two.' If, instead, I call and say that I would like to buy the same effective exposure to Italia Telecom, you'll probably say, 'Sure, no problem.' You don't need to have the bond to sell me the derivative, although you may want to lay off your risk with some other customer, and I don't need to have $50 million in my money market account today to buy it because I don't pay anything in the beginning. In effect, I get paid over time for accepting the risk of default." It is in this sense that a default swap is called an "unfunded" product.

Some critics of credit risk markets point to the lack of transparency in the market as the biggest untraded risk. Since there is no way for outsiders to know how much risk any given institution has taken on, the fear is that a large investment bank or reinsurance company could experience correlated defaults and cause their own failure, according to one article in *Investment Dealers Digest.* Famous investor Warren Buffett of Berkshire Hathaway is among those who have expressed concern. On the other side, Federal Reserve Chairman Alan Greenspan lauded derivatives in general last year for making financial institutions "less vulnerable to shocks from underlying risk factors" and "the financial system as a whole … more resilient." From his free-market economist's perspective, a more flexible market for dividing up and trading the risks of currency or interest rate fluctuations or defaults on loans means that the institutions that can most afford to carry the risk are likely to free others of the burden—for a price, of course.

"Given the potential informational asymmetries in credit markets, there could be significant events that surprise many market participants," Singleton says, "but the more sophisticated market participants with some of the largest exposures have introduced risk management systems that allow them to 'stress' their portfolios. So a key question is, are they designing stress tests in the directions from which the next major credit surprises will arrive?" He adds that "the default in Russia shook up the market and demand for credit derivatives dropped off for a while, but the contracts largely served their intended purposes and investors have come back. I'm not in the camp that believes there is an enormous pool of risk that people are completely unaware of."

Adds Duffie: "All investors have an incentive to gather information to get that default swap rate right, and the prices we see are telling us that they are paying attention." ■

Researchers Explore Credit Risk Measurement, Pricing

FINANCE FACULTY MEMBERS Darrell Duffie, the James Irvin Miller Professor of Finance, and Kenneth Singleton, the C.O.G. Miller Distinguished Professor of Finance, share their work on credit risk modeling at seminars with institutions in the world's investment capitals and in an executive education course, to be offered April 18–23. They are authors of the book *Credit Risk: Pricing, Measurement, and Management,* published last year by Princeton University Press. Here is an overview of their recent work.

DARRELL DUFFIE: We deal with two basic types of problems. The first is measuring the credit risk of loaning money to a corporation or country, and the second is pricing. Measurement has two subproblems: What is the probability of a default—how do you estimate it?—and, in the event of default, how much will you lose?

In the past few years we have learned that default losses are variable not only on a case by case basis but also as the economy changes. Ed Altman at New York University is the grandfather of this area, and his numbers indicate that during 2001 and 2002, the recoveries in defaults were far lower than the longtime average—about half! Perhaps losses were much higher during this period because a lot of distressed assets were coming onto the market at once.

A follow-on dimension is how these risks correlate across different counterparties in the market; so if, for example, you have loans to a Korean bank and a Japanese broker, are those risk correlated? If so, how much? That's one class of problems, which is measuring credit risk.

RISKY BUSINESS: *Ken Singleton, left, and Darrell Duffie teach executive courses on credit risk modeling.*

SAUL BROMBERGER/SANDRA HOOVER

The other issue is pricing, which Ken and I have been passionately interested in for a few years. Not just how much should you charge outright on a loan to reflect the credit risk but also how much you charge on a credit derivative that protects you against that risk. This includes derivatives with options embedded in them and derivatives that give you exposure to the first to default among multiple names (companies or countries). Here you face the extra pricing dimension: You have to know how much of a risk premium to add to compensate an investor for carrying that risk of correlated default.

In my recent research, I was surprised to find that risk premiums are as big as they are, and I was pleased to see that they change with where we are in the business cycle. They also change based on the sector. For example, if you go to the health care sector, they are much bigger than in the oil and gas sector. You might say that doesn't sound right—oil and gas is really risky. But it's the premium per unit of risk. That is, for every additional 100 basis points [1 percent] of default probability, how much more are you getting in extra return? My preliminary estimates are it is about 50 percent more for the health care industry.

We used to think that losses in the event of default didn't change much across time either, but the annual volatility that I measured in my study is about 100 percent per year. The typical probability of a firm defaulting in a year is under 1 percent, so when I say it varies on a percentage basis by 100 percent a year, it might be going from 0.7 percent this year to 1.4 percent or 0.35 percent next year. It varies a lot with stages in the business cycle.

KEN SINGLETON: Finance research has established that the distribution of interest rates changes with different stages of the business cycle, which is intuitive. That is, whether the economy is in a recession or an expansion influences how yields on bonds of different maturities behave relative to each other and to the underlying macro economy. With some coauthors we have developed a way to integrate these changing distributions into a pricing framework that investment banks can use, not only to price bonds but also derivatives. Our framework allows the volatilities, correlations, and persistence in bond yields to change with the stage of the business cycle. Investment bankers have long recognized these risks, but there has not been a tractable means of incorporating them into pricing models or associated risk management systems. We are attempting to develop a framework that will accommodate shifting distributions as conditions change.

We are in the preliminary stages of empirical analysis, but it appears that market participants do "price" the risks of regime changes into bonds. That is, the market's aversion to these risks is reflected in bond prices. When we look at how these risks move over the cycle and how market participants' attitudes toward the risks change at different stages, an interesting question is to what degree those changes are related to the conduct of monetary policies or underlying macroeconomic sources of risk such as changing output growth or inflation. It's one of the next phases of this research project.

This same conceptual framework is potentially useful for modeling correlated defaults, for it captures the possibility that economic conditions could precipitate a significant deterioration in credit across several counterparties, roughly all at the same time. Moreover, the likelihood of this happening can depend both on economywide and industry-specific factors as well as measures of market liquidity. We hope to explore these ideas in future research.

Finally, I am currently exploring the determination of prices in credit default swap markets; in particular, how do the default swap spreads for different names move relative to each other and why? For instance, under what circumstances does the event of economic or financial distress in one country spill over to the prices of bonds and credit default swaps for other countries? Such spillovers are often referred to as "contagion" effects, but their economic underpinnings are often not what I would call a contagion phenomenon. I am exploring ways of incorporating these spillover effects into models for pricing sovereign bonds and default swaps. ■

Alumni Association Honors Rod Kramer

Roderick Kramer, the William R. Kimball Professor of Organizational Behavior, was honored at the School's autumn Alumni Weekend with the Silver Apple Award, which is given annually by the Stanford Business School Alumni Association to a faculty member who is particularly supportive of alumni programs.

Professor Roderick Kramer received the 2003 Silver Apple Award for his participation in alumni programs.

"Teaching and learning with you is especially rewarding because you've been around long enough and taken enough laps to understand the way things really are," Kramer told the alumni audience. "I tell my students some of the things I've learned about leadership and power and paranoia and they say, 'That's weird.' I tell alumni and they say, 'Yes, been there, saw that.'"

Darrell Duffie has been named the 2003 Financial Engineer of the Year for contributions to the advancement of financial engineering technology. The International Association of Financial Engineers (IAFE) and SunGard Trading and Risk Systems award the honor.

"Darrell's important contributions in risk management, credit risk modeling, and the burgeoning market for credit derivatives are used daily by financial practitioners around the world," said Tanya Styblo Beder, chair of the IAFE. Duffie, the Business School's James Irvin Miller Professor of Finance, will receive the award this month at a dinner at the United Nations in New York City.

He joins a prestigious list of individuals who have contributed to the advancement of financial engineering technology, including Nobel Laureate **Myron Scholes**, the Frank E. Buck Professor of Finance, Emeritus, at the Business School.

Duffie's most recent research focuses on the empirical behavior of default probabilities and of default-swap prices and on the theory of over-the-counter market valuation. His latest book is titled *Credit Risk* and is coauthored with **Kenneth Singleton**, the C.O.G. Miller Distinguished Professor of Finance. *(See page 26.)*

Charles Horngren, long considered the man who pioneered modern-day management accounting, has been honored recently with the Lifetime Contribution to Management Accounting Award. Horngren was recognized by The Management Accounting section of the American Accounting Association at its January conference. A member of the Business School faculty since 1965, Horngren is the Edmund W. Littlefield Professor of Accounting, Emeritus.

Horngren pioneered the use of managerial decision making in the early 1960s, transforming and expanding the way the subject was taught. He is the author of the textbook *Introduction to Management Accounting*, now in its 12th edition, as well as a half dozen other widely used accounting textbooks. He has been inducted into the Accounting Hall of Fame and honored with a special issue of the *Review of Accounting Standards* recognizing his work in the field, among other honors.

A team of Stanford political scientists that included the Business School's **David Brady** was ahead of other pollsters in predicting the victory of Arnold Schwarzenegger in the California governor's race. They beat out other pollsters by not allowing undecided voters to say they were undecided.

"What this shows is that undecided voters gravitate to the most visible candidate, the candidate with name recognition," communication professor Shanto Iyengar observed in a press release about the poll conducted nearly a month ahead of the October 7 election. At the time, other pollsters were showing Lt. Gov. Cruz Bustamante in the lead. Conventional pollsters give potential voters the option of saying they were undecided, while the Stanford team simply gave the actual ballot to a representative sample of adults. The ballot contained no haven for equivocators.

In a recent policy paper and in court documents, Business School professor **Jeremy Bulow** spells out reasons for the current shortfalls in workers' pension funds. "Pension trustees, whose job it is to act in the best interests of the plan beneficiaries, should have taken the assets of plans that were fully funded until a few years ago and invested in assets that matched the risk structure of pension liabilities. Because they did not, the workers in many plans, in the airline and steel industries in particular, will receive much lower benefits than they anticipated, with government insurance (and eventually other companies and taxpayers) picking up some but not all of the losses. It is precisely because asset returns and liabilities are unpredictable that these policies should have been adopted long ago, and indeed should be mandated by government," Bulow wrote for the Stanford Institute for Economic Policy Research. (See *http://siepr.stanford.edu/papers/briefs/policybrief_oct03.pdf*).

Bulow also filed court papers on behalf of the government Pension Benefit Guaranty Corp. in its legal battle with U.S. Airways

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faculty publications

ACCOUNTING

Management of the Loss Reserve Accrual and the Distribution of Earnings in the Property-Casualty Insurance Industry
William Beaver, Maureen McNichols, and Karen K. Nelson
Journal of Accounting and Economics (Vol. 35, No. 3), AUGUST 2003

Differential Market Reactions to Revenue and Expense Surprises
Yonca Ertimur, J. Livnat, and M. Martikainen
Review of Accounting Studies (Vol. 8, No. 2–3), JUNE–SEPTEMBER 2003

Discussion of "Why Are Earnings Kinky? An Examination of the Earnings Management Explanation"
Maureen McNichols
Review of Accounting Studies (Vol. 8, No. 2–3), JUNE–SEPTEMBER 2003

Discussion of "Performance Evaluation and Corporate Income Taxes in a Sequential Delegation Setting"
Madhav Rajan
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The Predictive Value of Expenses Excluded From Pro Forma Earnings
J. Doyle, R. Lundholm, and Mark Soliman
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ECONOMICS

Persuasion Bias, Social Influence, and Unidimensional Opinions
Peter M. DeMarzo, Dimitri Vayanos, and Jeffrey Zwiebel
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Pricing of Complementary Goods and Network Effects
Nicholas Economides and V. Brian Viard
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Introduction to the Special Issue in Memory of Robert W. Rosenthal
Andrew Postlewaite and Robert Wilson
Games and Economic Behavior (Vol. 45, No. 2), NOVEMBER 2003

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Venture Capital Financing and the Growth of Startup Firms
Antonio Davila, George Foster, and Mahendra Gupta
Journal of Business Venturing (Vol. 18, No. 6), NOVEMBER 2003

FINANCE

Affine Processes and Applications in Finance
Darrell Duffie, D. Filipovic, and W. Schachermayer
Annals of Applied Probability (Vol. 13, No. 3), AUGUST 2003

Term Structure Dynamics in Theory and Reality
Qiang Dai and Kenneth Singleton
Review of Financial Studies (Vol. 16, No. 3), FALL 2003

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Beyond Incentive Pay: Insiders' Estimates of the Value of Complementary Human Resource Management Practices
Casey Ichniowski and Kathryn Shaw
Journal of Economic Perspectives (Vol. 17, No. 1), WINTER 2003

MARKETING

The Effect of Explicit Reference Points on Consumer Choice and Online Bidding Behavior
Utpal M. Dholakia and Itamar Simonson
GSB Research Paper #1823, 2003

A Multi-Attribute Model of the Timing of Buyers' Upgrading to Improved Versions of High-Technology Products
V. Srinivasan and Sang-Hoon Kim
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Consumer Distinctiveness and Advertising Persuasion
Sonya A. Grier and A. Brumbaugh
In Jerome D. Williams, Wei-Na Lee, and Curtis P. Haugtvedt (eds.), Diversity in Advertising, *Hillsdale, N.J: Lawrence Erlbaum Associates Inc.*, 2003

OPERATIONS MANAGEMENT

Efficiency Alone Won't Fix Supply Chain
Hau Lee
EBN (Issue 1380), SEPTEMBER 15, 2003

A Separation Principle for Assemble-to-Order Systems with Expediting
Erica L. Plambeck
GSB Research Paper #1811, 2003

Incentive-Efficient Control of a Make-to-Stock Production System
Erica L. Plambeck and Stefanos A. Zenios
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Analyzing Bioterror Response Logistics: The Case of Smallpox
Edward H. Kaplan, David L. Craft, and Lawrence M. Wein
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ORGANIZATIONAL BEHAVIOR

Cascading Organizational Change
Michael T. Hannan, László Pólos, and Glenn R. Carroll
Organization Science: A Journal of the Institute of Management Sciences (Vol. 14, No. 5), SEPTEMBER–OCTOBER 2003

Asymmetric Selection Among Organizations
William P. Barnett, A. Swanson, and O. Sorenson
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The Harder They Fall
Roderick Kramer
Harvard Business Review (Vol. 81, No. 10), OCTOBER 2003

The Organizational Niche
Michael T. Hannan, Glenn R. Carroll, and Lászlo Pólos
Sociological Theory (Vol. 21, No. 4)
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The Economics of Strategic Opportunity
Jerker Denrell, Christina Fang, and Sidney G. Winter
Strategic Management Journal (Vol. 24, No. 10), OCTOBER 2003

From Power to Action
A. Galinsky, Deborah Gruenfeld, and J. Magee
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The Expanding Role of University Patenting in the Life Sciences: Assessing the Importance of Experience and Connectivity
Jason Owen-Smith and Walter W. Powell
Research Policy (Vol. 32, No. 9)
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POLITICAL SCIENCE

A Behavioral Model of Turnout
Jonathan Bendor, D. Diermeier, and M. Ting
American Political Science Review (Vol. 97, No. 2), MAY 2003

The Coefficient of Party Influence
Keith Krehbiel
Political Analysis (Vol. 11, No. 1)
WINTER 2003

Does Racial Redistricting Cause Conservative Policy Outcomes? Policy Preferences of Southern Representatives in the 1980s and 1990s
Kenneth W. Shotts
Journal of Politics (Vol. 65, Issue 1)
FEBRUARY 2003

Using Ecological Inference Point Estimates as Dependent Variables in Second-Stage Linear Regressions
M. C. Herron and Kenneth Shotts
Political Analysis (Vol. 11, No. 1)
WINTER 2003

over how to calculate the shortfall in its pilots' pension fund when it filed for bankruptcy.

The Richard A. Stepp Professor of Economics, Bulow has written previous academic papers on tax policy (with former Treasury Secretary Lawrence Summers), on sovereign debt (with former IMF Economic Counsellor Kenneth Rogoff), and on auction theory (with **Paul Klemperer**, MBA '82, PHD '87, principal designer of the United Kingdom's 3G spectrum auction). He has consulted for U.S. government and international agencies on pensions, sovereign debt, and auction design as well as for a number of private companies, and he was chief economist of the Federal Trade Commission from late 1998 until mid-2001.

Corporate governance failures of the 1990s reflect significant changes in the incentives of managers, Professor **Maureen McNichols** told an Alumni Weekend audience. For starters, the Marriner S. Eccles Professor of Public and Private Management said, there were dramatic changes in CEO compensation. Between 1990 and 2001, worker pay increased 42 percent, corporate profits increased 88 percent, the Standard & Poor's 500 index increased 248 percent, and CEO pay rose a whopping 463 percent.

Auditing firms also became more "client-focused," she said, which is a euphemism for increased attempts to sell clients a significant bundle of nonauditing services, leading to conflicts of interest.

McNichols outlined critical lessons for directors, whose oversight role has increased dramatically, though the advisory role is no less important. The legal standard for a director is to demonstrate good faith judgment, which requires a decision to be arrived at through a sound process. A critical aspect of good process is ensuring that directors receive all relevant information.

She recommended using the "TV test" for good decisionmaking attributed to Dean Emeritus **Arjay Miller** and reiterated often by **Bill Miller**, the Herbert Hoover Professor of Public and Private Management, Emeritus. If you are not comfortable explaining a board decision on the evening news, McNichols said, "you probably need to go back and examine your process for arriving at judgments." ■

Consumer Behavior

An "A" in the Window Opens the Door

PHILIPPE WEISBECKER

In 1998, the County of Los Angeles set out to create a report card grading the hygiene of all restaurants. Phillip Leslie, assistant professor of strategic management, saw the new law as an opportunity. "We wanted to look at how responsive consumers were to that information and whether that translated to responsiveness by restaurants to improve product quality," Leslie says.

What he found in a study with Ginger Zhe Jin, assistant professor of economics, University of Maryland, was overwhelming evidence that not only did consumers change their behavior by frequenting restaurants with better scores, but restaurants also improved their hygiene levels, and public health improved with fewer hospitalizations due to food-related illnesses.

The story started in November 1997 when the local CBS evening news show broadcast a three-part series exposing unsanitary conditions in restaurant kitchens. The next month, Los Angeles County passed an ordinance requiring that restaurants display an A, B, or C grade, issued by Department of Health Services inspectors. Before that, health officials had conducted inspections but hadn't given standardized letter grades or required that the results be prominently posted.

While about 25 percent of restaurants initially had the equivalent of an A, that number later rose to more than 50 percent.

When Leslie read about the hygiene grade cards, he realized he'd come across the perfect material for studying the effect of information on consumer behavior. To that end, he analyzed the outcome of every restaurant health inspection from 1996 to 1998 along with quarterly sales data of each establishment and the number of people admitted to hospitals in the area with food and non-food-related digestive disorders.

What did he find? For starters, restaurants clearly hustled to improve their hygiene levels. Scores rose 5 percent on average after the system was introduced. What's more, while about 25 percent of restaurants initially had the equivalent of an A, that number later rose to more than 50 percent, with the worst restaurants showing the most improvement.

Leslie wondered if the rising scores could have resulted from more lenient inspections. Since the minimum for an A grade was 90 points, inspectors might have decided to cut restaurants some slack—not unlike professors who reward hard-working students with a better grade. Indeed, Leslie did find a spike in scores of around 90.

Ultimately, however, he concluded that the improved scores resulted only partly from inspector leniency. Points tended to increase, for instance, in the evaluation of ventilation systems and the condition of bathrooms—areas that were less subjective to grade, Leslie reasoned.

He also found the new system had an apparent impact on restaurant-goers' health. Leslie studied data from the California Office of Statewide Health Planning and Development detailing the number of people admitted to hospitals with specific illnesses. Hospital admissions for food-related illnesses fell 13 percent from the previous year for people living in Los Angeles, while they rose 3.2 percent in the rest of state. Overall, there were 20 percent fewer food-related hospitalizations in Los Angeles. The clear implications: Restaurants did indeed improve their hygiene levels—so much so that fewer patrons developed digestive disorders.

What about consumer response? Leslie determined that patrons reacted to the introduction of grade cards in a big way. Sales at restaurants receiving an A grade rose 5.7 percent, or about $15,000 a year. B-level restaurant sales increased 0.7 percent, and sales at C-level establishments decreased 1 percent.

While the results imply that improved information about quality might result in better market outcomes, the lessons aren't applicable everywhere, Leslie cautions. What if a report card were created for health maintenance organizations? One consumer might want the lowest-cost provider while another might seek high-quality care no matter what the cost. As a result, a standardized rating system probably would not mean the same thing to all consumers and would not have an effect comparable to that of the restaurant grade cards. Plus, says Leslie, "HMOs might start modifying their behavior to get the best grade, even if the particular criteria used were not the ideal ones for them."

Nonetheless, Leslie says, his study proves that providing good information to consumers about product quality can benefit the marketplace. "You cause people to change their purchasing decisions and firms to modify their behavior and improve product quality."

—ANNE FIELD

"The Effect of Information on Product Quality: Evidence from Restaurant Hygiene Grade Cards," G. Jin and Phillip Leslie, Quarterly Journal of Economics, 2003, v. 118 (2)

Household Economics

No-Fault Divorce Laws Change Power Balance

Divorce has traditionally left women financially worse off than men, but women may derive a life-preserving benefit from divorce, according to results of research by Professor Justin Wolfers and Betsey Stevenson, a Harvard-trained economist. Examining the impact of no-fault divorce laws adopted by states in the 1970s and 1980s, they found decreased rates of suicide, domestic violence, and spousal homicide for women.

At the vanguard of an emerging field called household economics, Wolfers, an assistant professor of political economy at the Business School, used microeconometric techniques. He and Stevenson weighed the changes in the bargaining threat point: Like workers and employers, a husband and wife can produce more together than separately. In labor markets, workers demand a certain share of the joint product or they exercise their options to go elsewhere. In marriage, "a husband and wife can each threaten the other implicitly if each has outside options," Wolfers said.

No-fault divorce laws allow one person to dissolve a marriage without the consent of the spouse. In most states before no-fault, divorce required consent of both or proof of fault by the nonconsenting spouse. "Under no-fault, wives can always threaten to walk out without the husband's permission, changing the power balance in the relationship," Wolfers said. The husband, understanding the lowered threat point, behaves himself, thereby reducing the incidence of domestic violence and spousal homicide—and increasing women's well-being, he argues.

Because states changed their divorce laws at different times, the researchers could examine the impact in state-by-state comparisons. For example: California changed its law in 1969, Massachusetts in 1975. "If we expect the suicide rate to fall, we expect it to fall six years earlier in California than in Massachusetts," said Wolfers.

Tapping into the national database of death certificates, Wolfers and Stevenson traced suicide rates before and after divorce reform and found a statistically significant reduction of nearly 6 percent in the female suicide rate following a state's change to unilateral divorce. There was no discernible change in male suicides. Looking longer term, they found close to a 20 percent decline in female suicides 20 years after the change to no-fault divorce.

The researchers then turned to national crime data and family violence surveys that were conducted in 1976 and 1985 by sociologists Murray Straus and Richard Gelles. Wolfers and Stevenson found that domestic violence against women declined from the first survey to the second in the states that had adopted no-fault divorce laws between 1969 and 1983, whereas it had increased in nine states that either had historically had unilateral divorce or had never enacted the reform. The percentage of husbands abused by their wives also increased in the 11 states with unchanged laws, yet remained the same in no-fault divorce states. For women, the change was greatest: Female victims of spousal violence declined by 1.7 percent from 12.8 percent in the reform states in the same period that spousal violence against women increased 2.5 percentage points in the nonreform states.

Looking longer term, they found close to a 20 percent decline in female suicides after the change to no-fault divorce.

Wolfers and Stevenson also looked at FBI Uniform Crime Reports for trends on spousal homicide. Reporting definitions of relationships changed, making the data comparisons difficult, but the available evidence points to a decline in women murdered by their partners in no-fault divorce states, with no discernible effects for men murdered.

Critics of no-fault divorce have argued that it leads to the breakdown of the family unit. In a separate study, Wolfers found that while divorce rates rose sharply immediately after a state adopted no-fault divorce laws, the trend reversed within about a decade. He chalks up the initial spike to pent-up demand for divorce.

Probing deeper, he returns to the labor market analogy. "The main effect of right-to-strike is not that workers strike more; rather, they can now credibly threaten their employer with a strike, and this newfound bargaining power leads to higher wages but not that many more strikes." The same is true for the threat to divorce, he said.

"If you're looking for the 'smoking gun' to explain the decline in the traditional American family, it's not the no-fault divorce laws," Wolfers said. "Rather than looking on them as the cause of family ills, these laws may actually provide a safety valve for the pressures of family life."

—HELEN CHANG ■

"Bargaining in the Shadow of the Law: Divorce Laws and Family Distress," Justin Wolfers and Betsey Stevenson, GSB Research Paper #1828, December 2003

"Did Unilateral Divorce Laws Raise Divorce Rates? A Reconciliation and New Results," Justin Wolfers, GSB Research Paper #1819, August 2003

Newsmakers

WHO'S IN THE NEWS | A Roundup of Media Mentions

BP Adds Russia to Energy Portfolio

NEWS OF VENDETTAS and intrigue in Russia do not seem to faze BP's leader **John Browne,** Sloan '81, who recently finalized an $8.1 billion deal with Russian oil producer TNK, one of the large oil and gas companies created in the wake of the Soviet Union's collapse.

"The rule of law is not widespread. Corruption is widespread," Browne told *Business-Week* during an autumn trip to Moscow. But he added, "Where everything is cut and dried there is no opportunity."

Browne's top achievement so far has been making BP one of the world's top three oil companies. He was knighted in the 1998 Queen Birthday Honours, becoming Lord Browne of Madingley.

PANOS PICTURES

BP chief John Browne sees opportunities and risks in Russia.

Smart Debt Bolsters GM Pension Fund

GENERAL MOTORS and its treasurer, **Walter Borst,** MBA '87, recently completed a $17.9 billion debt offering, the largest ever by a corporation. Intended to provide the country's second largest company with flexibility, the June 2003 offering involved 11 separate transactions and 41 banks.

The deal was triggered by pension fund shortfalls affecting many companies that had banked on higher stock market prices and interest rates to cover their pension costs. While those liabilities will shrink again if the markets change, GM's $19.3 billion pension shortfall prompted Standard & Poor's to lower its credit rating in October 2002.

"We felt that GM was becoming a little bit of a poster child for this issue," Borst said in *Treasury & Risk Management,* a trade journal that detailed the offering. While the bond market's record-low rates were part of the reason for pension fund shortfalls, the GM finance team recognized that the rates also made GM's cost of issuing debt attractive. Prices spiked shortly after the offering, making Borst's finance team look especially prescient, the journal noted.

Walter Borst, MBA '87, helped structure the largest-ever corporate debt offering.

Volunteering Pays Off

WHEN **Jeff Halpern**'s position at a start-up energy trading company disappeared in the wake of Enron's collapse, the 1991 MBA turned to **Rebecca Zucker,** MBA '94, for advice. Zucker, cofounder of Next Step Partners, a San Francisco career advisory firm, runs group workshops where she advises clients on how to replace some of the taken-for-granted advantages of having a job, according to the *New York Times.*

"The insider knowledge that's gained from being in the flow of things is linked to a person's confidence and sense of competence in the field," she said. "Like compound interest, those experiences build on each other."

Based on that advice and because he was diabetic, Halpern volunteered to work for the Juvenile Diabetes Research Foundation, where he helped a fundraising event generate about four times as much as in the past. "It was better than feeling sorry for myself, and during interviews it gave me something to talk about," he said.

The contacts paid off, and he is now marketing manager of TheraSense in Alameda, Calif., a company that develops products for people with diabetes.

Influential Hispanics

Hispanic Business Magazine recently named Business School Professor **Jerry Porras** and alumnus **Richard Leza** to its list of the 100 most influential Hispanics. Porras, the Lane Professor of Organizational Behavior and Change, Emeritus, is coauthor of the best-selling book *Built to Last.* He and senior lecturer David Bradford developed the highly successful MBA class *Interpersonal Dynamics,* the editors noted.

Leza, MBA '78, is CEO of AI Research Corp., a venture capital firm focused on early-stage investments in technology companies. He is also chairman of Hispanic-Net, an organization dedicated to improving entrepreneurial opportunities for Hispanics in technology, and a member of the Business School's advisory council.

Knowing When to Stop Taking Risks

GSB Professor **Roderick Kramer** was interviewed by CNBC about the risk-taking behavior of some CEOs during the trial of former Tyco executive Dennis Kozlowski. "Leaders are often rewarded for taking big risks early in their careers," Kramer noted. "One of the messages they take from that is taking big risks is one way to succeed. And then when they get to the top, they continue engaging in some of those behaviors. But of course, once you're at the top you have a lot more people looking at you."

Maltimus Maximus for the Masses

AFTER DECADES of settling for chocolate candy with federally restricted cocoa content, Americans are starting to produce the good stuff patterned after European recipes. One of the new entries into the market is Cocoa Pete's Chocolate Adventures of Campbell, Calif., where marketing chief **Helen Song,** MBA '02, has the official title of cocoanaut.

In the early nineties, Pete Slosberg, a former microbrewery owner, called on Stanford Business School students to analyze the chocolate market, and they concluded it was ripe for change, just as the beer market had been in the eighties. Song, who later went to work for Slosberg, told the *New York Times* the startup's strategy is to get rid of the highfalutin gold foil packaging and bring a good product to the masses. "Expensive chocolates have become so precious that you need a special occasion just to open the box," she said. "Forget the gold foil and the artisan heritage."

Available so far only in the San Francisco Bay Area, the company's chocolates have whimsical packaging and names like Maltimus Maximus (high-end malted milk balls), Hallowed Grounds, Berry Berry Dangerous, and Nuts So Serious.

Plastic Paychecks

AMERICA IS BECOMING an "unbanked" society, according to **Carl Pascarella,** president and CEO of Visa USA. "Many people today are unbanked—they don't have bank or checking accounts—so we've offered corporate entities the opportunity to pay their employees with a Visa payroll card," Pascarella, Sloan '80, said in an Associated Press interview. The payroll card is reloaded each payday so consumers can use it everywhere Visa is accepted. "We'll never get to a cashless or checkless society," he said, but "what we are looking for is less cash and less checks."

And what has been his most unusual Visa card purchase? "We've paid for horseshoeing. My wife rides a lot."

Silicon Valley Sage Bullish on Future

FORGET ABOUT PREDICTING the next big business trend to hit the Silicon Valley, says venture capitalist **Vinod Khosla,** MBA '80. "It's literally unpredictable."

PENNI GLADSTONE

Vinod Khosla sees sending jobs overseas as a means to increase profits and add local jobs.

The *San Francisco Chronicle* also asked Khosla, a partner in Kleiner Perkins Caufield & Byers and one of the founders of Sun Microsystems, if the Valley's economy might suffer permanently from high tech jobs moving overseas. He said no, the money saved by firms shipping jobs overseas would result in higher profits, which in turn will drive domestic job creation.

Student Cofounds 9/11 Survivors Group

MASSIVE INTELLIGENCE failures preceded the September 11 terrorist attacks, according to a censored congressional report last summer. Nevertheless, the panel said it found no one to hold accountable, a conclusion that second-year MBA student **Carie Lemack** finds totally unsatisfactory. Lemack lost her mother, Judy Larocque, on American Airlines Flight 11, which crashed into the World Trade Center. She cofounded the 1,500-member advocacy group Families of September 11, which lobbied heavily for a law that created an independent commission. The National Commission on Terrorist Attacks upon the United States is mandated to provide recommendations designed to guard against future attacks no later than May 27.

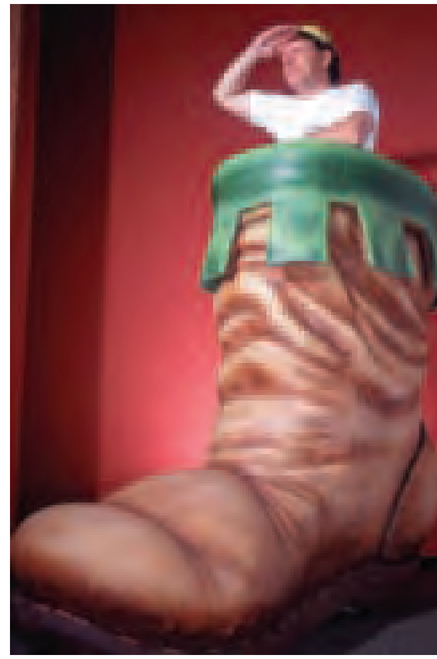
The families' battle for the law began when "we realized there were a lot of questions that needed to be answered and that there were very few people in the world who truly understood what we were going through," Lemack told *Newsweek*. "To say that no one is responsible [for 9/11], well, you're not going to stop it from happening again with that attitude." While hopeful the independent commission will produce a better document, Lemack said not every government agency was fully cooperating. "It's a matter of constant vigilance. This is what it takes, and we are willing to do it."

Boarding School

SINCE THE Sarbanes-Oxley Act of 2002 addressed the accountability of corporate board members, corporate governance courses have proliferated both in and outside of boardrooms, according to *CFO Magazine*. While some corporations offer training, others prefer to send board members to college-based programs, such as the School's executive education offering.

"Having diversity of thought and the opinions of a range of board members is very important," **Jim Barth,** CFO of NetIQ Corp. of San Jose, said after taking the four-day Stanford Business School course. In addition to the legal requirements and ethics, he said, he also learned more broadly about board communication and "how to be a better listener."

MARKHAM JOHNSON PHOTOGRAPHY



There was a Bob Moog, MBA '84, who played in a shoe.

Creative Solutions

FACING A CASHFLOW CRISIS near bonus time, **Bob Moog,** MBA '84, came up with an idea. He would fly his employees to Las Vegas, give each $100 from bags painted with dollar signs, and let them gamble to help earn the money for their bonuses. "It was a joke, but one that made light of a stressful situation in the early nineties," said *Time Inside Business* in a recent article on "profiting from fun." Moog, the cofounder of University Games, also has taken employees on a cross-country Amtrak murder mystery tour (the company's first board game hit was Murder Mystery Party), and he has outfitted the company's San Francisco headquarters with a giant Pinocchio marionette, a glow-in-the-dark walk-through cave, and a secret bookshelf that opens into another room. After five years, employees are given a month off with pay on the condition they don't check their email or call work. "It's part of an informal social contract between managers, employees, and shareholders," Moog told *Time*. "People need to have a balance between their home and family and work." ■

calendar

Events are held on the Stanford campus unless otherwise specified.

For Lifelong Learning events, see *alumni.gsb.stanford.edu/lifelonglearning* or call 650.723.4046.

Also see the alumni online calendar at *alumni.gsb.stanford.edu/events/calendar*

For details on Executive Education programs, see the advertisement on page 8 or *www.gsb.stanford.edu/exed*

FEBRUARY

FEBRUARY 11: Arbuckle Award dinner honoring Andy Grove, CEO of Intel Corp. and GSB lecturer

FEBRUARY 15–27: "Executive Program for Growing Companies"

FEBRUARY 16–18: Executive education: "Financial Leadership in the New Economy" in Dubai

FEBRUARY 18: Principal Investment conference

FEBRUARY 21: Entrepreneurship conference

FEBRUARY 24: Lifelong Learning faculty seminar by GSB lecturer Joel Peterson

FEBRUARY 28: Black Business Students Association conference

FEBRUARY 29–MARCH 1: MBA admitted students weekend

FEBRUARY 29–MARCH 12: "Executive Program for Nonprofit Leaders"

STANFORD
GRADUATE SCHOOL OF BUSINESS

MARCH

MARCH 6: Alumni Consulting Team project leader training

MARCH 6: Business of Education conference

MARCH 9–13: Lifelong Learning leadership program: "Interpersonal Dynamics for High-Performance Leaders," open to GSB alumni/ae only, in San Jose

MARCH 13: Health Care and Biotechnology symposium

MARCH 14–19: Executive education: "Leading Change and Organizational Renewal" at Harvard Business School

MARCH 17–19: Executive education: "Strategy for Nonprofit Organizations"

MARCH 20–28 (spring break): Student study trips and "dinners on break" hosted by current students and alumni/ae for prospective MBA applicants in selected international cities.

MARCH 22–24: Executive education: "Advanced Negotiation and Deal-Making Strategies" in Dubai

MARCH 28–30: Executive education: "Strategies for Effective Decision Making" in Dubai

APRIL

APRIL 3: Future of Entertainment conference

APRIL 4–9: Executive education: "Negotiation and Influence Strategies"

APRIL 7: Cool Products exposition and High Tech conference

APRIL 13 (tentative): Women in Management banquet

APRIL 18–23: Two executive education courses: "Credit Risk Modeling for Financial Institutions" and "Advanced Negotiation"

APRIL 20: Excellence in Leadership Award dinner, New York City

APRIL 22: Lifelong Learning faculty seminar, professor Hau Lee: "AAA Results: Enhancing Supply Chain Performance"

APRIL 24: Latino Leadership banquet

APRIL 25–30: Executive education: "Strategic Uses of Information Technology"

APRIL 30: Half Century Club reunion MBA classes '25–'53

APRIL 30–MAY 1: Spring reunions for MBA '03, '99, '94, and '89

MAY

MAY 2–7: Executive education: "Finance and Accounting for the Nonfinancial Executive"

MAY 8: Alumni Consulting Team volunteer training session

MAY 19: Conference on Global Business and Global Poverty

MAY 25, 28, 31: Executive forums on supply chain management with professor Hau Lee, Beijing (May 25); Singapore (May 31); Stanford International conference, Shanghai (May 28)

FUTURE EVENTS

JUNE 12–13: Commencement

JUNE 17–20: MBA '79 reunion