SPRING/SUMMER 2007

the Alumni Magazine of NYU Stern

STERNbusiness

MEET TODAY'S STERN UNDERGRADS

Citigroup's Head Honcho ■ What Makes Economies Grow ■ The Business of Interior Design ■ Measuring Clicks at Google ■ An Overlooked Financial Hero ■ Studying Entrepreneurship

a letter from the dean

Over the years, researchers at universities have discovered and explicated formulas governing everything from the speed at which light travels to the valuation of stocks. But is it possible to develop and discover formulas that deal with broader phenomena, like the pre-conditions for economic growth? Or creating the conditions in which students can grow, learn, and achieve?

The contents of this issue of STERN*business* suggest that the answer to both questions is yes. In their article (p. 26), George Smith, Richard Sylla, and Robert Wright look back through history and point out the ways in which political, social, and cultural conditions serve as the foundation for economically successful societies.

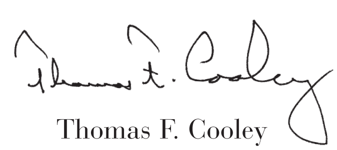
Of course, such a process takes a long time. In their article (p. 22), Debanjan Mitra and Peter Golder point out that quality is also an attribute that demands patience. One of their chief findings: companies can improve both the objective quality of their products, and, as important, the perceived quality of their products in the marketplace. But it takes sustained effort, energetic leadership, and a long-term vision.

Energetic long-term vision and leadership is precisely what Zenas Block (p. 52) has provided in his quarter-century of service to NYU Stern. The program in entrepreneurial studies that Zenas pioneered in 1981 has evolved into the widely recognized Berkley Center for Entrepreneurial Studies, which through a significant grant (p. 20) from the Kauffman Foundation, is spearheading a university initiative to make entrepreneurship a campus-wide object of study.

Important developments may not materialize overnight, but sometimes, as Bill Silber highlights (p. 34), they can arrive quickly. In the summer of 1914, when a quick-thinking Treasury Secretary shut down the New York Stock Exchange for four months and helped the Federal Reserve get up and running, it proved an important historical inflection point. New York assumed financial leadership from London, a position it has yet to relinquish.

While New York remains an important financial and cultural center, every week brings news that makes us realize that the world is a much bigger place than it was in 1914, or even 1984. At NYU Stern, globalization, an abstract term for many, is a way of life. The horizons of today's students – the places they've been and the places they'll go – are so much broader than they were in the past. Which means it is our challenge to provide them with the experiences, tools, and mindsets not just to understand and negotiate the world as it is, but to help lead in the world as it will be. Spend some time with a group of today's undergraduates (p. 14), and I think you'll agree that they are well on their way.

For today's students, there may not be a single formula for success. But at NYU Stern, we think we've hit on an important combination: an unbeatable location, a commitment to excellence in research and teaching, and a culture that allows students to explore, develop, and grow.



Thomas F. Cooley
Dean

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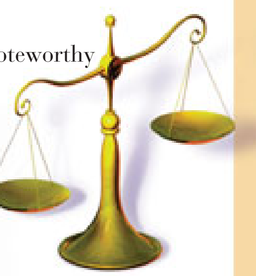

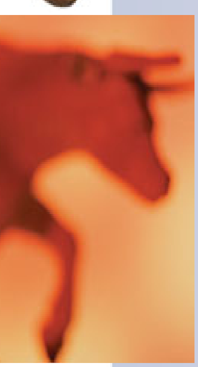

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Public Offerings

CORPORATE GOVERNANCE GURU NELL MINOW DELIVERS HAITKIN LECTURE

Last fall, Nell Minow, who has been dubbed "the queen of good corporate governance" by *BusinessWeek* online, delivered the second annual Haitkin Lecture. Minow, co-founder and editor of The Corporate Library, a clearinghouse for information on corporate governance, was introduced by NYU Stern Dean Thomas F. Cooley as "one of the most feared champions of good corporate governance."

The Haitkin Lecture, hosted by NYU Stern's Markets, Ethics & Law Program, is made possible through the generosity of alumnus Jeffrey Haitkin (BS '68), president of J.P. Meredith, Inc., a real estate firm; whose commitment to ethics has fostered this dynamic forum to analyze and debate issues of integrity in the practice of business.

In her lecture, Minow illustrated several examples of corporate malfeasance, exorbitant executive pay, and irresponsible board behavior. She stressed that the essence of corporate governance is to make sure that the right questions get asked, particularly when someone else's money is involved. Tyco's board of directors clearly didn't ask the right questions when former CEO Dennis Kozlowski asked for an employment contract that specifically included language citing that a felony conviction was not grounds for termination – while he was under investigation for tax fraud. At Hewlett Packard, board members did not ask the right questions before signing off on an investigation of leaks that included "pre-texting," illegal efforts to obtain private personal information. According to Minow, good governance is a matter of judgment, not rules. "It all boils down to the moment, not the structures," she said.

During her tenure at the Lens Fund – an investment fund that, by leveraging shareholder rights, agitated for change at companies that were not living up to their potential – Minow invested in 22 companies and helped spur the replacement of an equal number of chief executive officers. The fund successfully employed guerilla tactics, such as placing an advertisement in *The Wall Street Journal* branding one firm's board as "non-performing assets," and faxing a controversial corporate employment contract to *The New York Times*.

Minow advocates that executive pay be tied to performance, and that firms should always be focused on getting returns on investments for shareholders. She cautioned students and alumni to beware of the "seduction of success" – no one wants to speak up when things are going well – and reminded them of the importance of asking good, analytical questions.

From left to right: Dean Thomas Cooley, Nell Minow, and Jeffrey Haitkin.

Nell Minow spoke to students about the importance of good corporate governance.

LUBIN LECTURE SERIES FEATURES BEST-SELLING AUTHOR ERIC SCHLOSSER

Eric Schlosser, award-winning journalist and author of the international best-seller *Fast Food Nation: The Dark Side of the All-American Meal*, offered undergraduates, MBA students, and alumni a great deal of food for thought when he visited NYU Stern this past fall. His provocative lecture on the importance of corporate social responsibility was part of the Lubin Lecure Series, which provides a public forum to discuss economic, financial, and management principles and theories.

"Corporations are the most dominant form of social organization today, and therefore it is critical to examine the moral behaviors these systems encourage," Schlosser explained to a packed audience in Stern's Schimmel Auditorium. Before discussing three high-profile case studies surrounding the issue of corporate social responsibility (CSR), he noted the two opposing schools of thought on the subject. The first stance was promoted by economist Milton Friedman who criticized CSR and argued that a corporation's principal purpose is to increase its profits. Schlosser, however, advocates the second point of view - that corporations do in fact have obligations to their consumers – and cited Robert Wood Johnson, founder of Johnson & Johnson, as a prime example. Johnson put his obligations to his customers, employees, and community first, and his company is hugely successful to this day.

Schlosser then illustrated three occasions when corporations shirked their moral duties to society and, as a result, harmed millions of consumers. "These three cases are linked by the fact that the products involved kill people and that despite evidence proving health risks, manufacturers continued to market the products to Americans, particularly children," Schlosser said. He detailed how, in the face of conclusive evidence that tobacco causes cancer, the tobacco industry responded by denying any possible harm to smokers and stepped up marketing campaigns that lied about the safety of nicotine and its addictive qualities. Similarly, when the lead industry discovered the dangerous effects of lead paint on children – including mental retardation – corporate executives refuted the findings.

Finally, Schlosser discussed a case study that is still unfolding. A 2002 report discovered that man-made industrial fats called "trans-fats" clog arteries and are linked to heart disease. Although the FDA has not banned trans-fats nationally, Schlosser praised the New York City health commissioner for his efforts to ban them in the city. In response, the food industry has funded ads objecting to this intrusion into their rights. The debate is ongoing, but Schlosser warned that this example follows the pattern of the aforementioned cases.

Schlosser concluded his discussion by urging students to make conscious decisions when purchasing products and to support companies whose practices are socially responsible. "As future businesspeople, it is unavoidable that you will deal with these critical moral issues at some point," he said. "Change is possible and necessary, and it begins with each one of you." Following the lecture, Schlosser answered questions from the audience and met with students and alumni one-on-one while signing copies of his books.

Eric Schlosser signs his international best-seller, *Fast Food Nation: The Dark Side of the All-American Meal.*

HISTORIANS DISCUSS ENTREPRENEURSHIP

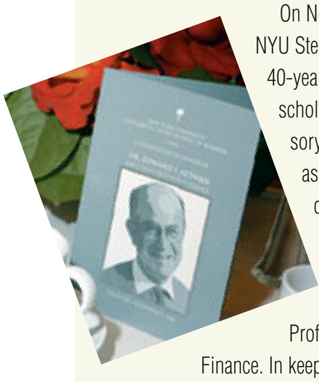
From left to right: Robert Litan, vice president of research and policy at the Kauffman Foundation; conference leaders Joel Mokyr, David Landes, and William Baumol; and Robert Strom, director of Collegiate Entrepreneurship Initiatives at the Kauffman Foundation.

In October, The Ewing Marion Kauffman Foundation and NYU Stern's Berkley Center for Entrepreneurial Studies convened a meeting of some of the world's leading economic historians to discuss the history of entrepreneurship. "We brought together this community of scholars because we believe that history, perhaps more than any other source of evidence, can teach us how to assist the entrepreneur in contributing to the welfare of society," said William Baumol, Harold Price Professor of Entrepreneurship and academic director of the Berkley Center for Entrepreneurial Studies.

Economic historians from academic institutions in the US, UK, Germany, the Netherlands, France, Canada, and Japan presented 18 papers on the role of entrepreneurs in a wide variety of countries and time periods – from the collapse of the Roman Empire to the medieval economy, and the European Renaissance to the British Industrial Revolution. The immediate objective was to gain a clearer understanding of the difference between innovative and replicative entrepreneurship, and the role of pertinent institutions and public policy in fostering entrepreneurship.

The papers will be published by Princeton University Press in a book co-edited by Baumol, David Landes of Harvard University, and Joel Mokyr of Northwestern University.

NYU STERN HONORS ED ALTMAN



On November 9, NYU Stern honored the 40-year academic, scholarly, and advisory career, as well as the 65th birthday of Edward I. Altman, the Max L. Heine Professor of Finance. In keeping with academia's tradition of the *Festschrift*, the School hosted an academic conference as well as celebratory lunch and a gala dinner. To mark the occasion, Altman's former students, friends, and professional associates established the Edward I. Altman Fund for the benefit of financial research and scholarship at NYU Stern.

Internationally recognized as an expert on corporate bankruptcy, high yield bonds, distressed debt, and credit risk analysis, Altman was named one of the 100 Most Influential People in Finance by *Treasury & Risk Management* magazine in 2005. Altman has been educating Stern MBA students on "vulture investing" and "bankruptcy predication" for the past 40 years and currently has more than 50 graduates, known as "Altman's Vultures," who are established professionals in the distressed debt markets.

Richard Levich, NYU Stern professor of finance and international business, deputy chair of the department of finance, and member of the event's honorary host committee, emceed the lunch festivities, which featured stories from NYU Stern Professors Martin Gruber, Ingo Walter, and Anthony Saunders, and industry leaders such as Markus Lahrkamp of Droege & Co., and Mark Abbot from Prima Guardian and Life.

Martin Gruber, Nomura Professor of Finance, shared the tale of when Altman was hired. After meeting with Professors Gruber, Robert Kavesh, Edwin Elton, and Lawrence Ritter, Altman was offered a job in the budding finance department, because as Gruber said, "Ritter was convinced that he could play shortstop and go to his left." Ritter was dedicated to baseball and wanted to improve the Stern baseball team as well as the finance department.

The academic conference featured professors from Boston College, University of Massachusetts, University of Michigan, Santa Clara University, Bocconi University, and the London Business School. Topics included an analysis of the risk structure of credit spreads; rating changes and the information content of bond prices; how corporate defaults are correlated; understanding recovery rates on defaulted securities; and implied recovery á la Altman.

The afternoon panels included many of Altman's former students. The first panel: "From Z to A: The Evolution of Credit Risk Analysis," moderated by Tony Kao (MBA '82), senior managing director, GM Asset Management, and a member of the event's host committee, featured a discussion on the importance of quantitative credit analysis versus fundamental analysis.

"The Evolution of Leveraged Finance, Distressed Debt Investing, and Corporate Restructuring – How Tomorrow Might Be Different" panel was moderated by Allan Brown (MBA '94), co-head of distressed investments and portfolio manager, Concordia Advisors, LLC, and a member of the host committee. The discussion included four NYU Stern alumni: Shelley Greenhaus (MBA '78), president and managing director, Whippoorwill Associates; Geoffrey Gold (MBA '91), partner, Strategic Value Partners; Thomas Carlson (MBA '95), senior vice president, Jefferies & Company, Inc.; and Marti P. Murray (MBA '86), founder and president of Murray Capital Management. The final panel focused on "Automotive Restructurings: The Future of Unions in America" and was moderated by Steven Zelin (MBA '91), senior managing director, The Blackstone Group, and member of the host committee.

Ed Altman (top) and Dean Thomas Cooley at a celebration of Altman's 40-year career and 65th birthday.

More than 450 alumni, academics, and professionals attended the gala dinner, where Brown served as master of ceremonies and many shared stories about Altman. The speakers lauded Altman's contributions to and influence on the distressed debt market, noting that he even has his own Bloomberg function. NYU Stern Dean Thomas F. Cooley commented on how Altman helped put Stern on the map – not just in New York City, but around the globe. Brian P. Smith (TRIUM MBA '03), managing director, Conway MacKenzie & Dunleavy, China, joked that the Z-score, the function Altman devised to predict corporate bankruptcies, has been in existence so long that Altman had a Z-score for the fall of Rome. Marti Subrahmanyam, Charles E. Merrill Professor of Economics and Finance at NYU Stern, pointed out that even though he was one of Altman's few bosses at Stern, Altman never believed that anyone was above him. Instead he had "chutzpah." "Who else do you know with his stature that would try out for the Cubs?" he joked.

Speakers also included: Tom Carlson (MBA '95), who spoke on behalf of the event's platinum sponsor, Jefferies & Company, Inc.; Jonathan Strasser, music director, InterSchool Orchestras of New York; and Peter Langerman (MBA '80), president and chief executive officer, Franklin Mutual Series Fund.

Altman concluded the event by proclaiming, "I am not retiring," which was met with thunderous applause. Reflecting on his time at Stern, Altman said, "Forty years in one place and loving it can only happen if you have great people. I have worked with six great deans and six great (department) chairmen. We have the best finance group in the world, and the best students in the world. It is so much fun to be a part of it. I thoroughly enjoy the challenge of teaching such amazing students."

NOBEL LAUREATE EDWARD PRESCOTT DISCUSSES MACROECONOMIC MYTHS

Edward Prescott, the returning NYU Stern Shinsei Bank Visiting Professor in Economics at NYU Stern's Center for Japan-US Business and Economic Studies, hosted a discussion in October that dispelled several macroeconomic myths on topics ranging from the 1990s economic boom, the likelihood of a recession, and the Federal government's debt load. NYU Stern Dean Thomas F. Cooley introduced Prescott, his former thesis advisor and the 2004 Nobel Laureate in Economic Sciences.

Prescott began the session by proclaiming that, "[former Federal Reserve Chairman Alan] Greenspan (BS '48, MA '50, PhD '77) was not the cause of the 1990s boom, and his monetary policy did not have much real effect on the economy." Rather, growing industries, such as the technology sector, led to greater investment in intangible capital, which Prescott defines as the expenses incurred by businesses that are not reflected in the bottom line, namely research and development, advertising, and the costs of building new organizations. Using data to underscore his arguments, Prescott contended that because of these investments, the boom was actually larger than what had been reported since investments in intangibles are not always captured on accounting balance sheets.


Edward Prescott (right), with Edward Lincoln, clinical professor of economics and director of the Japan-US Center, dispelled common macroeconomic myths in a recent address at NYU Stern.

Next, he debunked assertions that a recession is imminent and that the US government's debt is too big. Prescott explained that there would be a recession only if one of three things happened: tax rates were increased, regulations and legal constraints lowering productivity were imposed, or the US were to shift to an isolationist mentality. Otherwise, the US has a stable 3 percent real growth rate, which is composed of 2 percent productivity and 1 percent population growth. Prescott, who won the Nobel Prize for his contributions to dynamic macroeconomics, also deflated theories that the current government debt will be a burden on future generations. He noted that privately held, interest-bearing Federal government debt has remained steady at approximately 30 percent since the 1930s.

Summing up his discussion, Prescott warned, "Don't believe everything you read. Look the numbers up for yourself."

GLOBALIZATION'S NEXT WAVE

In December, NYU Stern's Global Business Institute and the World Bank hosted an academic panel discussion about the opportunities and risks that the next wave of globalization may create.

Hans Timmer, lead economist and manager of the Global Trends team in the World Bank Development Prospects Group, and Uri Dadush, World Bank director of the Development Prospects Group and manager of the International Trade Department, presented the findings of the World Bank's Global Economics Prospects (GEP) report for 2007. The GEP report was followed by a panel discussion moderated by NYU Stern Dean Thomas F. Cooley. The panel included William Easterly, professor of economics at NYU and co-director of NYU's Development Research Institute; Bernard Yeung, Abraham Krasnoff Professor of Global Business at NYU Stern, interim director of Stern's Global Business Institute, and director of NYU China House; and Georges de Menil, professor of economics at the Institute for Advanced Studies in the Social Sciences, Paris, and visiting professor at NYU Stern.


Dean Thomas Cooley moderated a panel on the World Bank's 2007 GEP Report featuring (from left to right) Uri Dadush, Hans Timmer, William Easterly, Bernard Yeung, and Georges de Menil.

Timmer said that while the economy faces looming risks, growth in developing countries will remain strong, boosted by enhanced policies and favorable financial conditions. As global integration intensifies, developing countries' share of trade will rise in 2030 to 45 percent of the world's total. Dadush explained that while global economic growth would raise income and reduce absolute poverty, widening inequality between skilled and unskilled workers could cause tensions in labor markets. He cautioned that global institutions and policies are too weak to deal with severe environmental pressures, including global warming, a depletion of fisheries' stock, and an increase in infectious diseases.

Easterly responded with a provocative and contrarian point-of-view on the GEP's report, focusing his remarks on the effect of globalization on Africa. He first argued that 25-year projections are impossible to make and that we know little about policies that raise growth rates. He also contended that the GEP report paints a darker picture about Africa than is warranted. He said that Africa's growth rate is approximately 2 percent, which has been historically true for all developing countries.

Regarding the GEP's outlook on China, Yeung suggested that China will face a productivity problem caused by malfunctioning capital markets; an aging population resulting from its one-child policy; poor health due to pollution, low-quality food, and lack of medical insurance; and educational inequality in rural neighborhoods. Yeung argued that these problems are institutional and that serious changes will not take place unless there is a dramatic economic collapse or a very long period of stagnation. He predicted that these structural problems will lead to a long period of stagnation in China.

De Menil analyzed the GEP report as it relates to Europe and stressed the need for a multilateral approach to address global warming. He cited the Stern Review, a report on the economics of climate change by Nicholas Stern, former chief economist and senior vice president at the World Bank, which projects that by 2050, 200 million people, mostly in coastal regions, will be displaced by global warming.

In his concluding remarks, Dean Cooley pointed out that income inequality could be a result of economic growth and that it is not necessarily undesirable or avoidable.

ARE PENSIONS SAFE?

Top: Conference speakers Michelle Weldon (left) and Michael Auerbach; Bottom: Steve Markovitz (left) and Mark Lilling.

Last winter, NYU Stern's Vincent C. Ross Institute of Accounting Research convened leaders from government, financial services institutions, and academia to tackle a timely and controversial issue: Are US pensions safe?

Dean Thomas F. Cooley opened the conference by saying that US pensions are not safe and that pension reform is crucial. In moderating the subsequent panel discussion, Associate Director of the Ross Institute and Clinical Professor of Accounting Seymour Jones cited inadequate funding and corporate deficiencies as factors contributing to the unease.

Mark S. Lilling (BS '72), chief executive and managing partner of CPA firm Lilling & Company LLP, and founder of the Audit Committee Consulting Team LLC, argued that society has a social responsibility to provide retirement income, and that the need will rise as people live longer. Moreover, the significant decline in the number of defined benefit plans available has resulted in a shift in investment responsibility and risk, from employers to individuals. According to Lilling, with the recent advent of the limited scope audit, which doesn't require pension investments and returns to be audited, $1.5 trillion of the $4.5 trillion in pension plans isn't being watched. And the Pension Protection Act of 2006 allowed hedge funds and private equity funds to accept larger investments from pension plans – even though they themselves are not regulated.

Michael Auerbach, chief of the Division of Accounting Services at the US Department of Labor's Employee Benefits Security Administration, noted that overseeing 75,000 pension plan audits is overwhelming for his 13 staff members. John Biggs, former chairman and chief executive officer of TIAA-CREF and NYU Stern Executive-in-Residence, said that IRAs, which are unaudited, hold the largest percentage of pension dollars. Biggs' greatest concern about pension safety is that the American public is now required to manage retirement assets on its own, and expressed concern over the very low contribution rate of young employees. He concluded, "We've found the enemy, and they are us."

Additional panelists included NYU Stern Professor of Accounting Joshua Livnat, whose research has found that one-third of individuals who are offered defined contribution plans do not enroll. He advocates investment in life-cycle funds, which adjust the mix of stocks and fixed-income investments as investors age. Kenneth Dakdduk, partner, Pension Accounting, Pricewaterhouse Coopers LLP, underscored the utility of financial reports to assess the safety of pension benefits, noting that as of the end of 2006, balance sheets will report the funded status as either assets or liabilities.

Michelle Weldon, of Pricewaterhouse Coopers' Audit Business Advisory Services unit in Boston, argued that the increased popularity of defined contribution plans, as well as the continued growth of derivatives, hedge funds, and private equity, has resulted in an inability to report plan assets at fair market values.

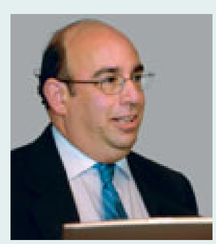
This Ross Institute Forum was made possible by the generous support of Mark Lilling and The Audit Committee Consulting Team LLC.

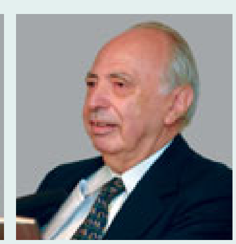
EXPERTS ARGUE CONVERGENCE WILL FAVORABLY IMPACT CAPITAL MARKET INTEGRATION

On October 20, NYU Stern's Global Business Institute and Vincent C. Ross Institute of Accounting Research convened leaders from regulatory standard setting bodies, financial market experts, and academic researchers to discuss the ways in which national accounting and regulatory differences affect international capital markets. The full-day conference featured panels on the benefits of convergence – the phenomenon by which countries agree to adopt similar standards – and the relationship between convergence and access to the US capital market.

Robert Herz, chairman of the Financial Accounting Standards Board (FASB) and the luncheon keynote, noted that the US is on the path toward global harmonization of accounting standards. More than a decade ago there was a growing realization that US Generally Accepted Accounting Principles (GAAP) would not work as a universal standard because the rest of the world simply would not accept the American way of reporting. Instead, FASB's priority is to assess both GAAP and the International Financing Reporting Standards (IFRS) to determine which elements from these standards would be globally optimal. Herz emphasized FASB's three-pronged strategy: to improve US standards, to determine whether or not convergence is an improvement over the current accounting standards, and to simplify the US standards. Priority areas of focus include improving standards in revenue recognition and lease accounting, as well as merging US and international conceptual frameworks.

The conference concluded with a roundtable discussion, moderated by Ross Institute Associate Director and Professor Seymour Jones, on how the lack of convergence affects foreign company access to the US capital market. Marti Subrahmanyam, Charles E. Merrill Professor of Finance at NYU Stern, joined William Decker, audit committee chairman of Baidu, Inc.; Jeffrey Singer, vice president, Corporate Client Group, at NASDAQ; and Lynn Turner, the former chief accountant at the Securities and Exchange Commission and current managing director for research at the advisory firm Glass, Lewis & Co. Subrahmanyam argued that US financial markets were losing their dominant position and that US regulations needed to be re-examined. Singer surmised that since the passage of Sarbanes-Oxley, companies are more likely to raise capital and list shares on foreign markets. Turner noted that while the top five IPOs in 2005 were from China – and none were listed in the US – the US has the highest capital market standards and should retain them. Decker asserted that in order for there to be parity in the world market, there needs to be a single set of accounting standards driven by the same fundamental principles.





From left to right: Marti Subrahmanyam, Robert Herz, and Seymour Jones discussed how national accounting and regulatory standards affect international markets.

PROFESSOR DAMODARAN LEADS LIFELONG LEARNING WORKSHOP ON VALUATION

Aswath Damodaran, professor of finance and David Margolis Teaching Fellow, in October led a Lifelong Learning Workshop entitled "Valuation: Many a Slip between the Cup and the Lip…". The half-day workshop, sponsored by the Office of Alumni Affairs and attended by many of Damodaran's former students, featured a lecture on the basics of valuation with an interactive discussion, followed by a networking luncheon.

Damodaran began the workshop as he begins all of his valuation classes – by discussing lemmings. These suicidal creatures are much like investors, and the purpose of teaching valuation is to "fight the lemmings." "Think about the last lemming in the mass suicide," Damodaran reasoned. "He must have doubts." But that lemming, much like momentum investors, feels that "the others must know something I don't," and follows along the cliff until he meets his watery grave.

Momentum investors who value Google at $200 a share note that others are paying $425 for the shares and presume that "they must know something I don't." The so-called "Yogi Bear" investors who want to run with the crowd but believe they can get out before the going gets tough are much like the lemming who thinks he can stop before he gets to the cliff but doesn't realize that he has already run past it. Damodaran aspires to be the lemming with the life vest, which is where his valuation theory comes into play.

Damodaran believes that the great thing about valuation theories is that no one can prove one wrong. Investors must realize that there is no objective, "true" value – all valuations are biased; the only question is by how much. By its nature, valuation is imprecise, and complexity does not translate into better valuations. "The companies with the most uncertainty have the greatest payoff," he said.

He described three different approaches to valuation: discounted cash-flow valuation, relative valuation, and contingent claim valuation. Discounted cash-flow valuation relates the value of an asset to the present value of expected future cash flows it will produce. Relative valuation, which makes up the bulk of all valuations, estimates the value of an asset by looking at the pricing of "comparable" assets relative to a common variable (such as earnings, cash flows, book value, or sales). Finally, contingent claim valuation uses option pricing models to measure the value of assets that share option characteristics.

Damodaran offered several helpful hints to those undertaking a discounted cash-flow valuation. To be sure to measure the earnings correctly, investors should focus on the big picture (not the accounting picture) when assessing capital expenditures and working capital. They should realize that the past is not always a good indicator of the future; that the risks of globalization affect emerging markets and developed markets; and that growth has to be earned, not endowed or estimated. And finally, if one behaves as a lemming, he will learn, to his chagrin, that all good things come to an end.

ACADEMICS AND PRACTITIONERS ADDRESS DATA GOVERNANCE AND RISK CALCULATION ISSUES

Last fall, NYU Stern's Center for Digital Economy Research (CeDER), IBM Data Governance Council, and BITS Financial Services Roundtable hosted a forum to bring together practitioners and academics to discuss the most pressing issues associated with governance of data and technologies. The sessions were attended by approximately 35 participants from leading companies and universities, including Citigroup, IBM, JPMorgan Chase, Lehman Brothers, NYU Stern, and The Wharton School of the University of Pennsylvania.

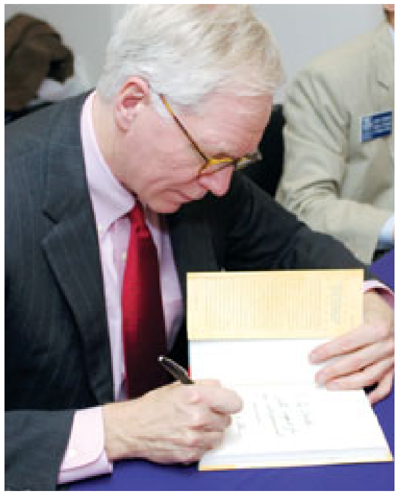
"Data governance and risk calculation are boardroom issues," explained Vasant Dhar, professor of information systems, deputy chair of the Information Systems Group, and co-director of CeDER, which supports research concentrations that address specific areas of the digital economy, ranging from business intelligence and data mining to interactive marketing. "Organizations put their franchise at risk if they do not adequately consider the value of data and material damages that can result if data are stolen, lost, or used inappropriately by them or a third party, or from failed or missing processes."

The event was designed to frame these risks quantitatively, define what data should be collected, and to determine how data should be classified by organizations. The program consisted of two keynote lectures, two panels featuring distinguished practitioners, and an open discussion to encourage dialogue among participants. Cathy Allen, CEO of BITS Financial Services Roundtable, and Steven Adler, chairman of IBM Data Governance Council and program director for IBM Data Governance Solutions, gave the keynote lectures.

Allen discussed why the industry needs risk calculation models. She explained that boards of directors and senior executives are demanding better tools and that there has been an increase in fraud and security breaches and a rise in cross-channel payments risk. She said that one in five customers are leaving companies because of security breaches, and that another 40 percent consider doing so. Allen recommended that boards focus on three key IT risks: compliance and control, business continuity, and security and privacy. She suggested that companies add a technology expert to their boards and develop appropriate enterprise-wide risk management policies, procedures, and controls.

Dhar moderated a panel focusing on risk calculation challenges and opportunities, which included Joseph Sabatini, managing director and head of the Corporate Operational Risk Team at JPMorgan Chase; Mike Stiglianese, chief IT risk officer at Citigroup; and Don Wesnofske, chief risk officer for IBM Governance, Risk, and Compliance Solutions. Sabatini said operational risk continues to increase in size, complexity, and volatility due to business growth and expansion, external environmental factors, changes in management initiatives, and greater dependencies on complex products, operations, and processes. Wesnofske discussed the value proposition of operation risk for companies and recommended that companies make compliance a strategy and not a sunk cost.

AUTHORS DISCUSS MACRO AND MICRO VIEWS ON ENTREPRENEURSHIP



Carl Schramm (left) autographs his book, *The Entrepreneurial Imperative: How America's Economic Miracle Will Reshape the World (and Change Your Life).* Danny Meyer (right) discusses his book, *Setting the Table.*

In a world of increasingly scarce resources, the United States is blessed with a powerful source of renewable energy: entrepreneurship. So argues Carl Schramm in his book, *The Entrepreneurial Imperative: How America's Economic Miracle Will Reshape the World (and Change Your Life)*. "Entrepreneurship is the only uniquely American resource at our disposal," writes Schramm, president and CEO of the Kansas City-based Ewing Marion Kauffman Foundation, which has awarded grants to NYU Stern to support entrepreneurship programs and research in the field.

In October, Schramm appeared at NYU Stern to discuss his book with an audience of Stern alumni and MBA students at Stern's Author Lecture Series. The lecture, hosted by Stern's Office of Alumni Affairs and The Berkley Center for Entrepreneurial Studies, in conjunction with the Museum of American Finance, was followed by a book-signing reception.

Schramm's argument is rooted in history – recent and past. In the 1970s and 1980s, he explained, the US evolved from a stable economy with predictable growth based on big government, big business, and big unions, to a more dynamic one. The shift was stimulated by stagflation – a 20 percent prime interest rate, 12-14 percent mortgage rates, and a 9 percent unemployment rate. It was also propelled by a series of happy accidents: the ERISA pension reform, which led to a more competitive and mobile workforce, the clarification of intellectual property laws, and the underutilization of intellectual labor. "This shift created a new matrix where entrepreneurship could emerge – an economy now known as post-industrial capitalism or entrepreneurial capitalism," he said. In this new economy, entrepreneurial risk is reduced. As a result, 1 million new firms are now created in the US each year, and 70 percent of all American jobs are from businesses less than five years old.

A true American entrepreneur, restaurateur Danny Meyer has created more than his share of jobs. And in his book, *Setting the Table: The Transforming Power of Hospitality*, Meyer, the founder and co-owner of 11 of Manhattan's most influential restaurants, including Union Square Cafe, Gramercy Tavern, Tabla, and The Modern, shares his recipes for success.

"The customer is not always right," Meyer proclaimed to an audience of NYU Stern alumni and MBA students in November. Meyer, who also appeared as part of Stern's Author Lecture Series, qualified the remark by noting that "while the customer is not always right, he or she must always feel heard."

Meyer, the CEO of Union Square Hospitality Group, said his business strategy is built on both good service, defined as the technical delivery of a product, and "enlightened hospitality," which is how the delivery of that product makes its recipient feel. He argued that hospitality is the distinguishing factor for success in this new, service economy. In the information age, when competitors know how to offer the same products and services, the culture and experience companies create for their customers will help them stand out.

To create this hospitable culture, restaurants must hire the right people, said Meyer. He hires "51 percenters" – staff with a high "hospitality quotient (HQ)" whose skills are 49 percent technical and 51 percent emotional. The emotional skills required to create a high HQ are optimism and kindness, curiosity about learning, an exceptional work ethic, a high degree of empathy, and self-awareness and integrity. The most important application of hospitality is to the people who work for you, and then, in descending order of priority, to the guests, the community, suppliers, and investors. And Meyer believes this philosophy applies not just to the restaurant business, but to any service business. "By putting your employees first, you have happier employees, which then leads to a higher HQ. A higher HQ leads to happy customers, which benefits all the stakeholders. The cycle is virtuous, not linear, because the stakeholders all impact each other."

From left to right: Dean Thomas Cooley; Maria Bartiromo; Jonathan M. Herman, Esq., president of the NYU Alumni Association; and Brooke Kroeger, chair of the NYU Department of Journalism.

In October, alumni, students, and friends gathered at NYU Stern for New York University's annual Speakers on the Square Lecture series, co-sponsored by the NYU Stern Alumnae Network, featuring Maria Bartiromo (WSC '89). The host and managing editor of the nationally syndicated business and economic news program, "The Wall Street Journal Report with Maria Bartiromo," and anchor of CNBC's "Closing Bell with Maria Bartiromo," Bartiromo shared her views on the economy and investment in global markets. After the lecture, she met with students and signed autographs.

Web Bites

by **Stephanie Sampiere**

When **Jason Finger (MBA/JD ’99)** started law school, he didn’t dream of becoming a top litigator. Even before classes began, he realized his instincts were more entrepreneurial than legal. And so, after receiving joint degrees at NYU Stern and NYU Law, and after practicing law for five months at a private equity-focused law firm, Finger struck out to create a business with some friends. They toyed with the idea of starting a cookie company before launching SeamlessWeb, which provides companies and their employees, as well as individuals, with an automated Web-based system for ordering from restaurants, caterers, florists, gift-basket purveyors, and other local vendors.

Finger’s short legal stint gave him insight into optimizing SeamlessWeb. With professionals like lawyers and bankers spending countless hours at the office – and frequently enjoying meals courtesy of their employers – Finger realized that a service that enabled employees to order food quickly would be appealing. But, the special sauce was Finger’s insight that vendors and companies would be eager to sign up because the service could offer streamlined back-end technology like automated billing and marketing services. In 1999, with $345,000 in seed money from more than 40 people, “anyone who would give us a second to talk,” Finger and company set up shop. Investments ranged from $500 to $50,000, and each investor was offered a stake in the company.

For the second round of financing, Finger and his team eschewed the traditional venture route, in which founders are often ousted in favor of the fund’s desired management. Tapping into the original investors, and using his ties to fellow alumni, he raised an additional $1.4 million in capital from individual investors and a small venture fund run by a friend from college. These supporters stepped up once again when Finger and SeamlessWeb raised $650,000 to advance payments to restaurants that would have otherwise gone out of business during the aftermath of September 11th.

SeamlessWeb currently partners with more than 1,400 of the 15,000-plus restaurants in New York City. Restaurants can use SeamlessWeb’s back-end technology to manage finances, but also to crunch data and drive increased sales from new and existing sources. “Our restaurants range in sophistication from ‘Mom and Pop’ type shops to national chains,” said Finger, 35. “We want to introduce technology to the restaurant community so that these types of restaurants can have multiple channels through which customers can be acquired, an aggregated collections system with consistent payment, and their own websites.”

SeamlessWeb’s more than 1,600 corporate customers, which range in size from *Fortune* 100 companies to offices as small as three people, pay a nominal transaction fee and are guaranteed the lowest prices from the participating restaurants. Customers include 14 of the 15 largest investment banks, 80 of the AmLaw 100 law firms, more than 400 asset management firms, and in 2005, New York City Mayor Michael

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Bloomberg's re-election campaign. Allowing companies to quickly and automatically allocate and bill expenses without having to reimburse employees, and enabling employees to order food at the click of a mouse while correctly billing their clients, saves both money and time. The less time people spend ordering food, the more time they have to spend on work – or with their families. And, companies that lack the size or scale to support an onsite dining facility now can offer their employees inexpensive, broad food services programs.

"Part of our motivation is to allow people to get home to their families," said Finger. "Automating the ordering and eliminating reimbursements by providing real-time billing saves time for everyone involved. It's rare that a company can introduce a service where everyone benefits – the employees, the companies, our vendor partners, and individual consumers."

SeamlessWeb is currently available in 14 markets, all of which are prominent financial locations, including New York City, Greenwich and Stamford, CT, Boston, Chicago, San Francisco, Los Angeles, Houston, Washington, DC, and London. Finger believes the company has many opportunities for expansion into new markets and to the areas surrounding the cities it already serves. "Eventually, ordering food online will be as commonplace as ordering your plane tickets online," he said.

The company has already made a seamless expansion into the consumer market. After receiving hundreds of e-mails asking for use of the service at home, in 2005, SeamlessWeb expanded its service to include residential areas. Now, the consumer business is the fastest growing part of SeamlessWeb, and Finger sees it expanding to include take-out and text ordering.

Finger attributes much of the company's rapid success to its New York City home base. "We wouldn't be as far along if we had started in any other market," he said. "New York is the financial hub of the world. There is not only a wealth of clients here, but a wealth of advisors. And New Yorkers are among the most demanding consumers out there. It is great to develop best practices here, because if you can provide good customer service in New York, you can generally knock the cover off the ball in the other markets."

SeamlessWeb sees orders for the healthier restaurants in its network increase in January and February when customers are still holding fast to their New Year's resolutions, as well as during the summer months when customers are gearing up for bathing suit season. True to the old adage, SeamlessWeb orders confirm that bankers enjoy steak, while lawyers prefer sushi.

Part of Finger's New York experience includes his education at Stern and NYU Law. He looks back fondly at his time spent in Washington Square and believes the courses he took at the law school as well as the Stern courses on entrepreneurship, finance, marketing, and probability helped prepare him as he built SeamlessWeb. "I may not remember all of the formulae, but the broad education from some of the finest minds in academia helped me realize how the numbers all work together."

In April of 2006, SeamlessWeb was acquired by Aramark, the giant food and professional services company, and Finger became part of the senior leadership team. The partnership offers "the right balance of support and autonomy," he said. "We are now part of a much larger organization that has consistently demonstrated a strong belief in the future of SeamlessWeb. We are able to invest in our growth with a long-term perspective and can consider ways to move the business forward, leveraging a multi-billion dollar global company." Finger hopes that investment will pay off *seamlessly*. ■

Designing Woman

by **Jenny Owen**

Above: Lisa Jackson; left: A Jackson Aaron-designed bedroom featured in *Palm Beach Cottages & Gardens*.

Down the hall from her mother's antique furniture boutique, **Lisa Jackson (BA '80, MBA '85)**, her partner Catherine Aaron, and several assistants plan how they'll design the interiors and furnishings of some of New York City's most affluent residents. The Jackson Aaron office is located in the Interior Design Building on East 61st Street, in the Manhattan neighborhood where she has always lived.

"I've been on the Upper East Side my entire life, and I understand the New York lifestyle philosophy so well. I live it," Jackson said, explaining how her roots have helped her connect with her clients – who include actress Renée Zellweger, designer Vera Wang, real estate developer Edward Minskoff, fashion executive Mario Grauso, and other sophisticated New Yorkers – who share the same aesthetic sensibility.

While her professional reputation, social connections, and charity work have all helped land her impressive list of clientele, Jackson asserted that word-of-mouth from satisfied clients keeps the business booming. "It's important to keep your clients happy," she said.

A little more than a decade ago – after obtaining an MBA from NYU Stern and working for more than 10 years at her father's international industrial and marine distribution business – Jackson started her interior design firm while enrolled in a two-year interior design degree program at Parsons School of Design. "I got a call one day from a charming bachelor and he said, 'Can you decorate?'" She replied, "I'm sure I could." That was Jackson's first project. "Then I got busy with more projects and called up Catherine [Aaron, a classmate] and asked her if she wanted to help with the work," she said. "We've been together ever since."

The partners started the business with only $50,000 and began making a profit in the first year. "We used to do whole projects for what we now get [as a deposit] before we even start. We wanted to work as much as possible for as many people as possible. We're far more selective now."

The two undertake the creative work together, but Jackson focuses on growing the company, while Aaron oversees production. Their interior design projects are primarily residential, but they have done a bit of commercial work too.

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They describe their style as "classic and tailored with a twist." "We like things to be able to stand the test of time," said Jackson. "Our palettes are neutral with some pop. We don't do a lot of pattern on pattern. We like to balance the new with the old."

Jackson Aaron's designs have been featured in *Architectural Digest* and *House Beautiful*, and their work on the home of real estate moguls Frederic and Tami Mack was splashed over six pages of *Elle Décor*.

Within two years of its formation, Jackson Aaron opened an antiques shop. Six years later, the partners launched a modern furniture line. "It was a natural extension for us," Jackson said.

"Formal, carefully-made, tailored, and rooted in the designs of the 30s and 40s," their furniture is sold online, to the trade, and in their office building.

In December 2006, Jackson Aaron bought Luca and Company, a young, retail furniture business offering "sophisticated, Belgian antiques." Under the helm of Jackson Aaron, Luca and Company was re-launched at the New York Design Fair in February 2007, and the furniture is sold at two locations in New York City.

Lisa Jackson (top) and a room she designed with partner Catherine Aaron.

According to Jackson, the company plans to spend the next year focused on building both furniture lines. Her hope is to expand the retail line to Los Angeles and Chicago. "Design is a labor of love and I've been lucky to work for some incredible people and design some incredibly beautiful homes. But I really like the idea of growing businesses. I want to build a retail empire."

After spending more than a decade helping to build an international presence at her father's company, where she now serves on the board, Jackson decided to build on her own creative aspirations. "I had worked with my family's business for many years, and I had always had this creative side," she said. "When I decided to go to Parsons, I knew that could be a fork in the road. I had traveled the world and, at that time, I had small children, and I didn't want to travel much anymore."

Jackson said it was her business acumen that helped launch her creative career. "My business background has allowed us to work in this business – work on the high-end – and be a professional organization. I don't think we could have done it otherwise. It is as much about business as it is about being artistic."

Although having an MBA is unusual in the interior design industry, Jackson said the degree "lends credibility to anything that you want to do." She chose to study at NYU Stern because it offered a more flexible program while she worked, and because NYU was her alma mater. "I learned how to be incredibly resourceful in business school. And, through all of the group projects, I learned how to work with people."

She ascribes much of her success to people skills, as well as hard work and focus. But for those interested in launching their own interior design firms, she cautioned, "The entrepreneurial spirit is either yours or not. For me, I like being the boss." She also recommended that one work in the field before setting up shop: "It will lend a credibility that I didn't have in the beginning. And experience is helpful. We were just figuring it out as we went along."

And figure it out, she did. But for Jackson, the ultimate success is as simple as "going to dinner in interiors we've decorated and seeing that they look and function as well as we hoped they would." At this rate, she's certain to accomplish much more of that.

8 QUESTIONS

JAMES CRACCHIOLO (BS '80, MBA '85), chairman and chief executive officer of Ameriprise Financial

1. You've held several different positions at American Express since joining in 1982, and now run one of its spin-offs. Does it feel as if you've been with a single company for 25 years?
I did feel as though I worked for a number of different companies in that I worked for two major subsidiaries – Shearson Lehman Brothers and American Express Financial Advisors – both of which have now spun off. I had the chance to work in many different industries, all under one umbrella.

2. For people starting their careers, would you recommend seeking out a large, multinational company like American Express?
It really has to do with your personal goals and aspirations. The benefit of being a part of a large company is that you have a stable environment in which to grow, with good training, support, and development opportunities. But for those who have a more entrepreneurial spirit or who want rapid exposure to multiple facets of business, then a somewhat smaller or mid-sized company might be more suitable.

3. In 1997, you started Global Network Services within American Express. Does your experience lead you to believe that it is possible to be an entrepreneur within a large company?
Yes, it's possible. You need a company that has the appetite for appropriate risk as well as the commitment to invest in a new business opportunity. Global Network Services is a great example. It's now over 10 years old at American Express, and we built that business from the ground up. It's satisfying to know that it can be done in a large, established firm where new businesses will naturally compete with other, more established and core businesses for investment prioritization.

4. You have a BS and an MBA from NYU Stern. Which element or elements of the experience best helped prepare you for your career?
NYU Stern was a wonderful foundation for my education. At the time, I wanted to take in as much as I could from my experience. As an undergraduate, I had a double major and an undeclared triple – accounting, economics, and management. It wasn't just the coursework, though. You have to take advantage of the whole experience at NYU, in the heart of New York with access to so many excellent opportunities. I remember our guest lecturers in particular, such as Alan Greenspan and Paul Volcker.

5. Ameriprise Financial was recently spun off from American Express. What has been the biggest challenge in forging a new, independent identity for the company?
The biggest challenge, and ultimately our best opportunity, was to create an entirely new brand in the marketplace – from our name to our identity, from advertising and marketing to re-branding every physical aspect of doing business. That has been exciting and rewarding. We've gone from zero brand awareness to almost 50 percent in 18 months.

6. What's the most unexpected challenge you've faced being the CEO of a public company?
Time. You have to ensure that you're satisfying all of your constituencies – our advisors, clients, employees, shareholders, regulators, and the general public.

7. Looking back, what was the most important choice you made in terms of accepting a position or turning one down?
My career focused mainly on start-ups of new businesses or major businesses that needed to be restructured. My choices have always been based on making a difference. I wanted to be a part of something where I could work with talented people to rebuild or drive greater growth. The most significant of those was deciding to lead Ameriprise to become an independent company.

8. Running Ameriprise gives you a window on how Americans are doing in terms of saving for retirement and planning for the long-term. How are they doing?
I believe we are not, as a country, saving enough and planning enough for the future. If you speak to our advisors around the nation, they'd say people have too much revolving debt and credit. But we know that if people plan, they can actually achieve what they really want as they move into retirement. That's what Ameriprise is best equipped to help our clients do everyday: help bring dreams to life.

dossiers. And this diverse group is as committed to community service and leadership as it is to taking advantage of everything NYU Stern has to offer.

"The kids that we're seeing could be going to any school in the country," said Sally Blount-Lyon, Dean of the Undergraduate College. "They're choosing Stern because of its innovative curriculum, high-energy student body, and advantageous location in New York City." And today, Stern is able to offer a unique combination of classroom, real-world, and global experience, thanks in part to support from alumni.

When they arrive on campus, today's undergraduates have an enormous array of resources at their disposal. And while the curriculum focuses on providing an excellent core background in both business and the liberal arts, the undergraduate experience aims to meet broader goals. "We want to prepare our students to be able to think complexly about challenges

ILLUSTRATIONS BY STEVEN SALERNO

LESSONS

WHAT TODAY'S UNDERGRADUATES LEARN - AND WHAT THEY TEACH US

By **Daniel Gross**

Over the last 25 years, NYU Stern's Undergraduate College has been transformed. Once a regional school serving commuting and part-time students, the college now draws students not only from the local area but from California, Texas, India, and Korea, among others. In fact, some 16 percent of Stern undergraduates are now international students; a full 60 percent come from outside the tri-state area; and 90 percent of freshmen live on campus.

Sure, their numbers – the high grade point averages, the off-the-charts SAT scores – are impressive. But today's undergraduates are far more than the sum total of their admissions

that will face our global society over the next century," said Dean Blount-Lyon, "so we have to help our students develop an expansive world view."

In the 21st century, businesses will increasingly confront challenges that cross economic, political, and social boundaries. And so the education Stern students acquire in economics, finance, and management classes cannot simply be ends in themselves. Accordingly, Stern has developed a four-course sequence called the Social Impact Core that weaves topics from across the curriculum into themes about the interaction between business, society, and ethics. The first course that undergraduates now take at Stern is Business and its Publics, which has brought to campus leaders such as Mary Robinson, the former President of Ireland and now the United Nations High Commissioner on Human Rights, to talk about important issues concerning business and society.

During their junior year, as part of the Ed and Nancy

LEARNED

Barr Family International Studies Program, all students follow a year-long international curriculum that culminates in a week-long study trip abroad. Over the course of this trip, each student has the opportunity to interact with middle and senior managers of significant companies in foreign countries. "Nothing compares educationally to standing in the middle of Posco's largest steel mill in Pohong, South Korea, and talking to the Korean managers who run the plant," said Dean Blount-Lyon. "Or touring the world's largest copper mine in Chile, meeting with the senior management of Toyota Motor Corporation outside Tokyo, and visiting Bayer Schering Pharma AG's headquarters in Germany. These are the kinds of experiences we're making sure every student gets." In addition, students are also encouraged to study abroad for a semester or more. Now, nearly one-third of Stern undergraduates spend time at campuses located as far away as London, Florence, Shanghai, Hong Kong, and Sydney.

Other programs contribute to the social and cultural growth of students. The Cohen Arts and Culture Experience provides students with the opportunity to take advantage of the full range of New York's cultural riches: museums and Broadway shows, classical music, and athletic events. "Going to see the New York Philharmonic, watching Itzhak Perlman play a violin solo, and then meeting him backstage during intermission – opportunities like that are now part of the Stern experience," said Dean Blount-Lyon.

Today's undergraduates leave Stern uniquely equipped to enter the global business world. Spend some time with them, and it's easy to see how at home they are in New York – and in the world. Some 97 percent of undergraduates find positions within three months after graduation. And these dynamic students also leave with a mindset, a background, and a perspective that will allow them to continue to evolve and grow. After all, as Dean Blount-Lyon points out: "The students who are graduating now will have to solve the leadership challenges of 2040."

The following student profiles show how Stern undergraduates bring tremendous energy and passion to campus, eagerly embracing all that NYU Stern – and New York – has to offer them.

From Russia With Jazz

Born in Russia, near Moscow, Yuriy Prilutskiy (BS '07) moved to the United States in 1992 at the age of six. The family – his father is an aeronautical engineer and his mother is a pianist – settled in Princeton, New Jersey. He recalls entering the first grade and not knowing a word of English. But Yuriy learned quickly. "By the end of second grade, I was pretty much fluent."

Fourteen years later, he's fluent not just in English, but in the languages of finance, economics, and jazz piano.

The ability to pursue all of these interests is what led him to NYU Stern. At Princeton High School, Yuriy had an interest in business and economics. "Once I narrowed down my field, I saw New York as the center of the financial world."

But Stern had another pull. Yuriy is a jazz pianist. And as an undergraduate, he had the opportunity to play at clubs near NYU's campus, including the Blue Note, Cleopatra's Needle, and Small's. "It's tough to describe how amazing it is that I ended up in a place where I could pursue academic interests, pursue career interests, and do what I have a passion for," he said.

Intent on majoring in economics, he quickly added finance to the mix. "Stern students are so focused and passionate about their concentrations; they read *The Wall Street Journal* all the time, and everybody has fantasy portfolios. So the atmosphere was conducive to becoming interested in finance." He joined clubs such as the Investment Analysis Group and the Economic Society.

Among his memorable courses: financial management and investment principles. "These were among the most difficult and challenging courses, and they were just phenomenal," said Yuriy. "When it came time for my job search, I was able to bring projects from those classes to interviews."

But for Yuriy, the experience went beyond studying finance or playing in jam sessions. He joined a fraternity, Alpha Epsilon Pi, where he became the philanthropy chair, doing everything from volunteering at a soup kitchen to tutoring kids on weekends.

And he took advantage of what New York and Stern had to offer. The summer after his second year, he worked in the law firm of Richard Hendler, clinical professor of business law at NYU Stern. After his junior year, he worked in corporate finance at Kraft Foods in Tarrytown, New York.

Having completed his degree in January 2007, Yuriy accepted a job in equity research with Bank of America Securities in New York, which he will start in June. "I wanted to get into investment banking, and this opportunity came along."

About to embark on a career in finance, Yuriy looks back at his years at Stern as fulfilling ones. "I had a law internship, I played a lot of piano, and I was able to fulfill every academic and cultural desire I had."

Exploring the World

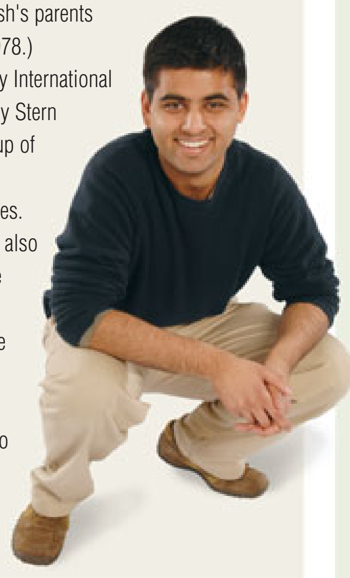
When Santosh Sateesh (BS '07) arrived at Stern from Florida for his freshman year, it was only the second time he had been in New York. "I had lived in small towns all my life," he said. "But I knew I wanted to go to a school where I could get a solid theoretical background in finance as well as a liberal arts education, and NYU offered a pretty good mix."

Four years later, the adjustment is nearly complete. A double major in finance and economic policy, he parlayed an internship at Lehman Brothers into a job offer to work on the structured credit trading desk. "I definitely knew I wanted to do trading because the fast pace interests me," he said.

Clubs and organizations at NYU and Stern helped ease his adjustment to the big city. Santosh was part of the Scholars Program – a group of 70 to 80 students chosen from each incoming class on the basis of academic and leadership records. Together, the group takes part in executive leadership and community service activities. "We worked on an urban farm in Red Hook, and worked with the Urban Assembly High School on tutoring programs."

Academically, Santosh viewed his undergraduate years as an opportunity to explore. An interest in political economy led to courses like Professor Stephen Cohen's World Cultures Russia course – an overview of Russian history from 1917 to the present – and Professor of Economics Barbara Katz's course, Economies in Transition. (Santosh wrote his thesis on Russian political reform.) Working with students at Stern and throughout NYU, he also started the *Journal of Politics and International Affairs*, which comes out annually.

Santosh spent a sophomore year semester studying Italian history, economics, and language at NYU in Florence. The following summer he volunteered at a nonprofit organization in Bangalore, India, focusing on infrastructure development. "I had gone there a few times with my parents, but had never worked there before," he said. (Santosh's parents moved from India to the United States in 1978.)



As part of the Ed and Nancy Barr Family International Studies Program, which is required for every Stern junior, Santosh traveled to Chile with a group of students from his class. The whirlwind trip included a consulting project for LAN Airlines.

And thanks to NYU Stern, Santosh was also able to explore closer to home. Through the Cohen Arts and Culture Experience, he was able to see the New York Philharmonic three times, and to meet violinist Itzhak Perlman backstage after a performance.

He and his roommates also were able to enjoy other uniquely New York experiences, like roaming the city in search of the best pizza joint. His nominee: "A place on Avenue J in Brooklyn called Di Fara," he said. "You get there on the N train." Spoken like a true New Yorker.

Hometown Girl

Andrea Jeffrey (BS '07) grew up a few miles from NYU Stern's campus in Brooklyn's Bedford-Stuyvesant neighborhood. As a student at Nazareth Regional High School, she participated in an Upward Bound college preparatory program that exposed her to NYU. "I was interested in staying home, and I knew that I wanted to study accounting."

But she chose NYU Stern in part because she knew it would offer her a different experience. "Where I grew up, the population was predominantly black and Hispanic," she said. "One of the primary reasons I decided to come to NYU was that I felt like it would mirror the workplace."

Initially, she focused on accounting. "I wasn't sure what area I wanted to pursue, but I was able to learn a great deal about different topics and industries that I could work in," she said. She also found the Legal Aspects of Business course, which gave students a context for understanding the legal jargon they frequently encounter, to be valuable.

After commuting for two years, Andrea became a Resident Advisor in her junior year. Living on campus made it easier for her to keep up with school while maintaining her involvement in campus organizations. She's a member of the Dean's Advisory Board on Community Service and involved in the Student Enrichment for Academic Development Program. A member of the National Association of Black Accountants, she has participated in a range of community service activities, from the March of Dimes to Breast Cancer walks.

Each summer, Andrea worked at the accounting firm Ernst & Young. The first summer, she focused mostly on human resources issues. "I was able to hone in on the culture and more of the internal environment within companies." Last summer, she had an internship in the transaction advisory services group. "That gave me exposure to the sort of deals that first-year accountants work on," she said. "It was a real-life experience." At the end of the summer, Andrea participated in an Ernst & Young international leadership conference in Florida. After graduating in May, she will join Ernst & Young as a staff accountant, working in both transaction advisory and auditing.

Because the Stern experience has whetted her appetite to work in a more global context, Andrea added a second major in international business. As part of the Ed and Nancy Barr Family International Studies Program, she traveled to Germany her junior year, visiting the media company ProSieben. Beyond learning about the intricacies of a global company, Andrea and her fellow students took away other valuable lessons. "We got exposure to academics, but also to the cultural aspects of doing business in Germany," she said. "I've always lived in New York, and the experience definitely increased my interest in expanding my horizons and living in another culture."

Teaching Lessons

"New York was the last place I thought I'd want to go to college," said Maryrose Rappold (BS '07), who grew up in a suburb of Baltimore. But when her older sister, who had moved to New York, encouraged her to look, she liked what she saw at NYU Stern. "I wasn't set on being a business major, but I didn't really know exactly what I wanted to do," she said. "After visiting, I realized it offered such a breadth of academic opportunities that I knew there would be something here I could find my interest in."

That something turned out to be several things: teaching, the ethical implications of business, and an interest in nonprofit organizations.

An economics and international business major, Maryrose quickly became involved with the Stern Business Ethics Society. "It was created as sort of an outlet for people who wanted to look into social entrepreneurship and topics of ethical dilemmas in business," she said. Each year, the Society participates in a competition for students in Los Angeles. Groups make a 30-minute presentation about an issue in business, analyze it from business, legal, and ethical points of view, and make suggestions as to how executives should act. Her freshman year, when the topic involved McDonald's marketing to children, her team won the prize for best ethical argument. Last year, Maryrose was president of the Stern Business Ethics Society.

Teaching was also a focus of her undergraduate years. The summer after her freshman year, she taught English in China's Hunan province for two months. "It was more than an experience, it was a cultural exchange, and it was really neat," she said. The summer after her sophomore year was split between working in *The New Yorker*'s legal department and teaching math to sixth and seventh graders in Chinatown.

Over the years, Maryrose found that her fellow students share her interest in issues beyond numbers and finance. "It's taken for granted how interesting students at Stern are," she said. "When they're not in their classes, they're doing so many interesting things; everybody is into so much."

During her junior and senior years, she was a campus campaign manager at NYU for Teach for America, helping to recruit NYU students for the organization that encourages college graduates to spend a few years teaching in disadvantaged public schools. Having graduated in January 2007, she is now working in the headquarters of Teach for America in New York and preparing for an assignment next fall teaching special education in the Raleigh/Durham area of North Carolina.

Maryrose will take her experience studying business into the classroom. And she plans to use it down the road. "After the two years are up, I could definitely see myself coming to work in a professional role in nonprofit management."

A Snapshot of NYU Stern's Undergraduate College Today

Quality and Competitiveness (based on the freshman class of 2006)

-Enrollment: 2,306
-Average SAT score: 1441
-Average grade point average: 3.76
-Class profile:
 Women: 37.3%
 Underrepresented minorities: 10.2%
 International students: 16.2%
-Geographical distribution:
 From New York City: 10.4%
 From the surrounding metropolitan area: 29.8%
 From across the nation and around the world: 59.8%

Interests

-As part of the Ed and Nancy Barr Family International Studies Program, students in their junior year choose from three locations for their travel abroad:

2007	Berlin	Santiago	Hong Kong
2006	Berlin	Santiago	Seoul
2005	Stockholm	Santiago	Tokyo

-More than 350 student leadership positions are available at the School
-Students complete more than 12,000 hours of community service each year
-Students can choose among eight majors, and may also choose to double major

Seniors of the class of 2006 chose the following majors:

Major	Overall %*
Finance	**69%**
Accounting	**31%**
Marketing	**31%**
International Business (co-major)	**25%**
Management	**11%**
Economics	**7%**
Actuarial Science	**2%**
Information Systems	**2%**
Statistics	**1%**

*Percentages total more than 100 percent because multiple students completed more than one major.

Placement (based on the 2006 graduates)

-Average starting salary: $54,300
-Placement rate: 97%

Charles Prince

chairman and chief executive officer

Citigroup

Chuck Prince is the chairman and chief executive officer of Citigroup, one of the world's largest financial services companies, with operations in more than 100 countries. Prince began his career in 1975 as an attorney at US Steel Corporation, and in 1979 joined Commercial Credit Company, a predecessor company to Citigroup. After serving as chief administrative officer and then as chairman and chief executive officer of Citigroup's Corporate Investment Banking Group, he was named chief executive officer of Citigroup in 2003. Prince holds a bachelor's degree, a master's degree in international relations, and a law degree from the University of Southern California in Los Angeles, as well as a Master of Laws degree from Georgetown University.

***Chuck Prince was interviewed by David Wighton, the US banking editor and New York bureau chief of the* Financial Times.**

David Wighton: *When you became chief executive of Citigroup in October 2003, what were the key challenges you faced?*
Chuck Prince: I thought the primary challenge we were facing was how to grow an organization that had topped out in the ability to use an M&A strategy as the primary vehicle for driving growth. But, it turned out, we took a detour based on a variety of regulatory issues.

DW: *Did the regulatory issues stem partly from the nature of the group that had developed as a very acquisitive machine?*
CP: Because our company was largely built through acquisitions, we ended up with not one corporate culture, but a wide variety of cultures inside one company. People would end up making decisions to maximize short-term returns without considering the long-term nature of the institution. We're about to celebrate our 200th anniversary as a company in 2012, and I am a big believer that we have to value the legacy of the institution. So in hindsight, not having a focus on a strong set of core values, which would balance everybody's desire for short-term results against the longer term nature of being in this business, was a mistake.

DW: *Could you tell us how you've gone about the process of instilling a more uniform corporate culture and some of the lessons you learned from looking at other companies?*
CP: During the course of 2004, we had a variety of regulatory issues that fell out of the sky and hurt us badly. They came from disparate parts of the business. Most people know about the private bank issue in Japan. Many people know about the MTS trade in London. And at that point, the regulators became so, I think the right word is – *embarrassed* by the problems that kept popping up, that they basically told us that we had to get our act in order. In the fall of 2004, the senior leadership of the company resolved to change things and to *start* the process of creating that culture. Now I emphasize the word *start* because you don't create a culture in six months or a year or two years.

We looked internally to the organization for the best practices. We also went and visited two dozen external companies. The first one we went to visit was Johnson & Johnson to learn how they sustain a solid core culture at the center of an organization of large, disparate organizations to prevent the centrifugal forces from spinning people out and away. We then boiled it down to something called the Five Point Plan. There were actually about 60 points. We rolled it out on March 1, 2005, simultaneously in 100 countries around the world. I did one event in New York, and I flew out to South Dakota and did the same event, trying to not shock, but to command the attention of the organization. And from there, over the course of the year, we had a rollout plan so that something happened every few weeks. It took us the entire year, all of 2005, to put all the bricks in the wall.

"I don't tend to look backwards and say, 'Gee, I made a mistake here, and gee, I made a mistake there.' I'm sure there were hundreds, maybe thousands of mistakes; things that didn't work out."

DW: *You mentioned the need to shift from an organization that grows by acquisition to one that grows organically. How well has that gone?*
CP: We more or less had to take a year off. I think now we're back on that track, and I feel very good about the progress we're making. We've just rolled out a brand new client focus activity. We're investing a lot in technology. We're opening new branches for the first time.

DW: *Given the stepped up investment on*

NYU Stern Dean Thomas F. Cooley introduces Chuck Prince and David Wighton to an audience of Stern students and alumni at the CEO Series event in September.

Top: Chuck Prince is interviewed by David Wighton.
Bottom: Chuck Prince with a group of NYU Stern MBA students who interned at Citigroup.

organic growth, some Wall Street observers question whether you're controlling expenses and whether you're going to get the returns that you hoped for in the time that you hoped for.

CP: In fact, a substantial amount of our investments are paying off. We had 10 percent revenue growth and about 2 or 2.5 percent of that came from investments we had made just last year. But many of the investments we make take a while to pay off. This year we're going to open 100 retail bank branches in the US. Last year we opened 20. It takes about three years for a retail bank branch to break even.

DW: *Another concern expressed by Wall Street is that Citigroup is just too big, too difficult for it to be manageable.*

CP: I don't hear that much anymore. We are manageable. We are in control. We have excellent regulatory relationships around the world. What I hear now is: "Are you too big to grow?" The issue for the organization is: Can we transform ourselves from a financial engineering kind of a company to an organic growth company? I think we can.

DW: *Tell us a bit about what you look for in managers.*

CP: What I look for are people who have a real passion for what they are involved in, which is an overused word but an important word. To have a sense of ownership of issues. To have a sense of responsibility. The most important thing I can get from a manager is somebody who will come in a constructive way and say, "I think you're on the wrong course here."

"I think we're going to see a diffusion away from New York as a center of financial activity. New York will not be unimportant, but the rise of London, Hong Kong, Dubai, and other places is going to be quite significant."

DW: *How big can Citigroup get? You point out that actually you've got small market shares in most of your markets.*

CP: When Sandy Weill first came to Commercial Credit, which is where I was in 1986, and I think we had 20,000 employees, and the notion that we would double in size was astonishing. And then we grew and grew. Travelers merged with Citicorp in 1998, and it was the biggest merger in the history of the universe. Then, we had 178,000 employees. Today we have 340,000 employees around the world. And I think that if we do it the right way, if we are focused on having core elemental values that translate into dozens of languages that are embraceable by people in different businesses, then I think we are not at, or even near, the practical constraints of our growth.

Audience Questions

Q: *How do you manage to maintain any kind of balance between life and work?*

CP: I'm going to give you a serious answer, because it's a very serious question. I have spent my entire life as a workaholic. I don't mince words about that. It really destroyed my first marriage. Happily, it did not impact the relationship with my two kids. So I'm not a good person to advise, even in hindsight, on how to do it differently. I'm remarried, and my wife and I try to carve out private time together. So this last weekend was our anniversary, and we went off to California, and I turned off my Blackberry. It's very important to do that.

Q: *As you advanced in your career, what were some risks that you took that didn't turn out so well and what was learned from those?*

CP: I don't tend to look backwards and say, "Gee, I made a mistake here, and gee, I made a mistake there." I'm sure there were hundreds, maybe thousands of mistakes; things that didn't work out. There's a great book last year about Franklin Roosevelt's efforts to change the economy during The Depression. He tried a whole bunch of things, almost all of which failed. And he would just hit it and bounce off and go to the next one. You've got to keep moving.

Q: *More and more companies are going to Hong Kong and London to raise capital because of the high fees and because of growing, complex regulatory issues in the States. How are companies like yours dealing with this challenge?*

CP: We're a US regulated bank, so wherever we get our capital, we're still regulated by the folks in Washington. We're also regulated by people in London and Hong Kong, and other countries in which we operate. We go around the world raising capital in lots of different places based on the economics of where we can raise capital more cheaply. I think we're going to see a diffusion away from New York as a center of financial activity. New York will not be unimportant, but the rise of London, Hong Kong, Dubai, and other places is going to be quite significant.

Q: *There are obvious pros and cons of separating the positions of chief executive officer and chairman of the board. Given your recent assumption to both hats, what are your thoughts on how it's going?*

CP: I think that the separation of chairman and CEO, to be quite candid, is a peculiarly British phenomenon. In the United States, we tend to have a lead director. And in our case, we have a lead director who is very active. Every time we have a board meeting, the outside directors meet privately without any insiders, including myself.

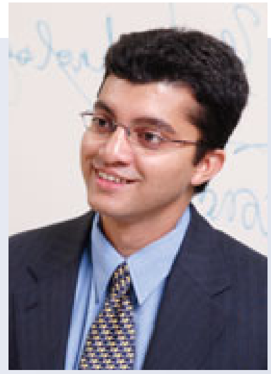
Prospectus

Ghose and Ipeirotis Garner NSF Awards

Anindya Ghose and **Panagiotis (Panos) Ipeirotis**, assistant professors of information, operations and management sciences (IOMS), have been awarded the highly prestigious National Science Foundation (NSF) Faculty Early Career Development Awards (CAREER). Each will receive $500,000 over the next five years to support their research. Recipients are selected on the basis of creative, career-development plans that effectively integrate research and education within the context of the mission of their institutions.

Ghose's research will identify and measure the economic value of online information and contribute to an understanding of the economic impact of new kinds of information content on the Internet. His work, which straddles several disciplinary boundaries, will be integrated into his teaching through a combination of new course materials, datasets, and interactive learning modules.

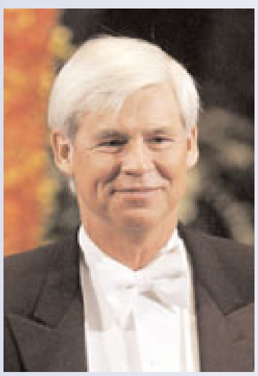
Ipeirotis' research examines Internet searches, specifically how to provide Internet users the power and tools to quickly process the vast amount of available data and receive answers to complex questions. This research will enable businesses to answer these complex questions and to determine the economic impact of the available information.

Left: Panagiotis Iperiotis; right: Aninyda Ghose

The NSF grant is one of several recent honors awarded to Ghose and Ipeirotis. The duo received the 2006 Microsoft Live Labs Award, and each has received NET (Networks, Electronic Commerce and Telecommunications) Institute grants. In addition, Ghose received the 2005 Association for Computing Machinery (ACM) SIGMIS Doctoral Dissertation Award, and Ipeirotis received the 2006 ACM SIGMOD best paper award.

Engle and Roubini in Davos



Robert Engle

Nobel Laureate and Michael Armellino Professor of Finance **Robert Engle** and Professor of Economics and International Business **Nouriel Roubini** were among the more than 2,200 business leaders, politicians, academics, and thought leaders who attended the 37th annual meeting of the World Economic Forum in Davos, Switzerland, in January.

Themed "The Shifting Power Equation," the conference addressed the growing prominence of emerging economies, the increasing leverage of commodity suppliers, the enhanced voice of individuals or small groups over institutions, and the stronger role of consumers over producers.

Nouriel Roubini

Engle gave three presentations focused on regulation and financial market competition, hedge funds, and a Nobel talk addressing the conference's theme. Roubini attended the forum's opening seminar on the state of the global economy with economist Lawrence Summers, as well as six other panels discussing the global economic outlook, risks in the financial system, competitiveness issues, and the shifting power equation.

NYU and Berkley Center Receive Kauffman Foundation Grant

William Baumol

In December 2006, the Ewing Marion Kauffman Foundation awarded New York University a $1 million grant to make entrepreneurship education a common and accessible campus-wide opportunity. Under this initiative, NYU will raise $5 million to match the Kauffman funds. NYU will use the funds to create the Kauffman Entrepreneurial Campus Program, led by NYU Stern's Berkley Center for Entrepreneurial Studies.

NYU was one of a select number of colleges and universities that received grants as part of the Kauffman Foundation's Kauffman Campuses Initiative, launched in 2003 to foster the creation of interdisciplinary entrepreneurship education programs in American higher education.

William Baumol, Harold Price Professor of Entrepreneurship and academic director of the Berkley Center for Entrepreneurial Studies at NYU Stern, will lead this pan-campus initiative, which will focus on the preparation and effective training of both innovative entrepreneurs, as well as social entrepreneurs, while working as a catalyst for enhanced entrepreneurial activity throughout the University.

"With the Kauffman Entrepreneurial Campus at NYU, we have an unprecedented opportunity to bridge the gap between replicative entrepreneurship – the creation of new enterprise that duplicates an abundance of preexistent establishments – and innovative and social entrepreneurship – which are critical for economic growth and the reduction of social ills, but for which no teaching program whose effectiveness is based on evidence currently exists," said Baumol. "Our goal is to create a model program at NYU through collaboration with our University partners – one that can serve as a model for educational institutions around the world."

research *roundup*

Several scholars associated with NYU Stern received honorable mention in the 2006 Moskowitz Price for Socially Responsible Investing. Hosted by the University of California at Berkeley's Haas School of Business Center for Responsible Business, the annual prize was created by the Social Investment Forum to recognize the best quantitative study of socially responsible investing. **Baruch Lev**, Philip Bardes Professor of Accounting and Finance; **Christine Petrovits**, assistant professor of accounting; and Suresh Radhakrishnan (PhD '91) of the University of Texas at Dallas, received honorable mention for their working paper, "Is Doing Good Good for You? Yes, Charitable Contributions Enhance Revenue Growth," which investigated the relationship between companies' charitable giving and growth dynamics. **Harrison Hong**, professor of economics at Princeton and a visiting professor at NYU Stern, and Marcin Kacperczyk of the University of British Columbia, won honorable mention for their paper, "The Price of Sin: The Effects on Social Norms on Markets," which reviewed the performance of tobacco stocks since the 1920s.

Sinan Aral, assistant professor of information, operations and management sciences, won the best paper award at the Association for Information Systems' 2006 International Conference on Information Systems (ICIS). The paper, entitled: "Information, Technology and Information Worker Productivity: Task Level Evidence," presents some of the first evidence measuring the economic productivity of information and knowledge workers. A second paper by Aral, "Which Came First, IT or Productivity? The Virtuous Cycle of Investment and Use in Enterprise Systems," won the award for best paper in the IT Business Value Estimation track.

Assistant Professor of Operations Management **Mor Armony** and co-author Itay Gurvich of Columbia University received the 2006 Junior Faculty Interest Group (JFIG) best paper award this fall at the Institute for Operations Research and the Management Sciences' (INFORMS) national meeting in Pittsburgh for their research paper entitled, "When Promotions Meet Operations: Cross-Selling and Its Effect on Call-Center Performance."

At a marketing event in September, **Luís Cabral**, professor of economics, presented findings from his research on how some Internet-based services, introduced as free services, switch to pay modes.

short *takes*

Nomura Professors of Finance **Martin J. Gruber** and **Edwin J. Elton** have been named fellows by the Institute for Quantitative Research and Finance, known as the "The Q-Group." Gruber and Elton, who have collaborated on many research studies over the years on topics such as portfolio theory and management, mutual funds structure and performance, and corporate bond prices, join six other fellows of The Q-Group, four of whom are Nobel laureates.

In October, **David Yermack**, professor of finance and Yamaichi Faculty Fellow at NYU Stern and adjunct professor at the NYU School of Law, presented the keynote address at the 2006 NYU Stern Board of Overseers Dinner, held at The St. Regis Hotel. Yermack discussed his study on stock options, "Good Timing: CEO Stock Option Awards and Company News Announcements," which illustrated the favorable timing of executive stock option awards. Published in the *Journal of Finance* in 1997, this study led to further research in the field that has culminated in recent government prosecutions for options backdating.

Also in October, **David Backus**, Heinz Riehl Professor of Economics, and **Nouriel Roubini**, professor of economics and international business, presented opposing viewpoints on the heated issue of global imbalances. In a paper delivered at the 24th meeting of the Latin American Network of Central Banks and Finance Ministries in Washington, Backus took a positive view of the US current account deficit, arguing that the US is "on the comfortable path to ruin." He noted that financial capital is flowing out of high-saving countries, such as Japan and Germany, and into the US.

In remarks given at the International Monetary Fund's annual meeting, Roubini argued that if the US continues to run current account deficits of 7 percent or more of GDP, its external liabilities will eventually become unsustainably large, triggering a collapse of the dollar and a global recession. He argued that while the global imbalances are dangerous, they can only be safely unwound if several countries take action.

Lawrence White, Arthur E. Imperatore Professor of Entrepreneurial Studies and deputy chair of the economics department, and **Paul Brown**, professor of accounting and academic director of the TRIUM Global Executive MBA Program, led sessions for the US Department of State's International Visitors Leadership Program, which was mandated to facilitate US exposure to leaders of emerging economies. The professors spoke to mid-level executives in trade and industry from around the world, including Thailand, Maldives, Oman, Pakistan, and Panama.

Last fall, **George Smith**, clinical professor of economics and international business, testified at the Department of Justice and Federal Trade Commission's (FTC) joint hearings on Section 2 of the Sherman Act. Smith discussed his work on the history of the aluminum industry and the Alcoa antitrust ruling of 1945, commented on other historical cases in antitrust law, and described the frequently unforeseen, sometimes counterproductive consequences of antitrust remedies.

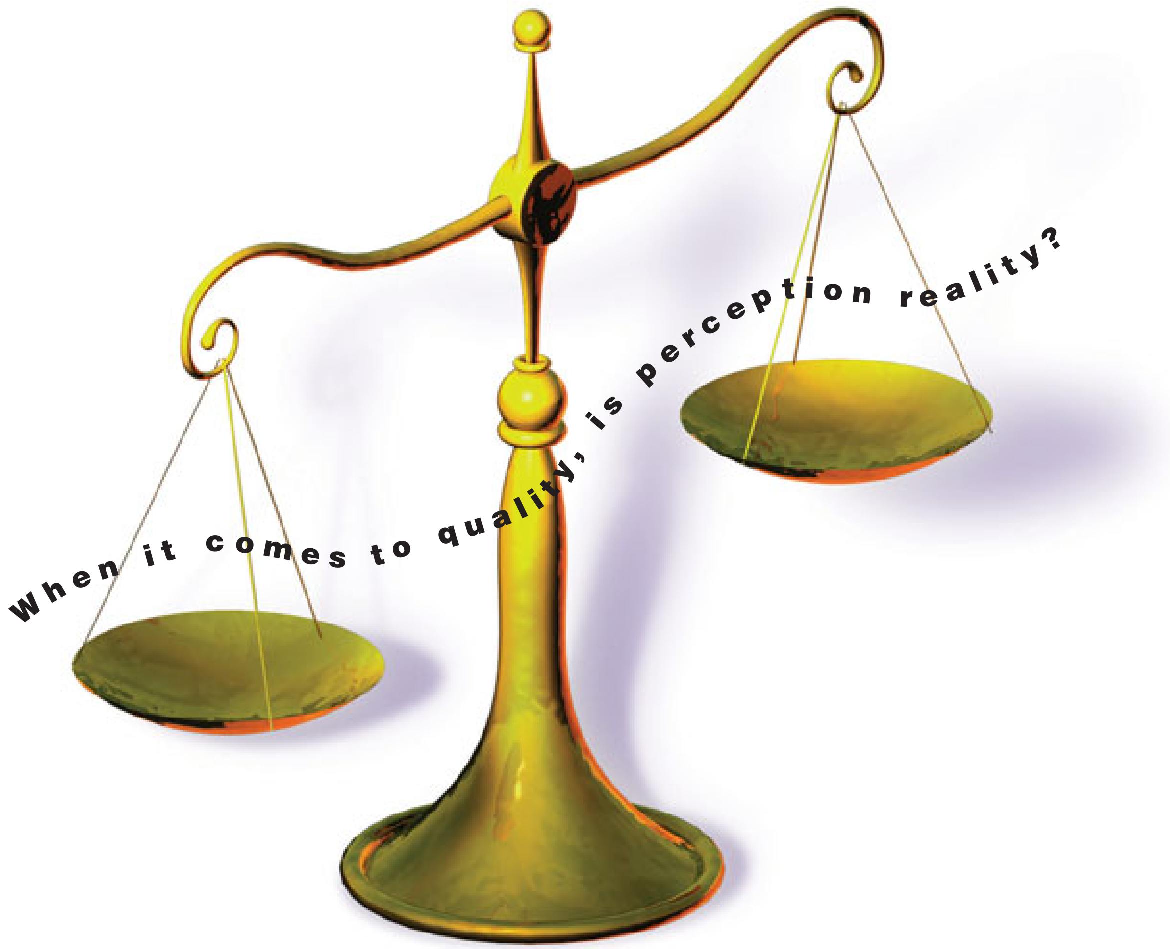


ILLUSTRATION BY BRYAN LEISTER

QUALITY CONTROL

By **Debanjan Mitra** and **Peter N. Golder**

Quality might be the most important factor underlying the long-term success of products and firms. The business press routinely cites quality as the cause of firm success and failure. However, it is now well established that it is not quality per se but rather customers' *perceptions* of quality that drive preferences and, ultimately, satisfaction, loyalty, sales, and profitability.

Of course, numerous anecdotes suggest that customer perceptions of quality do not reflect objective quality. Companies frequently find that negative perceptions persist even after products perform well in quality tests. Still, many researchers believe that customer perceptions of quality do respond to changes in quality and that quality changes are apparent to consumers only in the long-term. For example, while Toyota is currently reaping the benefits of higher perceived quality, it took many years for customers to recognize its quality advantage over US automakers. Similarly, it took Google three years after its launch to be perceived as the superior search engine.

It is crucial for managers to understand these lagged customer perception processes. So we set out to examine how the objective measures of quality and perception of quality are linked over time for different products. We did so by collecting and analyzing time series of quality and perceptions of quality across many product categories, constructing a model, and then testing several hypotheses.

In our study, *objective quality* is operationalized as a composite of instrument measures and expert ratings on multiple vector product attributes (i.e., those attributes for which customers prefer either a higher or a lower magnitude). For example, a personal computer's objective quality attributes include processing speed, hard disk capacity, reliability, and features like the modem. Objective quality does not include intangible attributes like aesthetics and extrinsic attributes like brand image or salesperson behavior.

Perceived quality is the overall subjective judgment of quality relative to the expectation of quality. These expectations are based on one's own and others' experiences, and on sources including brand reputation, price, and advertising. It is not necessary to use or examine a product to form perceptions of quality.

Objective quality affects customer perceptions of quality in several ways. The *contemporaneous effect* is the impact of objective quality on perceived quality in the current time period (i.e., the same year). The *short-term effect* is the impact of objective quality on perceived quality in the current and subsequent time period (i.e., same year plus one year later). *Short-term carryover* refers to the difference between the short-term effect and the contemporaneous effect. The *long-term effect* is the cumulative effect of objective quality on perceived quality over an infinite time horizon. *Long-term carryover* is the difference between the long-term effect and the short-term effect. And *carryover duration* is the time needed to reach a prespecified percentage of the long-term effect.

Most marketing studies on brand choice assume that quality is constant over time. However, companies usually make numerous changes to a product over time, through changes in design, raw materials, features, and production processes. Perceived quality, in turn, is affected not only by these changes

Hypotheses on Longitudinal Effects

Based on the literature, we developed a series of hypotheses on the links between objective and perceived quality. For example, we hypothesized that:

Hypothesis 1A: There would be a significant positive contemporaneous effect of objective quality on perceived quality.

Hypothesis 1B: There would be a significant positive short-term carryover of objective quality on perceived quality.

Over time, market-level perceptions of quality are likely to move toward objective quality. As a result, we hypothesized that:

Hypothesis 2A: There would be a significant long-term carryover of objective quality on perceived quality.

Hypothesis 2B: These long-term effects would be larger than the short-term effects.

Because the carryover effects of quality are moderated by prior expectations of quality, a similar change in objective quality could have different effects on perceptions of quality across categories and products. We thus hypothesized that:

Hypothesis 3A: The short-term effect of objective quality on perceived quality is larger for a decrease in quality than for an equivalent increase.

Hypothesis 3B: The long-term carryover of objective quality on perceived quality is larger for a decrease in quality than for an equivalent increase.

Because customers are more likely to incorporate information that is consistent with their beliefs, we assumed that:

Hypothesis 4A: The short-term effect of an increase in objective quality is larger for high reputation brands than for low-reputation brands.

Hypothesis 4B: The short-term effect of a decrease in objective quality is larger for low-reputation brands than for high-reputation brands.

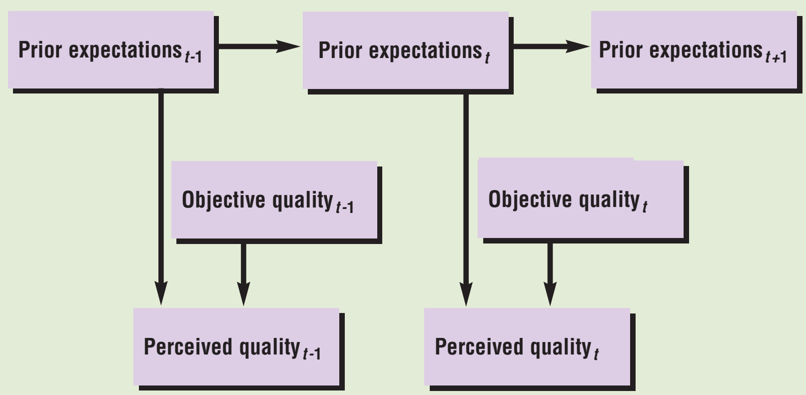
Finally, over the long term, as information about changes in quality diffuses among customers through media reports and word-of-mouth, we hypothesized that:

Hypothesis 5A: The long-term carryover of an increase in objective quality is smaller for high-reputation brands than for low-reputation brands.

Hypothesis 5B: The long-term carryover of a decrease in objective quality is larger for high-reputation brands than for low-reputation brands.

in objective quality but also through changes in customer's expectations of quality. **Figure 1** presents the relationships among these variables.

Figure 1 The Conceptual Framework



Model and Data

We constructed a model (the details of which can be seen in our article in *Marketing Science*) and assembled longitudinal data on objective quality and perceived quality from several sources. For perceived quality, we used the *Equitrends* data of Total Research Corporation (TRC), which surveys more than 30,000 people each year and asks them to evaluate the quality of products on a zero to 10 scale. The data included ratings on 280 products between 1989 and 1994 and 1,000 products between 1995 and 2000.

For objective quality, we used quality ratings from *Consumer Reports*, one of the most elaborate and well-respected quality rating systems in the world. We identified 53 product categories that *Consumer Reports* tested four or more times between 1989 and 2000. We also identified 52 "high-reputation brand" products in our dataset based on the *BusinessWeek* rankings of top 100 brands during 2000 and 2001.

In addition to our data on quality, we collected annual product-level data for price (from *Consumer Reports*), advertising (from *Leading National Advertisers*), and market share (from *Market Share Reporter*).

In the end, we had a time series of 241 products in 46 product categories for periods ranging from six to 12 years. Overall, the data include 1,926 observations on objective quality and perceived quality, plus several other important variables including price. In **Table 1** we report the correlations of these variables over time. Across products in all categories, we found that the price-objective quality correlation is 0.16. The correlation for durable products in our data is 0.20 and for nondurables is 0.07. In the past, researchers examined these cross-sectional correlations and inferred imperfect markets. However, these correlations do not take into account the longitudinal relationship (i.e., lags in the perception processes).

Table 1 Average Cross-Category Correlations

	OQ–Price correlation	PQ–Price correlation	OQ–PQ correlation
Average product	0.16 (0.21)*	0.31 (0.12)	0.21 (0.14)
Average durable product	0.20 (0.28)*	0.39 (0.11)	0.18 (0.10)
Average nondurable product	0.07 (0.13)*	0.11 (0.05)	0.29 (0.21)

*Standard deviations in parentheses.

Findings

What did we find about the longitudinal relationship?

First, we found statistically significant contemporaneous effects, short-term effects, and long-term effects of objective quality on perceived quality. These results support Hypothesis 1A, Hypothesis 1B, and Hypothesis 2A. In other words, improving the quality of a product, as measurable by objective means, does help improve a product's reputation. While the significance of the effects is comforting, it is more interesting to consider the relative size and carryover duration of the effects. Specifically, the contemporaneous effect on perceived quality is about 10 percent of the change in objective quality and constitutes, on average, 19 percent of the long-term effect. Also, the short-term effect constitutes about 35 percent of the long-term effect, resulting in a carryover duration that is between five and eight years. This means the size of the long-term carryover is greater than the size of the short-term effects. So while boosting quality can pay dividends in the short-term, it pays even larger dividends over the long-term. This result supports Hypothesis 2B.

Our results also show that when it comes to quality, companies do get punished if quality is perceived to slip. When we examined 54 products whose quality increased and 49 products whose quality decreased, we found that a relative decrease in quality has a larger short-term effect than a relative increase in quality, thus supporting Hypothesis 3A. But the long-term carryover of a decrease in quality turned out not to have a significant effect, so we did not find support for Hypothesis 3B.

The results also point to certain advantages enjoyed by products that have already built reputations for quality. For the 52 "high-reputation" products in our data, those that managed to increase the objective measure of quality had significantly positive short-term effects on perceived quality, thus supporting Hypothesis 4A. But when the objective quality of these high-reputation brands slipped, there was not a significant short-term effect on perceived quality. We also found that the long-term carryover is significantly smaller for high-reputation brands that are increasing in quality, thus supporting Hypothesis 5A. On the other hand, the long-term carryover is larger for high-reputation brands that are decreasing in quality, thus supporting Hypothesis 5B.

These findings provide support for an important asymmetry between high-reputation products and lower-reputation products. In a sense, it is easier for the rich to get richer. High-reputation products have larger short-term returns for increases in quality, but are not penalized more for decreases in quality in the short-term. Such asymmetry is also reflected in the carryover duration. High-reputation products are rewarded three years sooner for an increase in quality and penalized one year later for a decrease in quality. This provides an additional four years of reaction time for the high-reputation products in our data.

Implications

Our findings have several implications for managers and researchers, beyond providing strong rationale for managers to track both objective quality and perceived quality over time. First, our study shows that substance can matter more than image. Throughout, we found that objective quality drives customer perceptions of quality. Second, the asymmetry of time lags between different brands throws new light on the differential advantage of brand reputation. Our results show that extra benefits accrue to high-reputation brands. They have larger short-term returns for increases in quality but are not penalized more for decreases in quality in the short-term.

Perhaps more significant, our study suggests that a strategy for improving objective quality, which may focus on manufacturing processes, can't simply be viewed in isolation from a marketing strategy that tries to heighten a product's perceived quality. Rather, a product's quality strategy must be integrated with its marketing strategy. And the links show that companies can't simply choose a single broad quality strategy. After all, we found that lower-priced products have relatively higher short-term effects of quality than higher priced products, particularly for increases in quality. As a result, the same improvement in quality that is profitable for one product may be unprofitable for another product because of a different lag structure.

"Our study shows that substance can matter more than image. Throughout, we found that objective quality drives customer perceptions of quality."

The study has important implications for how we regard both the ways in which actual quality and customer perceptions of quality can change over time. It is tempting to view the images of well-known products as being fixed in customers' minds. But we found that significant changes in quality have occurred during the period of our study. And it appears that customers are learning about past changes in quality even as current changes are taking place. Thus, even though customers don't always behave efficiently, the very fact that customers do learn creates a force promoting quality competition.

And just as customer attitudes toward products are constantly evolving, so too are products. Earlier studies found that about 30 percent of products in "mature" categories have evolving market shares, even though they do not have evolving marketing expenditures. Our results suggest that such evolution may be due to continuous changes in quality.

Finally, our study has important implications regarding the sustainability of competitive advantages. Analysts frequently wonder whether any advantage can be sustained in today's fast-changing environment. This study shows that asymmetries and lags in customer perceptions of quality can provide products with some limited sustainability. Smart companies can build on this sustainability by using their time advantage to attack as well as defend. ■

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THE DIAMOND OF SUSTAINABLE GROWTH

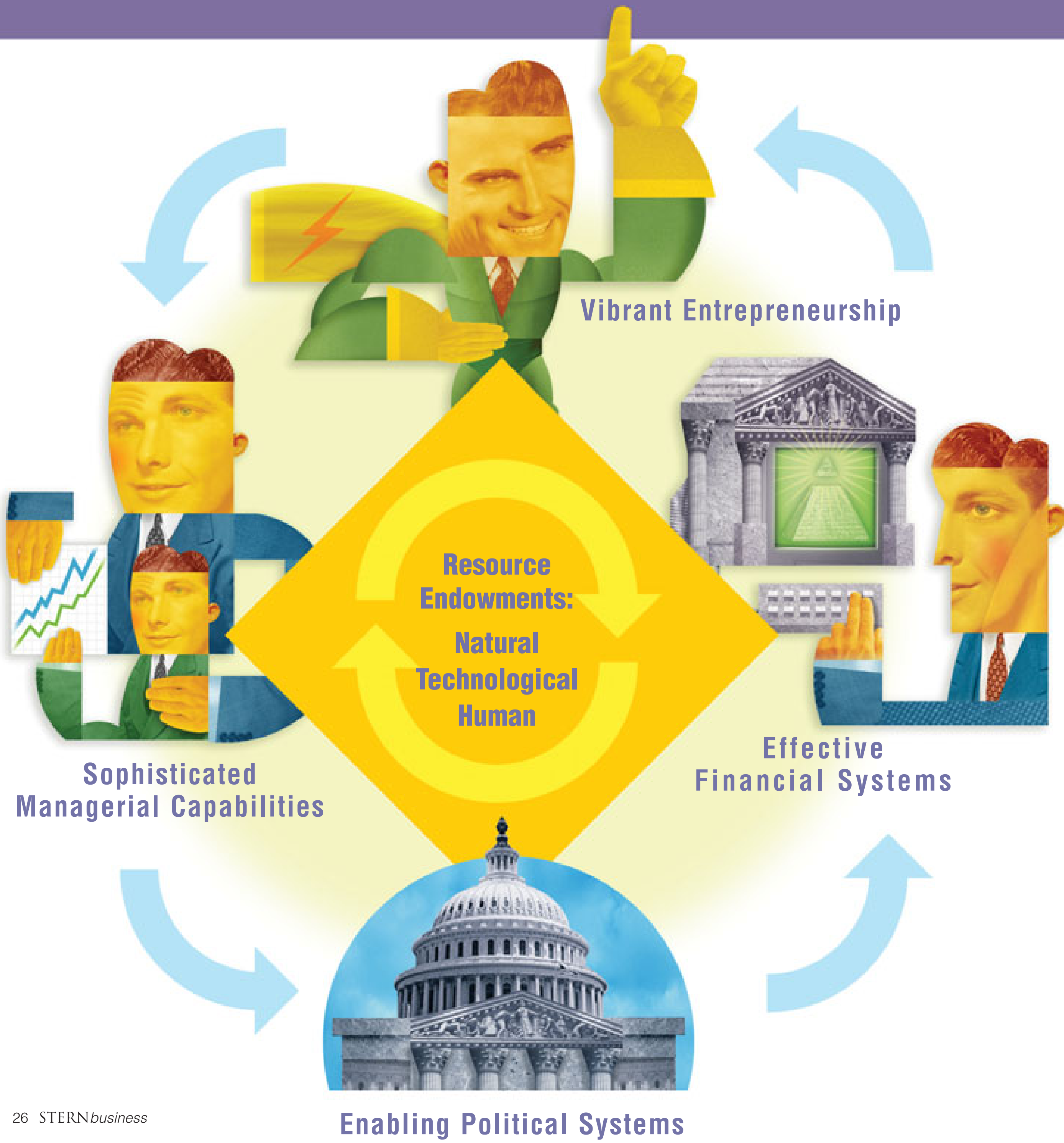

ILLUSTRATION BY GORDON STUDER

History provides crucial lessons on how developed economies have evolved into growth machines.

By **George David Smith, Richard Sylla,** and **Robert E. Wright**

For most of its existence, humanity neither enjoyed nor understood society's capacity for creating wealth and economic growth. Prior to the 18th century, incomes generally hovered near the subsistence level. To paraphrase the 17th-century English philosopher Thomas Hobbes, human life was solitary, poor, nasty, brutish, and short. In the late 18th century, the English economist Thomas Robert Malthus warned that the mass of humanity was doomed to a life at the margins of starvation, as surges of population growth would inevitably outstrip the finite sources of food supply.

Things began to change in the 17th and 18th centuries, when people in Holland and Britain began to produce a little more each year. As the gains added up over time, modern economic growth had arrived. We define economic growth as increases in aggregate real income per person, (that is, income adjusted for inflation). For our purposes, economic growth starts with the Industrial Revolution, which began in the British Isles and spread from northwestern Europe to new areas – North America, parts of central and southern Europe, Scandinavia, and, late in the 19th century, to the frontier "European" societies of Australia and New Zealand, to parts of Eastern Europe and Imperial Russia, and finally, to Japan, the only non-western society to develop before the mid-20th century. In the late 20th century, the diffusion of industrialization spread rapidly to the "dragons" of the Pacific Rim: Taiwan, Hong Kong, South Korea, and Singapore, and then to the former communist countries of Eastern Europe.

Today, several important areas, including China, India, and Eastern Europe, seem poised to experience sustained economic growth as well. And yet most of the world's population remains poor, earning less than the equivalent of $2 per person per day. Vast areas, including much of Africa, Latin America, Central Asia, the Middle East, and Micronesia, remain mired in grinding poverty, as the gap between the richest and poorest societies continues to increase.

What accounts for such differences? Many analysts focus on issues like culture, natural resources, climate, and political systems to explain the vast differences in economic experiences. But we believe the answer lies in the intensely historical origins of economic growth. History shows that over time, healthy, sustainable economies possess four dynamic, human-made factors: (1) political systems geared to enabling economic growth, (2) an effective financial system, (3) vibrant entrepreneurship, and (4) sophisticated managerial capabilities. In our model, each of these critical factors is represented as a corner of "the growth diamond." As the illustration suggests, each of the factors interacts with the others dynamically (and over time). Proceeding counterclockwise from political systems to managerial capabilities, each of the facets of the diamond depends on the robustness of the preceding factors.

Growth Diamond

An effective political system enables economic growth, first and foremost, by establishing a government that can unify an economically relevant territory, establish order, and protect the lives, liberty, and property of its citizens through an impartial rule of law. A government must be able to provide defense, address market failures, and ensure broad-based access to education. Finally governments, over time, have to address social and wealth inequalities so that they do not undermine the social consensus and political stability required to sustain broad-based economic growth.

On top of the political system, a developing society must create a financial system capable of transferring funds where they are in surplus to projects where funds are needed. The institutional components of a modern financial system include banks, capital markets, and corporations – legal entities that can borrow and issue ownership shares while limiting the liabilities of their owners. Through insurance, diversification, and hedging strategies, corporations also substantially reduce the risks of entrepreneurial investment while organizing production and distribution systems on a large scale.

As enabling governments and financial systems grow strong, they enhance the prospects for entrepreneurial activity. And as the economic historian Joseph Schumpeter observed, entrepreneurship enhances growth by introducing new products or services, opening new markets, and creating new combinations of land, labor, and capital. If government does not legitimize economic innovation and provide a legal foundation for securing property rights and reducing risks, entrepreneurs cannot thrive. Likewise, if financial systems are inefficient, the costs of investment in new projects can be prohibitive.

"History shows that over time, healthy, sustainable economies possess four dynamic, human-made factors: (1) political systems geared to enabling economic growth, (2) an effective financial system, (3) vibrant entrepreneurship, and (4) sophisticated managerial capabilities."

Finally, as new enterprises grow, they rely on more sophisticated methods of coordination and control. Sophisticated management (the coordination of complex organizations) is predicated on robust education and is essential to any society's ability to realize economies of scale and economies of scope, both of which help bring down costs. Management also enables enterprises to plan for the future, to adjust to changing market conditions, and to invest in new, large projects.

The growth diamond can be applied to every society on earth. The poorest almost never established enabling political systems, if only because their governments abused, suppressed, or robbed their citizens. Poor, but not destitute, societies never established financial systems or created conditions for entrepreneurship to flourish, often because their governments restricted economic liberty or failed to secure property rights adequately. Many societies that were able to achieve middling income may have achieved some measure of progress in all corners of the diamond temporarily but were not able to sustain their gains.

Early Examples

The Netherlands, the first nation in modern history to develop the four elements of the growth diamond, was also the first to experience sustained economic growth. By the 17th century the Netherlands was a thriving commercial society populated with what later generations would call a broad-based bourgeoisie, or middle class. The Dutch then lacked the technologies that would power the Industrial Revolution from the late 18th century onward. But the people of the Netherlands were relatively free to pursue their economic self-interests under the protection of a government that saw itself not as the country's owner, but rather as the people's employee. The citizens (note the change from "subjects") of the Netherlands willingly paid the world's highest per-capita taxes because they could see that tax revenues were spent on public goods, such as defense and the country's extensive network of windmill-driven water pumps and dikes, and not on lavish parties and castles.

The Dutch also managed to create a representative form of government that did not descend easily into tyranny. While certainly not perfect, the government of the Netherlands provided the kind of political foundation on which financial systems, entrepreneurship, and management could anchor. The Dutch formed what historians recognize as the first modern financial system – an interconnected network composed of private banks and insurance companies, a proto central bank, and securities markets for public debt instruments, foreign exchange, commercial paper, and corporate equities. Entrepreneurs blossomed, finding it relatively easy and cheap to obtain financing for an impressive array of business projects – from domestic canals to shipbuilding to tulip horticulture. As some of those businesses grew and matured, they became too big and complex for the original entrepreneurs to handle, so a class of specialized administrators developed to run the larger business organizations.

Great Britain became the next nation to develop a robust growth diamond. The British would lead the world into the Industrial Revolution – the era of machine-driven, factory-based mass production. Again, the formation of a non-predatory government that looked unlikely to slide into tyranny was a prerequisite. It came in the wake of 1688, when the British Parliament replaced the royalist Stuart monarchy with a Dutch prince who would be checked by the will of Parliament and bound by laws as interpreted by an independent judiciary – the first modern constitutional monarchy.

The British shrewdly borrowed best practices from more economically advanced societies. Soon after the Glorious Revolution, Dutch-style financial institutions and markets arose in Britain. Not long after, British entrepreneurs began a vast array of new enterprises that led directly to revolutions in agriculture, transportation, and manufacturing. People with highly developed management skills emerged, making new strides in efficiency. Based on superior institutions in public finance, new mass production industries, and organizational capabilities, Britain transformed from a peripheral island racked by political instability into the planet's most potent economic and military force.

In the 18th century, Britain remained highly mercantilist, enacting tariffs and other policies that it thought would enrich the home islands at the expense of its colonies and enemies. But in the 19th century, political economists such as David Ricardo and John Stuart Mill elaborated on Adam Smith's critique of protectionism, which helped Britain to enact pro-growth policies, including free trade and anti-slavery legislation by the mid-19th century. The British continued to extend their empire until it was said that the sun never set upon it.

A Colony Rises

Britain's relatively prosperous North American colonies, chafing under imperial restrictions on their economies, would eventually outstrip Britain as the world's leading economy after establishing their own growth diamond. Here, again, government took the lead. Suffused with myriad checks and balances – three branches of government, property protections, political and economic liberties, and protections for minority rights – the US constitution formed the core of an enabling political system. Soon after its ratification, the rest of the country's growth diamond crystallized.

Just a few years after the new government took effect, Americans enjoyed a financial system that included a monetary unit (the US dollar), a central bank (the Bank of the United States), and a growing number of private commercial banks and insurers. As in the Netherlands and Britain, the financial system unleashed the forces of "creative destruction" by linking investors to entrepreneurs with good business ideas. Canals and turnpikes appeared, connecting the frontier to the major seaports, which encouraged American farmers to look for ways to grow more wheat and raise more livestock so that they could enjoy more manufactured goods. Later, railroad and telegraph systems emerged and, in just a few decades, sprawled across the continent in a dense network.

The sheer size of the United States, along with its distance from potential enemies, conferred enormous advantages for its economic development. The enormous size of the American market by the late 19th century also enabled firms to grow to enormous scale, as capital-intensive industries and retail businesses in particular drove down costs and prices while driving up demand, resulting in the creation of ever more businesses, small and large, local and national.

Railroad managers helped develop the tools of modern management – concepts like cost accounting, managerial accountability, fixed versus variable costs, and corporate structure. Those tools, in turn, made possible the great industrial corporations of the late 19th and early 20th centuries. To some degree, the large corporation – embodied in companies like Standard Oil, General Motors, and DuPont, replaced the "invisible hand" of the laissez-faire market with the "visible hand" of coordinated management.

"A great lesson that economic history teaches us is that when it comes to developing a healthy private sector, the public sector serves as the crucial foundation, and financial systems matter – both in fostering entrepreneurship and supporting the efficient managerial systems that any society needs to sustain growth over the long term."

Looking Back

By World War I, the rich societies that had successfully built growth diamonds had evolved further into open access economies – ones that provided reasonably widespread economic opportunity and encouraged competition. Open access economies provided for social mobility based relatively more on merit rather than birthright. They sought to educate everyone and to reduce discrimination. They also kept the costs of entry into and exit out of markets low. At any given time, small-, medium-, and large-sized companies tended to co-exist, each challenging the others to greater efficiency and quality.

Today, economists, politicians, and development professionals continue to seek ideas for crafting policies that will enable long-suffering poor countries to join the developed world. As they do so, they would be well-advised to keep the growth diamond in mind. Of course, it does not explain everything. Such factors as geography, climate, war, demographics, disease, culture, and changing technological and competitive environments, to name a few, matter greatly. Yet a great lesson that economic history teaches us is that when it comes to developing a healthy private sector, the public sector serves as the crucial foundation, and financial systems matter – both in fostering entrepreneurship and supporting the efficient managerial systems that any society needs to sustain growth over the long term.

Governments are vital for economic growth, but they can also keep societies in poverty. Once the government is right – not predatory, and not overly prone to caving in to special interests – the other factors of the economic growth diamond can turn ideas into marketable goods. Many new business projects will fail, but the costs will be small and will fall on those willing to bear them – entrepreneurs and their investors. Most important, a few of the ideas will succeed, enriching the lives of both producers and consumers. The market economy in that sense works like a giant supercomputer, but one that computes correctly *only* when the government ensures that conditions are favorable and supportive of financial, entrepreneurial, and managerial enterprise. ■

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CLICK, OR CHEAT?

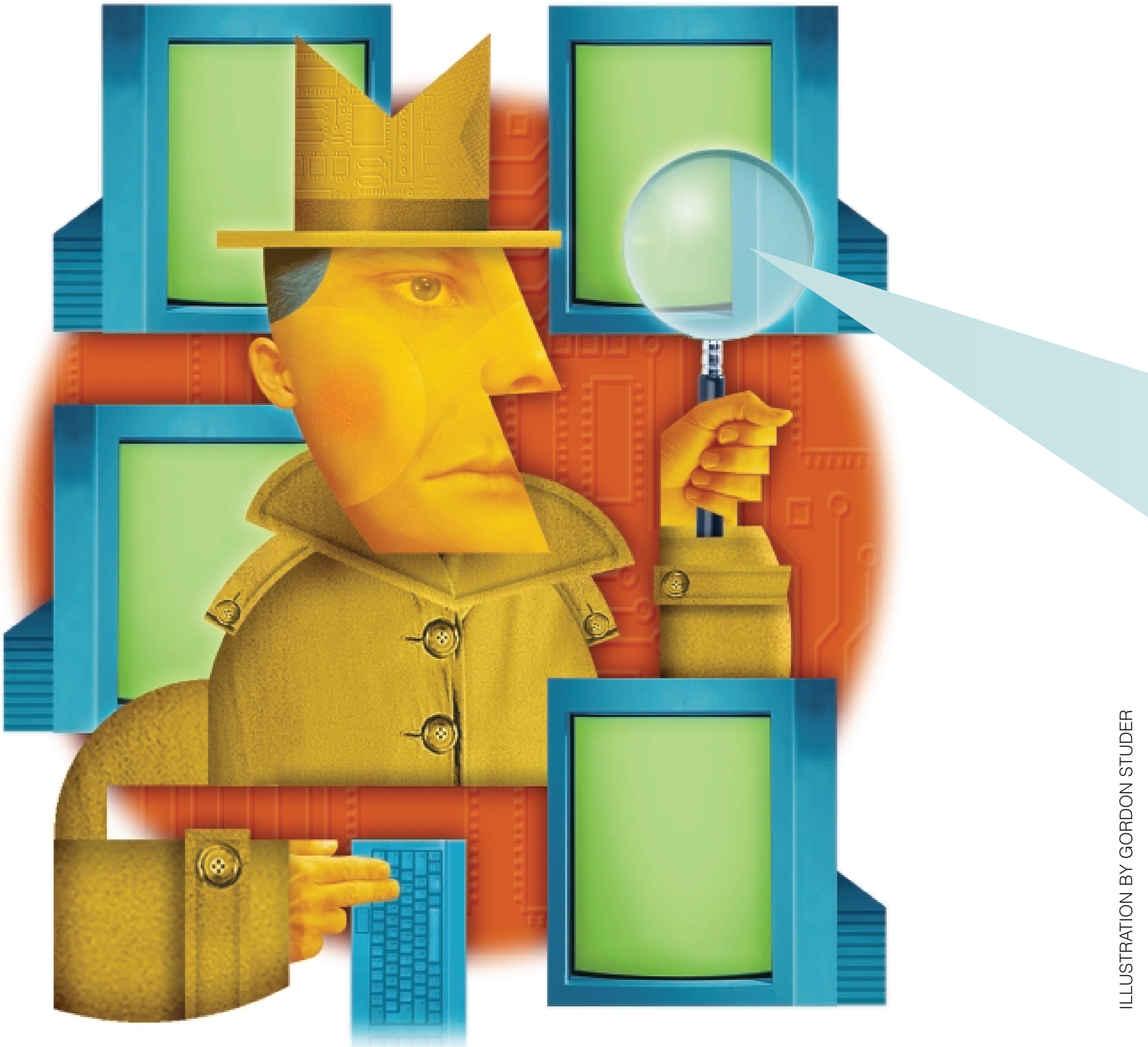


ILLUSTRATION BY GORDON STUDER

Click-fraud is a major challenge for online advertisers. Here's how Google battles the scourge.

Click-fraud is a central issue for advertisers, for search engines, and for Google in particular. NYU Stern Professor of Information Systems Alexander Tuzhilin recently investigated how Google manages its system to detect fraud. He visited Google's campus, interviewed Google employees, and learned about the company's inspection and detection systems. His results were reassuring, but also showed some potential room for improvement. The following article is a synopsis of the report that Tuzhilin filed with the court in Texarkana, Arkansas, on July 21, 2006, in the Lane's Gifts v. Google settlement.

The online advertising and e-commerce industries are growing rapidly. No company helped spur it along more, or benefited more from its rise, than Google. The search engine, launched in 1999, is now the basis of a $140 billion company. By aggregating content, allowing Internet surfers to search effectively, and providing a platform for advertisers, Google has emerged as a dominant player in the industry.

The virtue of online advertising is that users can easily track metrics in a way they can't in other media. Technology allows advertisers to learn precisely how many people view an ad, how many click on it, and how many wind up purchasing the product or service advertised. At the same time, online advertisers – many of whom pay on the basis of the number of clicks on their ads – must grapple with another issue created by technology: the potential for what's known as click-fraud. In cyberspace, after all, numerous parties have incentives to generate traffic on advertisements or websites that may not be legitimate.

In Internet advertising, the predominant model is CPC – Cost Per Click, also known as Pay Per Click (PPC), under which an advertiser pays only when a visitor clicks on the ad. (A second model called Cost per Mille (CPM), also known as CPI (Cost Per Impression), under which an advertiser pays per one thousand impressions of the ad, is also used by Google but is not subject to click-fraud and, therefore, was not a concern in Tuzhilin's study.) The CPC/PPC model has two fundamental problems. First, good click-through rates are not necessarily indicative of good conversion rates; just because someone clicks on an ad doesn't mean she'll buy the product. Second, it does not offer any built-in fundamental protection mechanisms against click-fraud.

Google has two main advertising programs. *AdWords*, launched in 2002, allows advertisers to purchase CPC-based advertising that displays ads based on the keywords specified in users' search queries. When a user executes a Google search, ads for relevant words are shown alongside search results. An advertiser has a certain budget associated with a keyword, which is allocated for a specified time period. Each click decreases the budget by the amount paid for the ad, until it reaches zero during that time period. If the balance reaches zero, the ad stops showing. Therefore, an advertiser or its partner can deplete the budget of a competitor by repeatedly clicking on the ad.

The *AdSense* program, launched in March 2003, is a way for website owners (publishers), ranging from *The New York Times* to small blogs, to display Google's ads on their sites. AdSense for Search (AFS) lets Google place ads on publishers' websites when users make keyword-based searches on their sites. AdSense for Content (AFC) automatically delivers targeted ads to the publisher's web pages that the user is visiting. In both cases, the publishers and Google are being paid by advertisers on the PPC basis. All the partner sites in the constantly evolving network are periodically reviewed and monitored to detect possible problems.

Under this model, publishers have a direct incentive to attract traffic to their websites and encourage visitors to click on Google's ads on the site. But overzealous and unethical users can "stretch" or directly abuse this system by generating invalid clicks, particularly in the Adsense for Content category.

"If it is not known to the public what valid and invalid clicks are, how would the advertisers know for what exactly they are being charged? This is the essence of the fundamental problem of the PPC model."

Defining Invalid Clicks

To manage the AdSense and AdWords programs, Google collects information about querying and clicking activities. This "raw" clicking data is cleaned, preprocessed, and stored in various internal logs. When advertisers are billed, they receive customized reports describing the clicking and billing activities. But since the smallest unit of analysis is one day, advertisers cannot know if a particular click on a particular ad was marked as valid or invalid by Google, and Google refuses to provide this information to advertisers. Google defines invalid clicks as "Clicks … generated through prohibited means, and intended to artificially increase click … counts on a publisher account." Advertisers are not charged for what Google deems to be invalid clicks.

Invalid clicks can come from a range of sources: individuals deploying automated clicking programs or software applications (called bots), low-cost workers paid to click on links, or technical glitches. Some of these invalid clicks are clearly fraudulent, while others are just invalid. Some are easy to detect, while others are very hard.

When evaluating the validity of a click, Tuzhilin notes that it is necessary to understand the *intent* of the user. Unfortunately, in several cases it is hard or even impossible to determine the true intent of a click using technological means. For example, a person might have clicked on an ad, looked at it, went somewhere else, but then decided to have another look shortly thereafter to make sure she got all the necessary information. Is this second click invalid? The intent *cannot* be operationalized and detected by technological means with any reasonable measure of certainty.

Nevertheless, Google's Click Quality Team works to identify *all* invalid clicks *regardless* of their nature and origin. To do so, it employs a two-fold strategy of prevention and detection. First, Google discourages invalid clicking activities on its network by making the lives of unethical users more difficult and less rewarding. For example, it installs measures to make it difficult to register using false identities.

Beyond prevention, Google has built four lines of defense against invalid clicks: pre-filtering, online filtering, automated offline detection, and manual offline detection. It employs two main methodologies in seeking out invalid clicks. In the Anomaly-based (or Deviation-from-the-norm-based) approach, one may not know what invalid clicks are. But one can know what constitutes "normal" clicking activities, assuming that abnormal activities are relatively infrequent and do not distort the statistics of the normal activities. Invalid clicks are those that *significantly deviate* (mainly in the statistical sense) from established norms. In the Rules-based approach, one specifies a set of rules identifying invalid clicking activities (alternatively, one can also identify a set of other rules identifying valid clicking activities). An example of such a rule is: "IF a doubleclick occurred, THEN the second click is invalid." The operational definitions Google uses cannot be released to the general public because unethical users will immediately take advantage. However, if it is not known to the public what valid and invalid clicks are, how would the advertisers know for what exactly they are being charged? This is the essence of the fundamental problem of the PPC model.

Filtering Efforts

Most of Google's efforts are focused on the second approach: detection. Google employs a series of filters. Tuzhilin found that certain clicks are removed immediately from the logs before they are even seen by the online filters. After this preliminary stage, the next three lines of defense against invalid clicks include online filtering, automated offline detection, and manual offline detection.

Online Filtering. Several rules-based online filters monitor various logs for certain conditions and detect the clicks satisfying these conditions, then mark them as invalid and remove them. The invalid clicks are removed only at the end of the filtering process; therefore, each filter sees every click. However, each invalid click is associated with the first filter in the pecking order that detected it. It turns out that the vast majority of invalid clicks are detected by the first few most powerful filters, and the last few filters in the pecking order detect only a small portion of invalid clicks that have not been detected yet by the previously applied filters. The Click Quality Team constantly works on the development of new filters and the improvement of the current set of filters.

The Click Quality Team provides only *indirect* evidence that Google filters perform reasonably well. For example, newly introduced and revised filters detect only a few additional invalid clicks. A recently introduced filter managed to detect only 2 to 3 percent of its invalid clicks not already detected by other filters. And the offline invalid click detection methods (to be discussed below) detect relatively few invalid clicks in comparison to the filters. This observation does not provide irrefutable evidence that the filters work well – it could be that the offline methods work poorly. But the low ratio of the offline to the online detections provides some evidence that the online filters perform reasonably well.

Automated Offline Detection. The next stage is the offline detection and removal of invalid clicks that managed to pass the online filtering stage. First, Google deploys alerts, which are used for detecting more complex and more subtle patterns of invalid clicking activities. Since these clicks cannot be safely removed by filters, the filters pass them as valid, and alerts identify them in the offline analysis stage and pass these suspicious clicks to human experts for manual investigations. Alerts can also check for various conditions more complex than those used in filters. These alerts take into consideration a broader set of deciding factors and can monitor these factors over longer time periods. When alerts are issued, they are manually investigated by the Click Quality Team, based on their priority.

Manual Offline Detection. The Operations group of the Click Quality Team conducts manual reviews of potentially invalid clicking activities. Investigation requests are generated from various sources: from advertisers noticing unusual clicking activities, from alerts, from customer service representatives who might notice something questionable, from publishers, and from an automated system that examines publishers and determines whether they are spammers.

Google's goal is to conduct proactively as many of these investigations as possible. Another goal is to investigate the suspicious publishers in the early stages of their inappropriate activities before they receive payments. The basic idea behind most of these investigations is to discover unexpected behavior of the entities being investigated. Based on experience, the investigators look for the deviations from these "normal" behaviors using the inspection tools. Once such deviations are discovered, the investigator drills down into the problem and uncovers the reasons causing these deviations and, most likely, the source and reasons for the inappropriate activity or a set of activities. Tuzhilin has personally observed several such inspections. Thanks to the quality of the inspection tools, the high levels of experience and professionalism of the Click Quality inspectors, and the existence of certain investigation processes, guidelines, and procedures, these inspections are generally successful.

"Thanks to the quality of the inspection tools, the high levels of experience and professionalism of the Click Quality inspectors, and the existence of certain investigation processes, guidelines, and procedures, these inspections are generally successful."

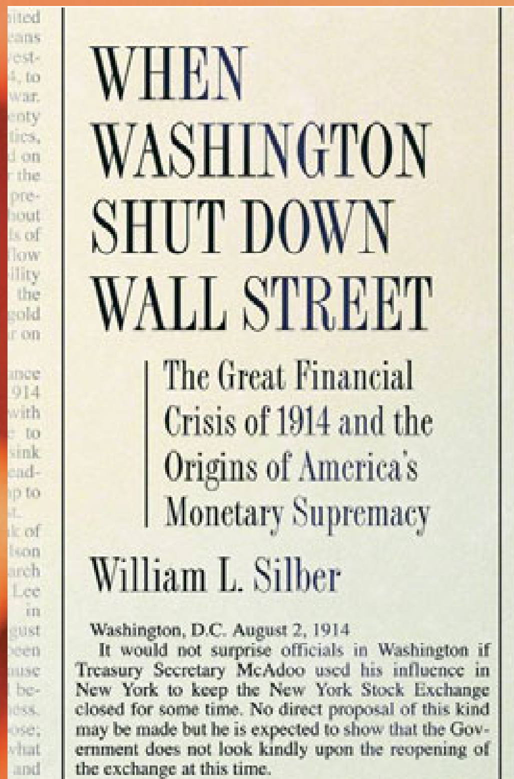
Evolving Eco-System

The offline invalid click detection methods detect relatively few invalid clicks. Again, this could be because the offline methods perform poorly. However, the Click Quality Team puts much thought into developing reasonable offline methods. Therefore, even if they did not perform that well, the low ratio of the offline to the online detections of invalid clicks would still provide some evidence that the online filters perform reasonably well.

The Click Quality Team provided additional indicators that led Tuzhilin to conclude that the click detection system performs reasonably well. Since late 2004, the number of inquiries about invalid clicks for the Click Quality Team has increased drastically, but the number of refunds for invalid clicks provided by Google did not change significantly. Since each inquiry about invalid clicks leads to an investigation, this means that significantly fewer investigations result in refunds. The total amount of reactive refunds that Google provides to advertisers as a result of their inquiries is miniscule in comparison to the potential revenues that Google foregoes due to the removal of invalid clicks (and not charging advertisers for them).

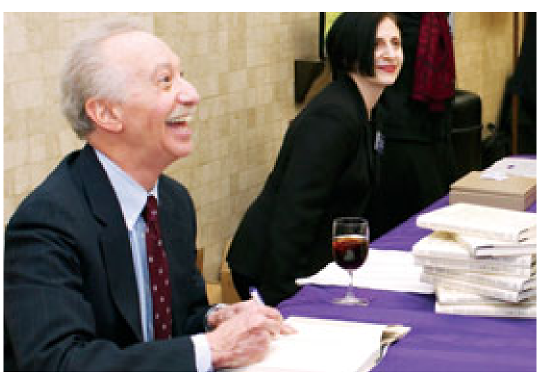
This evidence doesn't provide proof beyond a reasonable doubt. And there is room for improvement. For example, Google could make greater use of classifier-based filters based on well-known data-mining methods. Data-mining methods allow for the construction of statistical models based on past data that can classify new clicks as either valid or invalid and also assign some degree of certainty to this classification.

Still, Tuzhilin believes that the indirect evidence provides a sufficient degree of comfort to conclude that these filters work reasonably well. This does not mean, however, that any particular advertiser cannot be hurt badly by fraudulent attacks. One simply should not generalize such incidents to other cases and draw premature conclusions. Also the Click Quality Team realizes that battling click-fraud is an arms race. The Internet is a constantly evolving eco-system, and Google is making efforts to stay "ahead of the curve" and to get ready for more advanced forms of click-fraud by developing the next generation of online filters. ■



THE TRIUMPH OF 1914

A new book argues that the origins of American financial dominance can be traced to a bold decision to close the New York Stock Exchange for more than four months.



William Silber, the Marcus Nadler Professor of Finance and Economics and director of the Glucksman Institute for Research in Securities Markets at NYU Stern, has long been a popular and influential teacher and researcher. His new book, *When Washington Shut Down Wall Street: The Great Financial Crisis of 1914 and the Origins of America's Monetary Supremacy* (Princeton University Press), documents an extraordinary and little-remembered episode. In the summer of 1914, Treasury Secretary William McAdoo was forced to respond to the financial crisis created by the outbreak of World War I. Working in something of a vacuum – the Federal Reserve, America's central bank, was not yet operating – McAdoo orchestrated a series of controversial actions that helped insulate the United States from a major external shock, and, in relatively short order, engineered a way for the markets to reopen. In this episode, Silber finds the origins of America's emergence as a financial powerhouse – and important lessons for crisis management.

He discussed his book with STERN*business*.

STERN*business*: *How did you become interested in this topic?*
Silber: There's a puzzle that surrounds World War I. The New York Stock Exchange closed for four and one-half months, which is much longer than any other closure in stock exchange history. During the October 1929 crash, it closed for only two days, and that was to catch up on paperwork. In March of 1933, when President Roosevelt closed the banking system for eight days, the stock exchange also closed for eight days.

The conventional explanation has been that the stock exchange was closed to prevent a collapse in stock prices. But that doesn't make any sense. There was something else happening in the summer of 1914: the US was establishing the Federal Reserve System. And there is some connection between the two events. The United States was on the gold standard. As the war started, foreign investors who had huge holdings of US stocks and bonds were starting to sell their securities and demand gold in exchange. But the Federal Reserve needed gold to establish the regional Federal Reserve banks and to create a new currency.

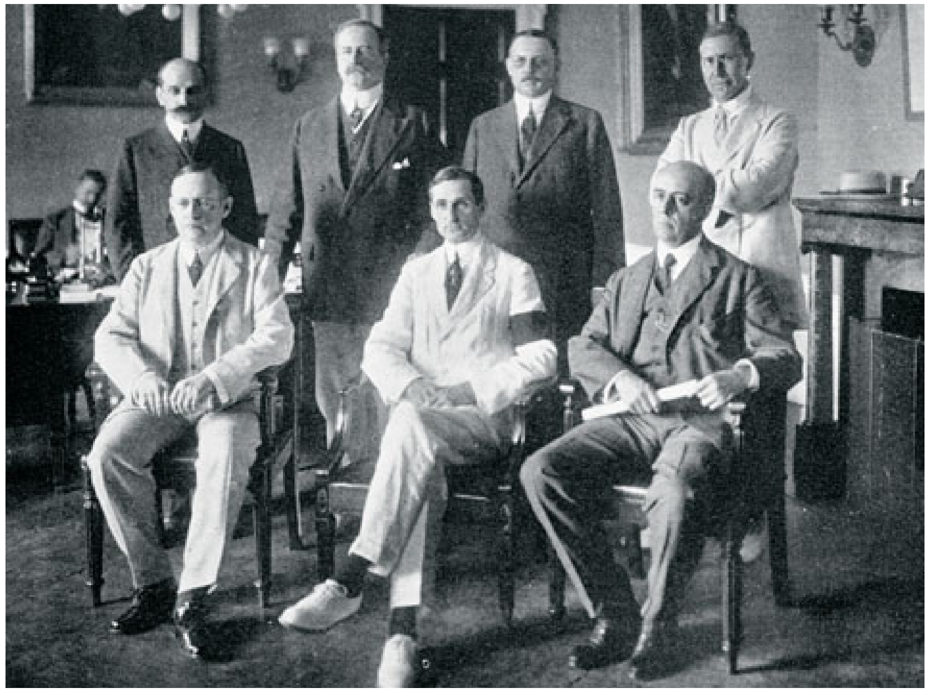
SB: *So the exchange was closed primarily to stop the outflow of gold?*
Silber: There were two choices confronting Treasury Secretary McAdoo. He could have suspended the US from the gold standard, which every European country had done by the first week of August, except for Britain. Or he could have kept the US on the gold standard. That required enacting some protective measures to ensure that gold would stay in the country. So on July 31, he closed the stock exchange, which prevented European investors from liquidating their holdings and exchanging them for gold. The decision was presented to the public as having been made by the New York Stock Exchange's board of governors.

SB: *Why was the US so committed to remaining on the gold standard?*
Silber: This was about the credibility of America's obligations. McAdoo was a pragmatist, not a philosopher. He followed his instincts that we should stay on gold, and I think he understood the potential gains. At that point, only the world's financial superpower – Britain – remained on the gold standard. In part, this was viewed as an opportunity for the US – and the dollar – to seize financial leadership. The banker Henry Lee Higginson wrote President Woodrow Wilson in August 1914: "I repeat that this is our chance to take first place."

SB: *Closing the exchange stopped the bleeding. But there was still the potential for a domestic run on capital; people wishing to exchange bank notes for gold. How did McAdoo deal with that?*
Silber: Remember, there was no central bank. But McAdoo had another emergency weapon. Seven years earlier, in 1907, banks suffered terrible runs. Legislation passed in 1908 allowed banks to issue currency without gold backing. McAdoo convinced Congress to quickly pass a law in August 1914 that gave banks permission to issue

TIMELINE

DECEMBER 23, 1913	Congress authorizes the Federal Reserve System
JUNE 15, 1914	President Wilson submits to Congress the names of nominees for the Federal Reserve Governors
JUNE 28, 1914	Archduke Franz Ferdinand is assassinated in Sarajevo
JULY 28, 1914	Austria declares war on Serbia
JULY 31, 1914	McAdoo closes the New York Stock Exchange
AUGUST 2, 1914	McAdoo meets with New York bankers
AUGUST 4, 1914	A Bill passes Congress that allows banks to issue emergency currency up to 125 percent of capital
AUGUST 10, 1914	Members of the Federal Reserve Board are sworn into office
AUGUST 14, 1914	McAdoo meets with businessmen to arrange ships to move grain and cotton
SEPTEMBER 3, 1914	The Bureau of War Risk Insurance is organized
SEPTEMBER 4, 1914	Wall Street firms offer terms to bail out New York City
SEPTEMBER 29, 1914	War Risk Insurance goes into effect
NOVEMBER 16, 1914	The Federal Reserve Banks open
DECEMBER 12, 1914	The New York Stock Exchange reopens


The Federal Reserve Board as they took office on August 10, 1914. From left to right, standing: Paul M. Warburg, John Skelton Williams (Comptroller of the Currency), W.P. G. Harding, Adolph C. Miller; Seated: Charles S. Hamlin (Governor), William G. McAdoo (Chairman), and Frederic A. Delano. McAdoo is wearing a mourning armband to commemorate the death, four days earlier, of his mother-in-law, Ellen Axson Wilson.

their own currency. It was designed to plug the gap until the Federal Reserve System could get up and running. So he pushed out this new currency to prevent a run on the banking system.

SB: *He had a unique background and a unique relationship with his boss – the President of the United States.*
Silber: McAdoo was an entrepreneur. He was the president of the Hudson & Manhattan Railroad Company, which built the tubes connecting Manhattan and Hoboken; they're operated by PATH today. He was socially conscious: in 1908 he insisted that women hired by the company be paid equal wages. He worked on Wilson's 1912 presidential campaign. Wilson named him Treasury Secretary in 1913. And in March 1914, he became engaged to Wilson's daughter. So the president was also his soon-to-be father-in-law. (**see box at right**)

"Wilson did not think poorly of McAdoo; quite the opposite. In March 1914, McAdoo, seven years younger than the president and a widower with grown children, became engaged to the president's daughter, Eleanor, 25 years younger than McAdoo. Wilson wrote to his intimate friend and confidante, Mary Ellen Hulbert, in Paris: "Dearest friend, has the cable brought you news of Nellie's engagement to Mr. McAdoo, the Secretary of the Treasury? Of course it has. That is what the Paris edition of the *Herald* is for. The dear girl is the apple of my eye: no man is good enough for her. But McAdoo comes as near being so as any man could. I am therefore content, not that she is to leave us for him, but that she should have such prospects for happiness."

SB: *You refer to the closing of the NYSE as a tourniquet that stopped the bleeding. How did McAdoo cure the patient?*
Silber: I think he recognized the need to get rid of these capital controls quickly. The underlying problem was the potential for gold to be exported in large quantities. So he had to figure out a way to bring gold back in. Within a couple of weeks, he organized the Bureau of War Risk Insurance – which would ensure shipping cargos against loss due to war activities. He thought that would stimulate an increase in US agricultural exports like cotton, which would generate gold inflows. The combination of measures worked and allowed the New York Stock Exchange to reopen on December 12.

SB: *Wasn't the long shut-down enormously disruptive to the stock business and New York generally?*
Silber: This was a big deal. One of the reasons it could stay closed for four months was that a market in stock trading sprang up in the street, right next to the stock exchange, on New Street. And they literally traded stock in the street. McAdoo didn't shut it down. First, it was a safety net. If people can trade, they're not going to be screaming and yelling. And it confirmed that stock prices would not have collapsed. I was able to find newspaper clippings that mentioned prices on this black-market exchange. And since it was a cash market, it was difficult for European investors to sell here.

SB: *He also helped bail out New York, right?*
Silber: Indeed. McAdoo introduced the "too big to fail" doctrine. New York City owed the British huge amounts of securities that were denominated in pounds, and had to be paid off in pounds or gold in a matter of months. After meeting with bankers, led by J.P. Morgan, Jr., a bail-out was constructed whereby the banks issued dollar-denominated notes and helped manage the payment of existing securities.

SB: *Shutting down trading, imposing capital controls, and allowing banks to freely issue currency sounds like a recipe for large-scale dislocation and inflation. Why didn't that happen in this case?*
Silber: A few reasons. Between August and October, national bank notes outstanding nearly doubled, and total currency outstanding grew by about 10 percent. But there was a huge precautionary demand for cash, and interest rates rose from 3 percent to 6 percent on prime commercial paper, which helped tamp down inflation. Then the exports of cotton began to bring gold flows back in, which relieved pressure on the dollar. Most important, McAdoo had an exit plan. If he did not have an exit plan, there would have been inflationary pressures.

SB: *You argue that this episode proved an important economic and financial milestone for the United States. Why?*
Silber: In the summer and fall of 1914, America established its credibility in terms of the dollar. Before 1914, the dollar wasn't even an also-ran currency. Nobody cared about it. The two leading contenders for leadership behind the British pound were the German mark and the French franc. But when the dollar stayed on gold, that put the dollar in a monetary superpower category. By January of 1915, New York had already replaced London as a key global moneylender. But the real measure of a financial power is when you're the international currency. At the end of the first World War, the world was still using the pound as an international currency. Britain went off the gold standard in 1919, and while it met its promise to return to the gold standard in 1925, it was too late. The dollar had become a really creditworthy currency. The dollar was a creditable alternative because, in the fall of 1914, it was shown that you could count on it when you couldn't count on anything else.

SB: *What are some lessons contemporary central bankers might learn from McAdoo?*
Silber: I really like the tourniquet analogy. You have to stop the hemorrhaging immediately. Then you have to repair the wound. And then you have to restore normal function by sticking to an exit plan. You can't be afraid to use emergency weapons.

SB: *How does McAdoo stack up historically among American financial policymakers?*
Silber: Federal Reserve Chairman Alan Greenspan (BS '48, MA '50, PhD '77) in 1987, Treasury Secretary Robert Rubin, and President of the Federal Reserve Bank of New York William McDonough, and the whole team after 9/11 get very high marks for crisis management. But they did it with an operational Federal Reserve System. McAdoo did it by the seat of his pants. And he went on to have a distinguished career: he was the Federal Reserve chairman, a candidate for president in 1920 and 1924, and a senator from California in the 1930s. As far as great Treasury secretaries go, I'd put him right up there behind Alexander Hamilton. ■

What others are saying:

Floyd Norris, *The New York Times*:

It would now be heresy to suggest that a country could gain international stature by closing its capital markets for a prolonged time, but an insightful new book by William L. Silber, an economist at New York University, argues that the closing of the New York Stock Exchange at the outbreak of World War I played a critical role. …

The conventional view was that the exchange was closed to keep share prices from plunging. But the book, *When Washington Shut Down Wall Street*, asserts that historians – and contemporary observers – had it wrong. …

By delaying the reopening of Wall Street and making sure that American grain was ready to be exported to Europe to bring in gold, the United States was able to stay on the gold standard and become an alternative to London as a financial capital. By late 1915, Britain and France were borrowing money in New York, denominated in dollars.

Carlos Lozada, *The Washington Post*:

In his fascinating work of financial history, *When Washington Shut Down Wall Street*, William L. Silber recounts the heroics of Treasury Secretary William McAdoo, who closed the New York Stock Exchange for more than four months – four months! – in 1914 to avert a larger economic crisis. European powers had begun to sell off their US stock holdings and convert their dollars into gold, which they shipped back home to finance World War I. But rather than let the desperate Europeans force the United States off the gold standard, the Treasury secretary brandished the NYSE "like a sledgehammer" against the gold drain and simply shut down the exchange. It was, as Silber explains, "a brilliant exercise of arbitrary power that helped propel the United States toward global financial supremacy."

PEER TO PEER Student Life in Washington Square and Beyond

MBA Students Find Profitable Nonprofit Experience

NYU Stern Langone students Linda Tsai and Christina Chan can add nonprofit experience to their expanding resumes, having spent 10 weeks last fall participating in the Stern Consulting Corps (SCC) – Stern's internship program with New York City's nonprofit organizations and small businesses. Both were partners on a marketing project for Step Up Women's Network, a nonprofit organization dedicated to helping women and children through fundraising, volunteering, and professional networking. Their charge: to develop a marketing plan that would help increase the organization's membership.

"I had the opportunity to learn about the nonprofit sector and to be part of an industry whose sole focus was not on profitability, which was important to me, coming from a finance background," said Tsai. "I also made new contacts with interesting, bright, and hard-working individuals."

Tsai and Chan conducted market research, an approach that sometimes gets short shrift in the public sector due to resource constraints, and found it was most helpful in addressing Step Up's business challenge. Together they analyzed membership trends to determine what drives new memberships and the rate of renewals. They also conducted focus groups and a membership survey, compiling all of the quantitative data from their findings to identify patterns that would help inform their recommendations.

For Chan, the timing was everything. "I was taking a marketing course during my SCC internship, and the first four weeks at Step Up mirrored exactly what I was doing in class. All of the concepts I learned were immediately put to good use."

Through the Stern Consulting Corps, Christina Chan (top) and Linda Tsai provided marketing assistance to Step Up Women's Network.

Chan and Tsai are two of the more than 350 Stern MBA students who have helped further the missions of SCC partner organizations, such as Habitat for Humanity, the Coalition for the Homeless, and the William J. Clinton Foundation's Urban Enterprise Initiative, to cite a few. And Stern students aren't the only ones taking part. Alumni and School supporters who have made the pursuit of social good a personal priority inaugurated paid fellowships for SCC-participating students in the fall of 2006. The fellowships were established by The Small Acts of Kindness Foundation (SAKF), Board of Overseer Member Jane Sadaka (MBA '80), Stern alumnus Fred Zeidman (MBA '70), and Stern's MBA Class of 2005, as part of its Legacy gift.

"Supporting the SCC is a way to honor Paul, who was committed to helping others," said SAKF President Amy Radin, explaining how her family, with the support of Paul's friends and colleagues, created the fellowship in memory of her brother, Stern alumnus Paul J. Friedman (MBA '87), who perished in the attacks of September 11, 2001. "The SCC enables a new generation of Stern business students to improve their communities while gaining valuable, practical business knowledge."

In-Tents Fulbright Experience

"You don't get to stay with a nomad family in a yurt on your average vacation," remarked April Gu (BS '06), describing one of her most vivid experiences thus far as a Fulbright Scholar studying the economic impacts of divorce on women in China.

Gu arrived in Beijing last September along with a handful of fellow Fulbright Scholars, each with lofty research goals and ambitions for personal growth. Gu, who emigrated from China at the age of five, was eager to return to her roots and make a positive impact on Chinese society.

"My research deals with how divorce affects women financially," she said. "Although once viewed as a tool for empowerment, divorce often leads to financial hardship for women, as the inequitable wage distribution between genders causes the higher, or sole, income to be lost." Her research aims to determine which women are most affected by divorce and how the government can use welfare programs to improve the lives of these women.

As part of her research, she has interviewed divorced women, monitored Internet discussions in both Chinese and English, and translated and reviewed academic papers. "Because this topic has yet to be studied in China, I believe that interviews with affected women are the most important resource for information at this stage," she explained. "But it is often difficult, as divorce is a highly sensitive issue."

Reflecting upon her research thus far, Gu said, "I didn't expect the urban and rural divide to be quite so large. Divorce, as a function of economics, looks very different from the perspective of a woman with a college degree than from the perspective of a woman who graduated from middle school and migrated to a large city for work." Her hypothesis has remained the same, but her new perspective on China has allowed her to examine the stratifications of society more deeply.

Gu was inspired to apply for a Fulbright Scholarship by her experience at Stern: "All of the students are so motivated – you are forced to define ways in which you can succeed or stand out. The environment at Stern served as motivation for me not to be apathetic and to take a chance and do something meaningful with my education."

After she completes her research, Gu plans to go to law school in the fall. And when she goes, she will be armed with "a deeper understanding of not just China, but the challenges that face developing countries everywhere."

Social Networker

Second year full-time MBA student Carolyn Chen doesn't regard business school as a means of obtaining a "traditional" job in finance or consulting.

Rather, she believes the MBA will help her to build a career in which she can make a social impact. And such career goals don't place her at odds with fellow classmates who are pursuing finance-related careers. "The downtown location of NYU means that everyone has a little bit of an edge," Chen remarked in a recent *Financial Times* article. "When you live and go to school in such a vibrant neighborhood, even the traditional bankers and traders are extremely committed to the community."

After spending four years in healthcare consulting, followed by positions at the prominent nonprofit organizations Teach for America and Doctors without Borders, Chen came to believe that getting an MBA was a critical next step. While she found it easy to move from the private sector to the public sector, she knew that an MBA would help her move up in the public sector and open more doors.

According to Chen, choosing to come to Stern was a "no-brainer" because of its initiatives in social entrepreneurship. On campus, she has been engaged in virtually every opportunity possible, from Stern's student clubs to its student-run social venture fund. Chen is also an in-house expert on social enterprise for prospective students who share her same passion, and blogs regularly about the subject on Stern's admissions website, which generates hundreds of e-mails each month.

In a recent blog posting, she recapped her first semester final presentation for Professor Jeffrey Robinson's Foundations of Social Entrepreneurship class. Her team's venture concept was to turn the Stern café (Sosnoff Lounge) into a student-run enterprise – complete with vendor partners for the food and drink – that would be staffed by Stern undergraduates and managed by Stern MBA students. The proceeds would go to a social enterprise fund to help finance nonprofit internships over the summer. According to Chen, "our presentation was a hit!"

Chen is also the vice president of career development in the Social Enterprise Association and director of social entrepreneurship in the Entrepreneurs' Exchange, both MBA student clubs. She is amazed by the diversity of her fellow club members. "We all have varying business function expertise – from IT to marketing to management – and we bring our unique experiences and perspectives to all of our club activities."

What is on the career horizon for Chen? Last summer she secured a highly coveted internship as a summer associate in corporate citizenship at Pfizer. After graduation, she hopes to continue in the field of corporate social responsibility with the intention of starting a social venture of her own in the near future.

Globalization Maps a New World

"While some countries are reaping the benefits of globalization, others are completely disappearing from the map," asserted James Forsyth, Stern senior and co-chair of the 2006 NYU Stern Summit on Global Business student planning committee. "To date, we haven't quite figured out how to help the countries suffering from the ill effects of globalization."

Every two years, students at Stern's Undergraduate College host the Summit to promote dialogue around timely global and domestic business issues. In October, Stern held its fourth Summit, which explored the theme, "The Disappearing Third World: A Paradox of Growth." The Summit was attended by more than 200 students from NYU, Stern, and more than 20 leading business schools.

Keynote speaker Paul Solman provided students an overview of society's conflicting views on globalization.

Over the course of the weekend, students heard from speakers and panelists and engaged in a provocative discussion about globalization and its effects on developing nations. "Our view of globalization in the United States is skewed," Forsyth argued. "We think because globalization is helping us, it must be hurting no one." Conference speakers and panelists addressed this common misconception and offered suggestions on how to improve assistance to developing countries. During his keynote speech, William Easterly, NYU professor of economics, advocated a "bottom up" approach to providing aid, which begins with an understanding of the individual countries and communities in need before considering how to give money.

Keynote speaker Paul Solman, business and economics correspondent from "The News Hour with Jim Lehrer," provided an overview of society's conflicting views on globalization. In his presentation, "The Bandwagon and the Backlash," Solman alternated between the viewpoints of those in favor of globalization (the Bandwagon), and those who only see globalization's negative results (the Backlash). Lisa Butcher, Stern international programs administrator and conference co-administrative liaison, explained: "He even brought a red wagon and a whip on stage to help illustrate both sides of the issue."

"Students from visiting schools said that they learned a great deal about globalization and enjoyed making contacts with other students who share their passion for global business," remarked Carmen Johnson, Stern senior associate director of international programs and Summit administrative liaison. In between debates, speeches, and panel discussions, the visiting students found time to sample the Big Apple. They enjoyed international cuisines, a Broadway show, and a tour of their choice of one of five city sites – the Federal Reserve Bank of New York, the Mercantile Exchange, the New York Stock Exchange, the United Nations, and the United States headquarters of Ernst & Young, which sponsored this year's Summit.

The Summit was a profound experience for Stern students as well. "As a future business leader, I now realize how important it is not only to understand the global economy, but also to effect social change," said Forsyth. "The Summit has really inspired me to play an active role in putting some of these disappearing countries back on the map."

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ALUMNI HAVE A WHALE OF A TIME

The Sixth Annual Stern Alumni Ball at the American Museum of Natural History

1. From left to right: Dean Thomas Cooley; Sally Blount-Lyon, Vice Dean and Dean of the Undergraduate College; William R. Berkley (BS '66), Chairman of the NYU Stern Board of Overseers and Vice Chairman of the NYU Trustees; and Mary Ellen Georgas (MBA '93), Chair of the Alumni Council.

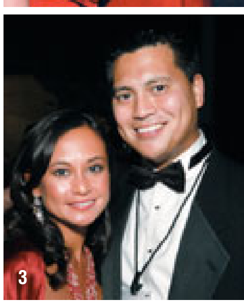
2. Members of the 2006 Alumni Ball Committee.

3 - 6. Alumni and their guests enjoy a festive holiday evening, which included dinner, cocktails, and dancing "under the sea" in the Milstein Hall of Ocean Life.

7. Shelly Greenbaum (BS '71) and Susan Greenbaum (BS '71, MBA '78), Associate Dean of the Undergraduate College.

8. "Start spreading the news…" alumni celebrate NYU Stern's New York City location.

9. Nearly 900 Stern alumni gathered under the Museum's famous 94-foot-long model of a blue whale.



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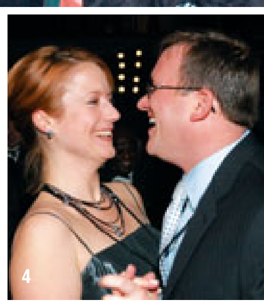

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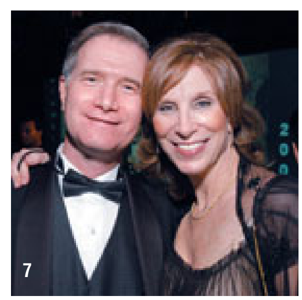

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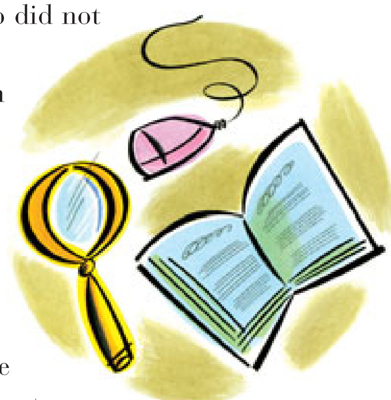
NYU Stern Publishes Comprehensive Print Directory

NYU Stern recently published a print directory for alumni. Over the last year, the School has collected updated information on Stern alumni worldwide for the 2007 edition of this publication, which will be released in late spring.

"We are excited to offer a print alumni directory to our graduates," said Natalie Miranda, Director of Alumni Affairs. "It is a valuable tool for reconnecting with former classmates and networking with fellow alumni."

The directory will be segmented into four categories, making it easy to locate alumni alphabetically, by class year, geographically by city and state, and by occupation. The directory was only available for purchase to Stern alumni and only those copies that were pre-reserved will be printed.

For those alumni who did not pre-reserve a copy, the information published in the print directory can be found in SWAP, the Stern Worldwide Alumni Platform, NYU Stern's online community. In addition, SWAP enables alumni to update their contact information at any time and any place via the Internet. Having current information on file is essential to ensure that alumni receive event invitations and updates from the School, and so that fellow alumni and former classmates can stay in touch with each other.



Alumni Affairs thanks the thousands of alumni who updated their information through the print directory project and encourages all alumni to keep their information updated and to stay in touch through SWAP.

For more information on the print directory, contact the Office of Alumni Affairs at (212) 998-4040. To log on to SWAP, visit the Alumni Affairs homepage at www.stern.nyu.edu/alumni.

The NYU Stern Executive Board Raises a Toast

On February 7, the members of the NYU Stern Executive Board hosted an event for a group of alumni at the Morgan Library. Guests braved the cold to participate in the After Market Hours Series, which was designed by Board members to encourage the engagement of alumni through educational, professional, and networking opportunities. Executive Board member Paul Tanico (BS '77) served as master of ceremonies.

Kevin Parker (BS '81) was the evening's featured speaker. The Global Head of Asset Management at Deutsche Bank, Parker is also a financier with a passion for wine. He gave a lighthearted talk about his acquisition of Chateau de Combebelle and Chateau Maris vineyards in western France. Co-owner and winemaker Robert Eden joined him to discuss the biodynamic principles of their wine production. Parker and Eden then treated the guests to a tasting of two Chateau Maris' vintages, the 2004 Syrah and 2003 Grenache.

From left to right: Robert Eden, Kevin Parker, Paul Tanico, and Abraham George (MBA '73, PhD '75) at the After Market Hours Series event held at the Morgan Library.

Benefits for Alumni: NYU Torch Club

First opened in 1999, the Torch Club is a private facility for members of the NYU community. Alumni are invited to make reservations for a meal in the formal dining room or to enjoy cocktails in the Tap Room. Private rooms are also available for meetings, receptions, and other special events – both personal and professional. The Torch Club is located on Waverly Place between Greene Street and Mercer Street. For more information or reservations, please call (212) 99-TORCH.

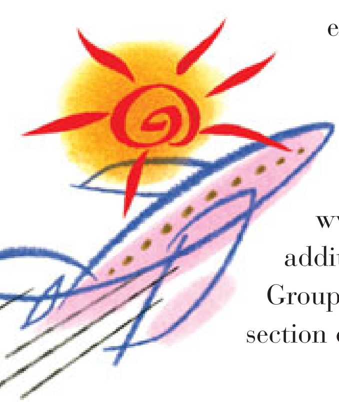
Catching Up With … The Italian Alumni Group

The NYU Stern Regional Group in Italy, one of the more than 70 regional groups worldwide, is delighted to welcome all alumni to Italy this June for Florence 2007: Global Alumni Conference. The group, based in Rome and headed by Arnaldo Spicacci-Minervi (MBA '99), Executive, Schroders Italy, Sim S.p.A., Rome, and member of the Florence 2007 Host Committee, has been a valuable resource to the School over the last year, helping to conceptualize and promote the Conference.

"Supporting School events, from marquee events like the global alumni conference, to faculty visits and study abroad trips, is one of the greatest ways regional groups can have an impact on the larger Stern community," commented Sarah Marchitto, Associate Director of Alumni Affairs and manager of regional programs. "As experts in everything from local culture and customs to local business trends and hot issues, our regional groups and their leaders provide an essential local touchpoint for us around the world.

"The School would like to thank Arnoldo and the entire Italian Regional Group for their support of this marquee Stern event," Marchitto continued. "We look forward to a very successful and enjoyable Conference, and are excited to help the Italian Group welcome alumni to Florence this summer."

Florence 2007 offers alumni a weekend of exclusive educational, cultural, and social opportunities at NYU's breathtaking Villa La Pietra estate in Florence, Italy. For more information on the Conference, visit www.stern.nyu.edu/florence2007. For additional details about the Italian Regional Group, visit the website in the community section of SWAP.



Save the Date
Alumni Reunion Weekend

Save the date for the next NYU Alumni Reunion Weekend, which will take place May 11 - 13, 2007.

For the fifth year in a row, alumni are invited to reunite with fellow classmates during three days of exciting panel discussions, school-specific luncheons, and the weekend's Alumni Gala Dinner Dance at the Grand Hyatt Hotel. If you graduated in a class year ending in a two or seven, (1957, 1962, 1967, 1972, 1977, 1982, 1987, 1992, 1997, 2002), then this year marks your reunion year.

NYU Stern Reunion Activities

May 11

7:00 - 10:00 pm

Reunion Receptions for the MBA and Undergraduate Classes of 2002

May 12

11:15 am - 1:15 pm

"Charting the Digital Frontier: The Digitization of the Music Industry," featuring a special performance by Chris Barron, lead singer of The Spin Doctors

1:30 - 3:30 pm

Dean's Luncheon, featuring Dean Thomas F. Cooley's State of the School Address

For more information or to register for these events, visit the reunion section of the Alumni Affairs website at www.stern.nyu.edu/alumni.

class notes

1920s

Noah Holtzman (BS '29), of Lauderhill, FL, recently celebrated his 99th birthday with family and friends, including his children, Warren Lloyd Holtzman **(BS '52)** and Ellen Holtzman Silverstein, grandchildren, and great grandchildren.

1940s

Dr. Myron Gable (BS '47), of Sarasota, FL, delivered the plenary address at the joint meeting of the Academy of Marketing Science and the American Collegiate Retailing Association.

Mitchell Kaidy (BS '48), of Rochester, NY, a retired journalist, has been named to "Who's Who in the World." Earlier named to "Who's Who in America," Kaidy contributed to a series of articles in 1963 that won a special citation from the Pulitzer Prize Committee. In 1993, he won a Project Censored award.

1950s

Claude Litton (BS '56), of Holmdel, NJ, has been President of the Manhattan Properties Company for nearly three decades. He has been lauded for single-handedly turning a non-descript office building into a world-renowned textile showroom building.

Irwin Winkler (BS '56), of Beverly Hills, CA, is CEO of Winkler Films. Winkler has made movies for nearly 40 years, first as a producer of films such as the "Rocky" series and recently as a director of "Home of the Brave."

Anthony J. Monteverdi (BS '58), of Bayside, NY, was recently named "Brooklyn's Banking Innovator" by the *Italian Tribune*. He is currently Chairman and CEO of Flatbush Federal Savings and Loan Association in Brooklyn, NY.

Dr. Eugene Miller (MBA '59), of Boca Raton, FL, had the college boardroom of Florida Atlantic University's College of Business dedicated to him. Miller is being honored for his outstanding service and support of the college. He has worked as a business executive, journalist, and adjunct professor at both FAU and NYU.

1960s

Neal P. Gillen (BS '61), of Potomac, MD, is Executive Vice President and External Counsel for American Cotton Shippers Association in Washington, DC. Gillen also authored his third novel, *Dinner in Bordeaux*, a post 9/11 thriller taking place in Paris and Bordeaux. His previous two novels are *Sugar Time* and *Capitol Punishment*.

Richard E. Schaedle (MBA '61), of Pine Hill, NY, has been appointed Chairman of the Catskill Heritage Alliance. He is also on the boards of Margaretville Memorial Hospital/ Mountainside Resident Care Center and Kingston Hospital.

Jack E. Angel (MBA '63), of Cos Cob, CT, was recently appointed to the Board of Directors for VerusMed, a medical information provider.

Louis S. Kurtzberg (BS '64), of Commack, NY, has been Chairman and Lecturer of the Long Island Chapter of the School Outreach Committee, a volunteer group for people with multiple sclerosis, since June 1994.

Howard W. Serig, Jr. (BS '64, MBA '67), of Vienna, VA, has retired from the US Department of Transportation, where he served as a policy analyst.

Frederic M. Poses (BS '65), of New York, NY, has been appointed non-executive Chairman of the Board of Tyco International Ltd. He is currently Chairman and CEO of American Standard Companies.

Walter F. Raquet (BS '66), of Palm Beach, FL, has been elected non-executive Chairman of the Board at Cross Match Technologies, Inc. He is currently the CEO of WR Capital Management.

Rick S. Traum (BS '67), of Mount Dora, FL, has joined the Board of Directors of the Performing Arts of Lake and Sumter counties. He is a freelance entertainment producer and consultant.

Burton S. Rubin (BS '68), of New York, NY, a real estate broker at Warburg Realty Partnership, has set up several companies selling his inventions, including the Halleyscope and Evo Pen, among others.

Robert M. Beall, II (MBA '69), of Bradenton, FL, stepped down as CEO of Bealls Inc, a position he held for 26 years, but will remain Executive Chairman.

George P. Jahn (MBA '69), of Spencertown, NY, was recently appointed as an independent trustee of the Board of Trustees of American Mortgage Acceptance Company (AMAC). He recently retired as an Associate Real Estate Officer of the New York State Teachers Retirement System (NYSTERS).

1970s

Murray Dropkin (MBA '71), of Brooklyn, NY, co-authored with James Halpin *Bookkeeping for Nonprofits: A Step-by-Step Guide to Nonprofit Accounting*. Murray is currently a consultant at CMS Systems Inc.

Andrew Hanges (BS '71), of Athens, Greece, is CEO of GAM Limited and its subsidiary companies, as well as COO of the GAM Group and Julius Baer Funds. Prior to joining GAM in 1997, he was Area President of First Union National Bank.

Kevin J. Berry (BS '72, MBA '73), of Milpitas, CA, was recently appointed CFO of California Micro Devices, where he has served as interim CFO since March 2006.

Richard S. Fuld, Jr. (MBA '72), of Greenwich, CT, received The Carnegie Hall Medal of Excellence in recognition of his outstanding leadership in arts philanthropy. He is Chairman and CEO of Lehman Brothers.

Robert G. Hill (BS '73), of Syracuse, NY, Vice Chancellor for Public Affairs at the University of Pittsburgh, has received IABC/Pittsburgh's 2006 Business Communicator of the Year Award.

Martin J. Levine (BS '73), of Manasquan, NJ, will retire effective March 31, 2007, as Executive Vice President and COO at Opteum Financial Services LLC, which he co-founded in 1999.

Mitchell Wienick (MBA '73), of Penn Valley, PA, was recently appointed to the Board of Directors for Pinstripe Inc., a recruitment process outsourcing and services firm.

Thomas G. Hudson (MBA '74), of Schaumburg, IL, has been named CEO of Capital Growth Systems Inc.

Daniel J. Parrett (MBA '74), of Weston, CT, has been named Managing Director at GW Equity. Previously, he was Managing Director at Citigroup Capital Strategies.

Russell L. Pollack (BS '74), of Middletown, NJ, has been named CFO at Bay Crest Partners LLC, a broker/dealer in NYC and a member of the NYSE and American Stock Exchange.

Larry Swedroe (MBA '74), of Saint Louis, MO, is Principal of Buckingham Asset Management. He previously was Vice President of Residential Service Corporation of America.

Ronald V. Waters, III (MBA '75), of Chicago, IL, has been elected to the board of Sabre Holdings Corporation. He recently retired as COO from Wm. Wrigley Jr. Company.

Bonita Z. Dorland (BS '76, MBA '78), of New York, NY, was named Senior Vice President and Chief Credit Officer of PMI Guaranty, a subsidiary of The PMI Group Inc. She was most recently Chief Underwriting Officer and Executive Vice President with Radian Asset Assurance Inc., an insurance company.

Daniel A. Facilla (MBA '76), of West Dover, VT, was recognized as Masonic District 8 2006 Citizen of the Year. This award recognizes Freemasons for service to their community in addition to their charitable work in the Masonic Fraternity. He worked in the New York office of Deloitte, Haskins and Sells as an accountant and later as a CPA.

Christine A. Morena (BS '76, MBA '81), of Mendham, NJ, has been named Executive Vice President of Human Resources for Saks Incorporated. Prior to this appointment, she was Senior Vice President of Human Resources for AT&T Corporation.

Mark Everson (MBA '77), of Arlington, VA, has been named one of the "100 Most Influential People" by *Accounting Today*. He is currently Commissioner of the Internal Revenue Service.

Stephen F. Groth (MBA '77), of Ardsley, NY, is Vice President and CFO of Inner Mongolia Production Company LLC (IMPCO). Previously, he served as Vice President of Global Venture Investments LLC.

Frank C. Ingriselli (MBA '77), of Scarsdale, NY, is President and CEO of Inner Mongolia Production Company LLC (IMPCO), which he founded in 2005.

Cathy Minehan (MBA '77), of Lincoln, MA, the first and only female President and CEO of the Federal Reserve Bank of Boston, announced recently that she intends to step down in 2007. Prior to this position, she served at the Federal Reserve in New York.

Dr. Kyu Chang Park (MBA '78), of Englewood Cliffs, NJ, Executive Vice President of eMagin's, has been appointed interim CEO and President. Previously, he was President of eMagin's subsidiary, Virtual Vision Inc.

Robert R. Auray (MBA '79), of Lake Bluff, IL, has been named President and CEO of GENCO Marketplace, which markets and liquidates customers' surplus inventory.

1980s

Lori Lee Chan (BS '80, MBA '84), of Jackson Heights, NY, has joined Navios Maritime Holdings Inc. as Senior Vice President and Head of Market Risk Management.

Donald E. Foley (MBA '80), of Cos Cob, CT, has been elected to the Board of Directors of the Wilmington Trust Corporation. He is Senior Vice President, Treasurer, and Director of Taxes for ITT Corporation.

Joseph T. O'Donnell, Jr. (MBA '80), of New York, NY, has joined GE Commercial Finance, Global Sponsor Finance as Managing Director. He has also served as a Managing Director and Partner with Bankers Trust Corp.

Stephen M. Simes (MBA '80), of Long Grove, IL, has been named CEO of BioSante Pharmaceuticals, Inc.

Playing for High Stakes

Lorenzo Fertitta (MBA '93)

Las Vegas native Lorenzo J. Fertitta has risen swiftly in the ranks of players in his hometown – and he's done it without so much as a single bluff.

Fertitta serves as Vice Chairman and President of Station Casinos (NYSE: STN), one of the largest gaming companies in the United States. Based in Las Vegas, its holdings include several casinos in Las Vegas and Henderson, Nevada. "This is a good time to be in the gaming industry. We've gotten a boost in the last few years due to the recent mainstream popularity of poker," commented Fertitta. "The number of people playing the game has increased and the demographic of the players has skewed to a younger crowd – males, ages 25 to 35."

Gaming may be an ancient business, but it is benefiting from some 21st-century innovations. "Historically, the gaming industry has been low-tech, but we are seeing casino operations and other aspects of the business going more and more high tech," he said. "Running a casino is really like running 20 different companies – there's marketing, operations, hospitality, accounting, finance, and more. For people looking to get broad-based business experience, this is a great industry to join."

As the industry has expanded, Station has also branched out. In addition to video poker, slot machines, table games, bingo, race, and sports book wagering, its properties feature amenities including restaurants, entertainment venues, movie theaters, bowling, and convention/banquet space.

While gaming is essentially a numbers game, running successful businesses in a highly competitive environment like Las Vegas relies on the human factor as well. "Of all the success we've had with Station Casinos, I am most proud to have been selected by *Fortune* magazine as one of the top 100 companies for whom to work," said Fertitta. "We were ranked at number 18 and are up there with industry giants Nordstrom and Google. One of the best pieces of advice I've received is to surround yourself with good people and treat them right. Being ranked as one of the top 100 companies to work for was validation for me that we're doing just that."

Asked to offer insider's tips on gambling to his fellow alumni, Fertitta stepped outside his professional persona and exclaimed, "Yes, stop doing it! I took finance with Professor Aswath Damodaran and know that there are better ways to get a return, dollar for dollar."

Fertitta is also the Chief Executive Officer and a principal owner of Zuffa, LLC, the company that owns and operates the Ultimate Fighting Championship, the United States' premier mixed martial arts association.

"I grew up in Las Vegas, and the only professional sport we had here was boxing. As I got older, I saw a great opportunity to bring another form of entertainment to Las Vegas," he explained. "Mixed martial arts is a huge business domestically and the opportunities for growth outside of the US are enormous. We recently opened a London office and have plans to expand into Europe and Asia over the next few years. This is not a sport that needs translating – you put two guys in a cage and let them fight; last one standing wins – everyone understands this concept."

c l a s s *n o t e s*

Lines of Communication

Barbara Perlmutter (MBA '79)

Barbara Perlmutter recently retired as Senior Vice President of Public Affairs for Marsh & McLennan Companies, Inc., the global insurance, investment management, and consulting firm. She was responsible for the development and administration of Marsh & McLennan's internal and external communications, public relations, media, advertising, and corporate philanthropic programs.

"Being the chief communications officer of a growing, dynamic global professional services firm with a diverse portfolio of businesses was demanding but exhilarating. Every day brought new issues to consider," Perlmutter said.

Perlmutter's last few years with Marsh & McLennan were especially challenging. The company had a large presence in One World Trade Center. "We lost nearly 300 employees on 9/11," she recalled. "Communicating effectively with fellow employees, clients, and most importantly, the families of our lost colleagues, while simultaneously dealing with my own personal horror and grief, was the most trying professional challenge I've faced."

The tragedies of September 11, 2001, were followed by internal firm troubles, including allegations of improper conduct in 2003 and 2004 at two of the company's subsidiaries. Having handled Marsh & McLennan's communications through both of these tumultuous times, and after 27 years, Perlmutter decided it was time to retire.

"It took me some time to de-stress after my retirement," she added. "In my time at Marsh & McLennan, serving as the company spokesperson, I was always on call, even on vacation and over holidays. It's hard to come down from that."

Since October, Perlmutter has traveled to China, Morocco, and India. "There is a whole big world out there, and so many interesting things to do," she said. "I've given some time and energy to Women in Need – an organization that helps homeless women and their children learn how to live independently; and I have been a frequent participant at the Council on Foreign Relations." Perlmutter is particularly interested in the Council's Women and US Foreign Policy program, which focuses on improving the position of women in the developing world through initiatives like microfinancing.

Perlmutter's interest in helping women grew out of her experience as a young female professional. "Early in my career, I found I was often the only woman in a meeting," she explained. "I quickly became sympathetic not only to professional women in America, but to women everywhere trying to manage the work/life balance." As a mother, she understood the need and desire for parents to be with their children. And as a manager, she came to see how challenging it is for companies to accommodate employees' needs. "Historically, men have had a much easier time in this realm, but with the current generation of parents, I see the tide changing," she said. "Today responsibility in the home is more equally shared."

Joan M. Varrone (MBA '80), of San Francisco, CA, was recently appointed CFO of SenSage Inc., a provider of scalable log-management solutions.

Eric G. Waxman, III (MBA '81), of Stony Brook, NY, has been named Partner at Brown Raysman Millstein Felder & Steiner LLP.

William W. Archer (MBA '82), of Huntington, NY, has been appointed Managing Director and Head of US Leveraged Credit Risk for Barclays Capital. Previously, Archer was Managing Director and Co-chairman of the capital markets committee at Goldman Sachs.

Hans H. Heinsen, Jr. (MBA '82), of Lake Bluff, IL, has joined Collins Industries, Inc. as Vice President and CFO, where he is responsible for accounting and finance. He was previously Executive Vice President, International of Solo Cup Company, Inc. in Highland Park, IL.

Ajai M. Kaul (BS '82, MBA '84), of Chappaqua, NY, is Managing Director of Alliance Bernstein (Singapore) Ltd. Previously, he was CEO and Country Manager of Alliance Capital Asset Management (India) Ltd.

Leonard Bernstein (BS '83), of Briarcliff Manor, NY, built and opened Jackson + Wheeler, a restaurant in Pleasantville, NY, after working as a CFO in Manhattan for more than 20 years.

Murray S. Kessler (MBA '83), of Bedford Corners, NY, has been elected as CEO of UST Inc., the holding company for US Smokeless Tobacco Company. Prior to this election, he served as President and COO for the company.

Bella S. Borg-Brenner (MBA '84), of New York, NY, has joined Stillwater Capital Partners as Managing Director and will head Stillwater's asset-backed real estate intensive fund-of-funds business. She started her career at Credit Suisse in fixed income and asset-backed securities research.

Kirk Cypel (BS '84), of Poway, CA, has been appointed as COO of Equastone, where he first joined as General Counsel.

Nelson G. Eng (BS '84), of Armonk, NY, has been appointed President of eFunds Corporation, which delivers innovative payment processing and information intelligence solutions. Prior to this appointment, Eng was General Manager and Group Vice President of the financial services sector for Oracle Corporation.

Frank J. Fanzilli (MBA '84), of Norwalk, CT, has been appointed to the Board of Directors for Avaya Inc. He spent 18 years at Credit Suisse First Boston, most recently as the Global CIO and Managing Director, before retiring in 2002.

Deborah Gronvold (MBA '84), of Portland, OR, has been named Vice

President and Treasurer of PPM Energy Inc.

Thomas A. King (MBA '84), of Chagrin Falls, OH, has published a book, *More Than a Numbers Game: A Brief History of Accounting*, which reflects many of his learnings from NYU Stern.

Mary B. Safrai (MBA '84), of New York, NY, has been appointed Associate Director, Oil & Gas Group at C.K. Cooper & Company. Prior to this appointment, she worked at Carl H. Pforzheimer & Co.

Howard B. Fife (MBA '85), of Scarsdale, NY, has joined Westport Capital Partners LLC as a Principal and Head Trader. He previously worked for Jefferies and Company.

James L. Hamilton, Jr. (MBA '85), of Armonk, NY, rejoins JPMorgan Chase & Co. as a Managing Director in its transportation group. He had previously spent 15 years at the firm during the 1980s and 1990s. Most recently, he worked at Integrated Finance Ltd., a boutique founded by former JPMorgan employees.

Rolf M. Kemen (MBA '85), of Minneapolis, MN, is Managing Director of the CBRE Consulting group in the Minneapolis office. He is responsible for overseeing consulting assignments across the US.

Pin Lee (BS '85), of East Williston, NY, has joined a new private client banking team at Signature Bank as Senior Client Associate.

Britton H. Murdoch (MBA '85), of Bryn Mawr, PA, Founder and Managing Director of Strattech Partners LLC, has been elected to the Board of Directors of Bryn Mawr Corporation and its wholly-owned subsidiary, The Bryn Mawr Trust Company.

Yuji Orihara (MBA '85), of Matsudo, Japan, was appointed President and Representative Director of Amgen K.K., a wholly-owned subsidiary of Amgen Inc., in 1992. Prior to this appointment, he was Senior Managing Director at Novartis Pharma K.K.

Joshua Metzger (BS '86), of Beverly Hills, CA, has been named Senior Vice President of Corporate Development at Veoh Networks, a leading innovator in Internet television. He was previously Senior Vice President of Business Affairs at Go To/Overture.

Steven P. Spencer (MBA '87), of Livingston, NJ, has been appointed CEO of Upoc Networks Inc. He was the former Chief Technology Officer for the company.

Vanessa Wilson (MBA '87), of New York, NY, has been elected to the Board of Directors of Protective Life Corporation. She is also Managing Director at Deutsche Bank Securities.

Racahamim R. Elitzur (MPhil '87), of Toronto, Ontario, received the Award for Excellence in Teaching at the University of Toronto's Rotman School of Management. He is currently Edward J. Kernaghan Professor of Financial Analysis and is also an Associate Professor of Accounting at University of Toronto.

Lorraine Hack (BS '88), of New York, NY, has joined Heidrick & Struggles as a Partner. Previously, she was an Executive Director at Russell Reynolds Associates. Prior to her recruiting career, she spent 15 years as a financial executive in the media and entertainment industry.

Donald M. Preate (BS '88, MBA '94), of New York, NY, has been promoted to Executive Director at Cushman & Wakefield, a commercial real estate services firm. He was previously a Senior Director.

Ivye L. Allen (MBA '89), of Jackson, MS, has been named President of the Foundation for the Mid South.

John R. Dearbon, Jr. (MBA '89), of Houston, TX, has been named Vice President of Business Development for the Basic Plastics and Chemical portfolio at Dow Chemical Company. Previously, he was Vice President for Energy.

Lars E. Holmquist (MBA '89), of Alpharetta, GA, was recently appointed President of ESC Loyalty. He previously served as Vice President of MasterCard's loyalty consulting services.

Patrick Yan-Kit Lu (MBA '89), of New York, NY, has been named Director of Equity Capital Markets at Cowen and Company LLC.

Walter J. Owens (MBA '89), of Summit, NJ, has been appointed President of CIT Corporate Finance at CIT Group Inc. Previously, he was Executive Vice President and Chief Sales and Marketing Officer of CIT.

Regina Shafir (BS '89), of Brooklyn, NY, designs jewelry and tiaras for the bridal and formal wear markets.

Janet Valenza (MBA '89), of New York, NY, has joined Closets By Design, a national $250 million company, as Sales and Design Manager. Prior to this position, she worked for major apparel companies, including Polo Ralph Lauren.

1990s

Jordan D. Alexander (MBA '90), of Ridgewood, NJ, has joined Bear Stearns Asset Management Inc., from BKF Capital Group as a Managing Director. Previsouly, he was with Palisade Capital Management.

Rajiv Dalal (MBA '90), of Princeton, NJ, has been appointed Global Sales Head, Knowledge Solutions, for Kale Consultants Ltd.

Barry S. Eyre (BS '90), of Coventry, RI, established SaintJohnStone, a company that imports and distributes slabs of polished granite, marble, onyx, and other exotic stones, with several partners in January 2005. He previously worked as a derivatives trader for Deutsche Bank in London.

Timothy Mahoney (MBA '90), of Westfield, NJ, has been named CEO of Block Interest Discovery Service (BIDS), the newly formed alternative trading system designed to increase competition and liquidity in the US equity block trade market. Prior to this appointment, Mahoney was Head of Equity Trading for Merrill Lynch Investment Managers.

Kenneth R. Russell, Jr. (MBA '90), of Wallingford, CT, has been appointed President of the Greenwich, CT, office of Asset Management Advisors (AMA), an affiliate of SunTrust Banks Inc.

Mark J. Weiner (MBA '90), of Coppell, TX, has been appointed Vice President of Customer Care for Choice Hotels International Inc. He was previously Vice President at Travelocity.

William Zerella (MBA '90), of Los Gatos, CA, has joined Turin Networks from Infinera as CFO and Vice President of Finance and Administration. Prior to Infinera, Zerella was with Calient Networks and Logictier.

Adam C. Berger (BS '91), of Portland, OR, opened Ten-01 with co-owner, Michael Rypkema. The new restaurant hopes to bring accessible glamour to the local area.

Theophanis Phanos (MBA '91), of New York, NY, has been appointed to the Board of Global Oceanic Carriers Limited, a Greek-based dry bulk shipping company, as a non-executive Director. He is Co-founder of Trafalgar Asset Managers and CIO of Trafalgar Recovery Fund and Trafalgar Discovery Fund. Prior to Trafalgar, Phanos worked at Bankers Trust, Lehman Brothers, and Deutsche Bank.

Tayeb Tahir (MBA '91), of Barrington, RI, has been named Senior Vice President of International Development for Peabody Energy, the world's largest private-sector coal company.

William I. Woodson (MBA '91), of Woodside, CA, has joined Credit Suisse as Managing Director and Head of Family Wealth Management for Private Banking USA. He was formerly Merrill Lynch's Senior Partner on a private wealth advisory team.

Joe Eberhardt (MBA '92), of Auburn Hills, MI, left his position as Chrysler Group's Executive Vice President, Global Sales, Marketing, and Service, to return to automotive retailing within the Mercedes-Benz network.

Gerald L. Zambory (MBA '92), of Marietta, GA, has been appointed Executive Vice President and CFO of Wincup Inc, a leading manufacturer and distributor of disposable foodservice products. Prior to this appointment, he was Vice President at Georgia-Pacific's Pulp and Paper business segment.

Erik T. Asgeirsson (BS '93, MBA '02), of New York, NY, has been named one of the "100 Most Influential People" by *Accounting Today*. He is currently the CEO at CPA2Biz Inc.

Kathleen M. Delaney (MBA '93), of Belle Mead, NJ, has been named Senior Director of Marketing at Dow Jones Indexes. Previously, she served as Director of Business Marketing at Factiva, where she was instrumental in the strategic positioning of a number of content solutions, including the use of viral marketing and blogs.

Andrew Lazarus (MBA '93), of Scarsdale, NY, has been appointed Executive Vice President, CFO of Genesys Conferencing, a global multimedia conferencing service. He served as Chief Strategy Officer since he joined the firm in 2003.

Jason L. Malamud (MBA '93), of New York, NY, has been named Vice President and General Manager of Verizon FiOS Media, responsible for advertising sales on Verizon's FiOS platform. He was previously Vice President, Affiliate Advertising Sales and Marketing, for MTV Networks.

Fabio Pesce (MBA '93), of Cagliari, Italy, has been named General Manager, Italy, for Twinings, a UK tea manufacturer.

Mark S. Wittman (MBA '93), of Brooklyn, NY, has joined Banc of America Securities as a Managing Director in its Consumer and Retail Investment Banking group.

Jeffrey C. Baker (MBA '94), of Holmdel, NJ, has been promoted to CIO of Dalton, Greiner, Hartman, Maher & Co. LLC (DGHM). He joined DGHM in 2000 and most recently served as Executive Vice President, focusing on healthcare and energy.

Laurie E. Goodman (MBA '94), of New York, NY, has been acknowledged by the University of Rhode Island as the College of Engineering Dean's List Honoree. She is Managing Director at JPMorgan Asset & Wealth Management.

Jeffrey I. Kaufman (MBA '94), of Saratoga Springs, NY, has been named Account Director at the Selva Group, an inVentiv Health company providing medical education and event management.

Peter S. Morgan (BS '94), of Hoboken, NJ, has been named Partner at Thacher, Proffitt & Wood LLP. He belongs to the Structured Finance Practice Group.

Thomas J. Murphy (MBA '94), of Darien, CT, has been promoted to Managing Director of General Atlantic, a leading private equity firm. He has been CFO of General Atlantic for the past seven years.

Roger Burkhardt (MBA '95), of Irvington, NY, has been appointed President and COO of Ingres, an open-source database company that spun off from Computer Associates in 2005. He has also served as the Chief Technology Officer and Executive Vice President of the New York Stock Exchange.

Jorge L. Figueredo (MBA '95), of Mahwah, NJ, has been appointed Senior Vice President, Human Resources, by Dow Jones & Company Inc. He was named HR "Executive of the Year" by *Human Resources Executive* magazine in 1999 and was listed among the 100 "Most Influential Hispanics" by *Hispanic Business* magazine in 2004.

Richard S. Hauer (MBA '95), of Princeton, NJ, has joined The Schonbraun McCann Group LLP as a partner and will lead its expanded restructuring and bankruptcy services practice. Prior to this position, he was Co-founder and Principal of GeminiRealty Advisors LLC.

Susan Perkins Rodriguez (MBA '95, MPhil '04, PhD '06), of Evanston, IL, received tenure from Northwestern University, where she specializes in macroorganizational behavior.

James Volkwein (MBA '95), of Greenwich, CT, has been named one of the "40 under 40" bankers who represent the way Wall Street is evolving today by *Investment Dealers Digest*. He is currently the Global Head of Deutsche Bank's Private Placements and previously worked in similar functions at Merrill Lynch and Barclays Capital.

Marco M. Bianconi (MBA '96), of Rome, Italy, has been appointed Director to the Fund of Theorema Europe Fund Ltd. He has worked as the CFO of Caltagirone SpA in Rome, Equity Analyst and Portfolio Manager at Fidelity Investments in London, IRI Rome, Credit Suisse First Boston, and Merrill Lynch in New York.

Travis E. Bradford (MBA '96), of Cambridge, MA, has published the book *Solar Revolution*.

Robert L. Levy (MBA '96), of Ridgewood, NJ, has been named CFO of American Mortgage Acceptance Company (AMAC). He has served as the Director of Capital Markets of CharterMac, AMAC's external advisor, since 2001. Prior to CharterMac, he was Vice President in the Real Estate Equity Research and Investment Banking departments at Robertson Stephens in San Francisco.

Ashim Mehra (MBA '96), of New York, NY, has been promoted to Senior Research Analyst at Mazama Capital Management. Previously, he worked for RBC Capital Markets, specializing in the media broadcasting sector.

Pamela Robinson (MBA '96), of Mamaroneck, NY, is the Director of Finance and Administration for Alvin Ailey Dance Foundation. She previously served as Director of Business Affairs for Marketing Entertainment Group of America.

Aaron Skloff (MBA '96), of Berkeley Heights, NJ, has been awarded the Accredited Investment Fiduciary designation from the Center for Fiduciary Studies. He is the CEO of Skloff Financial Group.

Benjamin T. Belveal (MBA '97), of Atlanta, GA, has been named Vice President, Strategic Services, for the Design Forum, a retail design consultancy.

Ralph G. D'Ambrosio (MBA '97), of Halesite, NY, has been promoted to CFO of L-3 Communications. He previously served as L-3's Vice President of Finance and Principal Accounting Officer. Prior to joining L-3 Communications, he was a Senior Manager in the Accounting and Auditing department at Coopers & Lybrand LLP.

John Orwin (MBA '97), of Hillsborough, CA, has been promoted to Senior Vice President, Sales and Marketing, BioOncology, at Genentech, Inc. Previously, he was Franchise Vice President within Johnson & Johnson's Ortho Biotech division.

Himanshu A. Patel (BS '97), of Crofton, MD, has been named the "Best Analyst among Earnings Estimators in Auto Components" by *Forbes*. He is currently Vice President at JPMorgan.

Michael C. Pinto (MBA '97), of Yardley, PA, has been named Vice President of Sales for Model N Inc., which provides revenue management solutions for life sciences companies.

Oliver M. Schweitzer (MBA '97), of New York, NY, has been named Principal of AdMedia Partners, a boutique investment bank.

James B. Cooke (MBA '98), of Mineola, NY, married Amy E. Noble at the Church of the Holy Trinity in Manhattan on August 26, 2006.

Paula A. Kalandiak (MBA '98), of Playa Del Rey, CA, has joined First Albany Capital Inc. as Principal and Senior Analyst in the Equity Research Group. Previously, she was a senior analyst at Roth Capital.

John J. Kirsch (MBA '98), of Riverside, CT, has been named Director of AdMedia Partners, a boutique investment bank.

David L. Shaw (MBA '98), of New York, NY, has been named Partner at Fried, Frank, Harris, Shriver & Jacobson LLP.

Samuel F. Wright (MBA '98), of Ramsey, NJ, has joined Flackman, Goodman & Potter, P.A., as Partner and Head of Transaction Advisory Servies Group.

Joseph I. Feldman (MBA '99), of New York, NY, has been named Managing Director of Hardlines at Telsey Advisory Group.

Robin B. Hazelwood (MBA '99), of New York, NY, has published her first novel, the autobiographical *Model Student: A Tale of Co-eds and Cover Girls*. She modeled in New York, Paris, London, and Milan during the 1980s and 1990s.

Tomasz M. Jozefacki (BS '99, MBA '02), of Brooklyn NY, has been appointed Head of Development at the Internet division of Agora SA.

Jason P. Morris (BS '99), of New York, NY, married Kavita Kanti Contractor at the Westin Governor Morris in Morristown, NJ, on September 3, 2006. He is Vice President at Lehman Brothers.

Adam B. Weiner (MBA '99), of New York, NY, joined the Core Equity Group of RS Investments as an analyst. Prior to joining RS Investments, he was a research analyst at Credit Suisse Asset Management and also worked on the sell-side at both Credit Suisse First Boston and Morgan Stanley covering aerospace and defense.

Chun W. Yi (MBA '99), of New York, NY, has been promoted to Vice President at Quadrangle Group LLC, a private investment firm based in New York. Prior to this promotion, she was an associate in the Diversified Industries Group at JPMorgan.

2000s

Betty A. Bastidas (BS '00), of Brooklyn, NY, recently had her photo essays featured in the San Antonio, TX, exhibit, "Sound Gallery: de Ushuaia a San Antonio." The exhibit was sponsored by Wells Fargo and the University of Texas at San Antonio.

Eugenia R. Cheng (MBA '00), of Potomac, MD, was appointed Director and COO of the newly launched firm of JT Partners, dedicated to raising capital for private equity firms with a focus on real estate.

Kevin M. Christiano (MBA '00), of Hoboken, NJ, has joined Banc of America Securities as Senior High-Grade Research Analyst covering the media and telecommunications sectors.

Ronald Doria (MBA '00), of Parlin, NJ, has been promoted to Senior Research Analyst at Mazama Capital Management, where he has worked since 2004. Previously, he was Senior Health Care Analyst at Dreyfus.

From Moscow to Washington

Peter Derby (BS '83)

Peter Derby's childhood as the son of immigrants shaped a philosophy that draws on both Russian traditions and American values. This philosophy, combined with his NYU education, guided Derby to a rewarding and diverse career that spanned the globe.

As a Stern undergraduate, Derby worked as a backstage director for veteran rock promoter Ronald Delsener (BS '59). After graduation, Derby began his career at Chase Manhattan Bank before moving to National Westminster Bank USA. In 1987, Delsener, remembering Derby's fluency in Russian, invited him to join Billy Joel's Russian tour as an unofficial translator and assistant to Joel's tour manager. The time in Russia piqued Derby's interest in the country, from which his parents had emigrated in 1948, and led to his role in helping create its private banking industry.

"I believe that every employee – from the CEO to the janitors – must believe in a company's mission and values," Derby said. He drew upon his own values of honesty and integrity – and his Stern textbooks – while helping launch Russia's private banking industry in the 1990s. "We felt good coming home at night because we knew that our work was aligned with our values," he said. "We were there to promote capitalism, not to rip anyone off."

Derby served as the first Chief Financial Officer of Russia's DialogBank in 1990, and later served as its President and CEO, and, ultimately, as its Chairman. Simultaneously, in 1991, he founded and ran Troika Dialog, Russia's first investment bank. In 1995, Derby founded Troika Dialog Asset Management, which launched Russia's first comprehensive group of domestic mutual funds.

Derby and his wife left Russia in July 1998, seeking an American education for their son. Plans changed when Russia's economy collapsed a month later. "I returned to liquidate the commercial bank and to make sure everyone was paid back," he said. This unpaid work kept Derby in Russia another three years.

Upon his return to the United States in 2001, Derby knew that government service was his next calling. He served as an elected member of the Board of Trustees of the Village of Irvington, NY. In 2003, William Donaldson, the newly appointed Chairman of the SEC and an old acquaintance from Russia, invited Derby to serve as part of his leadership team as Managing Executive for Operations and Management. Donaldson was familiar with Derby's commitment to honesty, integrity, and his knowledge of how to navigate within bureaucratic organizations. At the SEC, he oversaw technical, administrative, and managerial operations with primary responsibility for the regulation of capital markets and financial exchanges.

Derby, who is now in the midst of launching an investment fund focused on a new stakeholder relationship business model, looks back at his undergraduate experience as "a fantastic opportunity for a guy from an immigrant family to get an education." He is impressed with "the blend of intellectual curiosity and leadership" that today's NYU students share. For those seeking career advice, Derby preaches passion. "If you can figure out what you really love to do, the rest will fall into place."

class*notes*

Banking on Global Experience

Joyce Phillips (MBA '92)

Joyce Phillips spends about two weeks of every month on the road. But during her travels, the Citi executive – Phillips is Head of International Retail Banking for Citi's Global Consumer Group – is more focused on finding interesting people than interesting places.

As the executive responsible for strengthening, expanding, and developing Citi's global retail banking franchise, Phillips is committed to developing world-class talent and counts on a strong team of professionals. "It is essential to have the best possible people in the right positions in order to deliver results," said Phillips.

Phillips manages a complex franchise at Citi. The International Retail Bank has more than 50 million customer accounts in 40 countries, multiple product lines, and a vast branch and non-branch distribution network.

"Global" has come to define Phillips' career. She moved to Japan to obtain international experience in the mid-1980s working for a large trading company, Nissho-Iwai Corp., and left to pursue her Stern MBA in marketing and international business in the most global city in the world. After graduation, she worked in packaged goods as a product manager before returning to the finance sector. "Adding the marketing perspective, in particular the commitment to drive innovative ways to better serve customers, has proven invaluable in my career," Phillips said.

Phillips joined Citigroup in 1999 to head the cards business in Japan as President and Representative Director of Citicorp Card Services, Inc. In February 2000, she was given the additional role of President and CEO of Citicorp Diners Club Japan. In the ensuing years, she held a series of leadership positions in Japan, including Country Business Manager of Citibank's consumer operations and Representative Director of Citibank's Retail Bank.

A member of the Citi Management Committee, Phillips was recently named one of *US Banker*'s "25 Most Powerful Women in Banking." Despite not having had a formal mentor herself, she is strongly committed to the role of mentoring. "The mentoring experience is very energizing," said Phillips, who has mentored several Stern students. "Sharing ideas and experiences benefits both the mentor and mentee, and I've gained a great deal from the mentoring."

Daniel J. McManus (MBA '00), of Portland, OR, has been named Chief Marketing Officer of WhiteFence, an online comparison marketplace for essential homeservices. Prior to this appointment, he was President and CEO for Strictly Direct Inc.

Xavier Negroni (MBA '00), of Rockville, NY, has been appointed Managing Director in the Global Markets group of Bank of America. Previously, he worked at JPMorgan.

Camille Young (MBA '00), of Jersey City, NJ, recently founded BaGua Juice in Jersey City, NJ. Previously, she served as a Project Manager for Bain & Co.

Nicholas Paul Jason Chapman (MBA '01), of Norwalk, CT, has been appointed Director of Knox & Company, an investment bank for middle-market and cross-border mergers and acquisitions. He was previously Managing Director of Dunn Johnston & Company and Vice President with Carery Metts & Associates.

Spencer Chesman (MBA '01), of Bedford Corners, NY, is CEO of igourmet.com, the largest Internet retailer of gourmet cheese in the country, rated "best gourmet food" website by *Forbes* magazine. He previously worked at JPMorgan.

Neil S. Glass (MBA '01), of Millburn, NJ, was appointed Vice President, Finance and Operations, of Ziff Davis' Consumer/Small Business Group (CSB). Prior to joining Ziff Davis in 2003, he was an associate in equity research for RBC Capital Markets/Royal Bank of Canada.

Constantine Boyadjiev (MBA '02), of Jersey City, NJ, has recently joined Cohen & Company as Managing Director for risk management functions. He previously served as Senior Vice President at KBC Financial Products USA Inc.

Leslie J. Harrington (MBA '02), of Old Greenwich, CT, is a color consultant who helps manufacturers determine the palette of their products and packages. Her clients have included Crayola, Pottery Barn, and Avon. Previously, she was Director of Color for the paint company Benjamin Moore.

Bryan T. Lapidus (MBA '02), of Edgewater, NJ, has joined Fannie Mae as Director of Financial and Capital Planning. He celebrated the birth of his second daughter, Eliana Fae, on October 16, 2006.

William C. Gremp (MBA '04), of New York, NY, has been named to the Board of Directors for Prospect Energy Corporation.

Steven Craig Miller (MBA '04), of New York, NY, married Sheera Godfrey Ben-David at the Glen Island Harbour Club in New Rochelle, NY, on July 2, 2006.

Louis Pizante (MBA '04), of Beverly Hills, CA, has been named CEO of Mavent Inc., a provider of automated compliance solutions to the financial services industry.

Dr. Hui (David) Shao (MBA '04), of Green Brook, NJ, has been appointed Senior Vice President of Finance at China Aoxing Pharmaceutical Company Inc. Prior to this appointment, he was a healthcare analyst at Wall Street investment firms in New York.

Mayank Singh (MBA '04), of Boynton Beach, FL, has joined Monomoy Capital Partners LP as Senior Associate.

Howard Stevenson (MBA '04), of Highlands Ran, CO, has been hired by Meridian Gold as Vice President, Business Development.

Edith Kong (MBA '05), of Hillsborough, NY, has been appointed CFO and a member of the Board of

Directors at Renhuang Pharmaceuticals Inc., a leading provider of natural biopharmaceutical products in China.

Patrick Mispagel (MBA '05), of New York, NY, has been hired as an underwriter at ACA Capital, a New York-based bond insurer. Prior to joining ACA Capital, he tracked local government credits in the Northeast for Moody's Investors Service.

Christopher M. Donegan (MBA '06), of Wakefield, MA, has joined the associate team of Downer & Company, LLC, an international investment banking firm. He previously was an equity analyst at Conning & Company.

Shaun S. Mehtani (BS '06), of New York, NY, has been named Vice President of Operations of his family business, Mehtani Restaurant Group, which operates upscale, primarily Indian restaurants in Morristown and Edison.

Silvia M. Mestre (MBA '06), of Miami, FL, has been appointed by Blue Cross and Blue Shield of Florida as Senior Manager of Market Development for South Florida. Previously, she worked in brand management at Johnson & Johnson's consumer products division.

Save the Date:
Alumni Ball December 1, 2007

Additional details will be available in the coming months.
Visit www.stern.nyu.edu/alumni
for updated information.

In Memoriam

Israel M. Pogash (BS '22)
Victor Thomas Cestone (BS '31)
Clavin C. Fisher (MBA '37)
Janice Puner (MBA '42)
Joseph S. Keiper (PhD '47)
Alfred H. Schlesinger (BS '47)
Dr. Pierre A. Rinfret (BS '48, MBA '49)
Abraham Krasnoff (BS '50)
Theodore H. Mengel, Jr. (BS '50)
Frank M. De Bellis (BS '52, MBA '58)
Alvin J. Mentzel (MBA '53)
Cornelius F. O'Shea (BS '53)
Michael J. Rosenberg (MBA '55)
Philip L. Azoy (MBA '57)
Rafael Carlos B. Buenaventura (MBA '67)
Bonnie Shihadeh Smithwick (MBA '78)
Beverly Deric Cowell (MBA '83)
Sueanne E. Ferrant (BS '92)
Paul Bustany (MBA '02)
Alvin M. Cheung (BS '04)
Professor Alfred Ring

SEND US YOUR NEWS

Do you have a new job or promotion? An award, honor, or achievement to share? How about a marriage, new baby, or adoption? Let other alumni know about the things happening in your life.

Send us your news online through Class Notes in SWAP – the Stern Worldwide Alumni Platform – at **www.stern.nyu.edu/alumni,** or mail in the following form, and we may publish it in an upcoming issue of *STERNbusiness*.

Name

Class Year(s) and Degree(s) from NYU Stern

Degree from Other Institutions

Job Title

Company Name

Business Address

Home Address

Work Phone Home Phone

Preferred E-mail Address

News to Share with NYU Stern Classmates

Please send or fax this form to: **Office of Alumni Affairs**
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New York, NY 10012-1126
Fax: 212-995-4515

An Entrepreneur at Heart

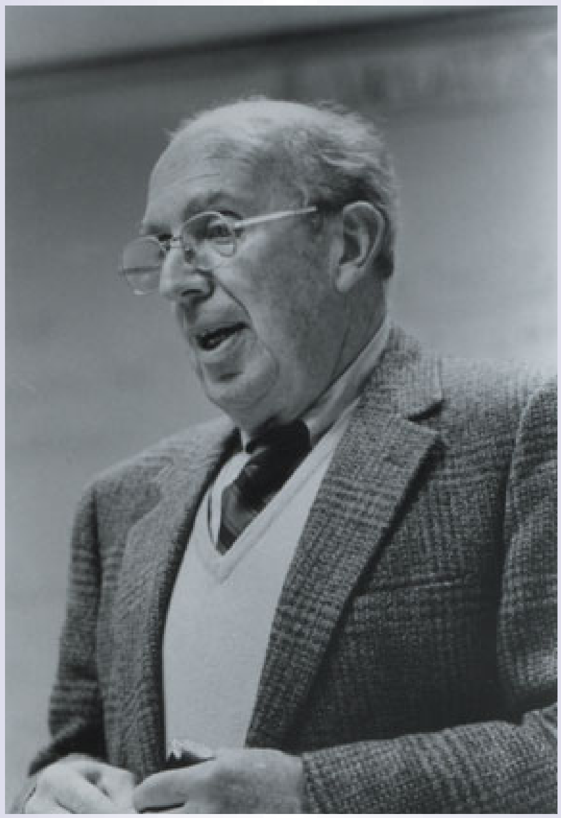
By **Daniel Gross**

At age 90, Zenas Block is still trying to get students to think differently. In 2001, the year he retired from NYU Stern, Block created a fund to support afterschool programs in Salisbury, CT, where the longtime New York resident now lives. "We want to get them to think creatively, to consider failure as only a step toward success, and to start feeling that they can do things that they never dreamed they could do."

And that's precisely what Block set out to do 25 years ago when he helped start NYU Stern's entrepreneurship program. In the late 1970s, the City College graduate retired from active business after selling his stake in DCA Food Industries. Block was interested in teaching a course about starting new businesses within existing corporations. After all, in his 32 years at DCA, Block had started joint ventures in Japan and England and several new businesses in the US. "I was struck by the disparity between what it took to start a new business and what it took to run an old business," he recalls, "and how the management principles were in conflict with what was optimum for each."

He believed the best way to conduct research was to teach a course on corporate venturing. But at the time, university-level study of entrepreneurship was in its infancy. "Entrepreneurship was learning how to start a small business and keep it small," he said. "It wasn't designed for large corporations."

Block quickly found that NYU Stern offered an entrepreneurial environment. Soon after offering to teach a course in corporate venturing as an adjunct professor in 1981, he organized and led the Faculty Task Group that established the Center for Entrepreneurial Studies, raising $500,000 from the Price Foundation. "The goal we set was to become a significant center for research in the area, because



entrepreneurship was not regarded as academically respectable," said Block. He started a competition for the best academic paper, held retreats in which students presented business plans, and, most significant, developed and taught two elective courses: Patterns of Entrepreneurship and Entrepreneurship and Venturing in Corporations.

The rest is institutional and academic history. Block taught and helped run the program through the 1990s, while finding the time to co-author the well-received book, *Corporate Venturing: Creating New Businesses Within the Firm* (Harvard Business School Press, 1993). In recent years, entrepreneurship has evolved into a thriving field of study, and NYU Stern's Berkley Center for Entrepreneurial Studies has emerged as a recognized center of research. In 1999, NYU Stern established the Zenas Block Scholarship, which honors outstanding academic achievement by an MBA student.

Awarded the Citibank Award for Excellence in Teaching in 1993, Block says he sometimes hears from students who went on to start enterprises. Scott Berrie (MBA '99), who won the inaugural Stewart Satter Social Entrepreneur of the Year Award, wrote his business plan in Block's entrepreneurship class.

In recent years, Block has provided advice on NYU Stern's entrepreneurship curriculum, which has grown to include more than 20 courses, to Berkley Center's Academic Director Professor William Baumol, who is working on several books that focus on innovative entrepreneurship. Block was also one of the individuals who helped draft the Center's successful proposal for a $1 million challenge grant from the Kauffman Foundation, which will fund a pan-campus initiative to make entrepreneurship education a common and accessible campus-wide opportunity.

Formally retired from Stern in February 2001, Block founded and organized the privately financed Salisbury Central School Educational Enrichment Fund, which is designed to help children in kindergarten through 8th grade discover and develop their individual talents. "In our afterschool workshop program, SOAR (Seek, Originate, Aim, Reap), we've worked with over 1,000 kids in five years," he said. "It's fun!"

DANIEL GROSS *is editor of* STERN*business.*

CALENDAR OF EVENTS

For the most up-to-date information on events, visit the Office of Alumni Affairs website at www.stern.nyu.edu/alumni or contact the Office at (212) 998-4040 or alumni@stern.nyu.edu.

PROFESSIONAL EDUCATION ALUMNI PROGRAMMING

May	**4**	**NYU Pollack Center for Law & Business Directors' Institute** 8:00 am; Kimmel Center
	15	**Financial Planning Seminar and Author Lecture** "Your Power Years: A Preview of Retirement Comprehensive Financial Planning" by The Slater-Trainor Group at Smith Barney Author Lecture with David Corbett (MBA '65), Author of "Portfolio Life: The New Path to Work, Purpose, and Passion After 50" 5:30 pm; Douglas B. and Joseph H. Gardner Commons, Kaufman Management Center (KMC)
	18	**Salomon Center's Derivatives 2007: New Ideas, New Instruments, New Markets Conference** KMC
June	**8, 9**	**Florence 2007: Global Alumni Conference** La Pietra; Florence, Italy
	13	**Haskins Award Dinner Honoring Jeffrey R. Immelt, Chairman and CEO of General Electric** New York City

GRADUATION AND ALUMNI REUNION WEEKEND

May	**8**	**Undergraduate Baccalaureate** 6:00 pm; The Theater at Madison Square Garden
	9	**Graduate Precommencement** 12:00 pm; The Theater at Madison Square Garden **Grad Alley** 5:00 pm; West Fourth Street, LaGuardia Place and the NYU Plazas
	10	**NYU Commencement** 10:30 am; Washington Square Park
	11	**Five-Year Reunions for the MBA and Undergraduate Classes of 2002** 7:00 pm; KMC
	12	**"Charting the Digital Frontier: The Digitization of the Music Industry"** Hosted by the EMT Committee 11:15 am; Schimmel Auditorium, Tisch Hall **Luncheon with Dean Thomas Cooley, Featuring His State of the School Address** 1:30 pm; Douglas B. and Joseph H. Gardner Commons, KMC **All NYU Alumni Reunion Gala Dinner and Dance** 7:00 pm; Grand Hyatt Times Square, New York, NY

SOCIAL NETWORKING ALUMNI EVENTS

May	**3**	**First Thursday Event for Undergraduate Alumni: Happy Hour** Hosted by the Recent Undergraduate Task Force 6:00 pm; New York City
June	**2**	**Los Angeles Regional Golf Event: "2nd Annual MBA Masters Golf Classic"** 12:00 pm; Lost Canyons Golf Club, 3301 Lost Canyons Drive, Simi Valley, CA 93063
August	**2**	**Undergraduate Alumni "Welcome to the Class of 2007" Summer Beer Blast** Hosted by the Recent Undergraduate Task Force 6:00 pm; Barr-Kawamura Commons (Room 5-50), KMC
	9	**MBA Alumni "Welcome to the Class of 2007" Summer Beer Blast** Hosted by the Recent Graduate Task Force 6:00 pm; Room 5-50, KMC
December	**1**	**Seventh Annual Stern Alumni Ball** 8:00 pm; New York City

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