BUBBLE TROUBLE? NOT LIKELY Chicken Littles aside, Chris Mayer upends conventional wisdom about the housing market. Awi Federgruen on Katrina and supply chain risk. Ray Fisman explores maximizing utility in the pursuit of love. Bjorn Jorgensen’s research offers insight into risk measurement and disclosure.
**ONLINE:**

**Columbia Ideas at Work** This online knowledge bank is a bridge between the School’s intellectual capital and your business challenges.

[www.gsb.columbia.edu/ideas](http://www.gsb.columbia.edu/ideas)

**The Sanford C. Bernstein & Co. Center for Leadership and Ethics**
The umbrella for activities on leadership and ethics at the School, the Bernstein Center explores issues of individual integrity, corporate governance and corporate social responsibility.

[www.gsb.columbia.edu/leadership](http://www.gsb.columbia.edu/leadership)

**The Center on Japanese Economy and Business**
Widely recognized both for its programs and its research, the center promotes knowledge and understanding of Japanese business and economics in an international context.

[www.gsb.columbia.edu/japan](http://www.gsb.columbia.edu/japan)
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Dear Alumni:

In my conversations with many of you over the past year, I have been impressed by the diversity of your backgrounds and interests, as well as by your commitment to making positive changes in the world. My interactions with you have also confirmed for me that the School is preparing graduates to take on a broad range of challenges over the course of their careers.

This issue of HERMES highlights alumni who are making a difference by assisting hurricane survivors, preserving artistic traditions among refugees and promoting fiscal responsibility in New York City and State government. In addition, you’ll read about graduates making their mark in industries ranging from art to energy to consumer packaged goods.

This issue also showcases the eclectic research interests of our faculty members—from risk management to real estate to speed-dating. This spring in Columbia Ideas at Work, Professor Awi Federgruen mentioned the vulnerability of the U.S. energy sector because of a high concentration of volume in a small number of oil refineries. Here, he discusses his research on supply chain diversification in light of Katrina’s impact on Gulf Coast refineries.

You can also read about Professor Bjorn Jorgensen’s research on the costs and benefits of voluntary risk disclosure—a timely topic as firms worldwide grapple with the ramifications of the 2002 Sarbanes-Oxley Act. Professor and real estate expert Chris Mayer explains why—contrary to popular belief—there is no bubble in U.S. housing markets. And Professor Ray Fisman discusses a speed-dating study that applied economic theory to the romantic-search process.

One of the things I enjoyed most during my first year as dean was the opportunity to meet with thousands of you at alumni events around the world. The School community—students, alumni, faculty members and administrators—is a lifelong support network for our graduates, offering abundant opportunities for personal and professional growth. I hope you will tap into that network by participating in alumni events in your area, using the career development resources available through the Alumni Web Site (www.gsb.columbia.edu/alumni) and exploring faculty research findings on the School’s new online knowledge portal, Columbia Ideas at Work (www.gsb.columbia.edu/ideas).

I look forward to seeing many of you at Reunion Weekend in New York next April and at the Pan-European Reunion in Rome in October 2006.

With regards,

Glenn Hubbard
Dean and Russell L. Carson Professor of Finance and Economics
Follow-up: Alumna Extends Work with Refugees to Colombia

Sara Green ’01, who began Art for Refugees in Transition (ART) as an MBA student to give voice to and preserve artistic traditions among refugee populations, recently expanded the program to Colombia, a country with more than three million internally displaced people. ART’s work among refugees in Bogotá is being featured in a documentary for U.S. television and has also captured the attention of local media.

Green launched ART’s pilot program in Thailand in 2003 in partnership with the International Rescue Committee. Refugees are now running the program there, and it has been completely self-sustaining for a year and a half.

Cecilia Mejia ’77 facilitated ART’s entry into South America after reading about it in the spring 2003 issue of HERMES. With Mejia’s help, ART established partnerships with several local organizations, including the Universidad de los Andes, which provides student interns to implement, monitor and evaluate program activities.

Since ART’s inception, Green has benefited from the support of Columbia Business School alumni—notably her Lang Center mentor, Janet Tiebout Hanson ’77, founder of Milestone Capital Management—and faculty members, especially Professors Murray Low, Clifford Schorer and Raymond Horton. “The work that I’m doing has never been done before,” Green says, “so there are no benchmarks to help me know whether I’m going in the right direction. I’ve had to rely on my own instincts, my Columbia training and the support of people I’ve met through the Columbia network.”

For more information on ART, visit www.artforrefugees.org.

School Expands Its Presence in China

This summer, Columbia Executive Education kicked off the first phase of a partnership with Fudan University’s School of Management in Shanghai.

On August 25, 50 Chinese financial executives chosen from the banking, investment, insurance, regulatory and government sectors began their study of global financial markets with Columbia faculty members in Shanghai.

In the next phase of the program, planned for July 2006, Chinese executives will study at Columbia in New York.

“This alliance connects pre-eminent business schools in China and the United States and is further evidence of the global nature of executive education today,” says Dean Glenn Hubbard.

The School’s partnership with Fudan on this executive training program will serve as the basis for future collaboration on academic research and other executive education initiatives.

For more information on Columbia Executive Education, visit www.gsb.columbia.edu/execed.

A Snapshot of the Class of 2008

This fall, the School community welcomed the class of 2008: 520 students representing 63 countries and 49 languages. Ranging in age from 23 to 42, the class has 74 master’s degrees, 14 JDs, 2 MDs and 3 PhDs, including one in polymer physics. Among its ranks are several Olympic athletes, Peace Corps volunteers, journalists and entrepreneurs, as well as a French soap opera actor and a rocket scientist. Continuing the School’s family tradition, members of the class are relatives of 104 Columbia graduates—and parents of 14 children themselves.
**Quotable:** “It’s time we took the insult out of the phrase ‘do-gooder’! I urge you to consistently push your vision beyond income statements, balance sheets and short-term gains to sustainable business.”

Joan Bavaria of Trillium Asset Management upon her acceptance of the 2005 Botwinick Prize in Business Ethics (shown at right). Bavaria was the keynote speaker for the School’s annual Social Enterprise Conference, “Business and Society: Building a Sustainable Future.” For more on the Social Enterprise Program and the conference, visit www.gsb.columbia.edu/socialenterprise.

**NEWSMAKERS**

In recent months, the School’s faculty members were featured in a range of media outlets. A select few are highlighted here.

**Sid Balachandran, Financial Times**, August 18: “How to Build a Culture of Cost Management” Assistant Professor Balachandran discusses the importance of a cost-accounting system to corporate decision making.

**Amar Bhidé, Wall Street Journal**, July 25: “Classical Theory vs. the Real World” Professor Bhidé and a coauthor discuss the wisdom of pushing China to revalue the yuan.

**Bruce Greenwald, New York Times**, August 7: “A Simpler Way to Beat the Competition” Paul Brown reviews Professor Greenwald’s new book on strategy, *Competition Demystified* (see page 6), calling it “the best of the strategy books now or soon to be in stores.”

**Laurie Simon Hodrick, Business Week Online**, August 16: “IPOs: Going, Going . . . Not So Fast” Despite the success of Google’s IPO, a year later the Dutch-auction approach has won few converts.


**Frederic Mishkin, Bloomberg’s Open Exchange**, August 9: Professor Mishkin discusses the Federal Reserve Board’s strategy to combat inflation.

**Michael Morris, Christian Science Monitor**, September 16: “What Tints Your Cultural Lens on Racial Issues?” Professor Morris’s work showing people’s different interpretations of the same event is discussed in this piece on cultural lenses.


School Community Pitches in for Hurricane Relief

During a weeklong Graduate Business Association (GBA) fund-raiser, Columbia Business School students, staff and faculty members contributed more than $15,000 toward medical relief for Hurricane Katrina victims. 

Abe Chernin ’06 and Matt Biggins ’06, GBA vice presidents of community, organized the campaign, recruiting student volunteers to staff a table in the lobby of Uris Hall throughout the first week of fall-semester classes. After researching several charities, Chernin and Biggins decided to channel the funds through Americares because of its low overhead. “Americares is using the funds to directly sustain three temporary medical clinics in Louisiana and Mississippi and one mobile medical unit that covers the entire affected region,” says Chernin.

In early September, the School welcomed five displaced Tulane business students, who are now enrolled for the fall semester. “I am really enjoying the experience of studying in New York,” says Alberto Robles, a Fulbright scholar from Mexico, expressing appreciation for the support he has received from students, faculty members and staff. Nina Schneider, a German student who had planned to spend a semester as an exchange student at Tulane, was also warmly welcomed at Columbia. “I got any help I needed from students as well as from Columbia employees,” she says.

Several members of the alumni community have been actively involved in relief efforts. Kathleen Querbes ’94, founder of the Southern Women Action Network (SWAN), and Erich Sternberg ’92, president of the New Orleans–based Starmount Life Insurance Co., have both taken part in extensive relief activities in Baton Rouge. SWAN’s mission is to address critical community needs through what Querbes calls “triage philanthropy.” Since Katrina, SWAN has focused on connecting donated resources with the people who need them, as well as helping small-business owners get back on their feet.

Michael Preis ’01, a brand manager for Palm Bay Imports in Syosset, N.Y., was so affected by the images of evacuees in the media that he flew to Houston—where some 50,000 people were housed in temporary shelters—and spent a weekend working as a volunteer. “I cannot even begin to describe the utterly amazing and inspirational outpouring of charity, humanity and kindness offered by the citizens of Houston,” says Preis, who arrived in Houston 10 days after Katrina struck.

Ronald Williams ’73 is manager of finance and planning for Entergy Corp., a New Orleans–based company that relocated its headquarters to Jackson, Miss., after the hurricane and set up employee recovery centers and a relief fund for employees and customers. “The company represents an interesting study in business continuity in extraordinary times,” says Williams. “With many of its employees displaced and many of its assets seriously impaired, the company moved aggressively forward with the task of restoration and recovery.” While he has many friends who have lost everything, Williams says that all of them are determined to return to New Orleans, a much-loved city that he describes as “the New York City of the South.”

Clement Meadmore, Creator of the Curl, Dies

Clement Meadmore, the renowned sculptor, passed away this spring at 76. Hailed for his massive, sinuous designs that seem to transcend their physical weight, Meadmore is remembered at the School as the creator of the Curl, the coiled-shaped sculpture that is an indelible part of the School landscape.

A native of Australia, Meadmore initially studied aeronautical engineering and industrial design, later working as a furniture designer while creating his first welded sculptures. One-man shows in Sydney and Melbourne drew critical acclaim, but his career blossomed when he moved to New York in 1963 and became part of the New York art world.

Meadmore, who also worked as a photo editor for Vogue, often stated that his sculptures were not intended to convey a hidden meaning. Nonetheless, the Curl took on a new significance when it was installed in 1968. Set against the backdrop of one of the oldest universities in the country, it was a symbol that the School had arrived in the modern age.
School Welcomes Five New Faculty Members

Patrick Bolton
Barbara and David Zalaznick Professor of Business Finance and Economics

Professor Bolton is an internationally recognized scholar in contract theory and contracting issues in industrial organizations. He joins the faculty from Princeton University, where he held an endowed chair from 1998 to 2005. He received his PhD from the London School of Economics in 1986.

Steven Drucker
Assistant Professor Finance and Economics

Professor Drucker focuses on financial intermediation: investment banking, commercial banking, mergers and acquisitions and empirical corporate finance. He received his PhD from Stanford University in 2005.

Veronica Rappoport
Assistant Professor Finance and Economics

Professor Rappoport researches macroeconomics, international economics, corporate finance and monetary economics. Formerly an economic consultant to the Argentine government, she received her PhD from the Massachusetts Institute of Technology in 2005.

Gil Sadka
Assistant Professor Accounting

Professor Sadka focuses on equity valuation and the relation between financial reporting and product market competition. He received his PhD from the University of Chicago’s Graduate School of Business in 2005.

For more on the research of the School’s faculty members, visit Columbia Ideas at Work, www.gsb.columbia.edu/ideas.

Greenwald Book Distills Strategy Secrets

Based on Professor Bruce Greenwald’s hugely popular Economics of Strategic Behavior course, Competition Demystified: A Radically Simple Approach to Business Strategy (Portfolio, 2005) offers a less complicated alternative to Michael Porter’s “five forces” framework, which has dominated the strategy field since the 1980s.

Greenwald and coauthor Judd Kahn explain why barriers to entry are the only source of sustainable competitive advantages for incumbent firms and why Coca-Cola and Microsoft have thrived while AT&T and Apple have floundered.

In an interview in the Columbia Ideas at Work online magazine, Greenwald discusses the book and talks about why competitive advantages are easier to maintain in localized markets. “People have always thought of strategy as something that the big global companies pursue,” he says, “and it’s not at all, because those are actually the markets, like automobiles, where nobody is going to dominate anything, because there are no barriers to entry and they can’t really be erected.”

To read the interview, visit www.gsb.columbia.edu/ideas.

PAN-EUROPEAN REUNION ROME OCTOBER 20-22, 2006
Lineup of Prominent Speakers Offers Insight

The School kicked off the fall term with several speaker events featuring prominent business leaders. At orientation, two thought-provoking sessions introduced incoming MBA students to the School’s Individual, Business and Society curriculum, an initiative of the Sanford C. Bernstein & Co. Center for Leadership and Ethics. On August 22, Chuck Prince, CEO of Citigroup Inc., spoke about leadership and corporate integrity, describing Citigroup’s recent efforts to change its culture in response to ethical issues that had damaged the company’s reputation. The key to Citigroup’s new five-point program, he said, is shifting from a rules-based approach to a principles-based approach. “Your reputation is the most important thing you have,” Prince said. “It takes a long time to build, but not long to lose.” The next day, a panel of three speakers—Alan Hassenfeld, chairman of Hasbro, Inc.; James McDonald, president and CEO of Rockefeller & Co., Inc.; and Lord Oxburgh, retired chairman of the Shell Transport and Trading Company, p.l.c.—explored the relationship between corporate social responsibility and the bottom line. Referring to Shell’s controversial decision to sink an oil rig in the North Sea a decade ago, Oxburgh spoke about the importance of managing public perception. “Social responsibility is an essential part of any business,” he said. “The costs are invariably less than the costs of not being socially responsible.”

On September 15, Wolfgang Bernhard ’88, member of the board of management of Volkswagen AG and of the School’s board of overseers, presented the first annual Jerome A. Chazen Lecture, offering candid views on labor and business relations in Europe’s manufacturing sector. The goal of the Chazen Lecture is to foster a high-level dialogue on important international business issues. Bernhard educated audience members not only on the management crises faced by organizations with codetermination agreements but also on the comparative history of labor relations in the United States and Europe.

Sir Gordon Wu, chairman of Hopewell Holdings Limited, and Dean Hubbard offered their perspectives on investing in China at the inaugural Sir Gordon Wu Distinguished Speaker Forum on September 28. Wu, whose company has invested heavily in China’s infrastructure since the 1970s, endowed the forum to promote understanding of China’s economy and business practices. He discussed his ongoing development efforts in the Pearl River Delta region, one of the world’s fastest-growing manufacturing centers. On October 17, Jamie Dimon, president and COO of JPMorgan Chase & Co., spoke at this year’s first installment of the David and Lyn Silfen Leadership Series (SLS). Funded by a grant from David Silfen ’68 and his wife, the SLS brings to campus six prominent business leaders each year with the aim of transferring leadership skills to a new generation of business leaders. Other speakers slated for the 2005–06 academic year include Ann Moore, chairman and CEO of Time Inc., on November 14 and Barry Diller, chairman and CEO of IAC/InterActiveCorp, on December 1.

Professor Emeritus Ernest Williams, 1916–2005

Ernest W. Williams, Jr., professor emeritus of business, passed away on September 14 at the age of 89.

Williams, whose tenure at the School spanned four decades, served as an educator in several capacities: lecturer in transportation (1947–52), associate professor (1952–54), professor of transportation (1954–86) and vice dean (1977–79). He began his relationship with the School as a student, earning BS, MS and PhD degrees in 1938, 1939 and 1951, respectively.

Before teaching at the School, Williams had a distinguished career as an economist and worked for several government organizations, including the U.S. Bureau of the Budget. A recipient of the Presidential Medal for Freedom, he also served as a member of the first Hoover Commission and on President Eisenhower’s Advisory Committee on Government Organization.

Williams also authored several books on transportation, including The Economics of Transportation and Logistics (Business Publications, 1975), with Marvin L. Fair.
Studies at Columbia on speed-dating—in which students characterized their ideal mate, briefly met with a series of prospective dates and then chose a suitor—shed sometimes uncomfortable light on how people maximize utility in the pursuit of love. Here, associate professor of finance and economics Ray Fisman discusses the research findings, some of which are forthcoming in the *Quarterly Journal of Economics*. 
Why do you think so little economic literature exists on the romantic-search process? Search models are just very difficult to study, so theoretically, it’s a challenge. And empirically, we just don’t have good data prior to the advent of the Internet and speed-dating. It’s not because economists don’t care. There’s tons on marriage. Why? You have data on marriages from the census, so you know who’s marrying whom. What you don’t know is who’s driving the match, and that’s something we get at in our speed-dating studies.
How does economic theory apply to dating markets?
It’s interesting to talk to some economists about how
they chose their mates, because it is a very economic
decision: a person is a collection of attributes, I have pref-
erences over these attributes, and I make some sort of
utility-maximizing decisions. In moving from person 1 to
person 2, I’m trading a little less of this for a little more of
that, and I pick the one that makes me best off. It sounds
like a coldly rational way to go about looking for some-
one, but there is at least some element of that to how we
go through this process. It certainly describes how you
would think about something like Internet dating, where
someone very tangibly is a bundle of attributes and you
can very clearly make comparisons of one person against
another. And if I think about the way preferences are
expressed in the speed-dating game, it seems like people
are doing a fair amount of that. So people are bundles of
attributes that are being compared against one another.
That’s fundamentally an economic decision.

Does your study measure how well what people say they
look for matches with what they actually look for?
Most of what I do is work on corruption in poor countries. If I
want to know how much someone is paying in bribes, I’m
not going to ask them, “How much did you pay in bribes
last year?” I’m going to say, “The guy down the street from
you, who looks pretty much like you, how much did he
pay?” Similarly, in the speed-dating study we ask people,
“What do you care about?” We also ask them, “The aver-
age man, what do you think he cares about?” But then we
actually see how they behave in the game. And, not at all
surprisingly, what they say the average man cares about
lines up much more closely with what they actually reveal
through their actions than what they claimed they cared
about beforehand. In particular, everyone—both men and
women—says they care less about physical attractiveness
than the average.

Do you think speed-dating is more efficient than
traditional search methods?
In some sense, it’s efficient: there are all these slice studies on how 10 seconds’ worth
of observation is as predictive of your experience with a
professor as a semester’s worth, and they’ve reduced it to
2 seconds and that’s just as good; and they’ve reduced it to
just a photo and that’s pretty good, too. So you learn a lot
in four minutes, perhaps as much in four minutes as you do
in a much longer superficial interaction like, say, a date. So,
this does meaningfully provide you with 20 rapid-fire dates,
to the extent that we form as much of an impression in
4 minutes, or 10 seconds, as we do in 4 hours.
The thing that’s left out of this neat decomposition
of people into attributes, though, is actually learning to
love someone. And that’s what I think is kind of missing.
Focusing on people as a bundle of attributes almost makes
people think about this decision in the wrong frame of
mind.
5. Do you think people become unwilling to commit because of all the choices dating services enable?
Yes. And the way that you can make these choices—just the very fact that it’s set up in this way—distorts the way people choose. There was an article in the *New York Times* on a backlash against Internet dating, and I wonder to what degree that’s at least partly as a result of these sorts of realizations.

6. The results of your speed-dating studies, particularly with regard to intelligence and physical appearance, seem to reinforce gender stereotypes. Why do you think this is?
Well, they are stereotypes for a reason. However, it’s not as simple as, “I avoid all women who are ambitious or intelligent.” It’s about, “Intelligence and ambition is OK until it supersedes my own.” It’s also worth mentioning that these are average effects—there are surely men who do not have this property. I like to think I’m one of them: my significant other is definitely a lot smarter than I am. When her grandmother heard about me, she said, “I told your mother this, and now I’m going to tell you: never let a man think you’re smarter than he is. Men don’t like that.” Everyone laughed and thought this was so anachronistic, but it shows up in our data. Grandma’s views on dating aren’t so dated after all!

7. How significant are your results, considering the subject pool? How transferable are the results to Americans in general?
With anything to do with gender asymmetries, one would think this population would be the most liberated of all possible women. So, the fact that you still see consistent, statistically overwhelming differences in the way men and women choose dates suggests that there’s something deeper there. If I wanted to dig up a population where I least expected to see gender differentials, it would probably be something like the one we used. With all of the main results, if anything, I would expect bigger effects in the broader population.

8. What conclusions can you draw about dating preferences from the proliferation of specialized dating services that narrow searches to particular racial/ethnic/religious subjects?
It’s not a big surprise that shared interests is predictive of people liking one another. If it’s just a matter of efficiency, then yes, this has to be a good thing, because I can find more people in the relevant pool without spending too much time on it. But to the extent that it gets rid of cross-group matches that would otherwise have taken place—that now it’s so easy to find someone who looks, talks and acts just like me—then maybe we would say this isn’t a great thing.

9. Which results did you find most surprising?
For me, the most surprising thing was actually that in this population all of the old stereotypes—it doesn’t make you feel great about being a man—appeared in spite of the fact that we’re now in the 21st century and are looking at what should be among the most progressive, broad-minded of all possible populations. So that was a little sad, the fact that the stereotypes were all there.

10. What purpose do you intend for your research? Where do you go from here?
It’s certainly not going to divert my general research agenda, which is corruption, financial markets and development. But I think it is more than just a diversion. On these happiness surveys that have been done for decades now, a happy marriage is one of the best predictors of being a happy person. So it’s something that matters a lot. It really is, as we say in the introduction to one of our papers, the most important decision people make in terms of their happiness.
SAFEGUARDING STRATEGIC SUPPLIES IN THE FACE OF DISASTER

RICHARD DOWNS
SAFEGUARDING STRATEGIC SUPPLIES
IN THE FACE OF DISASTER

by Awi Federgruen

In fact, scientists, government officials and journalists had written extensively about the possibility—indeed, high likelihood—of various catastrophic scenarios associated with hurricanes, including the one Katrina precipitated—and worse. In 2002, New Orleans’s main newspaper, the Times-Picayune, ran a five-part series of articles describing scenarios resulting in massive floods, the destruction of homes and oil refineries and the loss of thousands of lives.

Hurricane and public-health research centers had predicted the likely advent of hurricanes of categories 4 and 5. The Army Corps of Engineers was aware, meanwhile, that the levees were only capable of withstanding hurricanes up to category 3 at best; computer models had shown the potential for major havoc with even lesser storms. Last year, 40 government agencies joined in simulating an imaginary storm in the New Orleans region in which half a million buildings were destroyed and the evacuation of one million residents was required.

If the logistics of a mass evacuation plan and the associated coordination challenges among local, state and federal emergency responders have proven daunting, what about
the government’s ability, and responsibility, to safeguard supplies vital to the national economy?

**Constrained Capacity**

Oil is arguably the commodity most critical to the functioning of the American economy. Its supply is primarily constrained by existing refinery capacity. In the past 20 years, as the real valued U.S. gross domestic product grew by 86.5 percent, the number of refineries in the country decreased by more than 50 percent. Economies of scale in the cost structure drove smaller refineries out of the market, while other refineries identified various additional benefits of pooling capacity—for example, statistical economies of scale resulting from the pooling of demand risks. In July and August of 2004, U.S. refineries were operating at 97 percent of available capacity.

Moreover, in the event of a domestic supply disruption, little recourse can be expected from overseas refineries: this year’s run-up in oil prices—even before Katrina—to record-high levels is generally attributed to a lack of global refinery capacity. At the beginning of 2005, the Department of Energy predicted that current “financial, environmental and legal considerations make it unlikely that new refineries will be built in the United States.”

In a research paper I coauthored in June with Nan Yang, one of my doctoral students, we stated what appeared to be self-evident: “Most ominously, close to half of our capacity is located in a relatively small region on the Gulf Coast; disruption of its refinery and distribution process could have a crippling effect on our economy.” Katrina has given us but a small indication of this potential: The temporary disruption of approximately 10 percent of the national refinery capacity caused the price of gasoline to increase, overnight, by approximately 40 percent beyond the record levels it had reached before Katrina made its brutal appearance. Few expect the equilibrium price to decrease significantly in the foreseeable future.

**Mitigating Risk**

In the private sector, planning for disaster has become one of the foci of supply chain planning, representing, for example, a major theme in the Longitudes 2004 conference, whose participants included CEOs, academic leaders, and former government officials and heads of state. In some industries, the ability to manage supply risks effectively has developed into a major competitive advantage.

The cellular phone industry represents one such example. Ericsson and Nokia, who in 2000 were among the prime global competitors, adopted very different approaches to the threat of supply disruptions. Ericsson relied on a single supplier for several critical chips and had no contingency plans in place. In contrast, Nokia, while using the same manufacturer as the primary supplier, identified alternative sources to mitigate risks and had an elaborate contingency strategy in place. When a fire broke out in the chip plant, Ericsson suffered major and long-term losses in profits and market shares. Nokia, on the other hand, was fully prepared and, in fact, picked up some of Ericsson’s market. Now, Cisco and Hewlett-Packard consider measures of supply risks along with traditional criteria like cost and quality when selecting suppliers for any given component.

**Risk Models**

I’ve recently begun developing, again with doctoral candidate Yang, planning models to aid in supplier selections, incorporating measures of supply risks along with various cost and capacity measures. The models employ probabilistic descriptions of the demand that needs to be met as well as each of the supply risks, that is, each of the potential suppliers’ yield factor, which is defined as the percentage of an order actually completed to specification. The planning models help in selecting which of the given set of suppliers to retain and how much to order from each to minimize aggregate costs—while ensuring that the
uncertain demand is met with a given probability. The total procurement costs consist of both variable and fixed costs for each participating supplier, incurred irrespective of his supply level. The costs of carrying inventories and those of lost sales may be included as well.

The models provide, in addition, several general insights into the supplier selection challenge: First, even when the potential suppliers have ample supply (in the absence of supply disruptions), whether a set of suppliers allows for a feasible solution depends not just on how many of them there are but also on each supplier’s predictability, as measured by the ratio of the mean and the standard deviation of the supplier’s yield factor. (This measure is closely related to the so-called Sharpe ratio for portfolios of financial instruments.) The square of this predictability ratio translates into each potential supplier’s so-called Base Supplier Equivalents.

A set of suppliers is feasible (or not) depending on how its total number of Base Supplier Equivalents compares to a critical number, given by a simple function of the permitted shortfall probability only. In particular, whether a set of suppliers is feasible does not depend on the shape of the demand distribution, its mean and standard deviation included. The number of suppliers required can be reduced by improving the suppliers’ reliability; moreover, the benefits of predictability improvements become progressively larger, giving support to management philosophies like Six Sigma. The allocation scheme, which splits the aggregate order in proportion to the suppliers’ mean-to-variance ratios of their yield distributions, has the best chance of enabling feasibility: if a feasible solution fails to exist under this scheme, it fails to exist under any.

When minimizing variable procurement costs, additional suppliers always help to reduce the total cost when the expected cost per effectively delivered unit is identical for all. When these cost rates differ, one faces a real tradeoff between solutions involving fewer and less expensive suppliers but a larger aggregate order to provide adequate protection against supply risks, and solutions with additional, more expensive suppliers but reduced aggregate orders. In any case, the optimal set of suppliers always includes a certain number of the least expensive suppliers. Interested readers may consult our working papers for additional insight.

Should the government be expected to safeguard the supply of such critical commodities as heating oil, gasoline or vaccines and medications against potential disruptions by natural or terrorist-induced disasters? Since the 1950s, all U.S. administrations, whether Republican or Democratic, have taken the position that the government needs to intervene in the oil market to mitigate the impact of sudden supply problems. To this end, the government maintains a stockpile of strategic reserves, but the stockpile is largely in crude oil, when refinery capacity has become the system’s bottleneck. It is also the most vulnerable part of the oil supply chain, since repairs to refinery equipment can take months to years.

In addition to managing the demand for oil via the promotion of conservation programs and alternative fuels, the government could provide incentives to elevate the supplier base and its reliability to an adequate level. The planning models outlined above may assist in determining the desired targets; much additional thought needs to be given to effective, market-driven incentive structures to guide the country toward these goals.

Awi Federgruen is the Charles E. Exley Professor of Management and chair of the Decision, Risk and Operations Division.

To read more about his research, visit Columbia Ideas at Work, www.gsb.columbia.edu/ideasatwork/researcharchive.

“Most ominously, close to half of our capacity is located in a relatively small region on the Gulf Coast; disruption of its refinery and distribution process could have a crippling effect on our economy.”
Risk Measurement

JAMES STEINBERG
Two decades ago, the number of product-related lawsuits against U.S. corporations was skyrocketing, as juries awarded increasingly large payoffs to successful plaintiffs. As a result of these trends, the cost of product liability insurance quadrupled over a three-month period in 1985. By the following year, according to one study, 52 percent of firms that had previously purchased product liability insurance had discontinued their coverage, either because of higher premiums or because coverage was no longer available.

by Stefanie Condie '01

Recent research by Bjorn Jorgensen, Anne Beatty and Anne Gron shows a link between a firm’s response to the premium hike and its compensation structure prior to the liability insurance crisis. Firms that paid senior managers in stock were more likely to continue to buy insurance, while those that gave senior managers stock options were more likely to become self-insured. This correlation is consistent with the observation that executives who hold stock options care less about risk management instruments like insurance because, while they benefit when the stock price goes up, they bear no risk when it goes down.

“What we saw is that you can learn something about a firm’s risks and reaction to those risks by looking at the compensation of the senior management,” says Jorgensen, the Gary Winnick and Martin Granoff Associate Professor of Business at the School. “In broader terms, the corporate governance takeaway is that the way we pay management affects the operating decisions they choose to make.”
For the past five years, Jorgensen has studied managers’ decisions about measuring and disclosing risk and the impact of those decisions on a firm’s cost of capital. Investors can become nervous when firms provide either too much or too little information about firm-specific risks, so disclosure decisions often have a direct effect on a firm’s stock price and its ability to borrow money.

“The million-dollar question here really is, What can managers do to affect their cost of capital in the future?” says Jorgensen. “It has been addressed before in other settings, but not in terms of risk disclosure.” He notes that how a firm measures and discloses risk ultimately reflects back on the firm’s operating decisions and that risk disclosure is an important way of communicating the firm’s strategy to investors.

The accounting profession, with its emphasis on historical transactions, has traditionally paid little attention to the subject of risk—a shortcoming that Jorgensen and his colleagues hope to remedy. “When you drive a car, you can’t just look in the rearview mirror,” he says. “Sometimes you have to look ahead. And accounting is not well suited for that. This is why my research is about risk, because it’s one of the things that blindsides us as financial statement users when we look at what happened in the past. Regulations are changing to reflect this perceived need.”

Since 1998, the U.S. Securities and Exchange Commission (SEC) has required large public firms to reveal certain types of risk-related information, although managers outside the financial sector have considerable leeway regarding the confidence level, time horizon and method of estimating risk. By next summer, when the 2002 Sarbanes-Oxley Act is fully implemented, smaller public firms will be subject to similar risk disclosure requirements.

The question facing managers, then, is how much additional risk information to disclose. Jorgensen and Michael Kirschenheiter developed a theoretical framework for analyzing how investors should diversify their portfolios based on the voluntary risk disclosures of all firms in the economy. Their model demonstrates that managers maximize firm value by disclosing additional risk information only if the information is sufficiently favorable.

The critical factor in this framework is investors’ uncertainty about whether managers possess additional information about firm-specific risks. Managers elect to voluntarily disclose when their risk information is not particularly damaging, which makes investors more willing to buy the firm’s shares at a lower price.

In addition to examining total firm risk as measured by variances, Jorgensen and Kirschenheiter also studied systemic risk. They found that a firm’s disclosure strategy affects its beta—a measure of the correlation between firm-specific risk and market risk—as well as the beta of other firms. Thus, if most of the other firms in an industry have voluntarily disclosed information about their risks, a firm that chooses not to disclose must pay investors a higher risk premium to compensate for the uncertainty.

A robust risk measurement strategy may require a substantial investment in information technology, a cost that firms must take into account as they consider the potential benefits of disclosure. Still, the advantages of voluntary risk disclosure often outweigh the costs.

“Our research shows that when firms provide adequate risk disclosures, it allows investors to make better portfolio decisions,” Jorgensen says. “Once investors become better at diversifying their risks across different shares, they’re more willing to invest effectively. And that in turn means that firms become more willing to invest the funds that it takes to have good risk controls in place within the organization.”

Read More

Bjorn Jorgensen is the Gary Winnick and Martin Granoff Associate Professor of Business. His working paper with Michael Kirschenheiter won the KPMG UIUC Competitive Manuscript Award on Risk Measurement and Disclosure in 2003. During the 2005–06 academic year, Jorgensen is a visiting academic fellow at the U.S. Securities and Exchange Commission.

Read more about faculty research on risk management at www.gsb.columbia.edu/ideas.
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In the online magazine’s fall 2005 issue, focused on risk management, Professor Elke Weber explains how risk perception affects people’s decisions, while other articles explore risk disclosure, bankruptcy and portfolio risk management.
Bubble Trouble?

NOT LIKELY

NICHOLAS WILTON

WILTON
The annual cost of owning, not the price of the house itself, is what homebuyers should (and do) consider when contemplating a purchase. And when comparing the cost of owning with annual rent or annual income—which is a good way of determining whether house prices are out of whack in relation to the rental market or families’ ability to pay—annual cost is the right measure to use. That cost is simply the net cash outflow required to own a house for a year—namely, the after-tax cost of financing the purchase price either by borrowing or through the lost risk-adjusted return on the equity tied up in the house, plus carrying costs such as maintenance and economic depreciation—less the expected appreciation on the property.

We, along with Charles Himmelberg, a research economist at the Federal Reserve Bank of New York, computed annual housing costs for 46 housing markets from 1980 to 2004 in a study due to be published this fall in the Journal of Economic Perspectives. Our findings are striking. In none of the hottest housing markets did the ratio of the cost of owning to rent in 2004 exceed the average over the sample period in their own market by more than 13%. The highest was in Portland, Ore. Miami’s ratio was 12% above average. But the ratios in the other oft-cited “bubble” cities such as Boston, L.A., New York and San Francisco were no more than 3% above their long-run averages. A similar pattern arises when we compare a city’s cost of housing to its mean family income.

For the past several years, Chicken Littles have squawked that the sky is about to fall on the housing market. And it’s tempting to believe them. The market sure feels like a bubble: The rampant growth of house prices over the past decade, the rising price of houses relative to rent and the astonishing gap in many cities between price and income are almost unprecedented in recent history.

The last time things felt this way, in the late 1980s, real house prices subsequently dropped by one-third in cities like Boston and Los Angeles. Yet basic economic logic suggests that this apparent evidence of a bubble is anything but. Even in the highest-price cities, housing is, at most, slightly more expensive than average. Here’s why: While house prices over the last decade have gone through the roof, the annual cost of owning a house has not.

by Chris Mayer and Todd Sinai

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Bubble Trouble?

~ NOT LIKELY ~
By contrast, in the late '80s, immediately prior to the large house-price declines of the early '90s, the ratio of the annual cost of owning to rent peaked 52% above the long-run average in San Francisco and New York. Boston and L.A. topped out, respectively, at 37% and 42% above the long-run average. Even allowing for growth in house prices during 2005, it is clear that while owning a house is not cheap, it is not inordinately expensive by historical standards.

Portland and Miami, and to a degree San Diego, are cities where we have a nascent concern. In those cities, the previous peaks exceeded 2004 levels by just 14 (Portland) to 25 (San Diego) percentage points. Of course, we don’t know what ratio of owning to renting costs, or owning costs to income, would precipitate declines in house prices. But in these three cities the ratio of the cost of owning to the cost of renting was higher in 2004 than in at least 17 of the prior 25 years. In almost all other cities, the annual cost of owning in 2004 was no higher than their median values over the previous 25 years.

The number one reason the current cost of owning differs so much from the price of a house is the historically low level of real, long-term interest rates. Low rates reduce the yearly cost of financing and lessen the cost of tying up capital in the house. At a lower cost-per-dollar of housing, families are willing to spend more for a house, bidding up prices. A further decline in interest rates yields an even greater percentage reduction in the cost of owning because the base cost is already low. This relationship helps explain the increasing growth rates of house prices in the last several years in those cities where new home building is constrained by scarce land and regulation. (Ease of development is why the dislocation caused by Hurricane Katrina should have little lasting effect in many Southern markets around New Orleans, despite the inevitable near-term disruptions.

For example, even in the face of strong population growth, Houston and Dallas have seen no real house-price increase over the last 30 years.)

On top of that, the priciest U.S. markets are themselves the most sensitive to interest rates. These cities have the highest rates of expected house price appreciation and thus their costs of owning—which are reduced by capital gains—are especially low relative to their prices. And a given change in interest rates has a larger percentage effect in those places where the cost of owning is the lowest.

Even the fact that some cities have higher price-to-rent ratios than others does not necessarily make owning there more expensive than renting. For example, the growth rate of house prices in San Francisco has exceeded the national average for more than 60 years, so relatively high financing costs are offset by above-average expected capital gains, reducing the owning cost-to-rent ratio. Indeed, owning a house in San Francisco is like buying a growth stock—it may have a high price-to-earnings ratio, but no higher a risk-adjusted return.

We obviously don’t think the sky’s the limit for house prices. But when you combine the annual cost concept with recent growth in rents and incomes, today’s pricing looks justifiable in most of the U.S. Despite all the talk of a bubble, we find little evidence that house prices are being bid up based on unreasonable expectations of future price growth. While annual costs have risen a bit faster than rents or incomes in the past decade, they started from a historic circa-1995 low in most cities. (A caution: Our study did not consider condominiums or second homes, where new construction is much easier and investors are more prevalent.)

Of course, the same logic that says today’s market price of housing is reasonable also implies that house prices are especially sensitive to real, long-term interest rates. In the absence of an offsetting increase in housing demand, an unanticipated rise in real mortgage rates could cause appreciable declines in house prices. For this reason we don’t think speculation is justified in the housing market—gambling on above-average capital gains is simply an interest-rate bet.

Chris Mayer is the Paul Milstein Professor of Real Estate at Columbia Business School. Todd Sinai is an associate professor of real estate at Wharton.

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The number one reason the current cost of owning differs so much from the price of a house is the historically low level of real, long-term interest rates.

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China at the Crossroads
New Initiatives at the Chazen Institute

by Charles Calomiris

During the past year, my first as academic director of the Jerome A. Chazen Institute of International Business, much of our agenda has been shaped by Columbia Business School’s commitment to promoting greater knowledge of China’s business and economy. New initiatives in the area exemplify another of Dean Glenn Hubbard’s key objectives: creating opportunities for the worlds of academia and business practice to meet and share ideas.

Among these initiatives is an ambitious research project, “China at the Crossroads: FX and Capital Markets Policies for the Coming Decade,” that brings together top academics and business leaders to address a pressing concern: For the past two decades, China has benefited from mobilizing vast savings and inexpensive labor and linking them to the global economy via export markets and the supply chains of Asian manufacturers. But Chinese growth has also been remarkably wasteful of capital—and increasingly so. Without improvements in the allocative efficiency of its financial sector, China will run into diminishing returns, continue to suffer poor stock market performance and amass ever-increasing hidden loan losses within its state-controlled banks.

The book that will result from the project, to be published next year, aims to guide public policy and successful business strategies in China by outlining challenges to the country’s financial system and offering practical, timely solutions. Noted academics and business leaders have been commissioned to write chapters, serve as chapter discussants and participate in roundtables on topics that include the privatization and reform of the banking system; the liberalization of securities markets; the transformation of corporate governance; the privatization and public listing of state-owned enterprises; and the change from a fixed to a flexible exchange-rate system. Contributors will include highly regarded professors from the School and beyond as well as practitioners from Bear Stearns, Deutsche Bank, Goldman Sachs, the IMF, JPMorgan Chase and Standard & Poor’s.

In Beijing last August, Columbia Business School partnered with Tsinghua University to bring together a group with extensive, up-to-date knowledge of the country’s policy trends—top Chinese finance professionals, policymakers and finance experts—for a two-day conference to discuss preliminary versions of the book’s chapters, which will be presented in final form at the School in February.

Further new initiatives include the Gordon Wu Lecture Series; a revitalized University Seminar on Chinese Business and Economy, cosponsored by the Chazen and Weatherhead Institutes; a campaign to fund a new chair in Chinese business in memory of the late Professor N. T. Wang; the appointment of the institute’s first Chazen Research Fellow, former Morgan Stanley executive Mary Darby, to help guide various China initiatives; and the School’s new joint venture in Executive Education for financial professionals with Fudan University’s management school.

Charles Calomiris is the Henry Kaufman Professor of Financial Institutions and academic director of the Chazen Institute. For more on the “China at the Crossroads” project, visit www.gsb.columbia.edu/chaizen.