



IMPACT INVESTING TAKES OFF

[A generational wealth transfer is driving demand for investments that power a better world.]

Infographic:
Spotlight
on Business
Sustainability
in CCB

Bricks, Mortar,
Profit, and the
Fate of the Earth
How sustainable practices
in real estate nurture the
triple bottom line

Ian Kline '92,
PRESIDENT AND CEO,
THE CADMUS GROUP
Scaling up for sustainable
solutions

A rising force:
Emerging economies are
gaining ground in wealth
and influence

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A VIRTUOUS CYCLE OF SUSTAINABILITY

Cornell has a deep and long-standing commitment to promoting sustainability, as is evident in the 540+ sustainability courses that Cornell offers, in the research programs of many of Cornell's faculty, and in Cornell's own campus initiatives. The university is committed to being a living laboratory for the environmental, economic, and social dimensions of sustainability.

At Johnson, we are proud of the role we play in promoting global sustainability, both through faculty research and by preparing leaders who understand how to frame social and environmental challenges as business opportunities that help transform the world. Johnson's Center for Sustainable Global Enterprise was established in 2003 through the generosity of Sam Johnson '50, one of the most highly respected pioneers of sustainable business. Since then, it has become a part of the school's DNA, and the many sustainability projects and activities it has launched, leads, and inspires play an important role in attracting some of our best and brightest students.

Sustainable Global Enterprise is the focus of one of the eight immersions our residential students can elect in the second semester of their first year. In the SGE immersion, students create frameworks for problem solving by working on company-sponsored projects — projects that present them with ambiguous, real-life situations and that require them to use critical thinking and many other skills they learned in our core curriculum. One third of the SGE immersion alumni go on to careers in consulting. A significant number have built highly successful careers in finance, and many go on to careers as powerful decision makers in purchasing and supply chain management.

In this issue, we celebrate additional ways that members of our community make contributions in the area of sustainability. The "Spotlight on Business Sustainability" infographic (p. 18) highlights sustainability-related courses, student clubs, and activities that engage our faculty, students, and alumni in the Cornell College of Business.

In "Impact Investing Takes Off" (p. 20), Mark Milstein, director of the Center for Sustainable Global Enterprise, notes: "Alumni in industry [are] telling us they need grads who know both finance and sustainability. It's no longer enough to know one or the other." In that article, find out about alumni who have built finance careers in impact investing and learn about how our Environmental Finance and Impact Investing Fellows program is preparing the next generation of impact investing leaders.

Several alumni entrepreneurs have incorporated sustainability values in their startups. Matt Ronen, MBA '11, launched



ServiceCorps "to empower the most talented emerging leaders to tackle society's toughest challenges" (p. 17). Cameron Brooks, MBA '03, founder of Tolerable Planet Enterprises and E9 Energy Insight, has devoted his career to clean energy and environmental advocacy (p. 15).

We feature faculty and alumni from both Johnson and Hotel in a story about sustainable practices in real estate, "Bricks, Mortar, Profit, and the Fate of the Earth" (p. 26), including one couple, Grace Kang '99 (Hotel), MBA '06, and Eric Ricaurte '01 (Hotel), who bridge both schools. Kang is a managing partner and Ricaurte is founder of Greenview, a consultancy and research firm that publishes the Hotel Sustainability Benchmarking Index annually in conjunction with Cornell's Center for Hospitality Research. "The Clean Get Cleaner" (p.11) describes the environmental injustice research published by Professors Glen Dowell (Johnson) and Arturs Kalnins (Hotel).

In my role as Johnson's dean, I am consistently impressed by the remarkable achievements of our students, faculty, staff, and alumni. It is gratifying to point to our many successful alumni and to celebrate their positive impact. Sustainability is one area at Johnson that creates a multifaceted "virtuous cycle" — producing research and leaders focused on improving how we conduct business in the world, while also attracting talented new students to our program.

I look forward to all the new stories the future will bring as we begin our spring semester in this new year. Stay tuned! I have no doubt that more exciting accomplishments are right around the corner.

Mark W. Nelson
Anne and Elmer Lindseth Dean

INFOGRAPHIC:
**SPOTLIGHT ON BUSINESS
SUSTAINABILITY IN THE
CORNELL COLLEGE OF BUSINESS**

Cornell is a global leader in sustainability and climate change research, teaching, and engagement.

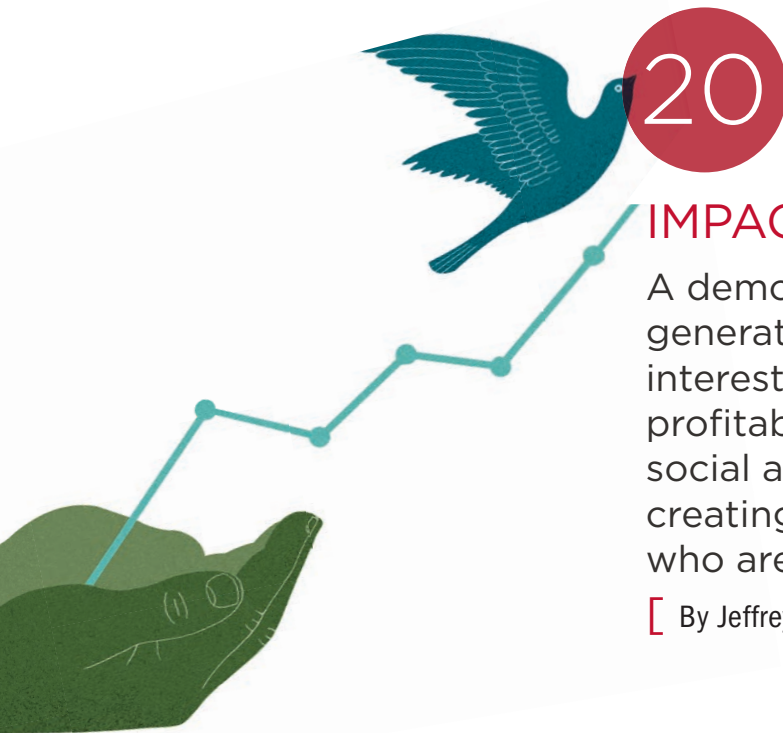


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IMPACT INVESTING TAKES OFF

A demographic shift is driving a large, generational wealth transfer, accelerating interest in steering investments toward profitable businesses focused on positive social and environmental change and creating a demand for financial managers who are skilled in investing for a better world.

[By Jeffrey Gangemi, MBA '09]



**BRICKS, MORTAR, PROFIT,
AND THE FATE OF THE EARTH**

How sustainable practices in real estate nurture the triple bottom line

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PROFILE IN LEADERSHIP: IAN KLINE '92, PRESIDENT AND CEO, THE CADMUS GROUP

Scaling up for sustainable solutions

[By Elizabeth MacBride]



A RISING FORCE: EMERGING ECONOMIES ARE GAINING GROUND IN WEALTH AND INFLUENCE

The Emerging Markets Institute's 2016 conference and inaugural Emerging Multinationals Report convey powerful evidence of "a new global landscape" showing a sharp increase in emerging economies as foreign investors and a "blossoming of some of their firms as world champions."

[By Janice Endresen]

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What Digital Natives Know: Collaboration Pays
B Lab Envisions a Global Culture Shift

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HELPING RENEWABLE ENERGY
ENTREPRENEURS GROW [By Giorgi Tsintsadze '17]

Jigar Shah, author of *Creating Climate Wealth: Unlocking the Impact Economy*, addressed renewable energy's challenges and opportunities when he delivered a keynote address Sept. 30 via video conference at Cornell Energy Connection, Cornell University's premier energy conference, hosted by the Center for Sustainable Global Enterprise and the Cornell Energy Club.

The president and co-founder of Generate Capital and a board member as well as former CEO of the Carbon War Room, Shah has extensive experience working in the renewables sector, first for BP Solar and later as a co-founder of SunEdison. In his book, he outlined major challenges facing companies and entrepreneurs specializing in renewable energy and proposed structural as well as financial solutions to overcome them. In his work at Generate Capital and the Carbon War Room, Shah works to put those solutions into practice, helping the industry grow and harness its enormous potential.

Shah began by reflecting on the financial landscape as the major problem for entrepreneurs in the renewable energy industry. The financial industry is unprepared to satisfy the financing that renewable energy companies seek, he said, making it hard for mid-sized energy startups with unsecured capital to procure the resources they need.

Arguing that "leaving climate change solutions to public authorities does not work," Shah said the renewable energy industry needs a new ecosystem, "all the way from innovation to revenues." As he explained, inclusive financial systems open and adapted to energy startups could inspire an army of entrepreneurs who would be able to sell their innovative products directly to customers. Such improvements could enable the industry to accelerate and provide sustainable electricity for a growing number of consumers.



"Leaving climate change solutions to public authorities does not work."

— JIGAR SHAH, AUTHOR, PRESIDENT AND CO-FOUNDER OF GENERATE CAPITAL, AND CORNELL ENERGY CONNECTION KEYNOTE SPEAKER

While the obstacles are substantial, Shah also emphasized positive dynamics that justify an optimistic outlook. For one, the renewable energy industry is becoming more multidisciplinary. In the past, the industry was dominated by people with engineering degrees; today, professionals with STEM backgrounds, as well as those specializing in marketing, finance, communications, and other disciplines, are working for solar and wind energy producers.

Shah also underscored the importance of cultural and policy changes. While arguing that it is wrong to expect large public utility companies to singlehandedly transform the grid, Shah advocates for a coalition of governmental agencies, environmentalists, and entrepreneurs to build a culture of sustainability. Renewable energy markets "are not natural markets," he argued — they depend heavily on government regulations.

WHAT DIGITAL NATIVES KNOW: COLLABORATION PAYS

[By Ted Goldwyn '90]

Jared Kleinert, *USA Today's* “Most Connected Millennial,” captured the attention of a multigenerational audience with his keynote presentation at Johnson’s 2016 Families in Business Conference, hosted by the Smith Family Business Initiative at Cornell and held on the Cornell University campus Oct. 21.

In his talk, “Leveraging the Power of This Generation,” Kleinert, a 21-year-old author, consultant, and speaker, shared examples of “outliers” among his own generational cohort who have made substantial impacts in business and society by collaborating and connecting with one another.

The co-author of *2 Billion Under 20: How Millennials are Breaking Down Age Barriers and Changing the World* and the upcoming *3 Billion Under 30*, Kleinert has focused his research on determining how young leaders representing a variety of industries have experienced “exponential success and impact” in their chosen fields. To this end, he presented three macro trends that are helping to guide these young entrepreneurs to success:

1. **The digital revolution has made problem identification, market access, and resource deployment easier and more cost-effective than ever before.**

According to Kleinert, organizations ranging from startups to major corporations can now efficiently research and subdivide large markets into ever-smaller subcategories.

This “long tail” approach to marketing has allowed smaller, innovative companies as well as international brands like Nike to bypass mass-market gatekeepers and create more scalable, nimble, and profitable businesses.

2. **“Communication is exponentially ubiquitous and collaboration increasingly rewarded.”**

Kleinert shared the story of Samantha Klein, next-generation entrepreneur at IBM, who launched the IBM Millennial Corps, an internal network of 7,000 young employees at her company. In one example, Klein harnessed the power of this network to promote IBM’s sponsorship of the Met Gala at New York’s Metropolitan Museum of Art. Strictly through social media and with no marketing budget, Klein created IBM’s largest earned media campaign and engaged thousands of potential customers.

3. **The rapid decentralization of distribution enables immediate, widespread access to products.**

One well-known example is WordPress, the online publishing platform that now powers 26 percent of the Web, founded in 2003 by Matt Mullenweg when he was just 19 years of age. According to Kleinert, the key to WordPress’ continued growth is its open-source design, meaning that anyone anywhere can access the code and make it their own. In this way, Mullenweg leverages



Jared Kleinert, Family Business Conference keynote speaker, describes how millennials achieve “exponential success and impact.”

the skills and enthusiasm of thousands of people worldwide, resulting in collaboration on a mass scale.

In a lively Q&A session following his talk, Kleinert was asked how an entrepreneurial business can break through all the digital “noise” in today’s interconnected marketplace. First, he said, a business must offer a high-quality product and deliver it with absolute integrity. Next, an enterprise should conduct exhaustive “customer development,” researching its target audience based on the unique and specific attributes of its product or service. The third step is to identify and locate niche markets that match the target audience and tailor the marketing message to resonate with these prospects.

PHOTOS COURTESY OF JARED KLEINERT AND BRACKETT DENNISTON



“Good intentions are not enough; it takes hard work and execution to implement and abide by proper behavior.”

— BRACKETT DENNISTON, SENIOR COUNSEL IN GOODWIN PROCTOR LLP’S LITIGATION DEPARTMENT AND FORMER GENERAL COUNSEL FOR GENERAL ELECTRIC, SPEAKING AS JOHNSON’S 2016 DAVID J. BENDANIEL ETHICS LECTURER

B LAB ENVISIONS A GLOBAL CULTURE SHIFT

[By Giorgi Tsintsadze '17]

After graduating from Stanford in 1989, **Jay Coen Gilbert** founded a sports apparel brand, AND 1, and served as its CEO for more than a decade, overseeing the growth of his startup into a \$250 million company. Today, Gilbert applies his entrepreneurial expertise as a co-founder of B Lab, a nonprofit organization that serves “a global movement of people using business as a force for good.” He came to campus on Oct. 24 as a guest speaker for Leaders in Sustainable Global Enterprise, a speaker series hosted by the Center for Sustainable Global Enterprise and led by Mark Milstein, director of the center and clinical professor of management and organizations.

“We are at a critical moment,” Gilbert began, pointing to the turbulent political landscape throughout the world and looming ecological threats, social and environmental crises that he fears are eroding public trust in the market forces. “What we need is a fundamental rethinking of the way we do business.” This shift will require both the recognition of systemic failures and the existence of viable alternatives, he said, adding that B Lab is committed to acting on both fronts.

B Lab works across the board, adopting a holistic strategy and targeting not only the supply side of the market but also the consumer and regulatory dimensions to bring about the change it deems necessary. Certified B Corps must “meet the highest standards of verified, overall social and environmental performance, public transpar-

ency, and legal accountability and aspire to use the power of markets to solve social and environmental problems.” More than 1,900 businesses across 130 industries in 50 countries have successfully completed the process. Change.org, Breckinridge Capital Advisors, and Ben & Jerry’s are a few examples of well-known B Corps.

Certification is just the first step in creating an impact chain that includes building a pioneering B Corps community that others will emulate and aspire to join. “Not all companies will be B Corps,” Cohen said. “But B Corps will be the new North Star that others will orient themselves to.” B Lab works closely with B Corps to develop effective storytelling strategies via B the Change Media to better inform consumers around the world about how they work.

At the same time, B Lab helps organizations develop new ways to measure and improve their positive impact on the environment, their workers, and their community via B Impact Assessments, a guided process. B Analytics, a digital platform, further equips businesses with interactive tools that help to integrate and interpret data collected and compiled in the B Impact Assessment. “The act of measurement makes you think,” Gilbert said. Together, B Impact Assessments and B Analytics enable companies to quantify values that were only approximations before.

B Corps work together to develop governance instruments that can help socially and environmentally conscious brands persist and



“One day, all companies will compete to be best for the world.”

— JAY COEN GILBERT, B LAB CO-FOUNDER

grow. Through collective action, they have attained distinct legal status and passed more than 30 new laws and regulations. Now, members are working with a G8 task force to inspire global policy changes.

Ultimately, B Lab anticipates a “global culture shift,” a dynamic that Gilbert and his team are working to promote.

“There are far greater drivers of human behavior than making money or the accrual of profits,” Gilbert said, arguing that what the economy and the world need today is a move from the “shareholder-based” business models to a “stakeholder-based” one. Articulating the vision behind B Lab, Gilbert called for a redefinition of success and shared his hope that, “One day, all companies will compete to be best for the world.”



“Increasing the number of women in leadership positions within the technology industry is key in driving those businesses to higher levels of success as well as changing the culture of a typically male-dominated workplace.”

— MICHELE SANDIDGE, MBA '18, IN A BLOG PROMOTING THE JOHNSON WOMEN IN TECHNOLOGY CONFERENCE, COMING UP ON MARCH 3, 2017. SANDIDGE IS THE PITCH COMPETITION AND EVENTS CHAIR FOR #JWIT2017.

A STELLAR COMMUNITY



Cynthia Saunders-Cheatham

Cynthia Saunders-Cheatham, executive director of Johnson's Career Management Center, had high praise for Johnson alumni in her Q&A in Clear Admit (June 27): "One of the things that I noted when I first started at Johnson — and I came from a corporate marketing role — was just how accessible our alumni are here at Johnson. It was nothing for me to email someone or pick up the phone and have people respond quickly. I hear that from our students, too — that our alumni are quite responsive. ... I do think Johnson is really special in terms of its loyal, engaged alumni." She also spoke at length about trends in hiring and student career goals, how incoming students can prepare for the job search, and opportunities for international students. Clear Admit's Q&A with Saunders-Cheatham was also published in Beat the GMAT (Aug. 5). Top MBA featured Saunders-Cheatham in a Q&A focused on campus recruiting (Aug. 24).

AI: PREPARE FOR IMPACT



Shawn Mankad

In a Business Because article about the anticipated, widespread impact of artificial intelligence ("Here's How Artificial Intelligence, Robotics are Edging into Elite MBA Programs," July 31), Shawn Mankad, assistant professor of information management, commented on AI's impact on business — and, by extension, on MBA programs: "Artificial intelligence, deep learning, and the overarching analytics field are going to significantly change all facets of business. ... Knowing data science is an absolutely critical requirement."

TO DISCLOSE OR NOT TO DISCLOSE

Drawing on her experience as a physician and on her recent research, Sunita Sah, John and Norma Balen Susquicentennial Fellow and assistant professor of management and organizations, revealed the unintended consequences of disclosure in an op-ed in *The New York Times* ("The Paradox of Disclosure," July 8). Defining disclosure as "informing the buyer (or the patient, etc.) of the potential bias of



Sunita Sah

the seller (or the doctor, etc.)," Sah wrote: "Disclosure creates increased pressure to follow the adviser's recommendation. People don't want to signal distrust to their adviser or insinuate that the adviser is biased, and they also feel pressure to help satisfy their adviser's self-interest. Instead of functioning as a warning, disclosure can become a burden on advisees."

According to Sah, disclosure can produce equally damaging side effects for advisers. Her research found that "surgeons who disclosed their bias also behaved differently. They were more biased, not less. These surgeons gave stronger recommendations to have surgery, perhaps in an attempt to overcome any potential discounting they feared their patient would make on the recommendation as a result of the disclosure." Sah also co-authored an article about racial bias that was published in Salon ("Hillary Clinton's calls to 'retrain' police to combat racial bias isn't enough to stop injustice in the justice system," Oct. 19) and in *The Conversation* ("One step toward making criminal justice less biased," (Oct. 13).

WALL STREET ETHICS



Maureen O'Hara

A new book by Finance Professor Maureen O'Hara, *Something for Nothing: Arbitrage and Ethics on Wall Street* (W.W. Norton & Company, Oct. 2016), has generated a buzz and several reviews, including a notable review in *The Atlantic* ("Does Wall Street Turn Good People Bad?" Oct. 27). In her book, O'Hara examines the ethics of modern finance and suggests, in writing described as "lucid" and "masterful," strategies for improving transparency and integrity on Wall Street. Replete with case studies and piercing analysis, her work is nuanced in its arguments and broad in its implications. O'Hara published an opinion piece on the same topic, "Why Wall Street's scandals keep coming," in MarketWatch and MSN Money. Read it here on page 9.

SCARCITY IN STOCK LISTINGS

As companies wait longer before going public, stock market listings are dwindling, causing headaches for investors. Norway's oil fund, the world's largest sovereign wealth fund, has warned that the trend might be a threat to global economic growth. In the *Financial Times'*



Andrew Karolyi

reporting on the issue (“Norway’s oil fund urged to invest billions more in equities,” Oct. 11), Andrew Karolyi, Harold Bierman Jr. Distinguished Professor of Management, professor of finance, and associate dean for academic affairs, contributed to the discussion, explaining that what is causing “the precipitous decline in listed U.S. companies,” apart from more and more companies delaying IPO, are delisting events. These include takeovers, share buybacks, and, most importantly, mergers of previously listed companies.



Drew Pascarella

WHAT’S HOT: SAAS

Talking to *US News & World Report* (“From Growing Private to Going Public,” Aug. 4), Drew Pascarella, lecturer of finance, discussed “software as a service” (SaaS), a hot new direction for startups in which companies provide software, support staff, and servers for nascent businesses. “I like the SaaS business

model for obvious reasons,” Pascarella said. “It has a steady, predictable revenue — which Wall Street loves — and with its focus on the sales process, it’s very easy for a new customer to see the return on investment.” Pascarella pointed to Docusign and Insidesales.com as companies to watch in this space.



David BenDaniel

FULL CIRCLE: FAVORITE AND BEST

Poets & Quants named David BenDaniel, Don and Margi Berens Professor of Entrepreneurship and professor of management, a “Favorite Business School MBA Professor” (Aug. 17). Looking back at his career, the former theoretical

physicist and senior executive at Exxon and Textron reflected on his role as an educator. “I’ve had the taste of being a corporate manager, doing deals, and having people report to me,” BenDaniel told Poets & Quants. “I had the opportunity to be sort of a fuzzy-headed intellectual at an early stage when I got my PhD. Now, I’m trying to put

these things together and be a good teacher and perhaps role model for students.” BenDaniel was nominated by Nadine Thornton, JD/MBA ’16, who was herself named a Poets & Quants “Best & Brightest MBA” (May 15).

FRANK TAKES ON LOVE, TRUST, AND LUCK

Robert H. Frank, Henrietta Johnson Louis Professor of Management and professor of economics, published an article on the importance of finding true satisfaction in work in *The New York Times* as part of its Upshot series (“The Incalculable Value of Finding a Job You Love,” July 22). In it, Frank extolls the benefits of specializing: “You’ll be more likely to land a job that offers attractive working conditions and pays well if you can develop deep expertise at a task that people value highly,” he writes. “As the economist Philip Cook and I have argued, those who become really good at what they do are capturing a much larger share of total income in almost every domain. Moral: Become an expert at something!”

In a CNN article on trust and credibility (“Why you believe everything your Facebook friends tell you” Oct. 19), Frank said: “People who succeed almost always succeed as trusted members of teams. If you’re a lone wolf, that’s not a good path to success in this world.” The article was also picked up by other outlets, including *The Oklahoman*.

In a piece in *Vox*, “Donald Trump’s refusal to reveal his tax returns highlights a problem with economic theory” (Oct. 5), Frank discusses the economic principle known as the “full-disclosure principle,” which “holds that rational observers should conclude that failure to disclose relevant information implies that the information must be as damaging as it could possibly be,” he writes. Further on, he says: “Theory fails ... for the same reason it seems to have failed for Trump’s tax returns: Seeing is believing.”

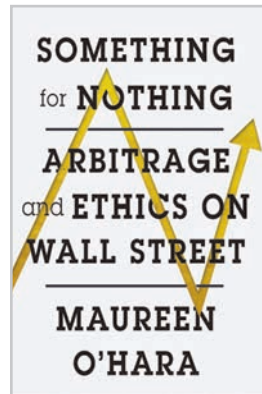
Additionally, Frank’s research on luck, published in his new book, *Success and Luck: Good Fortune and the Myth of Meritocracy*, was covered by a number of media outlets around the world, including the *Daily Mail*, *Libération*, *This is Money*, *The Sydney Morning Herald*, *Brisbane Times*, and *The Canberra Times*.



Robert H. Frank

WHY WALL STREET'S SCANDALS KEEP COMING

By Maureen O'Hara



Maureen O'Hara is the Robert W. Purcell Professor of Finance at Johnson and the author of *Something for Nothing: Arbitrage and Ethics on Wall Street* (W.W. Norton & Company, October 2016).

It is human nature to search for the easier way to do things. At Volkswagen, engineers decided it was easier to write code to fool mileage sensors than it was to actually build more fuel-efficient cars. At Wells Fargo, opening new accounts was much easier to do if you skipped that pesky customer step. Both cases illustrate the pitfalls of caring only about the ends and not also the means.

Modern finance shares a similar focus on finding alternative ways to do things. Much of it relies on arbitrage activity to make sure cash flows all line up correctly. Whether in the guise of realigning prices gone astray, or in creating new synthetic versions of particular contracts, or in just devising more efficient ways to optimize against inefficient market structures, arbitrage plays a starring role. The end result of such arbitrage activity is typically an improvement over what came before: prices are more efficient, new ways to invest become available, rigidities are overcome.

But arbitrage can also be used to gut regulatory structures, take advantage of the less sophisticated, and manipulate markets. Looking at the world as just so many cash flows to be organized as one sees fit can overlook an important missing piece — the ethics of doing so.

Indeed, for perhaps too many, it may not even be apparent that there is an ethical component to consider — let alone determine what it is. As Dilbert creator Scott Adams so artfully described, it can become all too easy to fall into the “weasel zone” — the gray area between good moral behavior and being an outright felon.

As bankers and financial firms grapple with scandal after scandal, outsiders are rightly asking some key questions. Are people attracted to finance just “worse” than everyone else? Is finance as an industry fatally flawed? Why didn't or doesn't regulation stop all this? My own answer to the first question is no, they are not worse, although

Elizabeth Warren might have a different take on this. My work focuses on the latter two questions: what is it about finance and how do we stop these behaviors before they completely undermine trust in the financial markets?

Finance is ends-driven, focusing on how to replicate an outcome but not worrying too much about how we get there. Thus, J.P. Morgan Energy Ventures Corp. perhaps perceived its machinations in the California electricity market as solving an optimization problem against an inefficient allocation algorithm, and not as participating in the price-setting mechanism actually affecting the production and pricing of electricity. Its \$410 million settlement with the Federal Energy Regulatory Commission (FERC) may have been viewed as a cost of doing business with a persnickety regulator, rather than as a fine for actually manipulating the market (a charge the firm denies).

The Libor scandal reflects a similar failing in that traders' bidding strategies were based on making money by moving one market (the actual Libor rate) to benefit their positions in another market (the Libor derivatives) — and not particularly caring about the impact that phony and manipulative bids had on the operations of the actual Libor market. The slicing and dicing of cash flows in the various mortgage-backed securities scandals set the stage for similar shenanigans.

It simply becomes too easy to miss the ethical constraints of the natural world when you are happily spending your time implementing strategies in the synthetic one.

Does this mean that finance is fatally flawed? Certainly not, but it does suggest that the users of financial techniques have to recognize a basic fact: the means may matter just as much as the ends do. This isn't typically the way concepts such as arbitrage are taught, or how such techniques are often used in practice. But it is increasingly clear that failing to recognize this is becoming an extremely expensive hobby.

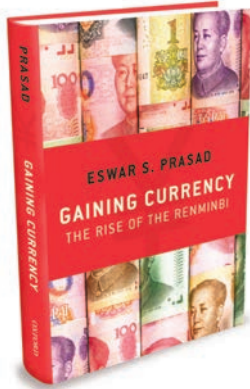
Yet more rules and regulations cannot hope to quell the bad behavior coincident with arbitrage activities in financial markets. This is because rules and regulations give greater specificity to what exactly is precluded, but this just makes it easier to create a more exact replication. The mathematical nature of arbitrage-based activities flourishes when constraints are precise; imprecision is its enemy. This argues for the greater use of standards in policing financial activities, rather than adding more pages to the finance rule book. FERC's settlement with J.P. Morgan Energy Ventures was facilitated by a much broader and encompassing definition of manipulation in energy markets — a new standard thanks in large part to Enron's earlier misbehavior there.

Arbitrage-based activities have an important role to play in financial markets. It is not the easy way, but what is finally being realized is that the ethical component cannot be arbitrated out of the process.

This op-ed was originally published in MSN Money (Oct. 17, 2016).

ESWAR PRASAD: DESPITE YUAN'S METEORIC RISE, DOLLAR WILL DOMINATE

By Susan Kelley



Eswar Prasad is Tolani Senior Professor of Trade Policy at the Charles H. Dyson School of Applied Economics and Management and author of *Gaining Currency: The Rise of the Renminbi*.

“Many people have argued that if China’s economy keeps growing and perhaps matches the U.S. economy in size, and if China reforms and liberalizes its financial markets and economic structure, maybe the renminbi can rival not just the euro or the yen but even the U.S. dollar,” said Prasad, the Tolani Senior Professor of Trade Policy at the Charles H. Dyson School of Applied Economics and Management.

But, he argues, this hype about the renminbi’s rise to global dominance is overblown.

The international finance community has witnessed what Cornell economist Eswar Prasad calls “a momentous event.”

On Oct. 1, the International Monetary Fund added China’s currency, the renminbi, to its elite basket of reserve currencies. This international stamp of approval means the renminbi — and its unit, the yuan — meets the IMF’s standard of being “freely usable” in the global economic system, allowing it to join the euro, yen, pound, and dollar in the A-list basket.

It’s a significant milestone in the renminbi’s growing international credibility, which Prasad outlines in his newest book, *Gaining Currency: The Rise of the Renminbi* (Oxford University Press, October 2016).

In the book, Prasad describes how far China has progressed in promoting the renminbi as an international currency, the broader implications of the renminbi’s elevated status for the global monetary system, and in particular what the implications for the dollar might be.

In *Gaining Currency*, Prasad describes how China has promoted its currency as an international player by taking steps to liberalize, broaden, and deepen its financial markets. China has become more open to financial flows, both into and out of the country, for example. And the government has allowed market forces to somewhat determine the exchange rate, said Prasad, who was previously chief of the IMF’s China Division.

Prasad predicts that, as China’s economy grows and its footprint in international trade and finance expands, the renminbi will play a more prominent role as a payment currency — that is, a currency intermediating financial and trade transactions across countries. The renminbi now accounts for a small but quickly growing share of global financial transactions, he said.

And the renminbi’s rise to the status of a global reserve currency is “happening before our eyes,” he said. “Many central banks around the world — 34 at last count — have signed local currency swap lines with the People’s Bank of China, which means they have access to renminbi should they need it.”

He predicts the renminbi will have a spectacular rise over the next decade or so. It could progress from accounting for barely 1 percent of global foreign exchange reserves now to perhaps 10 to 15 percent.

But then the renminbi will plateau, Prasad predicts; the global finance community will not perceive it as a safe-haven currency.

“In order for the renminbi to be considered a safe place for investors to put their money in times of turmoil, foreign investors and domestic investors in China must have trust in China,” he said. “And that is missing.”

To build that trust, China needs political and legal institutions similar to those of safe-haven countries in Europe and of the United States and Japan. China is missing a democratic form of government with multiple checks and balances. It needs an independent and trusted central bank like the Federal Reserve. And China also would require a legal framework where the rule of law takes precedence over the Chinese Communist Party, and not vice versa.

“This is where China falls short,” said Prasad. “Even if China moves forward with economic reforms, the present leadership has made it abundantly clear that broader legal, political, and institutional reforms are off the table.”

What does that mean for the dollar?

“The renminbi may slightly erode — but will in no serious way challenge — the dollar’s status as the dominant global reserve currency,” Prasad said.

This article was originally published in the Cornell Chronicle, Sept. 13, 2016.

Learn more about Eswar Prasad and his new book at GainingCurrency.com.

THE CLEAN GET CLEANER

[By Erin Peterson]

There's no question that shining a light on companies' dirtiest deeds has encouraged them to clean up their act. Thanks to required environmental disclosures during the past three decades, toxic emissions from corporations have dropped by more than 31 percent across the country.

But this simple success story holds a more worrying trend, according to new research by Arturs Kalnins, associate professor of strategy at the School of Hotel Administration, and Glen Dowell, associate professor of management and organizations at the Samuel Curtis Johnson Graduate School of Management. The benefits of our cleaner country have accrued primarily to the wealthiest quartile of communities, while the poorest quartile — though still better off than they were in the 1980s — has improved at a far slower rate.

Kalnins and Dowell went into the research believing that the opposite might be true. Decades of research have shown that environmental burdens are more likely to be shouldered by socioeconomically disadvantaged communities. This might seem to suggest that the lowest-hanging fruit for cleaning up was in these same lower-income communities. "My initial thought was that if pollution has been declining, maybe that's also helping the inequality aspect of it," says Kalnins.

The pair were particularly interested in the ways that public information alone might nudge corporations to take action or for communities to demand it. Were public disclosures — without regulations accompanying them — enough to lead to significant improvements? Kalnins and Dowell had a readymade opportunity to study this idea through the Toxics Release Inventory (TRI), a program that requires facilities to report on their use and disposal of toxic chemicals. The TRI, first released through the Environmental Protection Agency in 1987 and now reported annually, was created after it became clear that some companies were producing and emitting harmful chemicals into their communities without residents' knowledge. Although the TRI was not designed to regulate any emissions, it did illuminate areas of concern. The public reports allowed community members to track the biggest polluters and monitor their progress over time.

To find out more about the impact that the disclosures were having, Kalnins and Dowell combed through more than 25 years of TRI reports detailing the release of hundreds of airborne and waterborne toxic chemicals by thousands of companies. They then overlaid this information with county-by-county United States Census Bureau data on income, the proportion of minority residents, and education levels.



The clearest dividing lines occurred at different income levels. In the poorest quartile of communities, for example, corporations emitted 10.5 billion pounds of chemicals into the environment between 1987 and 1999. That number had dropped to 8.6 billion pounds between 2000 and 2012, an overall improvement of 18 percent. By contrast, corporations emitted just 2.9 billion pounds of pollutants into the wealthiest quartile of communities between 1987 and 1999. Those emissions dropped to under a billion pounds between 2000 and 2012. The total improvement for these communities was nearly 68 percent.

In other words, the richest communities — already far cleaner than their poorer counterparts — continued to widen the emissions gap during the past 30 years. Decades ago, the richest communities were about three and a half times cleaner than poorer ones in raw numbers; now they're more than eight times cleaner. Because these emissions are all linked to human health concerns, these poorer communities will also likely experience disproportionate health impacts as well.

While Dowell is quick to praise the overall decline in toxic emissions countrywide, he says the results also highlight a more complicated problem. "These [results] really ask policy makers and the managers of corporations to think about what this means as we lean more on information disclosure as a form of regulation," he says. "For example, this form of regulation may have greater benefits for people who have the full capacity to deal with more information. In richer communities, residents can put more pressure on companies

to clean up. They may be less afraid of losing [a polluting company] because they have the resources to move or to get another job.”

Indeed, says Kalnins, the Flint water crisis, which came to light just as the pair were putting the finishing touches on their study, seemed to provide a vivid illustration of the challenges that poor communities face as they seek cleaner and safer living conditions. “While [the Flint crisis was caused by neglect] from the government, not a corporation, it illustrated how lower-income communities don’t always have the resources to push back effectively,” he says.

If the news for lower-income communities is mostly grim, that’s not to say that there aren’t bright spots tucked within the data. While most states saw similar links between income and emissions changes, California and Massachusetts were outliers. In these two states, both low- and high-income communities saw dramatic pollution decreases of roughly the same magnitude. In California, low-income communities saw an emissions drop of 69 percent while high-income communities had a 75 percent drop. Numbers in Massachusetts were 66 and 70 percent, respectively.

For Dowell, these numbers suggest that equity is possible for other states that want to make both aggressive and equitable improvements. “These are two states that have progressive environmental policies, and it’s clear that in these cases, the poorest communities are not falling behind,” he says. They provide a striking contrast — and perhaps a model to follow — for the seven states whose poorest communities actually saw worsening pollutant levels over time.

As Kalnins and Dowell look ahead, they see numerous worthwhile areas for future study. This may include looking at whether or not companies are shifting their most emissions-heavy activities to low-income areas and what kinds of companies are likely to be the biggest polluters in these areas.

For now, says Dowell, the clearest lesson is that information disclosure is just one part of a comprehensive and effective approach to a cleaner and healthier community. “Information disclosure by itself won’t necessarily bring us all the way to the outcomes we want,” he says. “It makes a difference, but it needs to be catalyzed by other things.”



Glen Dowell (left), associate professor of management and organizations at Johnson and Arturs Kalnins (right), associate professor of hotel administration

HOW WINNING TEAMS NAVIGATE CONFLICT TO STAY ON COURSE [By Irene Kim]

When people work together as a team, some disagreement and personality clashes are inevitable. But why do some teams become derailed by conflict, while others manage to work through conflicts to deliver great performance?

That question was the basis of a 2008 landmark study co-authored by Johnson Professor of Management and Organizations Beta Mannix; William M. K. Trochim of Cornell’s College of Human Ecology; Kristin J. Behfar of the University of Virginia’s Darden School of Business; and Randall S. Peterson of the London Business School. Their paper, “The critical role of conflict resolution in teams: A close look at the links between conflict type, conflict management strategies, and team outcomes,” received the Most Influential Paper award for 2016 from the Conflict Management division of the Academy of Management, an honor

recognizing a paper that has “made a significant and influential contribution” to conflict management research over the years.

“This paper has become foundational in a number of ways,” says Mannix. “People are using it to contribute to their own work, not only empirically, but theoretically as well.” The research has also provided organizations with insight into how teams work and strategies for intervening in poorly performing teams.

Both the researchers’ findings and their method were groundbreaking, shaping subsequent researchers’ perceptions and study of conflict. Mannix and her co-authors uncovered distinct connections among a team’s conflict management strategies, performance, and members’ satisfaction. Their multifaceted approach incorporated quantitative and qualitative data and studied teams’ interactions over several months “to understand how conflict unfolded from the very

beginning — the formation of new, randomly formed teams — to the very endpoint,” she explains. Previous research looked only at “snapshots” of teams, via single-shot surveys, for example.

Conducted in the fall of 2007, the study gauged the performance and interaction among Johnson’s first-year residential MBA class of 252 students, who formed self-managing teams to work through the core curriculum. The researchers studied the students throughout their first semester, administering survey questionnaires at two different times to gauge their levels of conflict and satisfaction.

Performance was measured by the teams’ grades in several courses. Survey responses, which included both open-ended responses and Likert-style numerical-satisfaction ratings, were analyzed by experts to measure three discrete types of conflict: task conflict (disagreement about what to focus on), relationship conflict (personal clashes), and process conflict (dissent over how to achieve the goal).

Previous researchers had considered task conflict to be always positive (engendering critical thinking and creative solutions) and relationship conflict to be negative (creating bad will and tension). They were unclear about process conflict, which can overlap with task conflict.

Measuring both performance and satisfaction, Mannix and her colleagues found that how teams dealt with conflict was most critical to team success, not the type of conflict. The researchers found that the teams with the best overall result — high performance and high satisfaction — were proactive about determining ways to productively resolve conflicts, assigned roles according to expertise, understood clearly how each member’s interests aligned with team goals, and based decisions on evidence and analysis rather than bowing to personality clashes.

Some teams experienced high satisfaction but low performance. This occurred in a few different ways — most often, among teams attempting to build harmony by including every member’s contributions at the expense of the team mission. “In other cases, there is a struggle for who is ‘right,’ and the end result is taking everyone’s ideas into account,” says Mannix. “It’s easy to fall into: You decide to focus on personal satisfaction and harmonious relationships and let go of the actual task you are supposed to focus on.”

Other teams had lower satisfaction, but turned in good performance, often because they set clear expectations and imposed clear rules when they experienced relationship conflicts. “It’s not unusual that a team becomes dysfunctional, that you have one or more people who don’t get along well,” says Mannix. “But it can be possible to work together if you put in a structure to help solve some of the problems that are focused on the task itself, not trying to change someone’s personality.”

Finally, “avoidant or miserable” teams had low performance and low satisfaction. Members often avoided meetings as well as each other, put decisions to a vote rather than discussing them, and relied on trial and error to define their procedures.

A derailed team may correct its course by putting rules and structure into place “to get members away from conflict over unnecessary and reactive kinds of problems,” says Mannix. “The best way I’ve seen teams get back on track is to have an outside facilitator or coach come in to stop and reassess where we are and why we are here and spend time with the team. That could mean getting people to come to meetings on time, assigning specific

roles, implementing a team contract, or enforcing an existing team contract.”

Mannix sees the paper’s influence on current research evident in researchers’ focus on process conflict and how it affects teams’ performance and in more studies looking longitudinally at conflict and team performance over time.

Moreover, organizations are using the findings to improve their teams. “I’ve had people come back and report to me, ‘This works! We weren’t managing the task itself; we were too focused on the relationships,’” says Mannix. “It’s a bit of an ‘Aha!’ and it gives them tools to think through their interactions more effectively.”



Beta Mannix, associate dean for Executive MBA programs, Ann Whitney Olin Professor of Management, and professor of management and organizations

ILLUSTRATION SOURCE/GARRY NICHOLS



CAMERON BROOKS, MBA '03
E9 ENERGY INSIGHT AND TOLERABLE
PLANET ENTERPRISES

PURE
ENERGY

[C] ameron Brooks was smitten with the outdoors as

a teenager, spending countless hours exploring California's Sierra Mountains. His hero was John Muir (1838-1914), the Scottish-American naturalist, author, and pioneering wilderness preservationist. "I was very interested in environmental issues," says Brooks, who has devoted his career to clean energy and environmental advocacy.

Today, Brooks is president of Tolerable Planet Enterprises, the strategic advisory firm he founded in 2003 to drive opportunities in the new energy economy. With a client list that includes technology and consumer service companies, project developers, private investors, and philanthropies, Brooks spends much of his time in front of public utility commissions talking up energy efficiency and intelligent energy management.

"Climate change is a huge motivating force for me," he says. With rooftop solar in one million homes and growing, "There could be some dramatic shifts in how we use and generate electricity. It's a rancorous debate at the policy level."

To keep abreast of active proceedings across the country that could affect the utility business, including rate design,

distributed energy policy, and grid modernization, Brooks started a separate company, E9 Energy Insight, which provides clients with a monthly "radar screen" of new activity at the state level. "The energy market in

the United States is very balkanized," he says. "Every state is unique in how it's structured."

As an undergraduate at Yale, Brooks created his own major akin to environmental studies. After college, he moved to Telluride, Colo., where he worked on grassroots environmental initiatives with Sheep Mountain Alliance, a watchdog group, and later Mountainfilm, an annual festival created by Patagonia founder Yvon Chouinard, while building a burgeoning energy efficiency consultancy.

"I could see that [green] technology worked, but it wasn't being picked up by the marketplace," says Brooks. At Johnson, he took a concentration on green building and energy markets, all the while growing the Sustainable Global Enterprise Club, the Cornell chapter of Net Impact. "I was the last person I thought would go to business school because that was what my mother would have wanted me to do," he notes with a laugh. Somewhere, John Muir is smiling.

PHOTO CREDIT: WAYNE ARMSTRONG



SOURCE: ISTOCK BY GETTY IMAGES

RED, WHITE, AND VIEWS

[C] hristian Miller has the heart of a sommelier and the soul of an entrepreneur. After a couple years as an operations analyst at Merrill Lynch in the 1980s, “I impulsively jumped into the wine industry, first as a wine steward at

Windows on the World, then in retail sales,” he says. On a trip to California, he met with some of the wineries with whom he had done business. “We’re getting the sales and winemaking part down,” they told him, “but we need help with finance and marketing.”

Seizing the opportunity to turn his passion into a career, Miller chose Cornell for his MBA studies, in part because of its proximity to wine country: “I was able to continue learning about wine and work with some of the local producers,” he says. Three decades later, as the proprietor of Full Glass Research, Miller consults with investors, wineries, vineyards, food companies, farms, and other clients on everything from economic impact studies to supply analysis.

Sustainability is a key concern, too. One recent Full Glass Research study focused on the role of sustainable viticulture and winemaking in the Pacific Northwest, involving 152 wineries and vineyards and 286 wine-trade professionals. More than 85 percent of winemakers surveyed found environmentally friendly practices “consistent with my personal philosophy.”

The firm, based in Berkeley, Calif., also provides analytics for WineOpinions.com, the influential website co-founded by Miller in 2005. WineOpinions taps into the palates of 14,000 high-frequency wine consumers and a panel of over 4,700 industry professionals to provide consumer and trade analysis.

With a full-time staff of three, Full Glass Research is branching out into other categories, including high-end cheese, cider,

craft beer, and chocolate. Like the wine industry, “These categories share issues of fragmentation, a long tail of suppliers, a critical mass of highly involved consumers, and complex distribution channels,” Miller says.

Whether his work has taken him to Spain, France, Chile, or to wineries nationwide, “The people are mostly generous, interesting, and fun to be around,” he adds, even when they’re struggling with production or sales issues. “It’s far from the most lucrative or profitable industry, but it has a great culture and perks.”

— Dick Anderson



PHOTO COURTESY OF CHRISTIAN MILLER

CHRISTIAN M. MILLER, MBA '85
FULL GLASS RESEARCH AND WINEOPINIONS.COM



First (night) light: A home in a remote mountain village in Nicaragua is lit up by solar power installed by Fallquist and Viridian employees.

PHOTOS COURTESY OF VIRIDIAN

LEAN AND GREEN

[I] In 2009, Michael Fallquist founded Viridian Energy in Stamford, Conn., with the vision of creating “the first friends-and-family-focused green energy company focused on selling sustainability.” By going into deregulated electricity markets, buying energy wholesale from clean sources such as wind and solar power, and charging users a rate below that of traditional providers, Viridian amassed more than 200,000 electricity and natural gas customers in seven states within three years.

His idea revolutionized the industry, and Fallquist won the Ernst & Young Entrepreneur of the Year 2012 Award in the Cleantech category.

The other winner is the consumer.

In July 2012, in a bid to aggressively grow the business through acquisitions, Viridian was folded into Crius Energy, a newly created holding company traded on the Toronto Stock Exchange, with Fallquist as CEO. In addition to Viridian, Crius’ subsidiaries include Public Power, Cincinnati Bell Energy, FairPoint Energy, and Citra Solar. Today, Crius (rhymes with Prius) serves more than 900,000 customers in 20 domestic markets.

An economics major at Colgate, Fallquist spent three years as a financial services consultant before enrolling at Johnson. “Cornell opened my eyes to a lot of different opportunities,” says the Seattle native, who learned the energy business with Macquarie Cook Energy in Australia and followed mentor Greg Craig to Commerce Energy prior to starting Viridian.

Moving forward, Crius is concentrating its energies on solar. Its recent acquisitions of SunEdison and Verengo “give us



MICHAEL J. FALLQUIST, MBA '04
VIRIDIAN ENERGY AND CRIUS ENERGY

the capability to take a customer all the way from lead to installation to maintenance and monitoring,” Fallquist says. “The company that does solar right is going to make a tremendous amount of money for its shareholders.”

Fallquist has seen firsthand the transformative power of green energy. On a service trip to Nicaragua, he and his Viridian associates installed solar panels on 40 homes in a remote village beyond the reach of traditional power lines. “When they turn on the light for the first time,” Fallquist says, “it’s a cool experience that we totally take for granted.”

— Dick Anderson

SERVICE FIRST, CAREER SECOND

[A]s a senior at Colorado College in 2004, Matt Ronen felt compelled to pursue a service year before settling down professionally. He even wrote a business plan for a partnership between companies and nonprofits that would create a service “gap year” between college and career. His professor told the Cleveland native that his idea was “creative and original, but ahead of its time,” recalls Ronen, who turned down a position with Oppenheimer & Co. to spend a two-year hitch in the Israel Defense Forces.

In March 2011, during his last semester at Johnson, Ronen was walking home from dinner when he was assaulted and mugged. During the long recovery that followed, he had an epiphany inspired by reading Anne Frank’s words: “No one has to wait, but can start right now to gradually change the world.”

“I wanted to leave the world better than the way I found it,” he says. “I always thought this was something I would do later in life. But what if you don’t get the chance to give back?”

Although Ronen subsequently took a job offer as a brand manager at Colgate-Palmolive, his old idea never left him, and in 2014 he left the corporate world to follow his dream. Now, ServiceCorps has a staff of five and operates out of office space in Manhattan donated by Cornell trustee Howard Milstein ’73. The program launched in summer 2016 with 11 recent college graduates who deferred prestigious job offers from ServiceCorps corporate sponsors GE and Citi in order to work at top nonprofit organizations.



MATT RONEN, MBA '11
SERVICECORPS

Ronen’s goal for ServiceCorps is “to empower the most talented emerging leaders to tackle society’s toughest challenges the first year of their career and every year thereafter.” Participating business partners share the cost of the program with ServiceCorps, with the nonprofit covering other expenses such as healthcare and any student loan repayments during the deferral year.

Ronen hopes to double the number of student participants every year until they hit 1,000. “My vision is to be the next Teach for America — the next post-college movement,” he says, adding that: “Without my Cornell degree, I would not have the skills, knowledge, and wisdom to pull it off.”

— Dick Anderson

PHOTOS COURTESY OF MATT RONEN

Matt Ronen (bottom row, third from left) with his ServiceCorps Fellows



SPOTLIGHT ON BUSINESS SUSTAINABILITY IN THE CORNELL COLLEGE OF BUSINESS

Cornell is a global leader in sustainability and climate change research, teaching, and engagement.



SUSTAINABLE GLOBAL ENTERPRISE (SGE) IMMERSION

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This semester-long immersion combines classroom learning with practical experience; students work in multidisciplinary teams on company-sponsored projects to solve real problems. It has generated strong interest among companies, especially in the energy sector. And it attracts 13 percent of incoming students.

40
**STUDENTS
ENROLLED,
SPRING 2017**

MORE THAN
375
**SGE
IMMERSION
ALUMNI**



**CCB
FACULTY
MEMBERS**

conduct research related to business and sustainability

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Established in 2003 through the generosity of Sam Johnson '50, Johnson's Center for Sustainable Global Enterprise pioneers new approaches to business model creation and cultivates business leaders who frame global social and environmental challenges as business opportunities that help transform the world and promote global sustainability.



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GREEN REVOLVING FUND 15 ENROLLED



An experiential-based course offered by Johnson's Center for Sustainable Global Enterprise, the Green Revolving Fund finances energy efficiency and environmental sustainability projects at Cornell University. Energy savings from projects return to the fund, growing the university's possibilities for future funding.

CORNELL ENERGY CLUB

70 MEMBERS

This professional student organization focuses on all facets of the energy industry, including traditional energy, renewable energy, and energy efficiency. The club aims to educate students about industry trends and events, build relationships with companies and governmental agencies, and ultimately place its members in leadership positions at top-tier energy firms and organizations. It hosts an annual event, the Cornell Energy Connection.





MEMBERS



SUSTAINABLE ENTERPRISE ASSOCIATION

Cornell's undergraduate Net Impact affiliate, this club's activity level took off with new leadership in 2015, hosting a wide variety of events. Aiming to create leaders, entrepreneurs, problem solvers, and innovators ready to improve the world, SEA supports students from all disciplines to explore the theories and applications of sustainable enterprise through discussion groups, business planning, internship opportunities, guest speakers, and conferences. In 2016, Net Impact recognized SEA as a Gold Chapter.

SENIOR LEADERS CLIMATE ACTION GROUP

Mark Milstein, clinical professor of management and director of Johnson's Center for Sustainable Global Enterprise, is a member of this group of administrators, deans, faculty, and student leaders. Formed in 2016, the committee's focus is to help guide the university's climate-action direction and spur innovative, cross-disciplinary solutions on campus and globally.



ENVIRONMENTAL FINANCE AND IMPACT INVESTING FELLOWS

19 FELLOWS

EFII Fellows gain experience in finance and analytics, markets and regulation, science and technology, and sustainability. The program trains Johnson students for career opportunities at the intersection of sustainability and finance, including project finance addressing climate change, ecosystem services, and poverty alleviation.

SUSTAINABLE GLOBAL ENTERPRISE CLUB

This professional student club, Cornell's chapter of Net Impact, offers networking opportunities among students and alumni, career assistance, and events aimed at improving understanding of sustainability concepts in modern business. In 2016, Net Impact recognized the SGE Club as a Gold chapter.



MEMBERS



KEY AREAS OF INTEREST:

- Education
- Environmental Finance
- Renewable Energy
- Sustainability Consulting
- Social Enterprise and Microfinance
- Sustainable Hospitality and Green Building
- Sustainability Marketing



HOTEL SUSTAINABILITY BENCHMARKING INDEX

Published by the Cornell School of Hotel Administration's Center for Hospitality Research, this index, now in its third year, is the creation of Eric Ricaurte '01, founder of sustainability benchmarker Greenview, Professor Howard Chong, and global hotel companies. "Hotel Sustainability Benchmarking Index 2016: Energy, Water and Carbon," was compiled in collaboration with 11 hotels and analyzes data from 8,880 properties globally.



Impact Investing Takes Off

A demographic shift is driving a large, generational wealth transfer, accelerating interest in steering investments toward profitable businesses focused on positive social and environmental change, and creating a demand for financial managers who are skilled in investing for a better world.

By Jeffrey Gangemi, MBA '09

Impact investing is going mainstream. Want proof? It's no longer a contradiction to say you work in impact investing and that you work for Goldman Sachs. Just ask Julia Matsudaira, MBA '14, a private wealth adviser for Goldman's Private Wealth Management group in San Francisco. Along with her team, she helps manage the wealth of approximately 50 families, many of whom made their money in the Silicon Valley tech sector.

Matsudaira had built a career in nonprofits before business school, including a role as program director for a youth education and development organization called Summer Search, where she helped board members and donors "understand the impact their dollars were having from a philanthropic perspective." When she heard about impact investing, she saw it as a way to draw on her programmatic skill set to scale her positive impact in the business world.

As an Environmental Finance and Impact Investing (EFII) Fellow at Johnson, Matsudaira channeled her passion for helping individuals meet their particular investment goals into private wealth management. She says it was clear that Goldman was committed to investing in solutions that address social issues like affordable housing, education, and economic development — it had a foundation and an Urban Investment Group, which spawned a Social Impact Fund in 2012.

With \$1.31 trillion in assets under supervision as of June 30, 2016, Goldman brings big money to every investment it makes. But when the investment banking giant acquired impact investing and philanthropy advisers Imprint Capital in 2015, it took its commitment to impact investing to the next level, while sending a signal to the broader market. "Now we have this team of really focused and experienced practitioners who are doing due

diligence on options across all asset classes to help Goldman Sachs clients incorporate environmental, social and governance (ESG) and impact factors into their portfolio," says Matsudaira.

The Growth of Sustainable, Responsible, and Impact Investing

With a huge transfer of wealth from baby boomers to millennials — particularly women — on the horizon, impact investing is poised to play an ever-larger role in addressing the most pressing challenges of our time, like climate change, affordable housing, and natural resource preservation. That's why Johnson, in collaboration with the Cornell Institute of Public Affairs (CIPA), launched the EFII Fellows program in 2011: to prepare the next generation of business leaders to finance this transformational redistribution of resources.

Millennials want to know how their money will be used and that it won't do damage to the environment or to people. In fact, 36 percent of millennials believe the role of business is, in part, to improve society, and they are expected to pursue social objectives in addition to financial returns, according to a World Economic Forum survey of more than 5,000 millennials across 18 countries, "From the Margins to the Mainstream."

In recent years, the amount of money invested in sustainable, responsible, and impact investing (SRI) has been skyrocketing. After maintaining modest growth in

IMPACT INVESTING TAKES OFF

professionally managed assets for the past decade or so, total U.S. SRI assets rose 33 percent between 2014 and 2016, from \$6.57 to \$8.72 trillion [see chart]. That equates to one in five dollars invested under professional management in the United States, according to the US SIF Foundation’s biennial “Report on U.S. Sustainable, Responsible and Impact Investing Trends 2016.”

And while some in the investment community assume impact investments generate lower returns, some early comparisons indicate relative parity. In one notable study, the Impact Investing Benchmark created by Cambridge Associates and the Global Impact Investing Network (GIIN) demonstrated that impact investment funds launched between 1998 and 2004 returned 6.9 percent to investors, versus 8.1 percent for the comparative universe.

The Coming Wealth Transfer

The coming wealth transfer will be monumental in scale. Ultra high-net-worth individuals alone, those with assets over \$30 million, will transfer \$3.9 trillion to the next generation by 2026, according to “Preparing for Tomorrow: A Report on Family Wealth Transfers,” a recent report by global wealth consultancy Wealth-X and insurance brokerage and consulting firm NFP. Goldman Sachs, Accenture, and others estimate a total of about \$30 trillion to be transferred to millennials over the next several decades, and Deloitte estimates that number to be \$41 trillion over the next 40 years.

Aside from sheer volume, this transfer of capital also includes demographic shifts that are likely to shake up the entire investing industry. Women stand to inherit some 70 percent of that \$41 trillion, according to the Boston College Center on Wealth and Philanthropy. The 2015 U.S. Trust “Insights on Wealth and Worth Survey” found that 71 percent of high-net-worth (HNW)

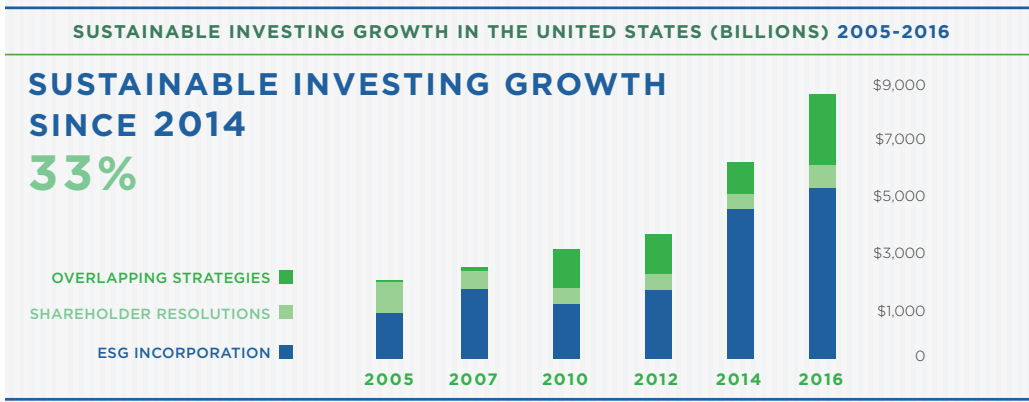
women with at least \$3 million in investable assets say the environmental impact of the companies they invest in is important to their investment decisions, compared with 49 percent of HNW men. Similarly, 40 percent of HNW women own or are interested in social impact investments, compared with 26 percent of HNW men.

Financial technology, including peer-to-peer lenders and robo-wealth advisers, is poised to gain wallet share, particularly among millennials, in the coming years. But more and more wealth managers are betting that rising concern over social issues, as well as climate change and increasing water and



“[Clients] don’t just want to generate a return. They want to know what they are supporting to get that return.”

— Julia Matsudaira, MBA '14, private wealth manager, Goldman Sachs




SOURCE: “REPORT ON US SUSTAINABLE, RESPONSIBLE AND IMPACT INVESTING TRENDS,” AN ONLINE REPORT BY THE FORUM FOR RESPONSIBLE AND SUSTAINABLE INVESTMENT (WWW.USSIF.ORG)

resource scarcity, will push many to invest in entities that address their concerns and values. “With this generational change and new gender lens opportunities, we’re seeing major family office and institutional investors deploying significant capital into impact-driven enterprises,” says James Macon, MBA ’08, managing partner at Closed Loop Capital, a venture capital fund focused on growing sustainable food and agriculture startups. “It does feel like a convergence of all the key elements of building a new industry,” Macon says.

For the younger generation, separating their investments from their desire to do

good doesn’t add up, says Don Shaffer ’91, president and CEO of RSF Social Finance, a nonprofit social impact lender. Ten years from now, we’ll look back at 2016 and see a turning point, where incremental progress turned exponential, he says. “Millennials will be saying to their advisers, ‘Don’t talk to me about a 5 percent carve-out of the portfolio [for impact investments]. We’re all in,’” says Shaffer, pointing to a study of 100 percent impact-driven portfolios by nonprofit network Toniic as proof that impact investing is coming of age. “The people who say you can’t create a diversified portfolio in impact will be dinosaurs. It’s just not true,” Shaffer says.



“The people who say you can’t create a diversified portfolio in impact will be dinosaurs. It’s just not true.”

– *Don Shaffer ’91, president and CEO of RSF Social Finance*

For her part, Matsudaira says she’s already seen a tipping point occur with her clients, many of whom are in the midst of such a wealth transfer. “We’ve definitely seen a shift in people moving from skepticism to curiosity, even in the past two years. Not only from the next generation, but also from the wealth creators themselves, we are hearing more and more interest in understanding exactly what they own,” says Matsudaira. “They don’t just want to generate a return. They want to know what they are supporting to get that return.”

The Evolution of SRI and Impact Investing

SRI traditionally conducts positive and negative screens for companies to invest in, filtering out the bad, seeking out the good, or some combination of the two. While investors and analysts develop methods to better screen companies, there’s a hunger for more direct impact investments that make clear and measurable impacts on communities and ecosystems. “I think that the real carrot out there — the brass ring, so to speak — is figuring out how to not just look at which firms to avoid, but who’s going to do something revolutionary and move toward real solutions?” says Glen Dowell, associate professor of management and organizations at Johnson, who also teaches Sustainable Global Enterprise. “Who is approaching this as a strategic issue rather than a defensive one, figuring out how to fill

a gap and address a market demand?”

Though challenging to calculate the exact amount of capital devoted to these more direct impact investments, the Global Impact Investing Network annual Impact Investor Survey suggests significant growth. The amount of managed impact investing assets rose to \$77.4 billion at the end of 2015, compared to \$46 billion two years earlier — a 68 percent increase over that span.

Indeed, as impact investing goes mainstream, the pursuit of impact is more often becoming part and parcel of the company, rather than a badge in itself. “Impact is in our DNA. We didn’t go out and say we are launching an impact investing fund. We do early investing in food and agriculture, but every investment we look at is rooted in addressing a social or environmental challenge,” says Macon, who points to Beyond Meat, a producer of plant-based meat alternatives, as an example of a company with a distinct social and environmental mission that’s rapidly scaling. “The environmental and social components are going to fly if we build a great company where impact is correlated with operational and financial success.”

Big Banks Entering Impact Investing

Large financial institutions are entering the impact space in such rapid succession it’s like dominoes falling. With the Goldman acquisition of Imprint Capital in 2015 and the creation of BlackRock Impact and Merrill Lynch sustainable impact portfolios that same year, compounded by the more recent acquisition of SRI pioneer Calvert Investments by mutual fund giant Eaton Vance in October of 2016, the market is changing fast.

“Big banks are scrambling to offer products,” says Thomas Bishop, MBA ’16, a tax credit investment analyst with Bank of America’s Community Development Banking group. Although an industry leader

for 30 years, Calvert now has to compete on the same playing field with these new players, “because socially responsible investing is becoming so mainstream,” says Bishop, an EFII Fellow who did his summer internship at Calvert Investments.

Bishop says Calvert is looking at ways to differentiate from other companies with scoring systems and new ways to rate companies as socially responsible. He says big banks’ entrance into the space is not a panacea. “You have to be cautious when you have new players entering the space and understand what the underlying investments are that make up a socially responsible portfolio,” says Bishop. “The term has a very broad definition and can mean very different things from bank to bank,” says Bishop.

With big financial institutions in the mix, some investors say mission-driven organizations have a huge role to play in creating the new world of impact investing. “I’m not bullish on big banks playing a leadership role in this,” says Shaffer, who adds that the leadership in impact investing will come instead from the next generation of wealthy investors, along with organizations like The Nature Conservancy that understand how to structure deals to benefit both the environment and the market. Though entering the market is proof there are solid returns to be had in impact investing, “big banks are fast followers at best,” Shaffer says.

For example, as a nonprofit without as much pressure to deliver maximum returns, RSF is able to make slightly more risky loans to promising young companies than big banks, who enter with deeper pockets later, when it’s time to scale, Shaffer says. Take Revolution Foods, an Oakland-based company that provides freshly prepared, nutritious food for schools and families made from high-quality ingredients and no artificial colors, flavors, or sweeteners. RSF made a loan to Revolution Foods early on, when

“There are alumni in industry telling us that they need grads who know finance and sustainability. It’s no longer enough to know one or the other. We created the Environmental Finance and Impact Investing program to make sure they got them both.”

— Mark Milstein, clinical professor of management and director of the Center for Sustainable Global Enterprise



the startup had just \$1 million in annual revenue. Now, the company, launched in 2006 to provide nutritious food for school kids, has grown to well over \$100 million in annual revenue. While Citigroup ran a television and print ad campaign touting the scale and success of the company in 2014, Shaffer notes that both RSF and Citi played a vital role, albeit at different stages, in scaling a business that now nourishes millions of children a year.

Even with their lower risk tolerance, big banks’ presence and competition can elevate the performance of existing players, as in the case of Calvert Foundation. As impact investing becomes more and more commercial, “we’re becoming more professionalized,” says Songbae Lee, senior investment officer at Calvert Foundation. “It really was a nonprofit culture, and as we’ve grown larger, we’ve had to professionalize our systems. Having business experience and training has become as important as having an interest in impact investing itself.” Calvert Foundation offers the Community Investment Note, an investment product available to both accredited and retail investors that finances nonprofits and social enterprises worldwide while earning a comparable return to other, more traditional products.

Scaling Impact

Another big financial firm in the impact investing world, JPMorgan Chase, partnered with The Nature Conservancy (TNC) to create an impact investing entity called NatureVest in 2014. JPMorgan recently announced a \$6 million funding renewal, confirming its commitment to continue to

grow the operation, which invests in water markets, sustainable agriculture, working landscapes, green infrastructure for storm water mitigation, and debt conversion.

As much a sign of mainstreaming as big banks jumping into impact investing, nonprofits like TNC are playing a similarly unexpected role: creating large-scale investment opportunities that further their mission. “We’ve crossed the chasm and shown viability, and having major financial institutions coming in says it’s a valid sector overall,” says Taryn Goodman, MBA ’09, senior director at NatureVest.

Goodman worked for RSF Social Finance before making the leap to NatureVest, which has a goal of putting \$1 billion to work in conservation investments. Although she says it’s important to support innovative, custom investment models, Goodman says it’s equally important to influence large-scale change. “If you change the way Cargill raises cattle, or how Wal-Mart buys, you can create huge ripple effects,” says Goodman.

For Goodman, the current growth of SRI and impact investing means driving at an ideal outcome, where new investment structures can attract mainstream capital while still making what she calls “deep impact.” The TNC mission comes first, says Goodman, but NatureVest’s job is finding new ways to achieve that mission at greater scale using private investment capital.

For instance, NatureVest recently had a first close for a water deal in Australia, which has perhaps the most robust water market in the world. Competition for water during drought years is at its highest, because agricultural irrigators, cities, and

natural ecosystems of plants and animals all draw from a limited supply of water. TNC realized the opportunity to prove an investment model that balances the needs of farmers, communities, and nature. The fund trades annual water allocations on a “counter-cyclical” basis: when water is scarce and demand is higher, more water is made available to agriculture. Conversely, when water is abundant and agricultural demand is lower, more water will be donated to the environment.

With a deal like that, TNC only stays in the game if it’s net positive for the environment. “The focus of our deals is to support The Nature Conservancy’s mission and global strategies. The fund is structured so that if we can’t maintain the positive conservation impact, we have the ability to unwind it,” says Goodman.

The Gap Between Available Capital and Investments

Large deals that create large-scale change are what’s badly needed, with an estimated \$200–300 billion funding gap between what is necessary to preserve the environment and what is currently being invested, says John Tobin-de la Puente, a sustainability and finance professor with a joint appointment at the Charles H. Dyson School of Applied Economics and Management and CIPA, who chairs the EFII Fellows program.

To create a “conservation investment market” designed to fill the gap, Cornell has partnered with Credit Suisse, TNC, and International Union for Conservation of Nature (IUCN). Known as the Coalition for Private Investment in Conservation (CPIC), the partnership aims to more rapidly increase



“If you change the way Cargill raises cattle, or how Wal-Mart buys, you can create huge ripple effects.”

– Taryn Goodman, MBA '09, senior director at NatureVest, an impact investing entity created by JPMorgan Chase in partnership with The Nature Conservancy

the amount of available capital and accelerate its flow into the areas of the market that need it most, like the Australian water deal.

Scaling impact is the name of the game. “The field could grow organically, but the need is urgent enough that it was worth coming together to develop blueprints for conservation-related financial transactions,” says Tobin, who has a PhD in biology and spent nearly 14 years at Credit Suisse, including more than eight as a managing director and global head of sustainability. “Later, the financial institutions will have a chance to compete over deals, but at this point, let’s come together and do some of the R&D required to facilitate the development of the field and the execution of more transactions, which is in everyone’s interest.”

How Cornell is Preparing the Next Generation of Impact Investing Leaders

There’s no doubt that capital is moving into socially and environmentally focused investments and businesses at a rapid rate. That requires more finance professionals who understand the complexities and nuance of sustainability issues and have the ability to shift capital and structure deals in a variety of sectors, says Mark Milstein, clinical professor of management and director of the Center for Sustainable Global Enterprise at Johnson, who advises Johnson EFII Fellows.

For instance, while the oil, gas, and coal industries continue to contract with falling prices, investment in renewables and clean energy broke new records in 2015 and is now seeing twice as much global funding as fossil fuels, even with low oil prices, according to Bloomberg BusinessWeek. “If we want to displace carbon, then we need to introduce

new products and fund new projects. There are alumni in industry telling us that they need grads who know both finance and sustainability. It’s no longer enough to know one or the other. We created the program to make sure they are skilled at both,” says Milstein.

Participation has been increasing over the years, and Milstein says that the EFII Fellows program has reached a tipping point, with 19 students in the 2017 cohort poised to graduate and take their combined finance, investing, and sustainable global enterprise training into industry.

Since the program launched, EFII Fellows have completed their required capstone projects on everything from social impact bonds to affordable housing in India, and they’ve gone to work for an even wider set of organizations, from Calvert Investments and Constellation Energy to Amazon and Google. The common theme is that they are helping structure and fund deals — and build companies — designed to help address the world’s thorniest problems. “None of our EFII Fellows fit into a box,” says Milstein. “Catalyzing new companies and industries requires building something that doesn’t exist right now — that’s fundamentally about investment, that’s capital budgeting, that’s finance.”

Bringing Industries and Organizations Together

An EFII Fellow from the first graduating class in 2013, Siobhan King ’04, MBA ’13, studied environmental engineering as an undergrad but found that environmental engineering jobs were often just “mitigating a mess,” rather than trying to create proactive

positive impact, she says. King worked in renewable energy before returning to Cornell for her MBA, where she learned about impact investing and parlayed an internship with RSF Social Finance into her current role as conservation investments project director at TNC.

While she joined the EFII program to get grounded in the financial nuts and bolts of impact investing, King says it also gave her credibility. She says the diverse cohort in the program helped her see impact investing from multiple perspectives. The finance community and conservationists each bring their own expertise and language to the table, and bridging the two groups is critical to success, she says.

With large-scale environmental investments in California as part of her responsibility, King is focused on using new and innovative deal structures — anything from creating markets for fishing rights to bolstering revenue streams with improved water management — to preserve the ocean, water, and land that TNC can’t simply buy and protect. “We need all of the actors in the market building momentum all around us. That big [\$200–300 billion] gap in environmental conservation funding can’t be solved by environmental groups alone. You need everyone’s networks working on solutions — investors, the tech industry, the energy sector, policymakers — these players all need to be involved,” says King.

Impact investing’s push into the mainstream means more investors are getting the chance to directly fund the change they want to see in the world.

BRICKS, MORTAR, PROFIT, AND THE FATE OF THE EARTH



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HOW SUSTAINABLE PRACTICES IN REAL ESTATE NURTURE THE TRIPLE BOTTOM LINE BY MERRILL DOUGLAS



If we want to protect the earth, we need to think about real estate. Buildings exert tremendous pressure on the environment. According to a 2016 report by the United Nations Environmental Programme, they consume about 40 percent of the world's energy and produce up to 30 percent of the greenhouse gases released each year.

The good news is that many companies that design, build, invest in, and manage real estate have sharpened their focus on sustainability. "Twenty years ago, in the very early stages, sustainability was seen as more of an environmentalist, tree-hugger thing," says Brad Wellstead '83, architecture, MS '96, hotel administration, founder of the consulting firm Ethos Project Management and lecturer in properties development and

management at Cornell's School of Hotel Administration. Today, interest in the topic runs wide and deep.

For example, developers, architects, and government agencies in the United States now take for granted that building projects will follow standards such as those laid out in the Leadership in Energy and Environmental Design (LEED) green building certification program. "If you don't end up at least at

the silver level [the second of four levels of attainment in LEED], you're not even doing your job right as an architect and designer," Wellstead says.

Concern for environmental and social responsibility in real estate has generated conferences, university courses, and academic publications such as the *Journal of Sustainable Real Estate* and the *International Journal of Sustainable Real Estate and Construction Economics*.

At Cornell, the Senior Leaders Climate Action Group has launched an effort to address climate change through the university's own real property. Mark Milstein, clinical professor of management and director of the Center for Sustainable Global Enterprise (CSGE) at Johnson, participates in this organization.

In 2016, the Action Group released a report called "Options for Achieving a Carbon Neutral Campus by 2035." Among the strategies discussed are the use of air source, earth source, and ground source heating systems, and wind, water, solar, and biomass energy systems.

Future architects, planners, investors, developers, operators, and others study sustainability in courses such as Introduction

to Green Real Estate, Project Management for Hospitality Real Estate Development, and Sustainable Development, all offered by Cornell's Baker Program in Real Estate, a program jointly administered and offered by the School of Hotel Administration; College of Architecture, Art, and Planning; and the Cornell College of Business.

"We definitely see a growing demand for our courses," says Jeanne Varney, lecturer in the School of Hotel Administration and principal with Olive Hospitality Consulting, who teaches Sustainable Development and Introduction to Sustainable Hospitality.

Owners are under increasing pressure to manage their buildings responsibly and report on their performance, Varney says. "As students graduate with more curriculum and knowledge in green building practices and green building certification, I've been told by some companies that this is an advantage on the résumé."

DOING WHAT'S RIGHT

Clearly, many in the real estate world embrace the principle of the triple bottom line — measuring success in terms of social and environmental as well as financial performance — because they want to do the

right thing. They may consider certain green activities important even when those tactics provide no direct financial return.

"There are absolutely initiatives we take on that cost us money but align well with our triple-bottom-line approach," says Bennett Thomas, MBA '03, senior vice president of finance and sustainability at Hersha Hospitality Trust in Philadelphia and a member of the Sustainability Roundtable at Cornell's School of Hotel Administration.

The "sustainability" portion of Thomas's title refers to his position as head of EarthView, a program implemented across the company's portfolio of hotels to benefit the environment and specific social causes. These range from energy efficiency and water-saving initiatives to encouraging staff to volunteer in the community to supporting several global charities. Hersha owns 55 independent, lifestyle, luxury, and upscale hotels in urban gateway markets throughout the United States.

Some of the EarthView social initiatives — such as a program to recycle used guest soaps and donate them to a charity for distribution in the developing world — create expenses, Thomas says. But energy-saving programs more than offset those



"Perfect sustainability isn't possible, but you can approach it. And any time you have opportunities to incorporate it, you should."

— Brad Wellstead '83, MS '96, founder, Ethos Project Management and lecturer at Cornell's School of Hotel Administration



MARK MILSTEIN

clinical professor of management and director of the Center for Sustainable Global Enterprise (CSGE)



JEANNE VARNEY

lecturer in the School of Hotel Administration and principal with Olive Hospitality Consulting

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costs. For example, an energy management system — which automatically turns off lights and adjusts the temperature when it senses that a guest room is unoccupied — has cut heating and lighting bills by 25 to 35 percent, according to EarthView’s “2015 Sustainability Report.” And a program to retrofit the hotels with LED lighting saves the company just under \$800,000 a year.

Of course, real estate companies also pay attention to sustainability because they have to. Many states and large cities in the U.S. — especially on the East and West Coasts — incorporate environmental requirements into their building codes, says Divya Natarajan, MS ’13, senior project manager at the sustainability and green building consultancy Paladino and Company in Washington, D.C.

In addition, shareholders and other stakeholders demand that property managers issue reports on their sustainability performance, says Natarajan, who earned her degree in sustainable design studies at Cornell’s College of Human Ecology and participated in Johnson’s semester-long Sustainable Global Enterprise Immersion. “They want to know what these organizations are doing to protect the environment and the communities — whether they’re enforcing responsible practices in construction and management.”

Investors who care about green values may consult listings such as the Dow Jones Sustainability World Index, which gauges publicly traded companies against benchmarks for environmental and social responsibility. There are also investment

instruments based on those values. “For example, through the Cornell 401(k) system, I have some of my money invested in sustainability indexes,” Varney says.

FURTHER INCENTIVES

Some green practices — notably those aimed at energy efficiency — are popular because they cut expenses. “Savvy owners and operators caught on quickly to the way energy savings clearly translate into cost savings,” Varney says, referring to the hospitality industry. Programs to reduce waste and recycle can save money as well.

But a sustainable approach also offers other fiscal benefits. For starters, going green can enhance revenues. Increasingly, people want to live, work, and vacation in properties that are healthy and cause minimal harm to the environment — and they’ll pay extra for that privilege.

“Studies have proven that there are premiums related to sustainability and wellness certifications that you bring to a building,” says Natarajan. “If you are able to tie your investments in sustainability to the goal of the building — if you’re able to tell that story — it helps you market it better.”

Buildings that are healthy, comfortable, and earth-friendly can increase productivity, some maintain. “We must produce good buildings to create environments that can foster innovation, or at least reduce the absenteeism that occurs because people feel mistreated by the environments in which they work,” says Patrick Charles, visiting associate professor of architecture, art, and planning at Cornell.

“Savvy [hotel] owners and operators caught on quickly to the way energy savings clearly translate into cost savings.”

— Jeanne Varney, lecturer in the School of Hotel Administration and principal with Olive Hospitality Consulting

A company that honors sustainable principles might also have an easier time recruiting and retaining young talent. “College grads and MBA grads interviewing with our company do mention EarthView as one of the aspects of the company that piqued their interest in us,” says Thomas at Hersha. “They’re saying that they are interested in joining a mission-driven company, as well as one that’s top-performing in the financial sector [and] in the investment and hotel sectors.”

In some cases, developers and operators adopt environmental measures to make up for scarce resources and inadequate local infrastructure.

“We’re seeing Indian hotel companies often leading in renewable energy, water efficiency, water reuse, and wastewater treatment,” says Eric Ricaurte ’01, Hotel Administration, founder of Greenview, a consultancy and research firm based in Washington, D.C., and Singapore that focuses on sustainability in the hospitality industry. “That’s because, one, they’re under great water stress in much of India.” Second, many parts of the country lack adequate wastewater treatment. “If you want to be a



DIVYA NATARAJAN,
MS '13

senior project manager at
Paladino and Company



GRACE KANG '99,
MBA '06, +
ERIC RICAURTE '01

responsible hotel, you can't just dump your water in the ocean." Frequent brownouts also spur some Indian hotel firms to install solar and wind systems to generate electricity, Ricaurte says.

HOTEL TRENDS

Greenview's products and services include the Greenview Portal, an online system that tracks the performance of hotels and other properties in sustainability and social responsibility; the Hotel Sustainability Benchmarking Index, published annually in conjunction with Cornell; and the Green Lodging Survey, a qualitative study of best practices at more than 2,000 hotels worldwide. Its research gives the company a broad view of trends in sustainable practices among hotel owners.

The 2016 survey found that the industry has broadly embraced certain tried-and-true sustainability practices in its buildings. "There's a high prevalence of monitoring energy usage and water usage," Ricaurte says. "There's a very high uptake in energy-efficient lighting or efficient heating and cooling." Also, about two-thirds of the hotels surveyed have created onsite "green teams" or appointed sustainability coordinators to plan for future improvements, he says.

Some newer practices are also emerging, says Grace Kang '99, hotel administration, MBA '06, managing partner at Greenview, who is married to Ricaurte. "Electric vehicle charging stations are coming out, so you can charge your EV car when you're at a hotel," she says. Operators with an eye toward guest health have replaced chlorinated water

with salt water in swimming pools. And an increasing number of hotels are installing solar panels, she says.

In one newly emerging trend, some hotels have turned over some of their rooftop space to beehives. "Sometimes the beekeeper just uses the space, sometimes the hotel gets money, sometimes they get free honey, and sometimes they use that in their cocktails,"

CORNELL PROJECT ADDS STORAGE BATTERIES TO SMART ELECTRIC METERS



One strategy for cutting energy consumption in real estate could get a boost from a current project at Cornell. A research team headed by Todd Cowen, professor of civil and environmental engineering, is using a \$1 million grant from the National Science Foundation to test the benefits of adding rechargeable batteries to "smart" residential electric meters.

Cowen, principle investigator on the project, is working with Richard Stedman, professor of natural resources; Robert Thomas, professor of electrical and computer engineering; William Schulze, the Robinson Professor in Applied Economics and Management; and Ricard Daziano, the David Croll Fellow Assistant Professor in civil and environmental engineering.

Smart meters measure and manage the use of residential electricity, often encouraging customers to defer their use of power to hours when demand on the grid is low. Such shifts could eliminate the need to bring more power plants on line during demand spikes, thus reducing carbon emissions.

The Cornell study uses batteries to create local energy reservoirs. The smart meters automatically charge the batteries when demand is low and power is cheaper, storing electricity for later use.

Smart meters are already installed in about 40 percent of homes in the U.S., Cowen told the *Cornell Chronicle* in September. But those devices have not yet met their potential for reducing utility bills and engaging users, he said. The research aims to determine whether local power storage could help.

Ricaurte says. A Greenview study of this practice three years ago found about 50 urban hotels experimenting with apiaries, but more recently the company has counted about 100.

THE HOLISTIC VIEW

Beyond the discrete measures that companies take to save energy, reduce the carbon footprint, and eliminate waste, some in the

"We're seeing Indian hotel companies often leading in renewable energy, water efficiency, water reuse, and wastewater treatment because they're under great water stress in much of India and many parts of the country lack adequate wastewater treatment."

— Eric Ricaurte '01, founder of Greenview, a consultancy and research firm focused on sustainability in the hospitality industry. Grace Kang '99, MBA '06, is a managing partner at Greenview.

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field advocate for a more comprehensive strategy. In his courses at Cornell, Charles discusses a “concept-based” approach to design, which assumes that sustainability requires more than just adding “green features” to a building.

When architects and engineers do their work in isolation, each completing a step and passing the project on to the next, they miss important opportunities that arise only from collaboration, Charles explains. “We need to think a little harder right at the beginning, with everybody around the table, so we can capitalize on all potential opportunities that are specific to this program, this client, and this location.” A well-integrated team might, for example, consider using a south-facing façade to harvest sunlight for heat in winter before it talks about installing the latest in heating technology.

In her work at Paladino, Natarajan also focuses on integrating all aspects of a building project to obtain optimal value.

“Sustainable design is when you take a holistic, long-term view of the cost of the project — not just financial, but opportunity cost, environmental cost, social cost — and balance that against the opportunities available to make an impact,” she says.

“For example, if you’re putting solar photovoltaic on top of your building, you need a better reason than getting a couple of points in a certification system or because you think it’s the cool thing to do,” Natarajan explains. Money budgeted for solar panels might be better invested in an energy-efficient façade or high-performance windows that manage building temperature while also screening out noise from the busy street below.

Designers also should remember that a building is a living environment, Natarajan says. Factors such as aesthetics, light, and air quality affect the mood of the people who occupy the building. And the building’s performance — in terms of both



Top Photo: view of the amphitheater at The Bridge at Cornell Tech on Roosevelt Island

Bottom Photo: View of The Bridge with part of the Bloomberg Center on the left

CREDIT: WEISS MANFREDI

“The Bridge uses large glass surfaces to bring in light and provide dramatic views. Environmentally speaking, that’s a tricky choice. . . . So we focused on making sure the façade was oriented to avoid excess heating and cooling loads, and we chose efficient glass.”

— Divya Natarajan, MS '13, senior project manager at the sustainability and green building consultancy Paladino and Co., who helped apply principles of holistic sustainable design at The Bridge, now under construction at Cornell Tech on Roosevelt Island

sustainability and comfort — depends on how people use its features.

“For example, you can put in operable windows and manual blinds, but people have to be told how to use those things optimally, with the seasons,” she says. “A building

can’t be designed for energy efficiency and operated in a vacuum.”

Natarajan has helped apply principles of holistic sustainable design to properties such as the World Trade Center and The Bridge at Cornell Tech in New York City.

At the multi-building World Trade Center complex, part of her job is to guide tenants in choosing the best-performing appliances, equipment, and lighting fixtures. “I also give them advice on using the space effectively, so they can take advantage of the natural daylighting and views and implement best practices in construction,” she says. She might, for instance, help them choose sustainable materials for interior walls. Natarajan also manages the LEED certification process for the World Trade Center project.

The Bridge at Cornell was designed to combine energy efficiency, beauty, comfort, and “super-transparent, open space” that encourages collaboration among academic researchers, entrepreneurs, and technologists, Natarajan says. It takes creative thinking to meet all those demands at once.

For instance, The Bridge uses large

glass surfaces to bring in light and provide dramatic views. Environmentally speaking, that’s a tricky choice, since glass doesn’t insulate as well brick or concrete. “So we focused on making sure the façade was oriented right, to avoid excess heating and cooling loads, and we chose efficient glass, so the building could save energy without compromising on design goals,” Natarajan says.

For John Bonhomme, MBA ’07, managing partner and co-founder of Thorobird Real Estate in New York, and executive director, global strategic markets at J.P. Morgan, the holistic approach to sustainability includes an emphasis on improving people’s lives. Thorobird develops residential buildings designed to enhance urban communities and provide affordable, healthy housing for people in distressed situations, especially woman who suffer domestic abuse and dislocation. Thorobird works toward those goals while also seeking profits for investors.

“We think sustainability has to do with the benefits you are providing,” Bonhomme says. Thorobird’s properties offer features such as security staff, social rooms, outdoor gathering spaces, and secure storage for bicycles. Environmental measures include passive solar heating and cooling, low-flow water fixtures, and energy-

efficient appliances.

“We also try to find a price point where people will be able to live in their homes without spending a disproportion of their total income on housing,” Bonhomme says. Thorobird’s buildings include both apartments rented at market rates and subsidized apartments.

Careful financial management helps Thorobird succeed on all three portions of the triple bottom line, says Bonhomme. “Like all developers, we source properties where we can buy at an affordable rate.” When choosing locations for its projects, Thorobird seeks neighborhoods that have seen better days but appear to be on the verge of a renaissance. The company also carefully manages its construction expenses.

Because of its social mission, Thorobird also receives government supports such as tax abatements, Bonhomme adds.

Whether they make improvements one feature at a time or use a holistic strategy, real estate developers, designers, and operators face abundant opportunities to enhance all three portions of the triple bottom line.

“I look at a philosophy of sustainability not as an absolute, but more within a continuum,” says Wellstead. “Perfect sustainability isn’t possible, but you can approach it. And any time you have opportunities to incorporate it, given the willingness of the primary players to do so, you should.”



Architect's rendering of Thorobird's project site on East 178th Street in the Bronx



“We think sustainability has to do with the benefits you are providing.”

– John Bonhomme, MBA '07, managing partner and co-founder of Thorobird Real Estate in New York City



PROFILE IN LEADERSHIP

IAN KLINE '92

PRESIDENT + CEO,

THE CADMUS GROUP

SCALING UP FOR SUSTAINABLE SOLUTIONS

BY ELIZABETH MACBRIDE

When Ian Kline became CEO of The Cadmus Group in 2007, the government consultancy was small and best known for its work on drinking water issues. With about 100 employees, it had \$30 million in revenue, 92 percent of it from the Environmental Protection Agency.

Ten years later, Cadmus has grown to more than 500 employees and about \$110 million in revenue, only 20 percent of it from the EPA. Its clients today include USAID, FEMA, DOT, DOE, and major utilities.

Kline transformed Waltham, Mass.-based Cadmus from a niche player to a rising power in water, energy efficiency, climate change resilience and adaptation, renewable energy, homeland security, sustainable transportation, international development, and infrastructure management and finance. Rather than framing social and environmental challenges as a burden, Cadmus helps its clients address them as opportunities. Much of its consulting work concerns developing and implementing innovative solutions that help governments and the private sector better address public health, environmental, energy, and homeland security issues.

Cadmus shares that ethos with Johnson's Center for Sustainable Global Enterprise, which Kline supports as an advisory council member. He is also a member of the Cornell University Alumni Advisory Board Committee on Sustainability, which provides support and counsel to the leadership of sustainability activities at Cornell University, principally through the David R. Atkinson Center for a Sustainable Future.

Kline's aggressive growth strategy looks especially prescient as the Trump administration moves into Washington, D.C., with a government-cutting agenda. Cadmus' broad client base means there will be opportunities for the firm. When looking out his window at the many-colored trees of a warm late fall outside Washington, D.C., Kline said the effects of climate change aren't going away, no matter how much people disagree about what could or should be done to stop it.

"No matter what the rhetoric is, people are going to need help. Sea levels are going to rise. There will be droughts, rising temperatures, and other effects," Kline said in his Bethesda, Md., office.

The Acquisition Strategy

Key to the Cadmus transformation has been a series of acquisitions. When Kline became CEO, he invested heavily in information technology and back-office infrastructure, recognizing that would create a strong platform to acquire other consultancies, said Ralph Jones, one of Cadmus' two founders and the person who hired Kline straight out of graduate school (the other co-founder is Gene Fax).

"He began investing in infrastructure up to a scale that could handle \$500 million in revenue. He started this when we were at \$35–40 million," said Jones. "As we evaluated potential acquisitions, we could find brilliant technical people in organizations that needed large-scale infrastructure. I never would have thought of it that way."

Under Kline, Cadmus acquired, among others, Quantec, an analytics firm in the energy industry, Constructive Technologies Group, which was focused on sustainability and energy efficiency in buildings and communities, and this year, Obsidian Analysis, a homeland security firm.

The last isn't an obvious play in the sustainability arena, but the acquisition enables Cadmus to serve client governments and companies that should be prepared for all threats — including, say, a 100-year flood.

"He's one of the best strategic thinkers I have seen," said Amy Marasco, a member of the Cadmus board and the founder of Marasco Newton Group, a 350-employee firm she later sold that competed with Cadmus as a government consultancy. "Cadmus has always been a strong, highly regarded firm. Now, it has become a major player."

**"NO MATTER WHAT THE RHETORIC IS,
PEOPLE ARE GOING TO NEED HELP."**

Sea levels are going to rise. There will be droughts, rising temperatures, and other effects."

— IAN KLINE

Knowing his strengths and his passion, Marasco recruited Kline to serve on the board of her own new venture: The Nature Generation, a nonprofit that helps connect kids to nature, laying the groundwork for them to become environmental stewards. “I’ve seen him sit on the floor reading our Green Earth [Award] books to kids, and he has them fully engaged, be it on climate change or saving a forest or planting a meadow,” she said.

Kline and his wife have five children — a 13-year-old son and two sets of boy-girl twins, ages 7 and 3. Though he has been known to spend all night at the office, he is usually at his desk from 8:30 a.m. to 6:30 p.m. “I’m committed to seeing every one of my kids before bed,” he said. Kline also works for two to four hours starting at 10 p.m. every night. “I’m fortunate not to need a lot of sleep,” he added, without a touch of irony.

The Hands-On Tactician

As Cadmus has developed a broader footprint, it’s been crucial that Kline stay abreast of what’s happening in different corners of the firm, said Peter Jardine, Cadmus vice president of corporate and business development. He does that by staying involved in client projects. For instance, Jardine said, Kline went to Africa for a week when the firm was starting an international aid practice. He was in California this year, participating in a meeting on emergency preparedness for homeland security clients.

“I’ve known leaders who have been high-level thinkers but didn’t sweat the details,” said Jardine. “Ian is not. He’s incredibly diligent, ensuring that he knows his facts.”

He’s also good at projecting his warm personality to Cadmus’ 14 offices, Jardine said. He remembered with a laugh the time that Kline broke into a jig while he waited for a companywide video conference to start.

That connection to employees serves him well when it comes time to push the company in a new direction. Marasco said Kline tends to build consensus before he articulates a vision. For instance, he explained to employees that the best way to grow the firm’s impact would be through continued emphasis on mergers and acquisitions, which got tremendous feedback, she said. “He told us, ‘The employees are jazzed by this. What do you think, board of directors?’”

Life Lessons in Resilience

Kline developed a sense of balance between tactical and strategic, between short term and long term, and between leading and letting others lead while he was growing up in rural western Maryland. There, he enjoyed running in the fields and woods and gained a deep appreciation for the natural world.

The son of a preschool teacher and an elementary school principal, he was the first in his town to go to an Ivy League school, he was told. His life changed the day he left for Cornell, though not

in the way he expected. As he and his parents drove up Route 15 toward upstate New York, a driver came barreling through one of the intersections. The bike on the back of the car came smashing through the back window and hit him in the neck, injuring his spine.

Because he couldn’t easily bend his neck, he struggled to study his first semester. Unable to play sports (he had been recruited to run track), he found a different community of people in an a cappella group and began leading campus tours. He joined the College Scholar Program, which enables students to design their own interdisciplinary majors. He developed the resilience that is key to being a leader in any field, but especially in a consulting firm, where the sales cycle is constant.

In long conversations on the phone with his parents that semester, he learned how to carve a new path when the first one didn’t work, he said. “They told me, ‘It’s not going to be a fairy tale, but you’re going to create something amazing.’”

After graduating with his bachelor’s degree in social and environmental studies from Cornell’s College of Arts and Sciences, Kline attended the University of Southern California, where he earned his master’s in public policy, specializing in environmental policy and management. A classmate whose brother worked at Cadmus and knew they were hiring advocated for Kline, and Jones took a risk on the young man, hiring him sight-unseen on the strength of his résumé and the recommendation. Kline turned down an offer for twice the salary at a large consulting firm because he liked the work at Cadmus.

In Kline’s first job evaluation, his response to the question, “What are your objectives?” was “I want to be CEO of Cadmus,” Jones remembered. “I rather liked that,” Jones said.

But after six or nine months into the job, Kline was getting restless. “I was an idiot,” he said, in retrospect. “I wasn’t being asked to take leadership roles, and I thought I should have been.”

He wrote his father a letter complaining about the situation — and heard back by phone a few days later. In that conversation, his father reminded him you have to give things time and underscored the value of the close working relationship Kline had already formed with Jones.

Within a few months, the situation had changed, and Kline was handed four or five projects to manage. Later, he went to an executive program at Harvard Business School that taught him more about business building. After that, he came back and helped to start three new practices within Cadmus.

A Natural Consultant

Kline showed signs of being a natural consultant early on at Cadmus, Jones said. He cited Kline’s skill at leading a meeting of government officials in Washington, D.C., that focused on revising the formula

“I AM 100% COMMITTED

to ensuring my children and everybody’s children are left with a world in which they are able to meet their needs and achieve their dreams, no matter what political administration is in office.”

— IAN KLINE

by which funds were distributed to the states under the Clean Water Act.

The formula dated from the 1950s and was based on several factors, with an emphasis on population density. This meant that states like Rhode Island got a relatively large amount of funding and states like Arizona got very little. To complicate the situation, John Chafee, the senior senator from Rhode Island, was the minority leader of the Senate Committee on Environment and Public Works, and he opposed any change that would threaten to reduce federal funds for his state.

“There had been attempts by very sophisticated people to change that formula for years. Ian facilitated a meeting and got it changed,” Jones said.

Kline has the ability to read a room, to connect with people, to know when to encourage others to speak and when to speak himself, Jones said.

When Cadmus’ two co-founders decided to step down, Kline became the obvious choice, Jones said. They also wanted to hand over the firm to their employees, so they elected to sell the firm to an employee stock ownership plan (ESOP). After leading the firm through the transition to an ESOP, the founders promoted Kline.

Under the Cadmus ESOP, when an employee leaves, the company buys back his or her shares, so every employee has a vested interest in its success. The shares have appreciated 118 percent in value since Kline became CEO in 2007.

An introspective man, Kline is quick to learn from the mistakes that are inevitable for a CEO. His first board meeting was a disaster, he remembered. “I came in really pushing my agenda,” he said. He was aggressive, dismissed objections, and called some members’ points irrelevant. The next day, Jones asked to see him and told him that he’d been inappropriate. “You could have been fired,” he said.

Kline remembered feeling a haze of defensiveness. Looking at his mentor, he thought about fighting back. Then he realized Jones had never spoken to him this way before: Kline had been wrong.

“I never want to have this meeting with you again,” he told Jones, and then took each one of the board members to lunch individually to apologize.

Challenges in the Industry

Kline became CEO at a fairly difficult time in the industry. Federal spending has been steadily shrinking since 2011, and there’s been a consolidation among consultants as a result.

The danger for a consulting firm’s leader is the temptation to grab any contract that comes along in the struggle to survive. Even if that approach works, a consulting firm can grow unwieldy and inefficient. So a CEO’s challenge is to keep the firm growing, but with a cohesive identity.

Kline said he uses three guidelines in his decision making: Make an impact. Create opportunities for colleagues. Grow the business.

Cadmus will continue to acquire companies that will augment its technical capabilities in services ranging from managing climate security to regulatory support to communications, Kline said. The firm’s aim is not to enter new markets; rather, it seeks to construct a portfolio of capabilities that can serve its clients’ increasingly complex needs.

Cadmus’ success in the sustainability space has led to deepening ties with Johnson. Kline visits campus and has hosted students at Cadmus so they can see how the consulting firm operates. He has helped give the Center for Sustainable Global Enterprise strategic advice on how to best grow, work effectively with the private sector, and better serve students and alumni, said Mark Milstein, clinical professor of management and director of the center. “He’s approachable, intellectually curious, down-to-earth, and humble,” Milstein added.

The brash ambition that hung him up as a leader when he considered leaving Cadmus and at his first board meeting is nuanced now, but has never waned. Gesturing toward a whiteboard wall covered one-half by numbers and agendas (the other half filled with drawings by his kids of cars and princess castles), Kline said he’ll consider himself as having failed if the firm doesn’t reach \$1 billion in revenue in ten years, while making an impact.

Always tuned in to the environment, he was bothered by the warm fall in Washington, D.C., where temperatures were 20 degrees above normal. Climate change is on his mind all the time, he said. While he has spoken with other executives about how to manage the uncertainty of the new administration, he said he is not worried about the short term. His job is to manage Cadmus and create an impact — for the long term.

“I am 100 percent committed to ensuring my children and everybody’s children are left with a world in which they are able to meet their needs and achieve their dreams, no matter what political administration is in office,” he said. “We’re talking ten generations from now.”

a rising force:

Emerging economies are gaining ground in wealth and influence

By Janice Endresen

The Emerging Markets Institute's 2016 conference and inaugural Emerging Multinationals Report convey powerful evidence of "a new global landscape" showing a sharp increase in emerging economies as foreign investors and a "blossoming of some of their firms as world champions."





he global economic landscape is experiencing a sea change as the wealth of emerging economies shows a rapid, steady escalation since the beginning of the 21st century — and especially since the Global Financial Crisis of 2008–09. Clear indicators of this trend include outward foreign direct investment

(OFDI), a significant increase in the number of emerging market multinational corporations in the Fortune Global 500, and outbound M&A transactions.

While South-South trade (shorthand for trade among countries in the Southern hemisphere) is escalating as never before, emerging market countries (illustrated here by the E20, a group of 20 emerging economies) are simultaneously becoming bigger players and stakeholders in global investment flows.

These key messages were presented, discussed, and reinforced both with data and with company narratives by many speakers who are industry leaders at the sixth annual Emerging Markets Institute Conference, “Emerging Multinationals: Innovating to Compete.” Lourdes Casanova, Emerging Markets Institute senior lecturer and academic director, organized the conference in collaboration with Ravi Ramamurti, Distinguished Professor of International Business and Strategy and director of the Center for Emerging Markets at Northeastern University. Held on Oct. 14 at the School of Industrial and Labor Relations’ New York City Conference Center, this year’s conference drew 80 participants and 20 speakers.

Launch of the first EMI Emerging Multinationals Report

Lourdes Casanova and Anne Miroux, Emerging Markets Institute faculty fellow, presented their work, Emerging Market Multinationals Report 2016: The China Surge. Several colleagues joined in a panel discussion focused on the report, including Ramamurti, moderator; Marcos Bonturi, director of global relations

at the Organization for Economic Cooperation and Development (OECD); and Moacir de Miranda Oliveira Jr., professor and coordinator of the Graduate Program in Business Administration at the Universidad de São Paulo.

When introducing co-authors Casanova and Miroux, Ramamurti said of their report: “The great contribution being made today is an attempt to tell an annual story about these companies in a way that has not yet been done. I attempted something similar myself a few years back, and I know the difficulties of getting good data to compare across countries — [it] is very hard; I gave up. You have to start somewhere, and I commend Lourdes Casanova and Anne Miroux for the courage to take on this very difficult task.” He also spoke of how highly qualified both authors are to put together this report.

What is the E20?

Miroux began by discussing the challenge of defining what constitutes an emerging economy and explained that for this study, she and Casanova culled the top 20 emerging economies — which they dubbed the E20 — from lists published by the IMF, the UN, and Morgan Stanley, among others, and weighted them based on their gross domestic product (GDP), demographics, and their significance in global and regional trade and investment.

“Demographics is a key parameter,” Miroux said. “It’s not only the number of people [in the E20], but the characteristics of this population,” she added. This large population of young, working-age people is creating a rise and a shift in consumer demand, for instance. Miroux referred to a report published by the OECD a couple of years ago that said in 2009, two thirds of the global consumer spending was in North America and Europe, and that by 2030, it will be 10 percent. “So it’s a massive shift,” she said.

Miroux shared further evidence of this shift via a chart that is included in the Emerging Multinationals Report: Share of Global GDP (at PPP), E20 and G7. This shows that the E20 has about half of the global GDP right now. “You see the line change is right

THE E20

ARGENTINA / BRAZIL / CHILE / CHINA / COLOMBIA / EGYPT

INDONESIA / INDIA / IRAN / MALAYSIA / MEXICO / NIGERIA

PHILIPPINES / POLAND / REPUBLIC OF KOREA / RUSSIA / SAUDI ARABIA

SOUTH AFRICA / THAILAND / TURKEY

The E20 refers to the top 20 emerging economies, selected by authors of the Emerging Multinationals Report 2016 based on the size of their GDP, population, and significant influence in global and regional trade and investment.

around the time of the global financial crisis, 2008–2009, she said. The E20 has surpassed the G7 and continues to rise. It’s a whole new landscape, a coming of age for these economies.”

Miroux said there is also a shift in the geography of innovation. “Things are changing every week. Think about supercomputers: China now has the largest number of supercomputers in the world.”

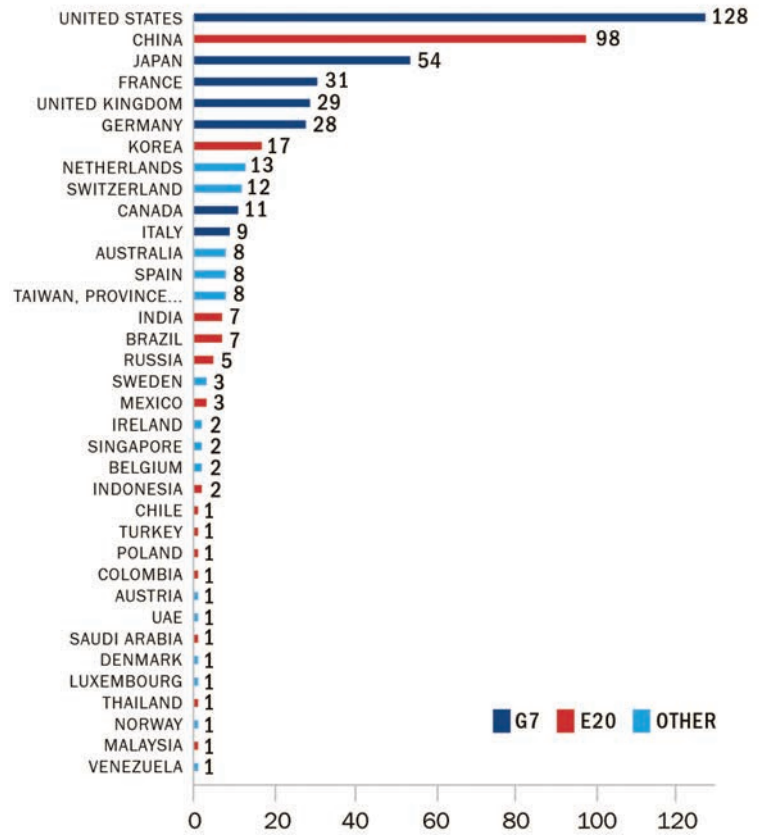
The E20 also shows a sharp increase in outward foreign direct investment (OFDI) beginning in 2000, Miroux noted [see *Outward FDI Flows from E20 Countries, 1990–2015*] “Asia has way outpaced Latin America in outward financial investments, she said. “The biggest players are China and Korea; they are extremely proactive in multinational expansion.”

“Twenty or even 15 years ago, I don’t think we could have imagined the expansion, not only of the Chinese multinationals, but the multinationals of Turkey and a number of other countries,” said Miroux. “It’s quite fascinating to see how fast the change has taken place. It has a lot of economic implications, but also perhaps as important ... it has major political implications.”

China is the winner

“If we look at the Fortune Global 500, the winner is China,” said Casanova, pointing to a bar chart, *Ranking of Countries Listed in the 2015 Fortune Global 500*. “China now has 98 companies in the Global 500 compared to the U.S., the country with the biggest private sector and the most dynamic innovation in the world, which has 128 companies.” China’s representation far exceeds the other emerging markets countries listed: Korea has 17 companies;

RANKING OF COUNTRIES LISTED IN THE 2015 FORTUNE GLOBAL 500



SOURCE: ANALYSIS BY LOURDES CASANOVA AND ANNE MIROUX, BASED ON DATA FROM FORTUNE 500 DIRECTORY, (HTTP://FORTUNE.COM/GLOBAL500), ACCESSED MAY 2016.

MEET THE AUTHORS

of the Emerging Market Multinationals Report 2016: The China Surge.



Anne Miroux, faculty fellow at Johnson’s Emerging Market Institute, spent part of her international career at the United Nations Conference on Trade and Development (UNCTAD), where she specialized in particular on issues related to developing-country debt, foreign direct investment and transnational corporations, and technology and innovation policies. She led the organization’s work on Foreign Direct Investment (FDI) statistics; directed the World Investment Report, the United Nations flagship report on FDI and transnational corporations; and served as the editor of the *United Nations Transnational Corporations Journal*.



Lourdes Casanova, senior lecturer of management and academic director of the Emerging Markets Institute, specializes in international business with a focus on emerging markets multinationals. A Fulbright Scholar who was named in 2014 as one of the 50 most influential IberoAmerican intellectuals by EsGlobal, Casanova is co-author with Julian Kassum of *The Political Economy of an Emerging Global Power: In Search of the Brazil Dream* (2014); author of *Global Latinas: Latin America’s Emerging Multinationals* (2009); and co-author of “InnovaLatino: Fostering Innovation in Latin America” (2011). She has written numerous articles in journals including the *Beijing Business Review*, *International Journal of Human Resource Management*, *Business and Politics*, and *Foreign Affairs Latinoamérica*.

PHOTOS BY SHELLEY KUSNETZ

India and Brazil each have 7; Russia has 5; Mexico, 3; and Indonesia, 2.

What has also happened, said Casanova, is that 16 emerging markets companies out of a total of 40 have become top-5 leaders in eight key industries (banking, logistics, automobile, telecom, engineering and construction, petroleum refining, mining and crude oil production, and metals). “In 2004, there was not a single leader in those industries from emerging markets,” Casanova said. “In 2015, the five biggest companies in engineering and construction are all Chinese. So a tremendous change has taken place in just 12 years.

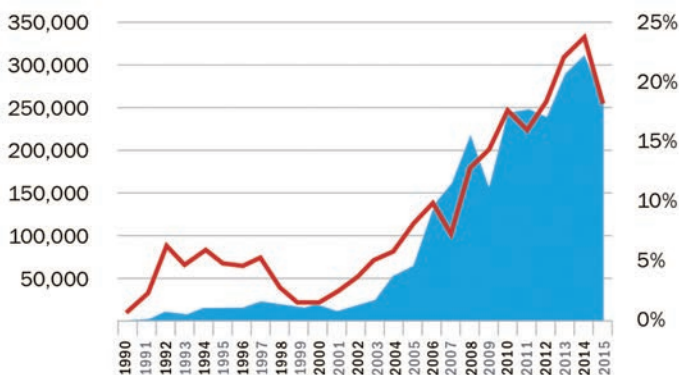
“The inflection point has been the global financial crisis for China,” Casanova noted. “China had a policy to go abroad, and after that they grew tremendously.”

Chinese outbound M&A activity offers further evidence of this. “China started from nothing, but has become, in the year 2015, the fifth most important country in terms of outbound M&A activity,” Casanova said. “Again, a very rapid development. The tendency we see here is that Chinese companies have taken tremendous advantage of the European crisis; Europe has become the target of tremendous acquisitions in recent years, followed by Asia, then the U.S., and then Latin America. Brazil, in its crisis, has seen a tremendous surge in Chinese acquisitions.”

As the data in Casanova’s and Miroux’s “Emerging Market Multinationals Report 2016: The China Surge” shows so palpably, the tremendous expansion of Chinese multinationals is a remarkable phenomenon. And it demands further study and attention.

“In U.S. business schools, we do not teach much about Chinese

OUTWARD FDI FLOWS FROM E20 COUNTRIES, 1990–2015 (US \$ Millions and share of global FDI flows)



Note: Red line — share in Global OFDI flows.

SOURCE: ANALYSIS BY LOURDES CASANOVA AND ANNE MIROUX, BASED ON DATA FROM UNCTAD, WORLD INVESTMENT REPORT 2016.

CASE STUDY: GRATIS — A high-growth Turkish retail chain that makes understanding customers #1



Demir Sabanci, MBA '99, president and chairman of Sedes Holding, spoke about the strategies for success that have worked so well for Gratis, a chain of retail stores he launched in Turkey in 2009 that has captured the majority of Turkey’s \$3B health and beauty market. “Gratis began to expand in 2012 and really took off,” said Sabanci. “Now, we’re number one in most areas of Turkey,” he said. And that was achieved in the face of stiff competition from Germany and Asia.

How did he do it? “Either we could be a cost leader or do things so differently people would want us,” said Sabanci. “Best would be to do both.” And that’s what he did.

The company is guided by six pillars:

1. Convenience.

Be close to customers in a place where not everyone has cars and traffic is terrible. Give them an easy shopping experience inside the store via good space utilization. And make processes easy, simple, and convenient, too.

2. Quality.

Products can be cheap, but they still must meet an internationally acceptable level of quality.

3. Value for money.

Noting that “gratis” means to give away something for nothing, Sabanci said: “It’s not going to be free, but so affordable it will feel like it’s free. That gives us a North Star for day-to-day operations.”

4. Human touch.

Sales people need to be knowledgeable about our products and understand customers’ needs. Sabanci emphasized this point, and made a big investment up front to train employees. Now, he says, “We have more than 4,000 sales people who are trained professionals, and we supply the brands and products customers want.”

5. Pleasure.

“We aim to provide a pleasurable experience for all our customers,” says Sabanci.

6. Innovation.

“How could we be an innovation leader?” Sabanci asked. “Private label is our best friend. Suppliers all over the world help us out and provide the private labeling we want.”

Gratis lists 12 categories of supplies and suppliers, each managed by a different person. Its total inventory is keyed to 10,000 SKUs. “We limit it to that,” said Sabanci. “If a product is a good enough performer in the store, it stays. If not, it goes.”

Gratis also carefully cultivates its employees. “We communicate with all our employees so they understand what our objectives are, clearly convey how they can get promoted, give them a sense of belonging, and help them to build careers,” says Sabanci.

companies,” Casanova said. “We always use the examples of the most competitive, most innovative, most aggressive American companies. We need to know much more about these new players — about their competitive dynamics, and also how they expand and why they expand.”

In his remarks about the report, Moacir de Miranda Oliveira Jr., professor of FEA, Universidad de São Paulo, said: “There is so much important information and data in this report, I’m sure it will be quoted and referred to for many years to come.”

Marcos Bonturi, OECD special representative to the United States, spoke of the effects on public policy due to the rise of multinationals. While the OECD has 35 member countries, including some emerging markets, and plays an important role in setting international standards, the organization also realizes that “you can’t set standards for the global economy with just 35 members,” Bonturi said. Emerging multinationals will be a driving force in getting governments in non-OECD countries to participate. “All countries in the world need to abide by the same standards or you don’t have a level playing field,” he said.

Corporate governance constitutes a huge pipeline of intergovernmental agreements. Bonturi said. “Watch that space. There will be a lot of activity and new developments in this area.”

A brave — and innovative — new world

A host of speakers representing myriad industries involved in the surge in influence of emerging multinationals shared their stories and perspectives at the conference, including representatives of the banking, venture capital, private equity, mining, chemical, and petroleum and gas industries. In broad terms, every speaker contributed a chapter to the story of the immense changes occurring

in a global redistribution of wealth, including changes in access to financial services and the flow of capital.

Many spoke of innovation, especially in fintech — the convergence of finance and digital technology — and in other aspects of the digital economy. For instance, Yuqiang Xiao, U.S. management committee chairman for the Industrial and Commercial Bank of China (ICBC), spoke of WeChat, now the largest app in the world, and of ICBC, which, with 210 million mobile users, now has the largest e-banking platform and the largest online mall in China, second only to Alibaba. Adalberto Flores, founder and CEO of Kueski in Mexico, a company that can underwrite and approve loans online in minutes, spoke of his company’s tremendous growth in a country where 85 percent of the population has no credit card. As ICBC’s Xiao said: “Innovation is the future of banking.”

Speakers who have special expertise in Africa, Latin America, and India spoke of the political and economic dynamics and the prospects for growth they see in those areas. Many commented on Brazil’s current instability, and no one shied away from challenges, such as illiquidity for private equity in some emerging market investments.

But overall, speakers painted a picture aligned with the data showing that prosperity in emerging market countries is steadily rising — as Flores did when he said: “Latin America has strong fundamentals, and we are starting to see this virtuous cycle. It’s still early stage. But I believe that in the next couple of years, we’re going to see companies that are super interesting. We’re starting to see people who’ve worked or studied in the United States returning to Mexico and who are using that experience to start companies; that’s becoming an interesting trend. I’m assuming that more and more U.S.-based funds are going to start making their way to Mexico and more funds are going to be built and created in Mexico as well.”

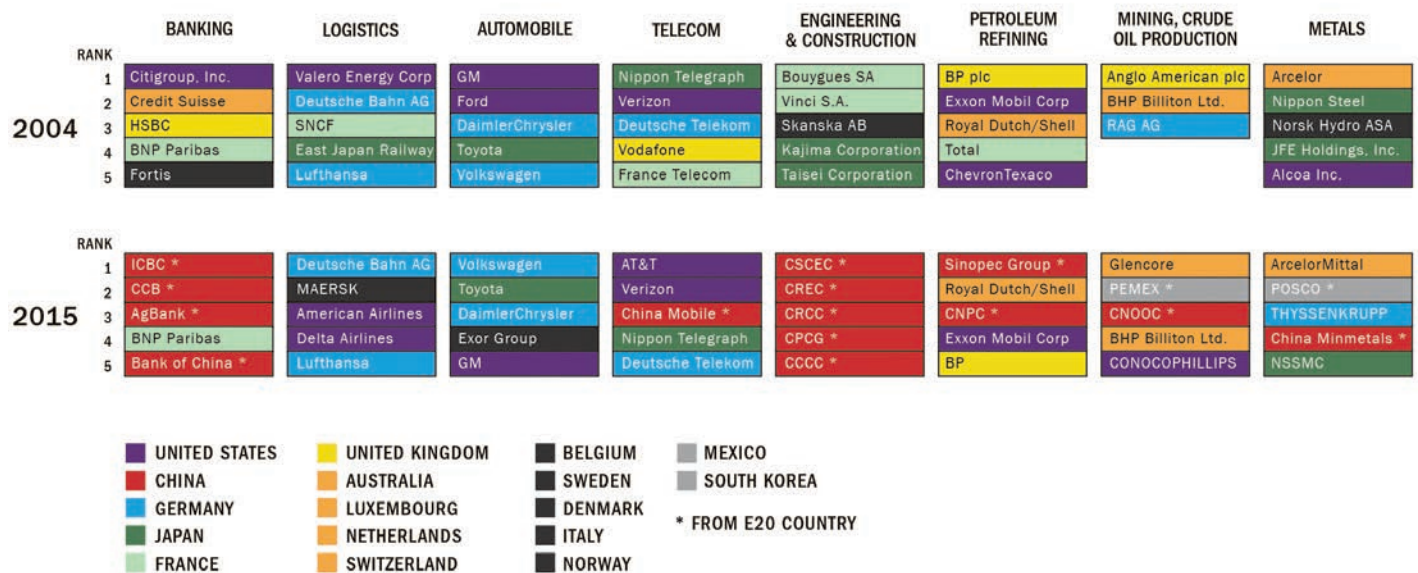


Yuqiang Xiao, U.S. management committee chairman for the Industrial and Commercial Bank of China (ICBC)



Marcos Bonturi, director of global relations at the Organization for Economic Cooperation and Development (OECD); **Moacir de Miranda Oliveira Jr.**, professor and coordinator of the Graduate Program in Business Administration at the Universidad de São Paulo; **Ravi Ramamurthi**, Distinguished Professor of International Business and Strategy and director of the Center for Emerging Markets at Northeastern University; **Anne Miroux**, Emerging Markets Institute faculty fellow; and **Lourdes Casanova**, Emerging Markets Institute senior lecturer and academic director. All participated in a discussion of the “Emerging Market Multinationals Report 2016” at the Emerging Markets Institute Conference in New York City.

TOP FIVE COMPANIES AND COUNTRY OF ORIGIN ACROSS DIFFERENT INDUSTRIES IN THE FORTUNE GLOBAL 500 IN 2004 AND 2015



SOURCE: ANALYSIS BY LOURDES CASANOVA AND ANNE MIRoux, BASED ON DATA FROM FORTUNE 500 DIRECTORY, ([HTTP://FORTUNE.COM/GLOBAL500](http://fortune.com/global500)) ACCESSED MAY 2016.

CASE STUDY: AMOREPACIFIC – A Korean company gains ground in North America



Brad Horowitz, CEO of AmorePacific North America, outlined the history of the Korean beauty company, including its deep-seated roots in natural beneficial properties inherent in recognized, plant-based ingredients. “AmorePacific takes the best of Asian values and combines it with really strong R&D,” said Horowitz. “We have over 500 scientists,

and we are at the forefront of research on ginseng — can we extract its health benefits and apply them to skin?” The company has taken the same approach with green tea, which it grows on land it owns, and on many other plant-based ingredients.

The largest beauty company in Korea, AmorePacific is the 12th largest beauty company in the world and aspires to double its size. “That would put us at #7,” said Horowitz. The company focuses mostly on skin care but also manufactures other cosmetics, including toothpaste and body care products.

“We have 25 brands, but focus on five mega-brands,” said Horowitz. “Our Sulwhasoo brand generates \$1B in sales. It’s our best-selling brand in Korea, but has almost no brand recognition here.” A product that “pursues holistic beauty, balance, and harmony through 50 years of dedication to research on one of Asia’s most precious ingredients, Korean ginseng,” in the U.S. Sulwhasoo is available only in very select stores, including Neiman Marcus, Nordstrom, and Sephora.

In contrast, Laneige, a brand that Horowitz introduced at Target three years ago, is now the number one premium

brand at Target, he said. “It’s something we’re quite proud of because we’re going up against brands like La Roche-Posay or Vichy, very important brands for L’Oréal — and L’Oréal is a much larger company than we are in the U.S. But in just three years we were able to gain a larger market share in Target.” That was a hopeful sign for the company in terms of globalization, Horowitz says. “We can do it.”

AmorePacific expects Innisfree, its fastest-growing brand and a naturals brand “dedicated to sharing the clean and pure energy of nature for healthy beauty,” to become its next billion-dollar brand. Its U.S. launch is in the planning stages now. While it took about eight months to get all of the marketing assets correct for the Laneige market launch at Target, Horowitz said Innisfree will be launching much faster because it’s already “all over Amazon.”

“I’ve been waiting for the right moment to bring the brand over so as not to stress the organization, because we have so many other things we are doing,” Horowitz said. “But in today’s world that’s so flat, you don’t necessarily have the choice of time. So Amazon has disrupted the market in terms of how beauty companies roll out brands globally. It’s forced my hand to move faster than I normally would because if I sit and wait, Amazon will keep selling the product and perception of the brand in the U.S. will be made without me actually controlling the brand equity. So next year we’re going to open up a store in Union Square and we’re going to open a website.”

Showing a slide depicting AmorePacific’s U.S. double-digit growth trajectory in terms of sales and profit, Horowitz noted: “In terms of growth strategy, globalization is clearly the most important; second is digital.”

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THE 1960s



CLASS OF 1968

Walter Evans was named the 2016 Cornell Committee Chair of the Year by Cornell's Undergraduate Admissions Office (UAO). This is an honor given to one individual out of 350 Cornell chairs across the United States. Walter led a team of 42 Cornell alumni representing Cornell to more than 150 high schools across Central Florida, and undergraduate applications to Cornell from this region increased by 265 percent. He and his committee recruited at college fairs, gave talks at local high schools, and made sure that every applicant was able to connect with a committee member during the application process. For the past ten years, Walter has owned SAT/ACT tutoring service in Central Florida.

THE 1970s

CLASS OF 1974

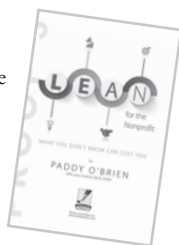
Roberto M. Cañizares '71, retired president of MSA International and a Johnson Advisory Council member, was selected to



receive the Carlos R. Quintanilla Distinguished Latino Alumni Award. Named in honor of Carlos R. Quintanilla, MBA '80, a Johnson Advisory Council member and champion of the school's efforts in Latin America who received the Distinguished Latino Alumni Award in 2011, this award recognizes alumni for exceptional achievements and significant contributions to their professions, community, and society as a whole; for their demonstrated commitment to Johnson; and for promoting the advancement of Latinos in the business world. Roberto is a recognized leader in successfully building and transforming businesses around the world and has led successful globalization efforts in several senior executive roles, focusing on building, coaching, and developing multinational organizations.

CLASS OF 1975

Sheilah "Paddy" O'Brien, MPA '75, writes that she has "brought what she learned at Johnson to shore up the management practices of local governments



and nonprofit organizations." After a career in both the private and public sectors as a process improvement expert, she has started a second career focused on writing and consulting, training clients in the "Lean" method popularized by Toyota, and in rapid process improvement. She recently published a book, *Lean for the Nonprofit: What You Don't Know Can Cost You*. In her book, which she calls a "primer," Paddy urges nonprofit leaders not to cut programs to balance budgets, but to employ Lean practices and thrive. "Learn how to find hidden costs in your operations ... and do something else with that money," she writes.

CLASS OF 1976

Bob Falter joined EXIT Real Estate Executives in Brookfield, Mass.

CLASS OF 1979

James Lee joined Westchester Medical Center Health Network as SVP of operations. He oversees ancillary services lines for the ten-hospital system that serves eight counties in New York State. He is also chairman of the American College of Healthcare Executives' Asian Healthcare Leaders forum. James



was formerly executive vice president and COO at New York-Presbyterian/Lawrence Hospital.

THE 1980s

CLASS OF 1980

Girish V. Reddy, MEng '78, was elected to the Board of Trustees of Cornell University. He is a member at Kohlberg Kravis Roberts (KKR) and co-founder of KKR Prisma, a hedge fund business.

Irene Rosenfeld '75, MS '77, PhD '80, chair and CEO of Mondelēz International, was included in *U.S. News & World Report's* "Colleges Where Top CEOs Earned Their Degrees."

CLASS OF 1982

Rocco Fabiano was appointed president and CEO of Ygrene Energy Fund, a provider of residential, commercial, and multi-family property assessed clean energy (PACE) financing based in Santa Rosa, Calif.

Katherine P. Ward Feld, JD '83, was promoted to senior special counsel to the deputy director, Office of Compliance Inspections and Examinations, at the U.S. Securities and Exchange Commission, located in the SEC's New York

Gary Fassak enjoys helping businesses grow and prosper by sharing his extensive management and marketing expertise as a member of Chief Outsiders, a company comprising more than 50 part-time, or fractional, chief marketing officers (CMO) for hire.

“The work is challenging and exciting,” he says. “You need to quickly develop a view of the client company, the marketplace they compete in, and the leverage points that can fuel their growth.”

As a CMO for Chief Outsiders, Fassak applies what he’s learned over 30 years of serving in senior leadership positions at companies such as Procter & Gamble, Campbell’s Soup, and Aramark. “I can look at a business critically, as an objective outsider, and see how it can do things better,” he says.

Some client firms need to develop new product lines or distribution networks, while others just need to concentrate on what they do well, he explains. “A recent assignment was just that — the core business was a gem but needed focus, prioritization, and simplification. Getting very focused on a few things and doing them amazingly well is very effective. We worked with them to do that and then to get buy-in throughout the client company,” he says.

Innovation is a key component for business success; in fact, Fassak says it is typically the lifeblood of a growing company. “Innovation can be found in many places, and we look for things that can be done quickly as well as longer-term improvements in capability that help the company grow and stay on a growth track,” he says.

“I love the relationships I get to establish, working with other smart, motivated people,” he says. “The relationships that you build are



GARY FASSAK '76, MBA '78

important because the decisions needed to drive growth aren’t always easy.”

Fassak, who lives in Doylestown, Penn., likes to stay in shape by working out at the local YMCA and taking bike rides with his wife. He maintains an interest in music and technology that blossomed during his stint as a DJ at Cornell radio station WVBR-FM.

— Jay Wrolstad

PHOTO COURTESY OF GARY FASSAK



Regional Office in Manhattan. Katherine joined the SEC staff in May 2013 after nearly 30 years in senior legal and compliance roles at major financial services firms.

Alan Anderson, JD '82, received his PhD in war studies from Kings College, London.

CLASS OF 1983

Susan Potter McGowan, whose career highlights include working in hospital administration, consulting at Aetna, teaching occupational therapy (OT) at the University of Hartford, and working in public schools as an OT, says she is now “happily

retired,” and living in Litchfield, Conn., with her husband. “We are working on our golf game and look forward to spending part of the winter in Amelia Island, Fla.,” she writes.

CLASS OF 1984

Mark Bertolini, CEO of Aetna, was included in *U.S. News & World Report’s* “Colleges Where Top CEOs Earned Their Degrees.”

CLASS OF 1985

Sanford Argabrite is the CFO for Quest Nutrition, which makes the protein bar, Quest Bar. He says, “Quest is on a mission to create delicious foods that don’t compromise on taste or nutrition.” He points out that Quest was the fastest-growing company on the Inc. 500 in 2014 and was named the top-performing company in the under-\$1

billion category by Boston Consulting Group. Sandy lives in Los Angeles.

THE 1990s

CLASS OF 1990

Paul Fehlman was named CFO of the Year in the *Fort Worth Business Journal*. He is the CFO of AZZ Inc., a global provider of galvanizing, welding solutions, specialty electrical equipment, and highly engineered services.

CLASS OF 1994

Schlomo Benartzi, PhD '94, wrote a commentary, “Digital Technology’s Impact on Investment Decisions” for Allianz Global Investors’ *Advisor Perspectives* (April 15, 2016). Schlomo is the co-chair of the Behavioral Decision-Making Group at UCLA’s Anderson School

of Management and the chief behavioral economist of the Allianz Global Investors Center for Behavioral Finance.

Sean Henderson was named CFO for Henry Schein Animal Health in Dublin, Ohio.

CLASS OF 1995

Neil Waters is a partner at Egon Zehnder, a global executive search firm. He and his family live in Melbourne, Australia. Neil and his wife have seven children, and their oldest, Mary, has just turned 21.

CLASS OF 1997

Peggy Gordon is SMA manager at Samsung in San Jose, Calif. She says, “Greetings from Silicon Valley! Cannot believe we are coming up on almost 20 years since graduating from the Johnson School! I’ve spent a few

years in Asia as regional manager for a tech company and am now settled back into the Bay Area. I would love to get in touch with classmates in Northern California.”

Brad Stillwell works for the U.S. Department of State as deputy director of the Office of Nepal, Sri Lanka, Bangladesh, Bhutan, and Maldives.

CLASS OF 1998

Gary Rosenblum was named president of Oticon, a leading hearing solutions manufacturer based in Somerset, N.J., that develops and manufactures medical devices for people with hearing loss. Gary relocated to Princeton with his wife, Naomi, and their two children Ari, 6, and Ayla, 4.

THE 2000s

CLASS OF 2003

Brian Hittle, whose pen name is Brian Andrews, was interviewed for a blog, *Wag the Fox*, about the new novel he co-authored, *Tier One*, released September 2016. The book focuses on SEAL teams on the front lines in the war on terror. Referring to how his military experience informs his storytelling, Brian, a U.S. Navy Veteran, says in the interview: “It’s not the tactics, the weapons, or the nitty-gritty details that we resurrect for our readers — it’s the emotions, stakes, and the human toll. These are things that matter in conflict and combat.”

CLASS OF 2006

Kenyattah Robinson, president and CEO of the Mount Vernon Triangle Community Improve-



ment District, was honored with the Wilbur Parker Distinguished Alumni Award Oct. 21, 2016. Created by the Black Graduate Business Association in honor of its first recipient, Wilbur Parker ’50, MBA ’50, the school’s first African American graduate, this award recognizes alumni who demonstrate outstanding professional achievement and commitment to their community.

Kenyattah has amply demonstrated both qualities in his personal and professional life. As head of the Mount Vernon Triangle Community Improvement District, he is responsible for the enhancement and economic development of the vibrant and growing Mount Vernon Triangle community in downtown Washington, D.C. In his former role as a senior vice president and national director on the public institutions team at global commercial real estate advisory and investment management firm Jones Lang LaSalle, he and his team developed strategies to help public-sector organizations achieve their mission objectives through public-private partnerships and other venture opportunities to leverage, better utilize, monetize, and maximize the value of their real property assets.

CLASS OF 2007

James “Jamie” M. Moses was appointed senior executive vice president and chief financial officer of Berkshire Hills

Bancorp, the parent company of Berkshire Bank.

CLASS OF 2008

Joana Baquero is a marketing manager for Colgate Palmolive in Colombes, France. Joana lives in Paris.

Tushar Virmani is an executive director at UBS Investment Bank in New York City, covering insurance companies. He says, “I live in Greenwich, Conn., with my beautiful wife and our 2-year-old daughter. I have continued my love for endurance sports by completing several marathons and Ironman races.”

THE 2010s

CLASS OF 2010

Mike Anderson welcomed his second child, Beau Frederick, born March 24, 2016. Beau joins big brother Lucas.

Oz Barhama moved to a new job managing operation projects for Zurich Insurance, moved from the city to the suburbs of Chicago, and welcomed a son, Ari, who joins Noa, 2, and Lulu the dog, 5. Together, he says, they “make life very happy!”

Adam Beane and his wife, Devon, welcomed their first child, Claire Margaret, in November 2015. Adam left SC Johnson after almost six years to become the senior brand manager for Slim Jim at ConAgra Foods.

Vicki Chen and her husband, **Alex Liu, MMH ’09**, welcomed a son, Maximus Robert, on March 16, 2016. “Max is definitely the center of our world as

new parents, but we don’t intend to give up our love of travel!”

Ludo Denza got married in December 2015 and enjoyed a honeymoon in Argentina.

Sandra Chang Frank joined retail SaaS company Narvar, a startup that grew to 65+ employees in less than a year. “We just announced our \$22M Series B last week,” she writes. “If you’ve bought anything online lately, you’ve probably seen our product! It’s been an incredible experience.” Sandra and her husband, **Brian Frank, MBA ’98**, celebrated their third anniversary in Italy in May.

Sakina Walsh Groth joined consumer electronics company Magic Leap as director of product management in July 2016. She writes: “Having found my true professional passion in tech, I’ve been tinkering around with a side project for a new app called Else. Instead of selfies, Else users post ‘elsies,’ which capture everyday acts of kindness for someone else.” She is working on a beta — learn more at www.elseapp.co. Sakina and her husband, **Kyle Groth ’09**, live in Florida with their dog, two cats, and a ferret.

Ethan Hawkes ’07 left McKinsey & Company to co-found Cambridge, Mass.-based PlacePass.com, which quickly became the largest online platform for booking tours and activities around the world.

Tiago Khouri writes that he got married. Tiago is director of strategic planning and marketing, Latin America, with Vertiv Co., an electrical and electronic manufacturer.

EAST MEETS WEST IN EXECUTIVE SEARCH

Wai-Leong Chan decided to launch an executive search firm when he saw an opportunity to establish a collegial, pan-Asian search firm to better serve Western clients.

A Malaysian who has lived in Singapore since 1985, Chan worked for seven years at search firm Spencer Stuart before he and a couple of friends launched DTCA Executive Search Partners, a boutique company focused on executive search services throughout Asia. The company's success as Asian specialists drew the attention of leading international executive search firm Eric Salmon & Partners, which acquired DTCA last year in order to extend its global reach.

The acquisition is working for both parties, says Chan, now a partner at Eric Salmon. "It allowed us to get some work from our new colleagues who have interesting clients in Europe looking for senior people in Asia, and we could sell work that our colleagues in Europe could deliver," he says.

A story Chan tells illustrates both his business acumen and the importance of building trust: "I took a global CIO from a Europe-based company in Malaysia. I met with the executive who lost the CIO because of me, and I must have done something right, because they asked me to find the replacement. That company became a repeat client," he says.

Chan credits his Cornell MBA and MEng degrees for honing his ability to grasp trends and conduct substantive discussions with clients on a variety of subjects, including digital disruptions. He has also given back to his alma mater, having served two terms on the Cornell University Council (2005–09 and 2011–15). "I was happy to make the long trip from Singapore to attend the meetings once a year in October," Chan says. "And, Ithaca in October is beautiful."

Chan contributes to his local community as well, volunteering as a board member with not-for-profit AWWA, which provides

PHOTO COURTESY OF WAI-LEONG CHAN

Kelly Quinn McQuillan has moved from a marketing role to managing the Eastern Ontario sales team within primary care at Johnson & Johnson in Toronto. She writes that she has been home-based over the past year, "which has helped with adjusting to life with two kids" — Quinn, 4, and Ellis, 2.

Kristin O'Planick, a market systems and enterprise development specialist at USAID, moved back from Uganda in the fall of 2015 to Washington, D.C., where she's enjoyed reconnecting with family and friends. In February, together with her son, Alex, 2, she "had a blast at the Baltimore Aquarium ... with classmate Uma Kakde and her family," she writes. "On the work front, things have been busy

with the last year of the contract that I manage. We're wrapping up some really exciting research on the factors that help prevent families who escape poverty from sliding back into it within a couple years (an all too common phenomenon). ... I also got in a trip to Sri Lanka to lead a 'status of youth' assessment and a project design trip to Serbia."

Sandra Persing splits her time living in both Seattle and San Francisco, working with Mozilla's developer relations team. "I travel a lot to check out what's happening in the industry — conferences put together by my colleagues for developers," she writes. "My role as director of Seattle's Women Who Code chapter has been amazing with our second annual women



Wai-Leong Chan on a recent visit to Bay Area tech firm Lithium. The display behind him reflects the underlying richness of social media postings that can be tapped — appropriately — for new and effective ways of marketing.

WAI-LEONG CHAN '83, MENG '84, MBA '85

community-based programs and services to people of all ages, including schools for children with special needs.

Married with three children, Chan enjoys photography and traveling with his family.

— Jay Wrolstad

in tech conference," which she founded. "I have also had some great opportunities to speak about improving developer engagement like speaking at DockerCon ... [and] I've started a new conference called DevRel Summit (devrelsummit.com) in Seattle to again help and improve the work we are doing to engage engineers. Very proud to lead in this industry!"

Dave Pisacich is an investment product director at Fidelity Investments. His wife, Sarah, works at KPMG, and "we spend the rest of our time and energy keeping pace with Michael, 2, who is a bundle of joy," he writes.

Aleda Schaffer and Jonathan Schaffer competed on two episodes in April of the national

television show "America's Greatest Makers" and advanced to the television finale competing for the \$1 million dollar prize airing on Tuesday, May 24, on TBS. "We competed as Team Aseah, launching the Delta Glove, a connected weightlifting glove that tracks what exercise you are doing, how many sets and reps you have completed, and even how much weight you have lifted, something no one else is doing," they write. "We got a lot of publicity, were able to get a partnership with Intel, built an incredible network with the other contestants, and won \$100K as finalists, which allowed Jonathan to leave Idea Couture and focus on Aseah full time." In addition, Aleda began writing and published articles in *Entrepreneur*, *Real Leaders*, *Working Mother*,

YFS magazine, and several other publications. They both “absolutely love being parents” to Landon, 4, and Ainsley, 2.

Hiroshi Takahashi is executive vice president and director of subsidiaries at Mizuho Financial Group in Luxembourg, where he has settled with his family. “My new task is a challenging but interesting experience, totally different corporate culture in comparison to that of both Japanese banks and U.S. banks.”

Connie Sintuvat-Wong is a brand manager of Kibbles ‘n Bits and Gravy Train brand dog foods at J.M. Smucker Company in the San Francisco Bay Area.

She writes that she and Hsiang and their children, Parker, 3, and Cooper, 1, are all doing well.

Marques Zak moved in October 2015 from Atlanta to New York, where he works as finance director at Frito-Lay North America. “I now oversee an account portfolio of \$700M in our Northeast Region retail business, which stretches from New Jersey to Maine,” he writes. He also completed a program called Direct Impact that prepares young executives for service on nonprofit boards. The program is run by Echoing Green, a nonprofit that provides early-stage seed funding for social entrepreneurs. “As part

of the program, I was able to visit Nepal and an Echoing Green fellow [who] runs a nonprofit focused on rooting out corruption in the Nepalese government. ... Definitely contact me if this sounds like a program you might be interested in joining.”

Peter Zullo married **Stephanie Smolenski ’08** in March in Sonoma County and bought a home in Sacramento in June. A sales manager, Western Region, for SMA America, Peter writes that he’s happy with his career in solar, as is Stephanie in her pursuit of a PhD at UC Davis.

CLASS OF 2011

Marlon Nichols was featured in an article in *Fortune* magazine, “How This VC Finds the Next Big Thing” (Dec. 15, 2016). The article notes: “As co-founder and managing partner of Cross Culture Ventures, Nichols focuses on high-impact startups that leverage emerging global trends and the untapped talents of entrepreneurs of color. His partners include Troy Carter, founder of entertainment company Atom Factory and longtime manager for Lady Gaga, and Trevor Thomas, a seasoned investor who founded former airport lounge startup The Third Space.”

A VOICE FOR THE WILDERNESS

Unlike most of us, Deirdre Monroe can’t share war stories from work. “I can’t talk about the bulk of what I did,” she says, because it involved “issues of importance to national security.”

A research and development engineer for the Weapon Systems Engineering Division at Los Alamos National Laboratory (LANL), Monroe worked on highly sensitive government projects for the last 20 years, “working to make the world a better place,” she says.

Retired in May 2016, Monroe returns to LANL part time to mentor and teach young scientists and engineers. “I get to work on a project that’s just as enjoyable as before, but without the stress and heavy deadlines,” she says.

In addition, she now has more time for the extracurricular passions that have occupied her for two decades: long distance endurance riding and mapping and promoting the Caja del Rio, a beautiful but neglected 84,000-acre portion of national forest near Santa Fe, New Mexico.

Having discovered the Caja back in 1995 on a long horseback ride with a friend, Monroe thought the site would be perfect for endurance riding — a competitive sport involving cross-country horseback riding of up to 100 miles. There were no comprehensive maps of the area and so, with the help of her GPS, she became a cartographer, publishing the definitive map of the Caja in 2005 (and a second edition in 2014).

Monroe organized the American Endurance Riding Conference’s (AERC) first endurance ride in the area in 2004 — an event that has been held continuously for the last 12 years. She collaborated with the USDA Forest Service and AERC to apply for, and receive, a



Deirdre Monroe with her faithful friend, Rue

DEIRDRE MONROE, MBA ’90

\$100,000 Recreational Trails Program grant for Caja improvements in 2007. Recently, AERC appointed her its New Mexico State Trails Advocate.

“I have much more time to do things I am passionate about but that I previously had to fit in between my work commitments,” says Monroe. “I am just as busy, but on the things I love.”

— Irene Kim

BUILDING SUSTAINABILITY INTO THE SUPPLY CHAIN

Agata Kostecka is helping to make sustainability a way of life for stakeholders at Gap Inc.

After working on the firm's supply-chain strategy team in San Francisco for a couple of years, Kostecka, a Park Fellow, collaborated with her boss to create a new role for herself as senior manager for sustainability sourcing strategy in Hong Kong, one of Gap's key sourcing hubs. Kostecka now links the corporate sustainability team in San Francisco with the managers who are sourcing production in Hong Kong and elsewhere, and also with Gap's suppliers of garments and fabrics throughout Asia.

She's a team of only one, but welcomes the challenge. "I have the opportunity to define and set a long-term sustainability strategy within our supply chain and with our stakeholders," Kostecka says.

Gap holds vendors to its sustainability code of conduct, which specifies labor standards, such as working hours and compensation; working conditions, such as health and safety; and environmental protection, such as management of water, chemicals, and energy. "If a supplier violates major pieces of our code, it could be a no-go," explains Kostecka. "But when we find issues, we work with our suppliers so they understand how to address the issues and make sure they follow through. The supply chain is moving towards a partnership model, where we work with suppliers on innovation, new fabrics, and new ways of doing things."

Making sure a new product has a high sustainability quotient requires "looking at the design of a garment you're proposing and considering the sustainability options up front," says Kostecka, as well as determining "which suppliers can give the lowest cost and highest quality, while including the sustainability component."

PHOTO COURTESY OF AGATA KOSTECKA



Agata Kostecka in Hong Kong, where she is senior manager for sustainability sourcing strategy at Gap Inc.

AGATA KOSTECKA, MBA '11

Kostecka loves Hong Kong. "You're in the middle of a major metropolis," she says, "but it's a 20-minute bus ride to a beach or beautiful green hillside." She stays in touch with Johnson classmates located all over the world, especially those with whom she did the Sustainable Global Enterprise immersion. "We're a tight cohort and we keep close."

— Irene Kim

CLASS OF 2012

Bradley Tanaka is a hedge fund associate, private equity, with Taiyo Pacific Partners in Kirkland, Wash. Bradley lives in Seattle with his wife and 1-year-old daughter.

CLASS OF 2013

Chengya Liang, an associate director of product management at Thermo Fisher Scientific's innovative next-gen sequencing business in the San Francisco Bay Area, was featured in *Business Because* magazine in early 2016. Chengya represented the Association for Women in Science as a keynote speaker at the Women in Technology International (WITI) Summit in June 2016 in Silicon Valley, where she discussed how to take charge of your own career success.

Peter Sukits, a finance manager at Procter & Gamble, shared candid, actionable advice for military veterans considering a transition to a full-time MBA program in a guest blog post he wrote for Stacy Blackman Consulting (stacyblackman.com). A career coach, author, and finance professional, Peter served for five years as a commissioned officer in the U.S. Army before earning his MBA.

Henry Yoshida is a managing partner at Yoshida LLC.



CLASS OF 2014

Inho Cho is a senior manager at Samsung Display in Yongin-Si, Korea.

CLASS OF 2015

Morgan Jones is the COO of the US-China Strong Foundation, a nonprofit organization that seeks to strengthen U.S.-China relations by investing in a new generation of leaders who have the knowledge and skills to engage with China, including fluency in Mandarin.

Claire Lambrecht '06 writes: "Johnson Cornell Tech MBAs descended upon Houston, Texas, for the wedding of **Alok Mody**, MBA '15, and Anita Agrawal." Pictured (from left): **Adam Pruett**, **Vlad Lokshin**, **Mike Karp**, **Missy Ross**, and



Amanda Emmanuel, all MBA '15; **Jason Sanghi**, **Christopher Metter**; **Bryan Russett**, **Katie Dreier '12**, **Li Guo '11**, and **Alok Mody**, all MBA '15; **Vinita Agrawal**; **Brian McCauley** and **Nick Rudd** (hiding behind Brian McCauley), both MBA '15; **Lucy Eilbacher**, **Will Hester**, **MEng '15**; **Miwa Takaki**, **Emily McAllister '11**, **Josie Lee**, and **Andres Santamaria**, all MBA '15; **Aaron Katz**; **Claire Lambrecht**, **Diana Reynoso**, and **Rachel Wang**, MBA '15. Claire also writes that "several members of the inaugural MBA class at

THE CHIEF MARKETING MIND BEHIND TOPO CHICO'S SUCCESS

Solid education, constant self-improvement, and innate marketing talent have brought Gerardo Galvan to the pinnacle of North America's beverage industry. As president and general manager of Interex, a Dallas/Fort Worth-based commercial firm, Galvan directs sales of one of the industry's hottest drinks, Topo Chico, a sparkling mineral water bottled in Mexico that has seen annual U.S. sales grow by a cork-popping 35 percent over the last three years, tops in its category.

Bottled near Monterrey and sold in 35+ states in addition to Mexico, Topo Chico has become an "in" drink, especially in Texas, so much so that it recalls the ubiquity of Evian and Perrier in past decades. Its clean, effervescent, and clear taste has made it the drink of choice among health- and status-conscious clientele at trendy restaurants in Houston, Dallas, and Austin. Twelve-packs of the mineral water with its distinctive yellow sun logo are increasingly prominent on supermarket shelves, where sales have shot up from virtually nil 15 years ago to a current 14 percent share of the U.S. retail market for imported mineral waters. In Texas, its market share is more than 60 percent.

"We always wanted to position ourselves as a premium product, and now we can honestly say that one of our selling points is you look cool with a bottle of Topo Chico in your hand," says Galvan, 53. He began his career in 1986 at the Coca-Cola Export Corporation straight from undergraduate studies at the University of Monterrey and then in 1997 moved to Arca Continental, the fourth-largest Coca-Cola bottler in the world and Interex's parent company.

At the heart of Topo Chico's success is, of course, the quality of the product. For 120 years, it has been bottled at the source, just north of Monterrey. The accomplishment of Galvan and his team has been to execute a patient, years-long marketing campaign to make U.S. consumers aware of it, helping the brand to transcend its initial status as an "ethnic" novelty. Galvan has done so painstakingly with



GERARDO GALVAN, MBA '18

taste tests, repackaging, and, more recently, co-promotions with the likes of Chivas Regal and Jim Beam whiskies. Recently, Galvan has leveraged the drink's popularity in the music industry by sponsoring VIP lounges at music festivals, including Austin City Limits and Lollapalooza.

But even as he rose through the ranks of one of Mexico's largest bottling companies, Galvan never lost sight of a deeply held career goal, that of obtaining an Ivy League MBA. The higher he rose in Arca Continental's ranks, the desire for the degree only burned brighter. Now, with the strong backing of his parent company Arca Continental, which previously sent two other execs on the program, Galvan is on course to earn his degree via the Cornell Executive MBA Americas program.

Statistics classes are of special value to Galvan so far in the MBA course, because they will help him reinforce price positioning and market research analysis by incorporating distribution curves and standard deviation factors. He can also better calculate basic business measures such as net present value and EBITDA.

"I wish I could have taken this MBA course 15 years ago," Galvan says. "In three months, we have gone over what took me 15 years of empirical experience to absorb — and I could have accelerated the process."

— Chris Kraul

PHOTO COURTESY OF GERARDO GALVAN



Cornell Tech ran the Napa to Sonoma Wine Country Half Marathon in July." Pictured (clockwise, from top left): **Ben Kemper '10**, MBA '15, Jason Sanghi, and **Miwa Takaki**, MBA '15; Russell Thesing; and **Alejandra Azcoitia**, **Amanda Emmanuel**, **Claire Lambrecht**, and **Rachel Wang**, all MBA '15. **Chandra Sekhar Malladi** is a management consultant at Satori Consulting in New York City.

Siwat Siengsanaoh launched a startup to produce a plant-based beverage called Recoup (recoup-beverage.com), "an all-natural, flavored, plant-based water formulated to reduce the nausea, vomiting, and dehydration experienced by chemotherapy patients."

CLASS OF 2016

Mathieu Laberge works for Canada's Minister of Finance as director of policy for children and social development.

IN memoriam

James Stephen Armour,
MBA '55



PHOTO CREDIT: JON REIS

Thanks to **Jennifer Repko Steffy**, MBA '82, and to **Susan Potter McGowan** and **John Leffel**, both MBA '83, for writing to identify the students pictured in this Malott Hall photo. Standing, left to right, are Timothy Shuck, Jennifer, and Anne Witcher, all MBA '82. Sitting on the ledge are Susan and Jim McNair, MBA '83. "We were probably discussing a question from the operations management exam," writes Susan.



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SAGE HALL IN THE SNOW