Who Gets into the C-Suite?

Data reveal the four most important traits of America’s CEOs

The $100 billion tax dodge
Bernie Sanders’s subversive nature
Cowen and Kroszner on bitcoin
“You could either change the model on Wall Street or change gender norms. We cannot outsource breastfeeding to the guys, but women should not be viewed as responsible for the greater share of what happens at home.”
There’s no shortage of ideas about what makes a great leader. Nearly every business magazine runs articles about corporate leaders, interviews CEOs, and asks them for advice. Websites offer tips from the C-suite. Social media is stuffed full of wisdom about the characteristics of business luminaries.

What makes our cover story (page 22) different? It focuses on academic research backed by data. Chicago Booth’s Steve Kaplan and Copenhagen Business School’s Morten Sørensen reviewed more than 2,600 detailed profiles of candidates for CEO, CFO, COO, and other top positions. From those, they identified four factors that they say statistically determine who will become a CEO.

This analytical approach is rare in the leadership industry (for which definitions and size estimates are squishy) and made one former CEO we interviewed uncomfortable. But the insistence on robust data, careful analysis, and rigorous models characterizes the Chicago Approach, and it’s our guiding value in relaunching our research magazine under the banner Chicago Booth Review.

Although the name of its magazine is new, Chicago Booth has recognized the importance of conveying faculty research to a general audience for more than 50 years. In the 1960s, the school launched its Selected Papers series, whose contributors included Nobel laureates George J. Stigler, Paul A. Samuelson, Eugene F. Fama, Milton Friedman, and Merton H. Miller. In the 1990s, the Selected Papers were complemented by Capital Ideas, a magazine about faculty research. Chicago Booth Review brings together these strands, with more faculty-authored articles alongside more new research, charts, graphics, and comics.

Our goal is to highlight the practical implications that flow from academic research. Consider our feature story in this launch issue about sales forces. Like leaders, salespeople have been mythologized. The conventional wisdom has been that the ideal salesperson thrives on building relationships and providing good customer service, and the ideal sales team is a group of charismatic salespeople. But researchers are using data to test approaches to hiring, monitoring, and paying companies’ sales staff. Companies adopting workplace analytics are optimizing their sales forces and seeing clear results.

As well as the updated magazine, we also have Review.ChicagoBooth.edu, a new website. There you can still find episodes of The Big Question, our monthly interview panel, as well as other videos and blog posts. But we have also worked to make sure the website loads faster, is easier to navigate, and makes sharing articles, charts, and data straightforward.

We hope you will find this issue even more engaging, informative, and thought-provoking than anything you received from us before. Do let us know what you think.

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Emily Lambert
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Kelly Shue, associate professor of finance and Fujimori/Mou Scholar, became interested in the topic of executive compensation while researching how social connections formed in business school affected graduates’ career trajectories. Her most recent research on the subject suggests that rapid CEO pay growth in the 1990s and early 2000s stemmed from firms misunderstanding the real value of their stock options. (Page 16)

Steve Kaplan, Neubauer Family Distinguished Service Professor of Entrepreneurship and Finance, has spent years researching the personalities, traits, and abilities of America’s business leaders. In addition to the exploration of CEO characteristics, his recent research has examined the self-reported habits of private-equity investors—and how those habits deviate from conventional business-school wisdom. (Pages 22, 72)
Thank the financial crisis for today’s partisan politics
By Amir Sufi

Why a strong economy needs a strong press
By Luigi Zingales

Do central bankers have a quick fix for low inflation?
By John H. Cochrane

Is bitcoin the world’s next major currency? Comments from Randall S. Kroszner and Tyler Cowen

Bernie Sanders and the price of dignity
By John Paul Rollert

This problem has a name: Discrimination
By Marianne Bertrand

Forget what you’ve read—most mergers create value
By Steve Kaplan

Why can’t we close the gender gap?
The Big Question

Don’t confuse professional managers with good managers
By H. Edward Wrapp

What economists think about China’s growth model
The IGM Panel

Sanjog Misra, Charles H. Kellstadt Professor of Marketing and Neubauer Family Faculty Fellow, is the author of more than half a dozen scholarly articles on sales forces and their compensation, design, and training. His research on these and other topics has led to collaborations with numerous companies including Eli Lilly, MGM, Mercer Consulting, and Xerox Corporation. (Page 32)

Marianne Bertrand, Chris P. Dialynas Distinguished Service Professor of Economics, published her research into resume discrimination in 2004, the same year she was selected for the American Economic Association’s Elaine Bennett Research Prize. The paper helped spark coverage of the topic among major news outlets and inspired numerous similar studies around the world. (Pages 66, 75)
COMING TO TERMS WITH TAXES

In response to ‘Do higher taxes reduce inequality?’ (Published online, January 2016)

Pastor and Veronesi find that when taxes are high, only those with the highest skill and lowest risk aversion find it advantageous to become entrepreneurs. As a class, entrepreneurs become more skilled and less risk averse, and as a result, even richer than they would be if they faced lower tax rates, the study finds.

If life were only that straightforward! As a society, we are happy to pay tax for the common good; the question is, what is fair individually? Those seeking out tax mitigation believe the amount they pay is unfair. So how do you find the balance? Is that even possible? If two people pay the same amount of tax and one feels aggrieved, it’s not the amount of tax—it’s their perspective. As such, how do you get your perspective right and the balance fair?

—Nic Round, Owner
Trēowe, a financial-planning company,
Shrewsbury, United Kingdom

HOW HATRED ERODES HUMAN CAPITAL

In response to ‘Why intolerance is bad for business’ (Spring 2016)

Germany’s scientific attrition also benefited Chicago in the fields of medicine and dentistry. Here is a poignant excerpt from the research article “Evolution of the Scientific Basis for Dentistry and Its Impact on Dental Education: Past, Present, and Future” (Harold C. Slavkin, Journal of Dental Education, January 2012):

Yet another dividend was the exodus of physical, chemical, biological, and behavioral scientists from Europe to the United States. This was particularly evident in the 1930s and early 1940s when a number of highly gifted dental scientists fled Germany and Austria and relocated in dental schools in Chicago at either Loyola University or the University of Illinois, while others moved to Baylor University in Texas. Some of this extraordinary talent for dental science (embryology, anatomy, histology, histopathology, oral medicine) and education included Bernard Gottlieb, Balint Orban, Rudolf Kronfeld, Harry Sicher, and Joseph Peter Weinman.

Following the war, immigration policies enabled scientific talents from all over the world to relocate within the United States, and these policies have influenced all of the health professions schools and their parent universities.

—Ron Tarrson, MBA ’72 (XP-31),
Santa Fe, New Mexico

A LAUREATE’S LEGACY

In response to ‘What a Nobel laureate taught me about business ethics’ (Spring 2016)

I had the pleasure of taking Professor Fogel’s class 14 years ago, and I am still using today the principles learned from his business-ethics course. That is what I call long-lasting knowledge!

—Juan Rufilanchas, MBA ’02, Madrid

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The Future of Financial Services Initiative

What will the financial services industry look like in 2026?
The financial services industry is changing rapidly, due to new regulation, technology and competition. How should market participants prepare themselves to compete and add value?
The Future of Financial Services Initiative will host forums with market leaders, disruptors, regulators, and experts from Chicago Booth to discuss and debate the major challenges facing the sector. This Initiative will be based out of London, the world’s foremost international financial center and Chicago Booth’s home in Europe.

Planned upcoming topics of discussion include:

June 2016
Emergence of New Business Models and Strategies in Alternative Finance: What is Working and What is Not?

September 2016
The Future of Large Financial Institutions: Will Commercial Banks Remain Central to the European Financial System?

Chicago Booth London campus, 25 Basinghall Street, London EC2V 5HA

For further information please contact:
Bruce Rigal, Future of Financial Services Initiative, Bruce.Rigal@ChicagoBooth.edu or Eugenia Patriniche, Executive Education London, Eugenia.Patriniche@ChicagoBooth.edu

For further information about executive education: ChicagoBooth.edu/executiveeducation
The $100 billion tax dodge

We often hear about corporate America, but rarely about “pass-through America.” Yet pass-through businesses—sole proprietorships, S corporations, and partnerships—account for 94 percent of US businesses, more than 60 percent of net business income, more than half the private-sector workforce, and 37 percent of the total private-sector payroll, according to the Tax Foundation, a tax policy research organization.

Since 1980, the number of traditional C corporations has fallen, while the number of pass-through businesses has risen sharply. The rise has allowed mostly very wealthy individuals to pocket about $100 billion that would have gone toward taxes under traditional corporate structures, according to research by economists at the US Department of the Treasury, the University of California, Berkeley, and Chicago Booth.

The study—by the Treasury’s Michael Cooper, John McClelland, James Pearce, Richard Prisinzano, and Joseph Sullivan; University of California, Berkeley’s Danny Yagan; and Chicago Booth’s Owen Zidar and Eric Zwick—documents the soaring popularity of pass-through structures, which allow business earnings to be taxed as individual income and typically at significantly lower rates than earnings.
Climate change is a particularly pernicious problem because governments deal best with a problem when there’s an immediate crisis, and this strangles you slowly if you don’t deal with it.

Environmentalists often get a bad name because they don’t seem to compromise. They need to understand that you need economic growth as well as environmental protection.

Climate change is the seminal risk of our time. It is going to change life on earth as all of us know it.

As long as we treat the global ecosystem and nature as if it’s a free good, we’re quickly going to be at the tipping point of this planet.

Follow the tax rates

Between 1980 and 2011, business income shifted significantly from C corporations to pass-through businesses, which enjoy lower tax rates.

<table>
<thead>
<tr>
<th>Percentage of business income by entity (%)</th>
<th>Average tax rate in 2011 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C corporations</td>
<td>31.6%*</td>
</tr>
<tr>
<td>S corporations</td>
<td>24.9%</td>
</tr>
<tr>
<td>Partnerships</td>
<td>15.9%</td>
</tr>
<tr>
<td>Sole proprietorships</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

*Includes tax rate paid by shareholders

HANK PAULSON ON CLIMATE CHANGE

The chairman of the Paulson Institute and former US Treasury secretary spoke at an event held by Booth’s Social Enterprise Initiative.

- Environmentalists often get a bad name because they don’t seem to compromise. They need to understand that you need economic growth as well as environmental protection.
- Climate change is a particularly pernicious problem because governments deal best with a problem when there’s an immediate crisis, and this strangles you slowly if you don’t deal with it.
- Climate change is the seminal risk of our time. It is going to change life on earth as all of us know it.
- As long as we treat the global ecosystem and nature as if it’s a free good, we’re quickly going to be at the tipping point of this planet.
HOW STRICT ACCOUNTING RULES COULD CAUSE BANK FAILURES

IN THE YEARS since the 2007–10 financial crisis, US lawmakers have tightened accounting rules governing what information banks must disclose and how they must present the data. The tighter rules make it harder for banks to paint a rosy but inaccurate picture of their financial health. Theoretically, that should lead to more-rational trading in the sector.

But research finds that strict disclosure requirements can lead to unnecessary bank failures. Without allowing banks discretion to modulate worrisome news, disclosure requirements can set off panic runs that cripple weak but solvent institutions, according to Chicago Booth’s Pingyang Gao and Duke University’s Xu Jiang. Banks that might have survived liquidity crises will instead fail.

Banks finance their long-term assets, such as loans, with short-term liabilities, such as deposits. This maturity mismatch between assets and liabilities makes them uniquely vulnerable to panic-driven runs even if there is no real crisis. Say depositors want to withdraw their assets, and a bank doesn’t have the cash on hand to immediately cover all the withdrawal requests. Hearing that the bank is short of cash, more depositors are likely to worry about the bank’s health and demand their money too, and the resulting run will cause the bank to fail.

This scenario hurts all involved, but banks can prevent it if they have some leeway in terms of what they disclose, and how, the researchers argue. For example, a bank can still, legally, estimate the borrowers’ default risk in a more aggressive fashion to reduce loan-loss-provision charges and present a rosier financial report. And while this leeway gives a bank the cover to misrepresent its financial health, it also gives the bank an important tool it can use to reassure investors.

Gao and Jiang find that such inflated reports reduce panic selling, and reduce the amount of investor selling even when fundamentals suggest the shares are overvalued. But regulation is a balancing act: “We show that reporting discretion reduces panic runs, but excessive reporting discretion weakens the market discipline,” write the researchers, who note that when one bank opportunistically massages its reports, it motivates other banks to do the same.—Dee Gill


The problems are much too big for philanthropy alone. It’s also going to take government policies.

This is so much more important than putting a man on the moon.

I see China as very, very committed to making a difference. Dirty air is literally killing people there.

I don’t want my grandchildren to look back and ask, “Why didn’t my grandfather deal with the issue of our times?”
More choice for consumers can hurt your bottom line

Big retailers typically pack their shelves with competing versions of the same products, but research suggests there’s a fine line between offering consumers choices and creating costly confusion. Adding more products that use packaging similar to the existing offering’s can dent retailers’ bottom lines, causing employees to make more mistakes and spend extra time on stocking shelves and filling orders, according to Nicole DeHoratius of Chicago Booth, Özgür Gürerk of RWTH Aachen University, and Dorothee Honhon and Kyle Hyndman of the University of Texas at Dallas. Conversely, offering similar products with visually distinctive packaging can dramatically reduce such errors and speed up workflow.

The researchers conducted experiments in a virtual reality lab, in which they asked subjects to sort cubes into one of two bins depending on the objects’ characteristics. The researchers tested four treatments: less-similar colors with a label, more-similar colors with a label, less-similar colors without a label, and more-similar colors without a label. Increasing the similarity between two products led to a 23.5 percent decline in efficiency. Sorting mistakes and a slower

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**Make it a quick read**

Adding clear labels to products that look very similar in branding and packaging can help store employees make fewer sorting mistakes and cut inspection time.

<table>
<thead>
<tr>
<th>Percentage of products correctly sorted (%)</th>
<th>82</th>
<th>62</th>
<th>85</th>
<th>84</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection time (seconds)</td>
<td>1.74</td>
<td>2.14</td>
<td>1.75</td>
<td>1.74</td>
</tr>
</tbody>
</table>

Source: DeHoratius et al., 2015
WHEN IT COMES TO “buying” happiness, there are good and bad investments. Things that appeal to us because of “learned preferences”—for instance, luxury goods—may provide less long-lasting happiness than things we desire because of a hardwired biological preference, according to research by the University of Florida’s Yanping Tu and Chicago Booth’s Christopher K. Hsee. The authors cite interviews Hsee and a group of coresearchers conducted with residents of 31 Chinese cities about happiness derived from the ambient room temperature in their homes during winter (a hardwired, inherent preference) and that derived from the value of their jewelry (a learned preference). The results suggest happiness from learned preferences is highly context dependent.

—Alina Dizik

LOOKING FOR A DEAL ON HAPPINESS?

HAPPINESS WITH ROOM TEMPERATURE IS ABSOLUTE. In winter, people derived more pleasure from their ambient room temperature the warmer it got. The effect held within and across cities—home temperatures are higher in Beijing (due to standard heating) than in Nanjing, and also tend to provide Beijing residents with more happiness—suggesting that home-climate happiness isn’t due to social comparison.

HAPPINESS WITH JEWELRY IS RELATIVE. Within cities, people with more-valuable jewelry tended to be happier than those with less-valuable jewelry. But the same wasn’t true across cities: residents of Wuhan and Shanghai derived similar amounts of happiness from their jewelry, despite a dramatic contrast in its value, suggesting that happiness that comes from jewelry value is based on social comparison.

STOPPED TO THINK

Can you tell these apart? Similar packaging can lead to stocking errors.

work pace were equally responsible for the fall in productivity. On average, subjects spent about 20 percent more time inspecting products when they were similar.

Overall performance improved 22 percentage points when the researchers added a label in the more-similar-colors scenario (though the team did not observe a difference in the less-similar-colors scenario). Simplifying the task by adding a clear visual cue made it more enjoyable for sorters, and reduced the need for corner-cutting behavior that led to errors, the study finds.—Dee Gill

CAN THIS MODEL TIME THE MARKET?

FOR ALMOST FOUR DECADES, many have expressed skepticism that investors or academics can reliably predict what the market is going to do. But other researchers have argued it’s possible to forecast movements, and a few have built models that attempt to do so. Blair Hull of Hull Investments, and Xiao Qiao, a Chicago Booth PhD candidate, are among those who argue it’s possible to time the market, and they cite a model they have devised, as well as an exchange-traded fund based on their model.

Hull and Qiao seek to predict market behavior over a six-month horizon. The researchers apply technical and fundamental factors to their analysis, drawing heavily on the factor work of Chicago Booth’s Eugene F. Fama, among others. Hull and Qiao use 20 factors that include some familiar fundamental standards such as book-to-market ratio, market-timing maxims including “sell in May and go away” (because returns tend to lag during summer vacations), and macroeconomic measures such as the Consumer Price Index.

The researchers create a forecast, as well as a trading strategy that can be implemented, taking into account real-life factors such as transaction costs and rebalancing.

In a simulated trial, they applied their model to trading in the SPDR S&P 500 ETF Trust between June 8, 2001, and May 4, 2015, and got an annualized 12 percent return with a 0.85 Sharpe ratio (a measure of return per unit of risk). The return, they say, is double that earned by a buy-and-hold strategy in the same time period, and the Sharpe ratio is four times greater.

The model is theoretically promising even if it’s difficult to implement, Hull and Qiao say. A fund manager using it needs to know when individual factors are important and how to be nimbler than the traditional investment committee that meets quarterly to set a firm’s direction. “One needs to continually track the market, and effectively execute on the tiny signals that sometimes present themselves in a sea of noise,” the researchers write.

A manager also needs to be disciplined enough to be contrarian at times. Signals produced by Hull and Qiao’s model would have encouraged investors to increase equity allocations in the last quarter of 2008.—Michael Maiello


A powerful tool for at-risk youth

Slow thinking can keep kids out of trouble

If you’re driving and see a red light ahead, you hit the brakes.

That’s an example of automaticity, or an automatic response you have to a familiar situation. While stopping a car can keep you safe, other automatic responses can be dangerous—particularly for at-risk youth. Research suggests that teaching disadvantaged teens to recognize and counter their automaticity can help keep them in school and out of prison.

The six researchers—University of Pennsylvania’s Sara B. Heller, Chicago Booth’s Anuj K. Shah, Northwestern University’s Jonathan Guryan, Chicago Harris’s Jens Ludwig, Harvard University’s Sendhil Mullainathan, and University of Chicago’s Harold A. Pollack—write that automatic responses can be shaped by the situations we’re in, which in turn may depend on our socioeconomic group.

Consider two teenagers, one growing up in a middle-class neighborhood and the other in a disadvantaged one. Their automatic responses to figures of authority look different, which makes sense when you consider what is likely to be a stark contrast in their environments. A middle-class youth is likely to respond to authority figures, such as his teachers, with compliance, while an at-risk youth’s automatic response is likely to be retaliation.

For that at-risk youth, retaliation is a coping mechanism that may aid him on the streets but will harm him in the classroom. “Being told by a teacher to sit down and be quiet so class can start may at first glance feel like one’s reputation is at stake. This creates problems because in poor areas the response that is adaptive outside of school has negative consequences if deployed in school,” the researchers write.

But at-risk teens benefit from learning to act less automatically and instead assess situations and respond appropriately. The researchers looked at three large-scale interventions that aim to teach this kind of slow thinking. Two involved the Becoming a Man (BAM) program, offered in Chicago Public Schools, while the third was run at the Cook Country Juvenile Detention
Programs teach teens to react less automatically.

**BAM intervention**

For one academic year, some teens were offered weekly, in-school sessions with the Becoming a Man program, where they learned to use techniques—including counting backward and deep breathing—that would help them act less automatically. Others participated in after-school sports where they learned some of the same techniques. The researchers find that during the program year, participation in BAM or related programs reduced arrests for violent crimes by 44 percent, and for other crimes by 36 percent. The BAM intervention, they estimate, could translate into graduation rate gains of up to 22 percent.

In a second trial involving BAM, focused on high schools, arrests fell by 31 percent. Using a game that provoked participants to retaliate against unfair behavior, the researchers also determined that BAM increased by 79 percent the time teens spent thinking before they acted.

A third trial, conducted at the juvenile detention center, reduced return rates to the center by about 21 percent, according to the study. “These programs do not tell youth what their responses should be (‘fight’ or ‘don’t fight’),” write the researchers. “Instead these programs help youths more deliberately choose what they feel is the appropriate response.”

The interventions, they note, are distinct from other types of services that have been evaluated previously, including vocational education, job training, cash or in-kind transfers, and early childhood education. “The interventions we study look different from the most common strategies tried with disadvantaged youth, and seem to be more effective.”—Jane Porter

Consumers aren’t all running for Walmart’s “everyday low prices,” research suggests. Work by Pranav Jindal of the University of North Carolina, Ting Zhu of the University of British Columbia, and Chicago Booth’s Pradeep K. Chintagunta and Sanjay K. Dhar finds that consumers are also responding to other factors. Understanding those factors could help brands and retailers attract shoppers.

The researchers compared the performance of premium, value, and private-label brands, focusing on four products in particular: toilet paper, paper towels, eggs, and orange juice. They looked at how brands for those products sold at Walmart and at traditional grocery stores, and what drove the sales.

To control for how Walmart and grocery stores can price products differently, and carry more or fewer competing products, the researchers looked at relative shares of brand types. For example, instead of looking solely at how well Charmin toilet paper (a premium brand) and Angel Soft toilet paper (a value brand) performed in various store formats, they looked at how premium and value toilet-paper brands performed relative to each other at the different stores.

They find that shoppers are influenced by several factors. By considering assortment in addition to pricing, retailers can increase sales in particular products and better determine what products sell best in their stores.—Jane Porter

HAS AMERICAN PRODUCTIVITY REALLY SLOWED?

The Labor Productivity rate measures the amount of real GDP produced by an hour of labor. And in the United States, labor productivity has slowed sharply in recent years. From 2005 through the third quarter of 2015, it averaged just 1.3 percent growth per year, a significant drop from the 2.8 percent average yearly growth between 1995 and 2004.

The cause of the slowdown has been hotly debated, with some economists arguing it is mostly illusory, a result of mismeasurement. But Chicago Booth’s Chad Syverson tests and casts doubt on a theory at the core of the mismeasurement hypothesis: the notion that productivity statistics aren’t taking into account the surplus generated from the digital revolution.

Syverson starts by calculating productivity on the premise that the productivity slump didn’t happen. Using conservative estimates, he finds that the counterfactual output in the third quarter of 2015 would be 15 percent higher than the actual measured output.

But the consumer surplus created by digital technology fails to explain this $2.7 trillion in lost output. And three additional data patterns pose trouble for the mismeasurement hypothesis:

1. The productivity decline is not unique to the US, and there is no correlation between the size of a country’s slowdown and measures of intensity of information and communication technologies.
2. Had the supposedly mismeasured incremental output been incorporated into the official economic statistics, the industries that specialize in information and communication technologies would have seen revenue growth that was four times as large as was measured. That immense implied amount of mismeasurement doesn’t seem to be consistent with other shifts observed in these industries.
3. The gap between US gross domestic income and gross domestic product appeared even before the slowdown. Syverson notes that it actually occurred during a period of acceleration in productivity statistics.

The cumulative impact of these patterns suggests that the mismeasurement hypothesis is hard to reconcile with the facts. The productivity slowdown has opened an unexplained gap equal to 15 percent of GDP, while the value of digital technologies in total accounted for only 77 percent of GDP before the slowdown. The US labor productivity decline since 2004 appears to be legitimate.

—Alex Verkhivker


How stores can minimize supply-chain blunders

Retailers know that everyone makes mistakes, including suppliers. But few retailers anticipate supplier errors in their formal inventory plans, and research suggests this could be costing them money.

Nathan Craig of Ohio State University, Chicago Booth’s Nicole DeHoratius, Northwestern’s Diego Klabjan, and Northwestern PhD candidate Yan Jiang looked at common fulfillment errors that retailers correct within their own distribution centers, such as wrongly coded boxes. They find that by analyzing these correctable errors, as well as the true costs of correcting them, retailers can adjust incentives and inventory policies to improve supply-chain performance.

Although correctable errors don’t require returns to the supplier—as would an uncorrectable error, such as a shipment that arrives damaged—they can nonetheless be pricey for retailers, as they can mean additional labor and longer-than-expected restocking lead times, among other complications. Such errors are relatively common: in an earlier study, the authors find that 7 percent of a retail chain’s purchase orders were affected by fulfillment errors, 56 percent of which could be corrected by the retailer itself.

To recoup some of the expense of those mistakes, retailers often charge suppliers “charge-backs,” preset fines for each type of fulfillment error they are forced to correct. But the researchers find that these fines often don’t reflect the actual costs of correcting errors. This can potentially distort incentives among suppliers, as well as make certain metrics, such as a supplier’s accumulated charge-backs, unreliable indicators of performance.

Retailers could minimize errors in the first place by understanding how purchase-order characteristics affect error rates, the authors argue. Some errors increase in frequency as order quantities go up; others become more frequent as order quantities diminish. Knowing how order size affects the incidence of errors can help retailers assess the optimal quantities for their purchase orders and drive down the costs of correcting problems.—Dee Gill

Go to Review.ChicagoBooth.edu to see citations for research in this article.
One explanation for why CEO pay has skyrocketed
Consistent stock-options grants are worth more, and more, and more

CEO pay at S&P 500 companies tripled between 1992 and 2001, far outpacing raises paid to other members of the top 1 percent of US households. That marked a dramatic break from the trends established in both preceding and subsequent years, according to research by Chicago Booth’s Kelly Shue and Dartmouth College’s Richard Townsend.

Stock-options grants have been widely mentioned as one possible explanation. Now Shue and Townsend offer evidence that the pay jump can be blamed in large part on one particular way grants were awarded: companies consistently awarded a certain number of options, regardless of how much those options were worth.

Stock options became popular during the 1990s, thanks to regulatory changes that made them attractive, and because they theoretically align a CEO’s incentives with those of shareholders. An options contract gives the holder the right to buy a stock at a defined price, which means that as the stock price rises, so does the value of the option. Corporate boards typically award options that are “at the money” when granted—so if a stock is trading at

A HIDDEN PAY RAISE
Stock-options grants theoretically align a CEO’s incentives with those of shareholders. But in a rising market, when a CEO receives the same number of stock options for several years running, that can effectively function like a regular, and perhaps unintended, pay raise.

Say the company grants its CEO 10,000 options when the stock is trading at $100. The stock rises 50 percent that year, so the options are worth $500,000. The next year, the company again grants the CEO 10,000 options, with the stock at $150. The stock again rises 50 percent, but this year’s grant is worth $750,000. The CEO received the same number of stock options, but the second grant was worth $250,000 more. If the stock keeps rising, the value of the options grants does the same.
$20, the recipient has the option to buy the stock for $20. The award has no intrinsic value at that point, but its value can skyrocket if the stock price does too.

“While much of the existing research focuses on the rising grant-date value of these options, we instead start by examining the number of options awarded to executives,” write Shue and Townsend. “We show that there is a high degree of rigidity in the number of options awarded.” They suggest this number rigidity can explain more than half of the off-trend growth in CEO pay in the United States during the tech boom.

The researchers looked at executive compensation data covering firms in the S&P 1500, from 1992 to 2010. Many companies granted executives the exact same number of options year after year, Shue and Townsend find—20 percent of new grants they looked at contained the same number of options as the previous year’s grant.

When companies changed the number of options granted, it was often to a number that is a multiple of what it had been. According to the researchers, “these patterns suggest a tendency to think of options compensation in number rather than dollar terms.” The empirical evidence supports a pattern that the University of Southern California’s Kevin J. Murphy had proposed in earlier research.

Because at-the-money stock-options awards have no intrinsic value when they’re given, “it is not immediately obvious that granting the same number of new options after a stock price increase would coincide with a pay increase,” the researchers write. But in effect, the consistent grants represent a pay raise. If a CEO receives 10,000 options to buy shares of stock trading at $100, and the stock goes up 50 percent to $150, the options would be worth $500,000. The next year, if the company grants the CEO 10,000 more options to buy shares trading at $150, and the stock again rises 50 percent, the second grant would be worth $750,000.

Although CEOs’ options grants became worth more and more, boards did not adjust their other forms of compensation to offset the growth in value, the data suggest. It could be that boards didn’t completely understand how to value the options, Shue and Townsend conjecture. Some companies voluntarily expensed the value of options grants, so presumably they did have someone around who knew how to value them. Those companies were “significantly less likely to use number-rigid option[s] awards,” the researchers find. And when regulators in 2006 began requiring companies to expense the grants, number rigidity declined.

Some CEOs may not have understood the value of the options, either. The researchers find that after a stock split, many CEOs received a split-adjusted number of shares of stock in their pay packages—but continued to receive the same, unadjusted number of options contracts even though those would potentially be worth less than before. –Natasha Gural

Go to Review.ChicagoBooth.edu to see citations for research in this article.
In the first large-scale study documenting the economy-wide extent of misconduct among financial advisers and financial advisory firms in the United States, researchers find that most financial advisers who engage in misconduct get to keep their jobs—or are quickly rehired by another firm in the industry.

Some of the largest financial advisory firms in the US have the highest rates of misconduct, according to University of Minnesota’s Mark Egan and Chicago Booth’s Gregor Matvos and Amit Seru. At Oppenheimer, 20 percent of advisers have been disciplined for misconduct, the researchers find. At First Allied Securities, 18 percent; at Wells Fargo Advisors FN, 15 percent; and at UBS Financial Services, 15 percent. Morgan Stanley and Goldman Sachs are among the firms with the lowest rates of misconduct, with rates at both closer to 1 percent.

“We find evidence suggesting that some firms specialize in misconduct,” the researchers write. “Such firms are more tolerant of misconduct, hiring advisers with unscrupulous records. These firms also hire advisers who engage in misconduct to a lesser degree.”

And firms that hire advisers who have left or lost jobs because of misconduct appear to have a culture of it. “This ‘match on misconduct’ reemployment undermines the disciplining mechanism in the industry, lessening the punishment,” the researchers write.

To research the industry, Egan, Matvos, and Seru used data from the Financial Industry Regulatory Authority (FINRA), a self-regulatory organization that oversees 650,000 licensed salespeople. Most of these salespeople are officially known as registered representatives, though they use a variety of other titles, including adviser and broker. These salespeople help to manage more than $30 trillion of investable assets, according to the researchers.

The data reveal that more than 12 percent of active financial advisers’ records have a disclosure, which can indicate any sort of dispute or disciplinary action, alleged or established. Approximately 7 percent of active advisers have been disciplined for misconduct or fraud. Of the advisers who have engaged in misconduct, 38 percent are repeat offenders. “This simple summary statistic strongly suggests that misconduct does not arise due to bad luck or random complaints by dissatisfied customers,” write Egan, Matvos, and Seru.

More than half of misbehaving advisers stay with the same firm after a year, according to the data. Of those who leave, 44 percent quickly (within a year) find new jobs in the industry.

—Natasha Gural

Q1 Is the financial system safer now than it was before the 2007–10 crisis?
It’s still unclear. While we’ve had a lot of attempts at transparency, we really don’t have any evidence of costs and benefits. It’s safer in one sense: regulators seem to be more aware of potential problems because they face greater accountability for their actions and inactions.

Q2 Has transparency improved, at least?
There’s a lot more regulation for financial institutions, as is evident from the Dodd-Frank Act, which contains 14,000 pages of regulation! The biggest attempt to increase transparency is that systemically important financial institutions have to undergo stress tests and disclose the results. There has also been a big push to disclose the compensation of [corporate] insiders, which, at face value, seems desirable. The question is whether these attempts have successfully curbed risk taking. Disclosing stress-test results is desirable, a good first step. The downside is that we’re still unsure of how this disclosure affects the behavior of banks.
WHY OBAMA’S OIL TAX WOULDN’T HELP ELECTRIC CARS

In his fiscal 2017 federal budget request, US President Barack Obama proposed a $10-per-barrel tax on oil, intended in part to fund “a 21st-century clean transportation system.” If the tax were enacted, it might drive investment in green-transportation infrastructure and technology—but it wouldn’t threaten gasoline’s preeminence. Research by Thomas Covert of Chicago Booth, University of Chicago’s Michael Greenstone, and MIT’s Christopher R. Knittel suggests that it will take more than that to motivate drivers to abandon gasoline for alternative energy sources.

The researchers developed a series of estimates to compare the operating costs of internal-combustion engines to those of electric motors. These calculations suggest that motorists will continue to pay a premium to drive an electric vehicle until battery costs fall and oil prices rise dramatically.
How to read it

Will electric cars be cheaper than gas-powered cars in 2020? Each coordinate pair corresponds to a scenario of oil and battery price in 2020. If the coordinate is in the yellow area, electric cars will be cheaper than gas-powered cars in 2020; if the point is in the blue area, gas-powered cars will be cheaper.

Break-even line
Electric cars and gas-powered cars cost the same in 2020.

Gas-powered cars cheaper than electric cars in 2020

We are here.

Who Gets into the C-Suite?

Data reveal the four most important traits of America’s CEOs

BY AMY MERRICK    ILLUSTRATION BY PAUL OAKLEY
A person aspiring to corporate America’s highest heights has no shortage of information purporting to show her the way there. Magazines such as *Fortune* show top executives striking heroic poses, accompanied by glowing case studies of their career trajectories. The media analyze CEOs’ exercise habits, their diets, and the number of hours they spend sleeping. They ask executives to recount their best decisions and their biggest regrets. Even terrible CEOs get scrutinized for lessons to draw about what not to do.

But much of the information can be contradictory. Take the best-selling book *Good to Great: Why Some Companies Make the Leap . . . and Others Don’t* by management consultant Jim Collins. First published in 2001, it profiles 11 companies that went from 15 years of cumulative stock returns at or below the general market to 15 years of cumulative returns of at least three times the general market. Collins defines a great CEO—a “Level 5 Leader,” in his terminology—as someone with humility, will, “unwavering resolve,” and the tendency to give credit to others and accept blame. The author cites David Packard, the cofounder of Hewlett-Packard, as a praise-worthy CEO: Packard was so self-effacing that he and his wife continued to live in the same small house they had built before he became a billionaire.

Another best-selling business book, 2007’s *True North: Discover Your Authentic Leadership*, prioritizes interpersonal skills. Coauthored by former Medtronic CEO Bill George, *True North* advocates that CEOs “establish long-term, meaningful relationships.” Its “Personal Leadership Development Plan” encompasses five key areas: knowing your authentic self, defining your values and leadership principles, understanding your motivations, building your support team, and staying grounded by integrating all aspects of your life.

For every opinion, there’s a counter-opinion—for every example, a counter-example. How, for instance, does Amazon.com founder Jeff Bezos fit into the molds explained above? (See “Four Factors, Three CEOs,” right.) Bezos savages his employees with put-downs such as “Why are you wasting my life?” according to a book about the company. He used some of the billions he made as founder of Amazon.com for attention-grabbing investments in the *Washington Post* and Blue Origin, a spacecraft company. Collins might predict that Bezos would struggle thanks to his lack of humility, and Bezos’s interpersonal skills don’t seem to be stellar. But the CEO, with his healthy...

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**CEO: THE HARD-CHARGING VISIONARY**

CEOs are the all-around champs of the C-suite, scoring highly on all four factors the researchers identify as common to top executives: general ability, execution skills, charisma, and creativity/strategy. Count on a CEO to make a bold move or to close the deal: compared with CFOs and COOs, they are significantly more likely to be perceived as risk takers with outgoing personalities who are good at sales.
ego, topped *Harvard Business Review*’s 2014 list of “The Best-Performing CEOs in the World,” which cited Amazon.com shareholder returns since 1994 of 15,189 percent. (In 2015, when *HBR* added measures of a company’s environmental, social, and governance performance, Bezos dropped to No. 87.)

The advice offered to leaders and aspirants is often anecdotal, based on observation and experience. What could you learn by stripping that away and focusing on objective measurements of what makes a leader? Chicago Booth’s Steve Kaplan and Copenhagen Business School’s Morten Sørensen reviewed more than 2,600 detailed profiles of candidates for CEO, CFO, COO, and other top positions. From those, they developed a list of skills—four crucial factors—that they say statistically determine who will become a CEO.

**Collecting data from leaders**

Kaplan and Sørensen’s study stands out as one of the most comprehensive and systematic leadership analyses to date. It follows up on an earlier study, published in 2012 with Mark M. Klebanov, a Chicago Booth PhD graduate now at Lord, Abbett & Co., an investment management firm.

In that work, the researchers reviewed reports from 316 interviews conducted by ghSMART, a firm that assesses top executives, usually when they are candidates for managerial positions. Unlike a recruiting firm, ghSMART does not recommend candidates to interview or receive a fee based on whether a particular executive is hired. Companies pay $10,000 and up per assessment.

In the detailed assessment, the interviewer, a ghSMART employee, asks for specific examples of the candidate’s actions and behaviors at every life stage, starting with childhood and continuing through the candidate’s education and career. What are the two or three accomplishments in high school that he is most proud of? What was his class rank? What mistakes did he make at a

**FOUR FACTORS, THREE CEOs**

Statistics suggest four factors common to CEOs. But can we see those factors at work in three well-known corporate chiefs?

**Jeff Bezos**

Amazon.com’s CEO puts in 65-hour weeks, and a *New York Times* article on the company’s high-pressure work environment describes Bezos as having “an instinct for bluntness bordering on confrontation.” But his execution skills are strong. Amazon’s sales increased 20 percent last year, topping $100 billion, and the company reported $2.2 billion in operating profits. The *Washington Post*, which Bezos purchased in 2013, has dramatically increased monthly visitors to its website. Blue Origin, a space company Bezos has funded with his personal fortune, recently launched an automated spacecraft into suborbital space, an important milestone.

**STRENGTH: Execution**

**Steve Jobs**

Jobs, who died in 2011, would likely score low on interpersonal skills. In Walter Isaacson’s biography, a friend of Jobs reported that the Apple cofounder “had the uncanny capacity to know exactly what your weak point is, know what will make you feel small, to make you cringe.” At the same time, Jobs was reportedly relentless in executing improvements. “The great accomplishment of Jobs’s life is how effectively he put his idiosyncrasies—his petulance, his narcissism, and his rudeness—in the service of perfection,” wrote Malcolm Gladwell in the *New Yorker*.

**STRENGTHS: Creativity/strategy**

**Satya Nadella**

Only the third CEO in Microsoft’s history, Nadella worked for 22 years on a wide range of the company’s products, from Windows NT to MSN to cloud services, before being promoted to the top in 2014. Chicago Booth’s Steve Kaplan taught Nadella in an entrepreneurial finance class and remembers his former student as particularly strong in strategy and general ability, encompassing both qualitative and quantitative analysis. “He can take a situation and analyze and articulate the issues involved,” Kaplan says, adding that Nadella, unlike some notoriously abrupt CEOs, also has good interpersonal skills: listening, treating people with respect, and working well with his team.

**STRENGTHS: Creativity/strategy, general ability**
particular job, and what would he do differently next time? Because the interview is so comprehensive, it’s difficult for candidates to lie, Kaplan says: “You can’t shade things for four hours about your entire life.”

After the session, the interviewer creates a 20- to 40-page report evaluating 30 characteristics that range from “hires A players” and “develops people” to “[demonstrates] brainpower,” “persuasion,” and “attention to detail.”

The researchers needed to simplify ghSMART’s model for it to have predictive power. With 30 variables, it’s likely that some of those will be strongly correlated, making it difficult to reach valid statistical conclusions. An executive may score highly on speed and enthusiasm and aggressiveness, and the nuances of each may be difficult to separate. So the researchers used a method known as factor analysis to determine which variables tended to move together, compressing the 30 variables into two—the first two factors Kaplan and Sørensen determined as common to CEOs.

Later, ghSMART made five more years’ worth of data available, from another 2,300 executive assessments, which drew from a larger pool of candidates for both CEO and non-CEO positions. In that data set, 31 percent of the candidates were considered for CEO positions, 13 percent were evaluated for CFO jobs, and 6 percent for COO. The companies seeking to hire the executives varied from publicly traded firms, to those owned by venture capital or private equity, to other privately owned companies. The additional data gave the researchers the statistical power to reliably estimate two additional factors.

To see if those four factors could predict who later became a CEO or another member of the C-suite, Kaplan and Sørensen tracked the executives’ ensuing career paths using LinkedIn and other public sources. They looked to see whether the candidates were hired for the positions for which they were being considered, but also whether those candidates became top executives, especially CEOs, at any company.

It is possible to forecast who will earn the top job, they find. CEO candidates who were hired tended to have higher scores in all four areas. And non-CEO candidates who scored higher on those factors were more likely to become CEOs.

**The four factors**
The initial study finds that CEO characteristics are best explained by overall talent and execution skills. The second data set identifies the importance of charisma and a mixture of creativity and strategy.

**General ability**
The factor that explains the most information in the 30 traits assessed by ghSMART is general ability. That category “is very broad,” says Kaplan, who explains it this way: “If somebody scored high in one area, they tended to score high in all of them.”

To achieve a spot in the C-suite, it helps to do a lot of things well. If you have high standards, honor your commitments, work efficiently, have a large network, and are aggressive, fast, and proactive, that’s all good.

Being proactive is particularly important because, of all the traits assessed, proactivity makes the largest contribution to general ability.

The ghSMART interviewers can’t simply ask candidates if they are proactive, as all the candidates would say yes. Instead, the interviewers get the candidates to tell stories about jobs they...
Researchers took 30 traits assessed by ghSMART in executive interviews and condensed them into four critical factors. They also identified three factors that some C-suite executives tend to lack.

### Importance of Factor

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<th>Factor</th>
<th>58%</th>
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<th>9%</th>
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<td>General Ability</td>
<td>Proactive</td>
<td>High Standards</td>
<td>Efficient</td>
<td>Upholds commitments</td>
<td>Fast</td>
<td>Aggressive</td>
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<td>Execution vs. Interpersonal</td>
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<td>Charisma</td>
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### How Those in the C-Suite Performed (average factor scores)

- **CEO**
- **CFO**
- **COO**

Source: Kaplan and Sørensen, 2016

have held. From those responses, they gauge whether a candidate acts without instruction, regularly brings new ideas to a company, and is self-directed, according to ghSMART’s interviewing guidelines.

Another of the 30 traits linked to general ability is having high standards: expecting both personal and team performance to be the best. Candidates with high general ability also are efficient, able to produce significant output with minimal wasted effort. They honor their commitments, living up to verbal and written agreements regardless of personal cost. They take action quickly without getting bogged down by obstacles.

In their 2012 study, Kaplan, Klebanov, and Sørensen looked at CEO performance for companies involved in a buyout by a private-equity firm. They find that CEOs with greater overall talent were more successful, as measured in three ways: the private-equity company’s assessment of the CEO;
public metrics, such as whether the CEO led the company to an initial public offering or sale to another business; and a broad measure of whether the company received positive press or additional financing.

Their findings on general ability dovetail with a theory developed three decades earlier by the late Sherwin Rosen, the former chairman of the economics department at the University of Chicago. In his work on “superstars,” Rosen argued that market size and reward are disproportionately directed toward the most talented people in an industry, from live comedy to classical music to sports. “In certain kinds of economic activity there is concentration of output among a few individuals, marked skewness in the associated distributions of income, and very large rewards at the top,” he wrote.

Similarly, in a 2008 study, Xavier Gabaix of New York University and Augustin Landier of the Toulouse School of Economics find a small dispersion in CEO talent, but they argue that the limited range in overall ability justifies big differences in pay as companies have dramatically increased their market size, thereby increasing the financial weight of CEOs’ decisions.

**Execution**

The second important factor in the 30 characteristics: execution, which represents the ability to be efficient, aggressive, persistent, and proactive.

According to the ghSMART interview guidelines, CEO candidates should set goals for their teams, follow up to review progress toward those goals, and hold people accountable for shortfalls. Those who remove underperformers do so within six months, through coaching out, redeployment elsewhere in the organization, demotion, or termination. Aggressive candidates move quickly and take forceful stands, “without being overly abrasive.”

There seems to be an important trade-off: the researchers find that execution and interpersonal skills are negatively correlated. More specifically, those who are strong in execution score lower in the ghSMART assessments in categories such as treating people with respect, being open to criticism, listening, and working in a team. Consistent with this, executives who scored higher on execution also were less likely to be considered a nice person by the research assistants who coded the assessments.

Kaplan points out that executives often have to make difficult decisions under time pressure. Their employees may not judge them to be as friendly or respectful as others who postpone hard choices. “The people who become CEOs get things done,” he says. “There may be some tendency, if you want to get things done, to have to step on some toes, fire people, and be tough from time to time . . . If you’re a saint, you’re probably not going to become CEO. You have to make tough decisions that are going to ruffle some feathers.”

**Charisma**

One of the newly identified factors is charisma, which is associated with enthusiasm, persuasiveness, moving fast, and being aggressive and proactive. Charismatic executives are likely to be classified as more extroverted and better at sales, according to Kaplan and Sørensen.

These candidates scored lower on traits that may seem admirable on their own but make a person less likely to become a CEO. These include analytical
DON’T BE BLINDED BY CHARM . . . A CAUTION ON HIRING

Recruiters tend to overvalue personality when hiring corporate leaders.

A 2012 study led by Texas A&M’s Murray R. Barrick focuses on interviewers’ first impressions of job candidates for nonexecutive positions. Extroverted candidates with strong verbal skills build an early rapport with interviewers that influences how interviewers evaluate candidates’ other qualifications. An outgoing candidate may get higher marks in all areas than a more reserved person who is equally qualified. If interviewers are aware of this tendency, they may give more attention to strong candidates who might otherwise be overlooked.

Similarly, Kaplan and Sørensen find that in the hiring process, being nice may be overrated. For each job category in their study, hired candidates score higher on interpersonal skills than do all assessed candidates. High scores on the four factors they identify—general ability, execution, charisma, and creativity/strategy—get a person the interview, but being personable actually lands the job.

A one-standard-deviation increase is associated with a 17.9 percent increase in hiring the candidate for a CEO position, Kaplan and Sørensen find. “This suggests that interpersonal skills are valued differently in the hiring decision from their value in identifying candidates,” they write. “This is particularly interesting for CEOs, because CEO candidates are distinguished by their execution skills.”

In a 2012 study, Kaplan and Sørensen, with Mark M. Klebanov of Lord, Abbett & Co., find that execution skills are strongly correlated with success for CEOs of buyout-funded companies. “What we don’t know is, are people making mistakes?” Kaplan says. “It may be that boards say, ‘We don’t want this jerk.’ But it could be that you’re making a mistake by just hiring the person you like more.”

Kaplan recommends that boards focus on execution skills first. After that, if one remaining candidate is a jerk and the other is not, he says, “go with the one who’s not.”

Skills, measured in ghSMART assessments by how often a candidate cited examples of problem-solving skills and discussed processing qualitative or quantitative data. Another trait that can be missing in charismatic candidates is attention to detail: an emphasis on reviewing the minor features of a project. Such skills might make you a better bureaucrat, administrator, or careful middle manager, but they aren’t the ones that are likely to propel you to the CEO job.

This finding runs contrary to warnings about the “cult” of the charismatic CEO. In 2002, Harvard Business School’s Rakesh Khurana published Searching for a Corporate Savior: The Irrational Quest for Charismatic CEOs. Khurana examined the CEO selection process at 850 US companies and argues that boards focus too much on charisma, artificially limiting the number of candidates and allowing the extroverts to demand outsized compensation and power. Khurana, whose book appeared in the wake of high-profile scandals at Enron, Tyco, and WorldCom, criticizes this concentration of power, writing, “The vision of a charismatic leader is a poor organizing principle for contemporary firms, which increasingly depend for their success on the sharing of intelligence and the dispersal of decision-making authority across all levels of the organization.”

But Kaplan and Sørensen aren’t the only researchers to recently develop a more favorable view of charisma. Bangor University’s Stephan A. Boehm, Rutgers University’s David J.G. Dwertmann, Heike Bruch of the University of St. Gallen, and the late Boas Shamir of the Hebrew University of Jerusalem examined the performance of 150 German companies, which they measured by company growth, financial performance, and return on assets. Charismatic CEOs boost company performance indirectly in two ways, they find. First, they help create a “transformational leadership climate,” one in which all managers, from the top down, are able to get employees committed to a shared vision of success. Second, charismatic CEOs increase “organizational identity strength.” Employees led by such CEOs are more likely to agree that their company has carved out a significant position in their industry. In other words, when frontline workers share the CEO’s goals and regard their company as an industry leader, it helps the bottom line.

A friendly and outgoing CEO candidate may get higher marks in all areas than a more reserved person who is equally qualified for the role.
Creativity/strategy

The fourth factor is twofold: creativity and strategy. The factor appears to be broader, judging from the data, than either creativity or strategy alone, encompassing elements of both. Individuals who scored well in this area ranked high in traits such as strategy, brainpower, analytical skills, and creativity. Strategy, in the ghSMART assessment, relates to being able to see and communicate the big picture to others in an inspiring way. Creativity is measured by an ability to generate new and innovative approaches to problems.

Candidates with high scores on this factor tended to score lower in attention to detail and organization. People who scored especially high in charisma also scored lower on those two traits. In the ghSMART interview, organization is associated with planning, organizing, scheduling, and budgeting in an efficient, productive manner. Translation: the CEO may have lots of good traits, but is probably not spending her time planning the office holiday party.

Executives with strong creative skills recognize not only how to use those abilities but when, says Chicago Booth’s Harry L. Davis, who has long studied creativity. “In leadership, agility is critical,” Davis explains. “Sometimes it’s relevant to be very focused, to identify the key success factors and to try to align everyone in the organization to them. In other cases, it’s much more important to be open-minded and patient, to ask questions, to explore and observe.”

For those with weak creative muscles, Davis says it’s possible to develop them through practice. The first step involves collecting information—some directly related to the topic being studied, and some that at first may seem tangential, but that may serve to generate ideas. The next step involves sifting and sorting through all the information gathered to recognize what connections exist. Those connections lead to ideas.

A creative CEO can set the tone for the entire organization. An executive who wants to encourage creativity needs to carefully avoid squelching discussion by being too quick to demand data or evidence from others, says Davis. Executives, he says, need to facilitate meetings to generate rather than criticize ideas—and to keep an open mind as to which ideas are worth exploring further.

Beyond soft skills

Whether or not the four factors fit the popular perception of an executive, the researchers find most C-suite members embody the characteristics associated with them, to varying degrees. CEOs tended to be strongest in all four areas. CFOs displayed less charisma and less strategic or creative skill.

The data differ, markedly at times, from anecdotal evidence.

WOMEN ARE EQUALLY QUALIFIED, BUT RARELY HIRED

WOMEN SCORE just as high as men on the four factors that determine who becomes a CEO, Kaplan and Sørensen find in their study. Yet when those factors are held constant, female candidates for a CEO position are 28 percent less likely to be hired.

“That was a disappointing finding,” Kaplan says in an interview. “Is there any discrimination going on, or are women not trying to be CEOs? It could be one or the other, or both.”

Overall, roughly 1.0 percent of the candidates in his study with Sørensen are female. That includes 5 percent of CEO candidates and 8 percent of both CFO and COO candidates.

There’s no dispute that women lag in reaching the C-suite. Chicago Booth’s Marianne Bertrand and Kevin F. Hallock, now at Cornell University, found in a 2001 study that women were underrepresented among the five highest-paid executives at S&P 500 firms from 1992 to 1997. Only 2.5 percent of those executives were female, and just 0.5 percent of CEO or chairperson roles were held by women.

The numbers have improved, but only slightly. As of February 2016, just 20 of the S&P 500 companies are run by women, according to Catalyst, a nonprofit research group that promotes workplace inclusion.

Bertrand argues that women face a stronger trade-off than men between career and family. In a 2010 study, she and her coresearchers, Harvard’s Claudia Goldin and Lawrence F. Katz, find that MBAs experience huge wage penalties for taking any work leave, which women are likely to do.

In a 2009 survey of CEO research, Bertrand wrote that it is likely that “women’s ability to hold top-level jobs is primarily constrained by either their desire to spend time with family or the continued relevance of strong gender norms in terms of the allocation of childcare duties, both of which may constrain career advancement given a working environment that offers limited tolerance for anything less than full commitment to work.” Her work indicates that until stereotyped gender roles change, women are unlikely to get equal billing at the top.

For more on gender inequality, see “Why can’t we close the gender gap?” (page 75).
COOs, for their part, showed more charisma than CFOs but were weaker in strategy and creativity.

The data differ, markedly at times, from anecdotal evidence. In Collins’s book Good to Great, the characteristics of will and “unwavering resolve” appear to be related to execution skills, but humility and blaming oneself for errors don’t seem to have any predictive ability for who becomes a CEO. (Collins was not available for a comment or interview.)

Bill George, now at Harvard, prioritizes the interpersonal skills that Kaplan and Sørensen find to be less predictive of becoming a CEO. George describes “authentic leaders” as those who “engender trust and develop genuine connections with others . . . . [T]hey are more concerned about serving others than they are about their own success or recognition.” George says he doesn’t agree with the analytical methods of the study, or its conclusions. “Effective leadership requires first-person interviews, which this study does not use,” he says.

Granted, Kaplan and Sørensen’s research addresses the traits exhibited by people who get to the C-suite; the two haven’t yet focused on the traits needed to excel once in the C-suite. But their earlier research suggests that talent and execution—not humility or interpersonal skills—are important once on the job. (See “Don’t be blinded by charm . . . a caution on hiring,” page 29.)

The findings do seem to be in line with advice by the late management guru Peter F. Drucker, who in 1967 published The Effective Executive: The Definitive Guide to Getting the Right Things Done. According to Drucker, successful business leaders manage their time well, choose what to contribute to their organizations, know when and where to mobilize their strengths for the greatest effect, set the right priorities, and make effective decisions. All of these traits, Kaplan notes, relate to execution, even though Drucker reached his conclusions by a very different route—talking to people and observing.

Stanford’s Jeffrey Pfeffer is another student of CEO behavior whose understanding of management seems to align with the study data. In a new book, Leadership BS: Fixing Workplaces and Careers One Truth at a Time, Pfeffer asserts that a focus on soft skills undermines business performance.

“One of the qualities I would look for in an aspiring leader is if the individual is psychologically tough enough to handle not being liked and the responsibilities that come with power,” Pfeffer says in a promotional interview for his book.

Empirical and anecdotal evidence can, of course, be complementary. Kaplan and Sørensen asked research assistants who reviewed the executive assessments to evaluate the candidates based only on the qualitative descriptions of their behavior. The assistants rated whether the executive seemed like a nice person, was a risk taker, had an outgoing personality, was good at sales, and had a narrow or broad career path. Overall, the results line up. CEO candidates who are perceived as greater risk takers score significantly higher on Kaplan and Sørensen’s four factors.

For CEOs, aspiring CEOs, or corporate board members responsible for hiring decisions, data about leadership provide something novel to consider—and potentially act upon. Creativity and strategy may be innate traits, or at least difficult to develop, Kaplan suggests. But charisma and enthusiasm, and the ability to persuade others, may be more malleable. The data-driven findings suggest that execution skills are an important way that CEOs set themselves apart from the pack, and it’s possible that those abilities can be honed. “It seems plausible that executives can improve execution skills—being more persistent, efficient, and proactive,” Kaplan and Sørensen write. For executives determined to reach the C-suite, the findings are an invitation to dust off the to-do list, and get started.—cbo

Go to Review.ChicagoBooth.edu to see citations for research in this article and sidebars.
WHY YOUR SALES FORCE NEEDS SMARTER INCENTIVES

Building a sales team requires more than just recruiting great talent—it requires compensating that talent effectively. Research is showing sales managers how a data-focused approach can help identify which incentives will work best, which might be costing them money, and how they can find the right solution for each of their employees.

BY ALINA DIZIK  PHOTOGRAPH BY GLEN GYSSLER
when Aldo Zucaro wanted to boost his company’s revenue, he turned to a division that had become entrenched in its ways: the sales team.

Zucaro, senior director of commercial strategy at contact-lens manufacturer CooperVision, knew the company had long tracked traditional sales metrics and used them to reward team members for closing deals. But that, along with on-the-job sales training the company provided, wasn’t enough to ensure employees stayed motivated to work hard after a deal closed. Their sales efforts would often rise and drop with each sales cycle, rather than producing a steady stream of sales throughout the year.

To tame the highs and lows, Zucaro used findings from research conducted by Chicago Booth’s Sanjog Misra and Stanford’s Harikesh S. Nair to measure and incentivize an attribute that’s notoriously difficult to quantify in a corporate setting: effort.

“I compensate on effort, and I believe that ultimately pays off,” says Zucaro.

On the basis of Misra and Nair’s research, Zucaro and CooperVision began running algorithmic analyses of employees’ performance data to quantify the effort they invested in their work. Zucaro then set effort-based incentives using the results of the analysis. Though he’s reticent to discuss specifics of the company’s new strategy, Zucaro says that ultimately, understanding how to appeal to his sales team by providing the optimal incentives “makes the process of selling cheaper.” The new analysis is a supplement, rather than a replacement, for the traditional sales tracking CooperVision was already doing—and, Zucaro says, the behind-the-scenes nature of the analysis makes it simple to integrate into the sales force. Since CooperVision began optimizing incentives for effort, its sales growth has exceeded market-average sales growth in many regions around the world.

Companies have embraced big-data analysis in many areas of business, but largely left their sales teams alone. In the past, optimizing a sales force “wasn’t based on data and analytics,” says Misra. Instead, research was largely theoretical. What tracking was done at the company level tended to focus only on the end result of the sales process. That is perhaps in part because figuring out how to analyze a traditionally opaque part of the organization, where employees often come and go independently, has been a challenge. But the challenge is lessening, and the benefits to companies willing to engage in analytics are significant.

In the past five years, researchers including Misra, Nair, and Chicago Booth’s Øystein Daljord have demonstrated the importance of using existing company data to track the efficacy of the sales process and predict productivity. Their findings suggest that, while there may still be a place for traditional resources such as sales training, executives can complement them with...
Sophisticated analyses that can tweak employee compensation structures or create new screening tools for the HR department. Even when improvements are incremental, the scale of some sales forces means small changes can make a big difference.

“In sales, each [employee] is contributing a little bit, and it’s easy to forget that they are a critical element,” says Misra. “If you can improve the performance of each of these [employees], it adds up to quite a bit.”

The research suggests four ways data analysis can help fine-tune sales teams:

1. **Identify compensation approaches that just don’t work**
   When Misra and Nair worked with a Fortune 500 company to optimize compensation for the 82 sales agents the team studied over three years, they and their fellow researchers observed that the presence of quotas and compensation ceilings actually induced salespeople to be less effective during certain periods of the year. As employees neared the end of a sales period, those who were too far from their quota or too near their ceiling had little incentive to be productive until the next sales period began. The effect was so reliable that the researchers could accurately predict a salesperson’s sales for the remainder of a quarter based on how far she was from her quota or ceiling. “How far away from quota you are seems to affect sales,” says Misra, though he adds that some quotas can work as intended.

   To test their analysis, the researchers suggested a new compensation structure, which focused less on quotas, and which the company put into practice with some modifications. The new approach to incentives led to a 9 percent improvement in overall revenues, which was equivalent to $12 million in incremental revenues annually.

2. **Create individualized incentives**
   Though many executives would shudder at the difficult task of tweaking incentive structures for every individual, research by Daljord, Misra, and Nair indicates that using different mixes of salary and commission to cater to degrees of risk aversion, productivity, and efficiency can aid in motivation. “Something is lost by the fact that there’s one incentive for everyone,” according to the researchers.

   The research indicates how companies can create an individual compensation model for each employee based on an algorithm that uses the employee’s historical performance data to simulate how she would respond to various incentive types. Though it’s complex, the algorithm can take data that already exist and run in the background of day-to-day operations.

   The right framework can make it more difficult for incentives to distort employee behavior (for example, working solely to close the sale versus shaping a long-term relationship) or for employees to take

---

**Choose wisely**

Companies can create near-optimal compensation structures by hiring sales agents who are motivated by a similar mix of salary and commission, research suggests.

**Salaries and commissions of sales agents if each were offered a unique contract**

<table>
<thead>
<tr>
<th>Chosen to be part of sales team</th>
<th>Not chosen to be part of sales team</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salary ($ thousands/month)</strong></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

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Note: All numbers have been scaled to protect company confidentiality. Source: Daljord et al., 2015
advantage of ineffective commission schemes that fail to create long-term buy-in. Furthermore, understanding how incentives affect employees can help companies objectively measure their employees’ effort without tracking their every move. “Even if you don’t see effort, what you can show is that they are impacted by an incentive structure,” Misra says. Not all incentives are financial, he points out; some employees may derive benefit from simply being recognized by their peers.

Avoid adding outliers to your staff

Because incentives affect people differently, there’s some advantage in avoiding sales reps whose motivations are unlike any of their peers. Instead, it may be more practical to hire employees who have common goals, or group the sales agents according to common preferences, says Daljord. He worked with Nair (his former Stanford advisor) and Misra to show that even when companies opt not to completely individualize compensation structures, hiring employees who share similar tendencies toward incentives can be nearly as effective.

For example, younger employees without a family may perform well with a low salary and lots of performance incentives, whereas for employees with young children, it may be more important to know that they can bring home a certain paycheck every month. Daljord explains that designing different incentive plans for each group isn’t intended to make one group perform better than the other; rather it’s done because when the same incentive structure is implemented identically across all employees, none of the groups performs as well as it could with individualized incentives. Therefore, employers who want to avoid varying their incentive plans should try to build teams who are similarly motivated to begin with, and tailor incentives to that single homogeneous group.

Rather than hiring a headhunter to fill out an existing sales force, using data analytics in the hiring process can yield an applicant who best fits the existing compensation structure, says Misra, which in turn can maximize team productivity. “You never think of HR as being one of the drivers of sales,” he says, but recruiters can make an important contribution to aligning incentives.

During the hiring process, HR can use analytics to help understand how a sales agent will respond to various types of incentives. Hiring a pool of sales employees all motivated by the same things can cut down on the need for constant performance management, Misra adds. “You have these win-win situations that are possible,” he says. “When sales people are happier because of their compensation results, they put in more effort and create more sales.”

Observe without intruding

With many sales employees now working remotely, managers need a way to nonintrusively monitor day-
to-day practices. Gryphon Networks, a sales intelligence firm in Boston, offers companies an updated “sales intelligence platform” that allows them to track dispersed sales teams, says the company’s senior vice-president, Eric Esfahanian. Gryphon helps corporate sales managers understand their employees’ daily activities—whether or not they make a sale—by offering speech analysis of client communications. The speech data are converted into a simple visual dashboard allowing middle managers to digest them at a glance, Esfahanian says.

Gryphon’s tool uses big data to provide insight into a range of performance areas. For example, companies can track the average number of dials it takes to set an appointment or the common responses a rep gets to a specific pitch. While many of these metrics have long been part of a call center’s capabilities, they were unavailable to sales agents working in the field. When the sales force is out of the office, “even the simplest measurement is incredibly difficult to track,” he says.

Researchers have also turned to other multimedia sources of sales data. Misra, along with Aditya Jain of Baruch College and Nils Rudi from INSEAD, used in-store video recordings from eight outlets belonging to a Middle East–based cosmetics chain to understand how salespeople’s behavior affects purchases. The videos were coded with interaction links for salesperson-to-customer conversations and eyeball links for customers who scanned the shelves for products. Shoppers were also categorized in terms of gender, age, and attire to look for sales patterns. The data helped show the importance of sales assistance in encouraging customers to linger at the store, searching through products and ultimately spending more money.

The big picture on big data

Some managers may be reticent to revolutionize how they track their sales leads or hire staff. The sales environment is often fast-paced and cutthroat, and many chief executives would still rather invest in sales-team training than run models on how to alter compensation. Nonetheless, executives are more likely to use workplace analytics to dig into sales data than they have been in the past, and they’re spending more time in deciding what to do with metrics that have long run in the background, says Chicago Booth’s Michael Gibbs, who studies management, incentives, and organizational design. “This isn’t something that’s done by IT in some back room anymore,” he says.

Misra points out that unlike psychological theories on sales-force effectiveness, his research is completely quantitative, and he says companies now feel that incorporating analysis into their sales-force compensation structure is “low-hanging fruit” and can quickly help their bottom line. “How you pay people matters,” he says, “and if you want to increase sales, optimize how you pay people.”

Erik W. Charles, vice-president of product marketing for San Jose–based Xactly, a sales performance-management software company, says a sales team’s incentive plan “has a direct impact on their behavior.” Earlier research from Nair and Misra has helped Xactly’s product development team create a tool for comparing and evaluating incentive programs. The tool compiles more than a decade of sales compensation data from hundreds of companies, allowing clients to explore the data across dozens of metrics.

At CooperVision, Zucaro says using the new data-based models for incentivizing employees has created an opt-out for salespeople not interested in the new approach. Individuals are able to “self-select out of the organization” without management taking a heavy-handed approach to turnover, he says. It’s also changing how the company hires, with recruiters shying away from the “always-be-closing” brand of salesperson. “Hired guns don’t survive in our organization,” says Zucaro. “It’s not how we behave anymore.”

Go to Review.ChicagoBooth.edu to see citations for research in this article.
How much?
Cost to attend a US public four-year institution, per academic year (2015 $)

1975-76 $7,833

1985-86 $8,543

1995-96 $10,552

2005-06 $14,797

Source: The College Board
Student debt is skyrocketing and has become an issue in the US presidential campaign. For ideas and lessons about how to reform the system, some researchers are looking to Chile.

By Chana R. Schoenberger  Photograph by Clint Blowers
database where she could compare results for other programs that admitted students with similar test scores. The researchers then looked at students’ final school choices.

Students knew very little about the earnings and cost outcomes of their degree choices, the findings suggest. Respondents from low-income households were particularly optimistic, overestimating their short-term earning outcomes by more than 70 percent on average. While the effect was limited, giving students access to the information did make a difference, closing about 40 percent of the gap in predicted earnings outcomes between poor and rich students who tested similarly. The extra amount students went on to earn more than justified the cost of implementing the disclosure program.

**Maintain university quality standards**

The goal, of course, is for students who graduate to see the investment pay off and become productive members of society. Disclosure could help, but it’s also important to maintain quality standards at universities, particularly in the midst of major educational reforms.

Influenced by the work of Heckman and the late Gary S. Becker, another Nobel Prize winner, from Chicago Booth, Sergio Urzua of the University of Maryland looked at administrative records to compare poverty rates, income inequality indices, residential decisions, and access to schools. The analysis looked at the net returns of higher education, taking into account the money not earned while in school, the cost of tuition, and the length of degree programs.

He argues that a college education failed to pay off for all Chileans who attended. “Estimates using the most recent information suggest that between 10 percent and 40 percent of the individuals could have been financially better off if they had not attended a higher-education institution in Chile,” he says.

Urzua attributes this to reasons of both demand and supply. On the demand side of the equation, the cohort of new students going to university in Chile now includes a greater percentage from lower socioeconomic backgrounds. This group was likely to have received an elementary and high-school education that was “definitely mediocre,” if not poor, Urzua says. Their ability to face the challenges of college was limited.

On the supply side, an increase in university places has come with detrimental effects on the quality of the education, he says: “You went to college for five years, you got a degree, you got loans to pay for it, and the labor market learned very quickly that your degree did not really have the value you thought it had, and that’s a challenge,” he says. Urzua fingers what he calls “a poorly designed regulatory system.” He cites cases of public universities using false advertising and private universities that ran into financial trouble due to mismanagement.

Chile’s rapid push into mass higher education had consequences. Peru, which is also undertaking a program to increase access to higher education but lags Chile by 15 years, in January 2015 created a national agency tasked with maintaining quality standards in higher education. Chile’s President Michelle Bachelet, reelected in 2013, has proposed but not yet implemented a similar quality-assurance program for Chile.

**What if college were free?**

Around the globe, countries are wrestling with how to fund universities sustainably and produce graduates who will grow their economies. And some of the world’s biggest economies are struggling with the challenge of educating people without saddling graduates with debilitating debt. The BBC has reported about worries of “an army of educated unemployed that some fear could destabilize” the economies of India and China.

In the US, a college degree has become an expectation of the middle class, and student loans persist even through bankruptcy. Economists have warned that unsustainable student-loan debt could cause another financial crisis, much as subprime housing debt did in 2008, with debt potentially hampering individuals’ ability to borrow to buy houses or cars, or otherwise feed the economy.

“It’s not possible to have such a large group of the population entering the labor force with such a big debt behind them,” University of Paris economist Thomas Piketty told the news site Big Think.

In 2013, President Barack Obama dedicated part of his State of the Union address to announcing a disclosure program similar to the one test-driven in Chile: a college scorecard that students can use to “compare schools based on a simple criterion—where you can get the most bang for your educational buck,” as he put it. The college scorecard website allows users to learn about many programs’ costs, and some graduates’ incomes.

Chile continues to pioneer educational reforms and generate more data to analyze and learn from. While Vermont Senator Bernie Sanders has advocated for
college to be free in the US, President Bachelet has already begun to fulfill a campaign promise to make higher education free, an action that has thrown the country’s universities, most of them private, into turmoil as policy makers scramble to figure out how they will implement the change, and how Chile will pay for it. In March, 200,000 students from Chile’s poorest families began attending university without having to pay fees.

Solís prefers offering more loans to making higher-eduation free, saying that in Chile, only some students at the lower end of the income spectrum will qualify for a free university degree, meaning there may no longer be financial aid for other groups: “That may create some distortions.”

Eliminating tuition, says Zimmerman, could make disclosure programs even more important than before. “Even if college were free—in fact, perhaps especially if it were free—you would want students to make informed choices about what to study,” he says.

—WITH JANE PORTER

Go to Review.ChicagoBooth.edu to see citations for research in this story.

41.7%

Average portion of 25-to-34-year-olds in OECD countries with tertiary education

“It’s not that we don’t want students to be poets; it’s that we think students who choose to be poets should know what the career trajectory for that field typically looks like.”

—SETH ZIMMERMAN
Students knew very little about the earnings and cost outcomes of their degree choices, the findings suggest. Respondents from low-income households were particularly optimistic, overestimating their short-term earning outcomes by more than 70 percent on average. While the effect was limited, giving students access to the information did make a difference, closing about 40 percent of the gap in predicted earnings outcomes between poor and rich students who tested similarly. The extra amount students went on to earn more than justified the cost of implementing the disclosure program.

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**Economists have warned that unsustainable student-loan debt could cause another financial crisis.**
Informed consumers

Though many Chilean students lacked an understanding of the true costs and earnings prospects of their courses of study, giving them the relevant information significantly raised the net value of their educational choices, with students from low-income households benefiting most.

How much do you think is the cost of studying in the institution you selected?

<table>
<thead>
<tr>
<th></th>
<th>I don’t know</th>
<th>Among those who claimed to know</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students</td>
<td>33.2</td>
<td>Average error (%)</td>
</tr>
<tr>
<td>Students from high-income households</td>
<td>30.7</td>
<td>underestimate: 0.9</td>
</tr>
<tr>
<td>Students from low-income households</td>
<td>37</td>
<td>overestimate: -21</td>
</tr>
</tbody>
</table>

How much do you expect to earn after completing your first-choice degree?

<table>
<thead>
<tr>
<th></th>
<th>I don’t know</th>
<th>Among those who claimed to know</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students</td>
<td>35.8</td>
<td>Average error (%)</td>
</tr>
<tr>
<td>Students from high-income households</td>
<td>32.6</td>
<td>underestimate: 51.8</td>
</tr>
<tr>
<td>Students from low-income households</td>
<td>41.1</td>
<td>overestimate: 40.4</td>
</tr>
</tbody>
</table>

Improvement in net value* for students provided with online tool to compare earnings and costs across college degrees

<table>
<thead>
<tr>
<th>Increase in net value</th>
<th>Students from high-income households</th>
<th>All students</th>
<th>Students from low-income households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chilean pesos/month</td>
<td>8,040</td>
<td>10,029</td>
<td>15,274</td>
</tr>
</tbody>
</table>

*Net value is the difference between monthly earnings gains (between those who attended and those who did not attend college) and monthly tuition debt.

Source: Hastings et al., 2015

Chile continues to pioneer educational reforms and generate more data to analyze and learn from. While Vermont Senator Bernie Sanders has advocated for college to be free in the US, President Bachelet has already begun to fulfill a campaign promise to make higher education free, an action that has thrown the country’s universities, most of them private, into turmoil as policy makers scramble to figure out how they will implement the change, and how Chile will pay for it. In March, 200,000 students from Chile’s poorest families began attending university without having to pay fees.

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—with Jane Porter—

Go to Review.ChicagoBooth.edu to see citations for research in this story.
BY ALL ACCOUNTS, I'M A RATIONAL PERSON. I HAVE TWO IVY LEAGUE DEGREES AND AM A MEMBER OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION. AND YET, I'M RELUCTANT TO TEMPT FATE.

GOOD LUCK ON YOUR PAPER SUBMISSION.

I'M SURE IT WILL GO GREAT.

JANE RISEN, CHICAGO BOOTH

IF I HEAR SOMEONE SAY SOMETHING GOOD IS DEFINITELY GOING TO HAPPEN, I FEEL AN URGE TO KNOCK ON WOOD.

I DON'T BELIEVE THERE ARE WOOD SPIRITS WATCHING ME TO PUNISH MY PRIDE.

DO I?
PEOPLE HAVE A LOT OF EXCUSES FOR WHY THEY PRACTICE A SUPERSTITION WITHOUT REALLY BELIEVING IT.

I DON'T BELIEVE IN IT, BUT BETTER SAFE THAN SORRY, RIGHT? IT'S COST-FREE!

I JUST DO THESE THINGS FOR FUN. I KNOW NOTHING BAD WILL HAPPEN IF HE SEES ME EARLY.

IF YOU'RE THINKING, "BETTER SAFE THAN SORRY," HOW DO YOU DECIDE WHICH SUPERSTITIONS TO FOLLOW?

DO YOU PINCH THE BRIDE? PUT A SUGAR CUBE IN HER SLEEVE? A SPIDER?

DO YOU PLANT A PINE TREE OUTSIDE HER HOME LIKE IN FINLAND?

DID YOU EVEN STUDY PIG ENTRAILS TO CHOOSE THE WEDDING DATE, LIKE IN ANCIENT ROME?

WHEN THE SUPERSTITIONS DON'T COME FROM YOUR CULTURE, THE COSTS ARE MORE NOTICEABLE.
IF YOU'RE JUST DOING IT FOR FUN, WHY DO EXPECTATIONS CHANGE? WHY DO YOU FEEL MORE OPTIMISTIC WHEN YOU PICK UP THE LUCKY FOUR-LEAF CLOVER INSTEAD OF THE DANDELION NEXT TO IT?

WOULD YOU TRADE ME YOUR LUCKY RABBIT'S FOOT FOR THIS LUCKY COTTON BALL? THEY FEEL THE SAME.

AND IF YOU'RE STILL NOT CONVINCED, TRY READING THE NEXT LINE IN THIS COMIC OUT LOUD WITHOUT HESITATING...

NEITHER I, NOR ANYONE I KNOW, WILL EVER DIE OF CANCER!

NOT SO EASY, IS IT?

SOME PART OF US CLEARLY BELIEVES IN SUPERSTITION AND YET, SIMULTANEOUSLY, THERE IS ANOTHER PART THAT DOESN'T.

THAT'S WHY I PROPOSE THAT WE THINK OF SUPERSTITION WITH A DUAL-PROCESS MODEL OF THE MIND.
Process 1 is quick, but heuristic, and relies heavily on patterns.

That thing is evil and mean looking! It must be magic!

A black cat is just an animal. Animals are like us but without language.

Hsss!

Superstition is thought to arise when process 2 fails to kick in and override process 1. But clearly, there are times when process 1 wins even when process 2 is unencumbered.

And don’t walk under any ladders.

A lucky penny! Let’s pick it up!

And don’t step on any cracks.

If a bird poops on you, that’s lucky!

I might hurt my back... but just this once to be safe...

Did that lady just give us the evil eye?
YOU CAN ALWAYS CONNECT WITH CHICAGO BOOTH.
The historian Joseph J. Ellis describes the early days of the United States as “a decade-long shouting match” characterized by “shrill, accusatory rhetoric, flamboyant displays of ideological intransigence, intense personal rivalry, and hyperbolic claims of imminent catastrophe.” In more recent times, the Vietnam War and Watergate deeply divided the country, and the administrations of Presidents Bill Clinton and George W. Bush were marked by sharp partisan conflict.

But while political polarization has been all-American since the start of the US, its current upswing threatens to make it the worst in history. Sharp divisions between Republicans and Democrats have created gridlock in Washington, DC, between the president and Congress and within Congress itself. The political scientists Christopher Hare, now at University of California, Davis, and Keith T. Poole of the University of Georgia write that “the level of polarization in Congress is now the highest since the end of the Civil War.”
A banking battle

Greece’s debt crisis polarized Europeans, and the debtor-creditor relationship evolved into a political tug-of-war.

The latest manifestation of this polarization has been the presidential primary race, defined by the emergence of real-estate magnate and reality-TV star Donald J. Trump on the right, and Senator Bernie Sanders on the left. Both Trump and Sanders espouse positions that only recently would have been way out of the mainstream—such as deporting 11 million undocumented immigrants (Trump) and providing free public college tuition for all (Sanders). The strong, durable support both candidates receive illustrates how polarized US politics has become.

Research I’ve conducted with Atif Mian of Princeton University and Francesco Trebbi of the University of British Columbia suggests a reason politics has come to this: an increase in polarization after banking and financial crises is common and predictable.

How financial crises cause polarization

In the US, decisions made during the 2007-10 financial crisis to rescue Wall Street fueled public anger that still resonates with voters of both parties. The aftermath of the crisis—which included erasure of trillions of dollars of housing wealth and continued income stagnation for the working and middle classes while the wealthy benefited from rising asset prices—has provided fertile ground for even more partisanship and polarization.


This polarization, our evidence indicates, is a product of the banking crisis.
After a banking, currency, or debt crisis, our data indicate, the share of centrists or moderates in a country went down, while the share of left- or right-wing radicals went up in most cases.

We used the American National Election Study (ANES) Time Series Cumulative Data File to follow respondents’ self-reported liberal-conservative scores from 1948 to 2008, and then brought the file more up to date by adding data from the 2012 ANES Time Series Study, as well as data (from Poole and New York University’s Howard Rosenthal) that estimates legislators’ positions on the basis of their roll-call voting records. Combined with a comprehensive data set (covering 1800 to 2008) on global financial crises assembled by Carmen Reinhart and Kenneth S. Rogoff of Harvard University, these findings led us to some general conclusions about the impact of financial crises on political polarization.

Polarization in Congress has increased steadily over the past four decades, but our research suggests that it rose more sharply after banking crises and market crashes. And this pattern extends beyond the US: after financial crises, polarization among voters was common across all 70 countries sampled in the Reinhart-Rogoff data set.

We also took data from about 250,000 individual interviews from 60 countries, in which respondents described their political ideologies, and we matched that with Reinhart and Rogoff’s pre- and postcrisis indicators to construct a picture of people’s ideological tendencies five years before and after financial crises.

Our conclusion: financial crises tend to radicalize electorates. After a banking, currency, or debt crisis, our data indicate, the share of centrists or moderates in a country went down, while the share of left- or right-wing radicals went up in most cases.

What does this do to political decision making? Not surprisingly, we find, after almost any financial crisis, ruling governments became substantially weaker, while opposition coalitions grew stronger. This increased overall political partisanship and fragmentation, often leading to gridlock and ineffectual policy making, just when bold moves and major financial reforms might have been particularly beneficial.

It’s a catch-22 that could in turn lead to further disaffection and polarization among the electorate, prolonging the impact of a crisis. It takes a charismatic leader to break the stalemate, someone who can implement good policies and manage the polarization. President Franklin D. Roosevelt was one such leader. Using fireside chats and a lot of effort, he managed to form a coalition large enough to pass legislation that helped pull the US out of the Great Depression.

The debtor-creditor relationship is crucial
Princeton’s Nolan McCarty, University of Georgia’s Poole, and NYU’s Rosenthal attribute the polarization after financial crises to increased income inequality, which leads to conflict between the haves and have-nots. That explanation has merit.

My colleagues and I focused especially on the nature of the debtor-creditor relationship, which after a crisis can become a political tug-of-war.

Every banking crisis is associated with excessive lending. In his masterpiece *Manias, Panics, and Crashes: A History of Financial Crises*, the great economic historian Charles P. Kindleberger finds that “asset price bubbles depend on the growth of credit.” As the bubble develops, borrowers who are less and less creditworthy take on more and more debt.

To simplify greatly, this is what happened in the US housing bubble of the 2000s. Between 2000 and 2007, US household debt doubled to $14 trillion, and the household debt-to-income ratio skyrocketed from 1.4 to 2.1, an increase matched only in the early years of the Great Depression.

As Atif Mian and I documented in our 2014 book *House of Debt*, there was a big expansion in lending to marginal borrowers during this period. Astonishingly, mortgage-credit growth for home purchases and income growth became negatively correlated as the bubble developed, and many borrowers—even those in the middle class—used the rising value of their homes to extract equity and to finance consumption.

Unfortunately, a financial system that thrives on massive use of debt by households concentrates risk squarely on debtors, who bear the brunt of any losses. So, when the housing bubble turned into a bust, the most-marginal homeowners took the biggest hit.

In any debt contract, someone has to take the loss associated with a decline in the asset’s value. It becomes a zero-sum game between lender and borrower, and this time the political battle became especially heated because the losses were so big.

The Great Recession wiped out 8 million jobs and some $2 trillion in income by 2012. House prices fell by $5.5
trillion, and more than 4 million homes faced foreclosure—about 5 percent of all mortgages in 2009. Marginal borrowers, who had little net worth beyond their home, were virtually wiped out. Consumption, which was overheated during the boom, collapsed.

Yet when the housing bust turned into a financial crisis, policy makers’ first instinct was to save the lenders—i.e., the banks—out of fear of contagion. Thus were AIG, Fannie Mae, and Freddie Mac effectively taken over by the government under the aegis of the Troubled Asset Relief Program (TARP), passed and signed in 2008.

Big mortgage lenders, including Wachovia, Washington Mutual, and Countrywide Financial, were bought by other large banks whose liquidity was essentially guaranteed by the US Treasury or the Federal Reserve. Even two big investment banks, Goldman Sachs and Morgan Stanley, were quickly converted into commercial banks so they could be “rescued” by the Treasury and the Fed.

Distressed homeowners got little relief from TARP or from subsequent legislation and settlements with big banks. Yet the mere hint that they might was enough to set off CNBC on-air personality Rick Santelli, who in early 2009 asked on the floor of the Chicago Board of Trade whether “we really want to subsidize the losers’ mortgages.”

“President Obama, are you listening?” Santelli fumed. “We’re thinking of having a Chicago Tea Party in July.”

And so the Tea Party was born out of anger that debtors would get special breaks at a time when creditors already had gotten plenty. The Tea Party movement got even stronger during the battle over the Patient Protection and Affordable Care Act (better known as Obamacare) in 2009 and 2010, and its central issue became rapid expansion of government debt, but its initial impulse was to unite against any breaks for debtors in the wreckage of the financial crisis.

The movement had a huge impact, engineering a big Republican takeover of the House of Representatives in 2010 and laying the groundwork for the epic battle over the debt limit in the summer of 2011 that took the country to the brink of default, cost the US its AAA rating from Standard and Poor’s, and led to massive mandatory spending cuts to domestic and military programs.

Just weeks later, demonstrators occupied a park in lower Manhattan, protesting income inequality, foreclosures, Wall Street corruption, and the power of money in politics. With their soon-to-be-famous slogan “We are the 99 percent,” the Occupy Wall Street movement spread quickly across the country.

Though the Occupy movement probably had less direct political impact than the Tea Party did, the two movements uncannily illustrate the debtor-creditor split after financial crises, with the Tea Party siding against debtors and the Occupy movement with them.

**Debtors and creditors fight over Greece**

In Europe, too, the political battle was joined along creditor-debtor lines. The increase in household debt from 2000 to 2007, and the subsequent decline in consumption after the recession began, was greater in Ireland, Denmark, Norway, the United Kingdom, Spain, and the Netherlands than in the US. The economic crisis quickly morphed into a sovereign-debt crisis as governments of the eurozone spent an estimated €500 billion, or 5 percent of GDP, by the end of 2013 to “rescue” the banks.

Meanwhile, the recession decimated government tax revenues, throwing weaker economies deeper into debt. Governments of countries hit hardest by the recession got into deep trouble with nervous creditors who worried they would never be repaid.
Greece’s debt problems were especially severe. Almost from the time it adopted the euro in 2001, its deficits exceeded the mandated target of 3 percent of GDP. Only after the financial crisis and Great Recession was the extent of its trouble revealed—total debt of €300 billion, the highest in its modern history, reaching 113 percent of GDP in 2009 as its budget deficit hit 12.7 percent of GDP. Bond yields soared as ratings agencies downgraded Greek debt to junk status.

Thus began more than five years of intermittent crises in which Greece had to renegotiate its debt several times, threatening the very existence of the euro. Greece’s banks collapsed and unemployment soared to nearly 26 percent in 2015, unleashing a firestorm of political polarization both inside the country and across the eurozone.

As a creditor nation, Germany (whose total exposure to a Greek default and exit from the euro could range from €61.5 billion to €84.5 billion, according to Der Spiegel) took the hardest line in debt negotiations, led by the strong-willed Chancellor Angela Merkel. Politicians in Germany directed their anger toward Greeks instead of toward the German banks that made poor lending decisions.

In a YouGov poll taken in July 2015, more than 60 percent of Germans (and 74 percent of Finns) said Greece should be held to the original terms of its loans, with no more bailouts. The less-exposed public in France and Britain were more sympathetic to Greece and more open to renegotiating the terms of the loans, according to YouGov. (See “A banking battle,” page 50.)

Greek voters, by contrast, took a classic debtors’ stance and in 2015 elected the left-wing Syriza party, whose leader, Alexis Tsipras, called for repudiating some of Greece’s debt, reversing mandated spending cuts, and even leaving the euro.

As prime minister, Tsipras eventually capitulated and a deal was struck last July, but the political polarization has only deepened. The violently anti-immigrant, anti-EU, neo-Nazi Golden Dawn got 7 percent of the votes in last September’s general election, even though its leaders are facing criminal charges.

This extreme polarization is in line with our conclusions and those of a subsequent paper by three German scholars who studied 800 elections in 20 countries between 1870 and 2014. PhD candidate Manuel Funke of the Free University Berlin, Moritz Schularick of the University of Bonn, and Christoph Trebesch of the University of Munich identified the extreme right (think Golden Dawn, or the National Front in France) as the principal political beneficiary of postcrisis partisanship. “Voters seem to be systematically lured by the political rhetoric of the far right, with its frequently nationalistic or xenophobic tendencies,” they write. Overall, they conclude, “the political effects [of banking and financial crises] are particularly disruptive.” That’s certainly true here in the US as well, where Trump’s presidential campaign in particular exploits an underlying angst that the government is representing well-organized special interests at the public’s expense. Ironically, much of the support for the Sanders campaign also reflects the same angst. This, rather than the classic debtor-creditor conflict that emerged with the Tea Party and the Occupy movement, is behind much of their backing. But the candidacies thrive in a hyperpartisan political environment that is the financial crisis’s true legacy. Trump and Sanders may be the indirect by-products of that crisis, but they are nonetheless its legitimate heirs. —CSR

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Why a strong economy needs a strong press

The media are among society’s greatest safeguards against crony capitalism

Last year, a series of emails came to light that got the American Egg Board—an industry group whose members are appointed by the US secretary of agriculture, and whose mission is to increase demand for eggs—into a bit of hot water. The emails appeared to show the board strategizing not how to promote eggs, but rather how to attack a new kind of vegan (and therefore eggless) mayonnaise being produced by...
a California-based company. The emails came to the attention of a US senator, and the US Department of Agriculture launched an investigation. In the midst of the controversy, the CEO of the egg board went into early retirement.

It’s entirely possible that the saga of the egg board will pass into history largely forgotten, but I take it up because of one important detail about the affair, which is that the emails were brought to public attention by the Guardian. It may be an obscure example of the “watchdog” role of the press, but its very obscurity shows how effective the press can be at policing the people and institutions that the general public doesn’t itself have time or access to monitor.

As traditional media, particularly print media, continue to adapt to changing technology and its disruptive effects, it’s worth remembering that everyone has an interest in the press maintaining that watchdog role. And it’s not just to keep an eye on egg boards; a strong press is, among other things, an important defense against anticompetitive behavior. After all, who steps out to defend a competitive market infrastructure in a world in which people are busy and don’t follow many of the debates on specific regulations? The only people who pay attention to a given regulatory topic have a big, compelling interest in that topic and are trying to push the agenda in the direction of their interest, not necessarily in the direction of the common good. Provision of public welfare has always been in some sense challenged by so-called rational ignorance: it is rational for me not to get informed because it’s costly to get informed.

Hence it’s important to reduce this cost of information, and that is ultimately what newspapers do. Getting informed on all issues would be prohibitively expensive if we all had to collect information by ourselves. The media summarize and explain issues, and because they try to maximize their subscribers, they write for a wide audience, making more people interested, and as a result, promoting public welfare.

Educating decision makers
The general public isn’t the newspapers’ only constituent. I’ve been on the board of two large companies in the past, and I learned well the importance of newspapers to corporate boards. Companies are complex, and board members obtain only a small set of information, which is generally precooked by the corporate apparatus that brings information to the board. When newspapers write about a company, it gives board members an opportunity to go in front of the board and say, “Look, there was this stuff; I read it in the newspaper. Can you please explain that to me?” This is a rare opportunity in which you actually get to ask them informed questions, and they find it a bit more difficult to precook all the material.

The important role that the media play is as relevant to civic governance as it is to corporate governance. By informing the public, the press creates a political demand for action that political entrepreneurs can try to exploit by running a campaign on certain issues. The stereotypical example, the sort of golden era that everybody refers to, is the period of muckraking in the United States. A lot of the Progressive-Era legislation was passed by a Republican president, Theodore Roosevelt, under the pressure of magazines such as McClure’s that were exposing stuff so horrendous that you had to take action, and a smart and proactive president like Roosevelt seized the opportunity. There was clearly a symbiosis between the magazines that were creating the agenda and the politicians who were exploiting it.

Information as a public good
For journalists, there are clear rewards in investing time and energy into investigative work: there’s recognition, the prestige of getting the scoop, and accolades like the Pulitzer Prize or the Wincott Awards. But investigative work isn’t always as rewarding for newspapers in the same way. The reason is that information has many of the characteristics of what we economists call a public good. An example of a public good is national defense, and it has two characteristics. For one, there are no rivalries, which means my consumption of defense does not reduce your consumption of defense. The second is it’s not possible to exclude somebody from consuming the same amount of defense. Information clearly has the first component: my reading a piece of news does not reduce the relevance of the news, and it does not reduce your ability to read the same piece of news. However, when it comes to the second element, the possibility of exclusion, that’s very much a function of technology.
Getting informed on all issues would be prohibitively expensive if we all had to collect information by ourselves.

Most people are probably too young to remember, but in the 1950s and '60s, credit rating agencies were based on subscription. They were not what we now call an issuer-paying model; rather, they were paid by investors that wanted to understand the quality of bonds and therefore subscribed to Moody's or Standard and Poor's or Fitch. What destroyed that model was the photocopying machine. Why? Because you don't pay several hundred dollars for a few pieces of paper that can be quickly reproduced and given away to everybody at a fraction of the cost. During the '70s, credit agencies, in order to survive, moved from a subscription-based model to an issuer-paying model. There is a beautiful paper exploring the fact that Moody's moved first and Standard and Poor's moved later, and it showed that during the time in which the two agencies were using different revenue models, Standard and Poor's ratings of companies were lower than those in Moody's. When Standard and Poor's adopted the same issuer-paying model Moody's was using, the ratings aligned perfectly between the two agencies. Who pays for information affects what information you get.

This is relevant today because the Information Age has made it easy to transmit information quickly around the world. Access to information has become superior to what it used to be. However, this increased access can also be a curse in that it's more difficult to exclude somebody from accessing the information. In the old days, when a newspaper landed a scoop, everybody was rushing to the street to buy a copy and figure out what this marvelous information was. Today, when you hear there is news, you Google it. Somebody has replicated most of the content in a perfectly legal way so you don't need to go to the original source. The institution that did the hard work doesn't even get a boost in revenue as a result of their effort. As information becomes more easily distributed, the incentives to collect it go down, and the quality goes down as well.

Investigative journalism as haute couture

If the Information Age has made this problem more severe, the problem has nonetheless always existed. Information has always had the first characteristic of a public good, and investigative journalists have always been a sort of add-on that was not particularly profitable. An analogy can be made here with haute couture for the fashion houses, which, if you look at that segment of the fashion business, is incredibly unprofitable. Very few people buy the extravagant dresses on display during fashion shows. They're too extravagant and too expensive.

But fashion houses pursue haute couture for two reasons. One is prestige: you see this new beautiful Valentino dress, and then you go and buy a more mundane Valentino dress in a store. Why? Because the first dress represents an aspiration. The second reason is that haute couture functions to attract talent. You want to have the most-creative designers, so you let these designers go wild at the fashion shows, and then they also produce some more-mundane lines of clothes that normal human beings can actually wear. It would be difficult for Valentino or Gucci to retain the most-talented people if they couldn’t do the most-extravagant things.

But one fundamental condition of all this is that the fashion house has to be profitable. You can afford to do haute couture if you have a lot of cash flow. If you are struggling to survive, the first thing that goes is the haute couture line. After all, there’s no point in investing in long-term prestige if you’re not sure you’ll make it to the end of the month. Investigative journalism follows a similar model. McClure’s did not make money with investigative journalism. McClure’s was the most profitable and prestigious publication in the US during Roosevelt’s time, and because of this they could afford to use investigative journalists. And that added to the magazine’s prestige. It added to its mystique and attracted the best talent, but it was not the bread-and-butter business model.

Now, you might say, “Wait a minute. Shouldn’t a well-run company be run in the interest of shareholders, who don’t really care about all these extravagances?” The answer is yes, but if you are in an oligopolistic business and you earn some rents, it makes sense to spend some of those rents to make sure nobody can get into your business. You build barriers to entry by building prestige. If you are one of two business papers in a large town and you are very profitable, it makes sense to spend some of those profits in creating credibility so that it’s harder for competitors to enter the field. Plus, you attract the best talent, who will also write more-mundane articles, exactly like the haute couture model. And finally, we know that in
every industry where there are some rents, these rents tend to be shared by investors and workers—in the case of the newspaper industry, that would be the owners of newspapers and the journalists, whose rents come not necessarily in the form of high salaries but in having the opportunity to do the work they actually want to do.

**The impact of journalism’s decline**
The difficult time newspapers have had turning a profit, combined with the diminishing returns to uncovering great information due to the ease with which that information is shared, has made things hard for investigative journalism. And maybe I wouldn’t particularly care, if not for the fact that it has serious consequences for economic issues. A lot of the distortions we’ve seen in capitalism in the last 20 years are directly associated with this decline of the role of newspapers, and media in general, in keeping capitalism in check. Let me mention a few.

The first one is an extreme consolidation of industry. In the US there’s much evidence of a massive consolidation in many industries. The banking industry is probably among the worst offenders, but the trend is broader than that. This consolidation

### Stop the presses

The internet has created challenges the newspaper industry is still struggling to surmount. Advertising revenue for US newspapers declined every year from 2006 through 2014 (the last year for which data were available), according to the Newspaper Association of America. And the future may not be much brighter: a 2015 PricewaterhouseCoopers report projected further revenue attrition in the global newspaper industry through at least 2019. But even in the context of recent history, few periods have been as bad for newspapers as the 2007–10 financial crisis, whose depths and immediate aftermath saw many of America’s biggest newspaper chains file for bankruptcy, underscoring the frail state of the industry in the United States and many other countries.

### Notable US newspaper bankruptcies

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<th>Year</th>
<th>Company</th>
<th>Notes</th>
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<tr>
<td>2008</td>
<td>Tribune Company (Los Angeles Times, Chicago Tribune)</td>
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<tr>
<td>2008</td>
<td>Creative Loafing (Chicago Reader, Washington City Paper)</td>
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<tr>
<td>2009</td>
<td>Star Tribune Holdings Co. (Minneapolis Star Tribune)</td>
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<td>2009</td>
<td>Philadelphia Newspapers LLC (Philadelphia Inquirer, Philadelphia Daily News)</td>
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<tr>
<td>2009</td>
<td>Sun-Times Media Group (Chicago Sun-Times)</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Journal Register Company (179 local newspapers) also filed in 2012</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Freedom Communications, Inc. (Orange County Register) also filed in 2015</td>
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<tr>
<td>2011</td>
<td>MediaNews Group, Inc. (Denver Post, San Jose Mercury News)</td>
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<tr>
<td>2011</td>
<td>Lee Enterprises (St. Louis Post-Dispatch)</td>
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Academics should be using big data to expose what doesn’t work in the capitalist system.

comes with higher prices and little resistance from antitrust authorities or public opinion. Why? Because there’s not enough sensitivity to it among the press. It took a European commissioner to go after Google, in part because of inadequate support among the American public to do so there. After all, how many articles against Google have you seen in the US?

The second issue is widespread financial fraud. In a paper, some colleagues and I estimate that one out of seven large financial companies in the US is involved in financial fraud. Every financial fraud tends to cost roughly one-fifth the value of the company. So if you add up the annual cost of financial fraud in the US, you get $380 billion. But how many executives in the US went to jail as a result of the financial crisis? Zero.

Not long ago I was at a meeting of the New York Fed, and they brought in some people from the US Department of Justice who were touting all they’ve done to fight financial crime, including showing us a list of all the people they’ve convicted. I looked at the list and noticed that there were a lot of top executives of small companies, and a lot of low-level executives of big companies. So either big companies have more honest people at the top, or we’re not going after the most-powerful people. I’m open to being convinced that the large companies are more honest, but I want people to keep a straight face and argue on that line, because there’s no third possibility.

Last but not least, we’ve had two major bubbles in less than 10 years in the US, and I argue it’s the result of a less investigative press. In 2000, Robert J. Shiller wrote his famous book *Irrational Exuberance*, in which he makes an acute observation: the birth of bubbles and the birth of newspapers coincide. The first financial bubble, as we know, was the tulip bubble, and it occurred at the time when the first financial leaflets were being created. It’s only logical, since the fundamental characteristic of a bubble is that there is a collective state of euphoria. And how do you create a collective state of euphoria if you don’t have a means of infecting people?

Newspapers can be the cheering crowd encouraging the inflation of financial bubbles, or they can be in the difficult position of trying to warn that a Trojan horse is actually a Trojan horse. The latter is a tough task to take on; being part of the cheering crowd is a more profitable role.

You can afford to be more vocally skeptical only if you have a solid financial base.

**How to support journalism**

What can we do? Some people will look at this analysis and say, “It’s a public good. We should support it with taxation and financial subsidization.” But I’ve seen what subsidization of newspapers creates, and it’s not pretty. After all, in Italy they subsidize newspapers, and if there is a bad press, it’s Italy’s.

But you can subsidize in a variety of ways. As many scholars have suggested, a lot of news is already subsidized by virtue of the fact that journalists read stuff produced by the government, by companies, and by NGOs, and produce news out of it. This is an indirect form of subsidization. And there is a segment of society that can and should do more of this kind of subsidizing of the press: academia.

Academia today looks much like the newspaper trade of 20 or 30 years ago: it is a business where there are a lot of rents because there’s not a great deal of competition at the top, and where people consume those rents in research. Some of this research is completely irrelevant, or some of it is likely to be relevant only 200 years from now. Maybe academics don’t need to spend time doing investigative journalism exactly, but they should be using big data to expose what doesn’t work in the capitalist system.

The advantage academia has today is strong separation between the fundraising department and the academic department. It’s a separation that I think used to be there in newspapers but is less so—not because of anything nefarious, but simply because they’re less profitable. It’s time for academia to use that separation to its advantage—and the advantage of the public at large—by picking up some of the slack left by the falling fortunes of many newspapers.-LUIGI ZINGALES

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This essay is an edited version of remarks delivered as part of the Wincott Foundation’s 2015 Harold Wincott Memorial Lecture, which took place October 29, 2015, in London.

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Do central bankers have a quick fix for low inflation?

Conventional theories have proved utterly wrong

Central bankers’ attempts to raise inflation are starting to make them look more and more like the legendary King Canute, commanding the tide to stop coming in. Despite massive quantitative easing (QE), ultralow (and even some negative) interest rates, and extensive “forward guidance” promises to keep rates low for a long time, inflation has remained chronically low in most of the developed world.

At the same time, conventional theories of inflation have proved utterly wrong. The Keynesian prediction that, once interest rates hit zero, economies would enter a deflation spiral failed. The monetarist prediction that massive QE would lead to hyperinflation failed.

Have central bankers lost control? Or perhaps they are suffering from pedagogy misapplication: Could it be that low interest rates have unwittingly pushed inflation downward? What will happen as the US Federal Reserve starts to raise rates? Putting aside whether more inflation is a good idea (I think not), if central banks want more inflation, what could they do to get it?

To answer these questions, we need to think through how interest rates might affect inflation. Here’s a stab at an answer, in four parts.

Part 1: The liquidity effect

The liquidity effect is a classic mechanism by which lower interest rates were thought to raise inflation. To lower interest rates, the central bank bought bonds, which put money in the economy. More money was thought to drive down interest rates, as the pressure to borrow money would be lower. More money in the economy, and more bank lending, was thought to increase aggregate demand for goods and services, which increased inflation. Conversely, the Fed raised rates by selling bonds, soaking up money, and thereby lowering inflation.

However, the United States is now in a classic liquidity trap. Interest rates have been essentially zero since 2008. Money and bonds are perfect substitutes, so buying or selling bonds has no effect on interest rates. The proof is in the pudding: the Fed massively increased excess reserves (accounts that banks hold at the Fed), from less than $50 billion to almost $3,000 billion, and inflation went nowhere.

The liquidity effect will remain absent as the Fed starts raising interest rates. The Fed plans to leave the $3,000 billion of excess reserves outstanding and to raise interest rates by raising the rate that it pays banks on these reserves. There will be no huge bond sales, no open-market operations, no monetary “tightening” associated with this interest-rate raise. Interest-paying reserves will remain perfect substitutes for short-term interest-paying government debt.

The liquidity effect will also remain absent if the Fed cuts rates or reduces rates below zero, as other central banks are doing. You can’t have more-than-perfect liquidity.

Part 2: The intertemporal substitution effect

The intertemporal substitution effect at the heart of today’s New-Keynesian models offers a different story for why lower interest rates might raise inflation and vice versa.

If real interest rates decline, people have an incentive to spend more today, and less in the future. If greater consumption demand means more output, and more output means more inflation, then when the Fed lowers interest rates, inflation will temporarily rise. This story does not rely on any scarcity of money, so it can continue to work when the liquidity effect vanishes.

The trouble is, this logic connects lower interest rates only with lower consumption growth rates. These models assume that consumption jumps up, so it can then grow at a lower rate. It is equally possible that consumption just starts to grow more slowly, and then pushes inflation down uniformly. Conversely, higher interest rates need not induce consumption to jump down so it can then start growing faster. Higher interest rates can increase consumption growth directly, resulting in steadily higher inflation. The fact that lower and lower interest rates have done nothing to stimulate consumption and inflation suggests more and more that the assumed upward jump in inflation and consumption doesn’t happen.

Part 3: The Fisher effect

The “expected inflation” effect, or Fisher effect, suggests that lower interest rates lower inflation, and vice versa.

In the long run, higher inflation and higher interest rates must go together, as they did in the early 1980s, and lower interest rates must correspond to lower inflation. Saving and investment ultimately respond to the real, after-inflation, interest rate. For saving and investment to balance, interest rates cannot be far from inflation.

After seven years of low interest rates in the US and 20 in Japan, perhaps we’re at that long run, and lower interest rates just lower inflation; the Fisher effect predominates and the liquidity and intertemporal-substitution effects have vanished. We got to low inflation because central banks have been unwittingly pushing on the brake.

Part 4: The fiscal theory of the price level

Interest rates near zero have coincided with slowly declining inflation. That observation, together with my quick review of current theory, suggests that if the Fed continues to raise interest rates, it will produce more inflation. But the data also suggest that any rise in inflation will be a slow affair, just as the decline in inflation at zero rates has been slow.

Instead of spurring inflation, central banks have been unwittingly pushing on the brake.
Interest rates and inflation

Over a long enough time period, inflation roughly tracks interest rates. But the short-term relationship between the two has been difficult to manipulate.

Percent

- Federal funds rate
- Inflation rate

Source: FRED Economic Data

We know how to create Zimbabwe, but creating 2 percent inflation is as hard as smoking just one cigarette a week.

selling them to private investors swaps them for a deposit with the central bank. The central bank proceeds to cancel the bonds, and the government withdraws the money it has on deposit and gives it to citizens. “Helicopter money” of this sort—named in honour of a parable told by Milton Friedman, a famous economist—is as close as you can get to raining cash from a clear blue sky like manna from heaven, untouched by banks and financial markets. Such largesse is, in effect, fiscal policy financed by money instead of bonds. . . . But the unaccustomed drama—indeed, the apparent recklessness—of helicopter money could increase the expected inflation rate, encouraging taxpayers to spend rather than save.

Will it work? Alas, “recklessness” is crucial. Normally, when a government sells a lot of bonds, people think that it is sooner or later going to soak up these bonds with taxes. That’s the only reason people are willing to buy the bonds, and the only reason the government can raise revenue by selling the bonds. But if the government drops $100 in every voter’s pocket and simultaneously announces that taxes are going up $100 tomorrow, even helicopter drops have no effect. In the Economist’s proposal, canceling the bonds says, “We are really going to be reckless. We’re not going to soak up this money, so you’d better spend it before it loses value.”

Our governments have spent centuries building up a reputation for paying their debts so they can sell bonds at good prices. That reputation is now hard to break. It’s especially hard to break just a little bit; we know how to create Zimbabwe, but creating 2 percent inflation is as hard as smoking just one cigarette a week.

As you can see, though, central banks cannot accomplish a helicopter drop alone. Many of them are legally forbidden from doing so. Central banks must always buy something—usually government bonds—in return for creating money. They can’t send checks to people.

Why? The people who set up our monetary systems understood all this very well. Their memories were full of disastrous inflations, and they knew that printing money without promises that taxes would eventually soak up that money would lead quickly to inflation. So, yes, central banks are prohibited from doing the one thing that would most quickly produce inflation, for about the same reason that wise parents don’t keep the car keys in the liquor cabinet. There are also all sorts of good political economy reasons that an independent central bank should not lend to specific businesses or send checks to voters.

One can get more creative. The central trick is finding a way to promise that we’re going to pay back only 98 percent of the debt next year. If we were on a gold standard, a schedule of 2-percent-per-year devaluations would work. We’re not, and we shouldn’t be.

But I’m not going to go further than that. Why? Shh. Zero inflation is great! I see little argument that raising inflation will be good for the economy, and plenty of argument that permanently killing inflation will be good for the economy and for financial markets. If central banks have the wrong pedal, but we’re driving the right speed anyway, why wake them up? - –

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This essay is adapted from two posts on The Grumpy Economist blog, at johnhcochrane.blogspot.com.
Is bitcoin the world’s next major currency?

Like many things digital, bitcoin has the potential either to transform the world or to be largely ignored by it. When Chicago Booth’s Randall S. Kroszner and Tyler Cowen of George Mason University met in February for a Chicago Council on Global Affairs discussion on “The Future of Money,” they considered the prospects for the digital currency, including the applications that could propel it into broader use and the legal incongruities that may hold it back.

**Potential breakthrough uses**

“Is bitcoin the world’s next major currency? The potential killer application for bitcoin, if there is one, is Africa, and I mean Africa in particular. Almost everyone in Africa is accustomed to using a phone to make payments, and furthermore, other payment systems are poorly developed, and the legal infrastructure in many places tends to be poorly developed. So if bitcoin is going to transform anywhere, I think it will be there."

***Kroszner***

“One element that was crucial for the early success of PayPal was eBay. There were a lot of people who wanted to transact but were not organized merchants or vendors and who didn’t have merchant accounts with credit-card companies. You didn’t really have anything that was catering to people who on a one-off basis wanted to sell their Beanie Babies, etc. In some sense, PayPal allows individuals to participate in eBay’s online marketplace in a way that they couldn’t before. They could operate like merchants without having to be merchants. I think that there’s a potential for the block-chain technology to be able to do something like that going forward."

***Cowen***


**Critical ambiguities**

“In the world of bitcoin and the block chain, things are decided by people on the chain. The chain has the last word, and there’s something about the chain having the last word that stands at tension with our legal system. The way the American and most other legal systems work, institutions want to close out deals. They want to avoid certain kinds of ambiguity. They want to be able to shut the door and declare something finished and done.”

***Cowen***

“It’s not even clear in some countries whether bitcoin should be counted as an asset, or as money. Most countries are currently treating it as an asset, so if there are capital gains, the tax authorities get to take some revenues out of that. But, we don’t have a consistent legal framework.”

***Kroszner***

**Expectations for the future**

“Bitcoin is a mostly mature technology used for evading capital controls, which I’m fine with. That’s useful, but I don’t think it will replace the dollar or the euro. Most of all, it lacks a killer application.”

***Cowen***

“The legal uncertainty is the key thing, and this is a classic issue of needing to have proper rule of law. The legal framework just isn’t there. It’s not clear what the legal obligations of the verifiers in the system will be. The system is certainly not there yet, and I think in some sense, the innovation’s going to have to come on the legal side. It’s not clear who, if anyone, has the right or ability to change the protocols. I think a very clear legal framework for being able to use these, to know who you would go to if something went wrong, is going to be more crucial to its acceptance than the next wave of technological development.”

***Kroszner***
Bernie Sanders will not be president. He won’t even get the Democratic nomination. But his candidacy has been the most subversive, and important, of the 2016 US presidential election.

Let me explain by way of an anecdote. You can actually still buy a car with manual locks. Manual windows, too. I know this because my parents got one—a little ocean-blue Ford Focus, sensibly shorn of amenities—at nearly the same time Bernie’s Chevy first rolled off the lot.

They bought the car only after my father’s Ford Escort finally gave up the ghost after two decades of service and nearly 300,000 miles. My mother took a fatalistic view of the purchase. “This is it,” she announced, “the last car we will ever buy!”—a declaration consistent with her sensibility as a consumer, which is less Madison Avenue than American Gothic, if still a little unnerving to her children, considering their Mom and Dad were only in their 60s.

Prudent as my parents’ purchasing habits may be—they could afford a fancier car if they liked—not everyone in the family is enamored of their frugality, and no one less so than my mother’s sister, who, until

Anderson Cooper: I read one of your daughters say that, if you had a car, or if they sold cars with manual locks on windows, that’s the kind of car you would get. So what kind of car do you actually have?
Bernie Sanders: I have a small Chevrolet. It is one of the smallest Chevys that they make.
Anderson Cooper: Do you know what year it’s from?
Bernie Sanders: Yeah, it’s about five years old.
Anderson Cooper: OK, not bad.
Bernie Sanders: A red car. [Laughter] Pretty good on mileage.
—CNN New Hampshire Town Hall (February 3, 2016)
she retired, was a partner at a big Wall Street investment bank. Choices such as my parents’ fidelity to their car tend to flummox and infuriate her. Pointing out that my parents love their “little Focus” fails to satisfy her objections, as does noting that the car has never failed in what would seem to be its primary function, getting passengers from Point A to Point B. When her disapproval is probed (especially by an irksome nephew), my aunt’s ultimate response is less a cogent argument than a cri de coeur, one that recalls the miserable protest of King Lear when his dreadful daughters want to deprive him of his entourage as needlessly ornamental. “O, reason not the need!” Lear cries.

Our basest beggars
Are in the poorest thing superfluous.
Allow not nature more than nature needs,
Man’s life’s as cheap as beast’s.

Lear’s reply takes one beyond a debate about what constitutes an absolute necessity. Strictly speaking, he needs royal attendants no more than my parents need power windows. But that he might bristle at the loss, or my aunt at the omission, points to another, more elusive need: dignity.

In one of my favorite passages from The Wealth of Nations, Adam Smith takes up what commodities qualify as “necessaries of life.” By that phrase, he says, he doesn’t mean only goods that “are indispensably necessary for the support of life,” but also those which it is “indecent” to be without. The example he provides is a linen shirt. “[I]n the present times, through the greater part of Europe, a creditable day-labourer would be ashamed to appear in public without a linen shirt,” he says, “the want of which would be supposed to denote a disgraceful degree of poverty.” It wasn’t always that way—the “Greeks and Romans lived, I suppose, very comfortably, though they had no linen”—but the requirements of dignity are always a matter of custom and, as such, vary across time and space. The Southern belle is more keenly deprived than the Soho sophisticate if she fails to be invited to a debutante ball, and the engagement ring much envied in Muncie might elicit malicious grins in Malibu.

The requirements of dignity weigh heavily on students at Chicago Booth, who, of course, constitute their own community. When we discuss the passage from Smith in my business-ethics class, they volunteer their own examples of the linen shirts they can’t live without.

Near the top of this list is out-of-town trips with classmates. Students afford themselves “long weekends” by creative scheduling and a dash of trucany, but school breaks make for more-extravagant expeditions, featuring stops in multiple countries and excursions that smack less of youth hostel than haute couture. Recalling a student from Scotland who seemed slightly disapproving of this practice when she took my class in her first quarter, I checked in to see whether, 15 months later, her opinion had changed. While admitting that she had skipped many of these outings during her first year, she assured me that she was “making up for it,” a redemptive effort that included “spring break just south of Cancun and [a] slightly classier portion in Cuba,” the planning for which, she felt compelled to add, sometimes precluded studying for finals.

Another requirement is the decadent group dinner, a weekend ritual for full-time MBA students and fodder for Monday morning Facebook feeds. Chicago is rife with first-rate restaurants, and students who very well spent their college years with Domino’s on speed-dial soon succumb to demi-glace and the enticements of farm-to-table fare. Among the budding gourmands who take my classes, the 22-course tasting menu at Alinea is often described as their great white whale. The pursuit is not without peril, of course. As one student said of his fellow Ahabs, they’ll gladly share snapshots of the Black Truffle Explosion, but never the three weeks of oatmeal they ate so they could actually afford it.

More a caveat than a corrective, the observation is a reminder that, even if the best things in life are free, the “good life” ain’t cheap. Students are not insensitive to this fact. As many of them see it, there is a price to being a full participant in a business-school community, and some readily admit to taking out extra loans to pay for it. The expense isn’t mandatory, of course, but they would rather shoulder it than risk being part of what was once described to me as “the Invisible 200,” that group of students who come to Booth and, socially speaking, fade away.

This is not to say that students are entirely satisfied with the moral logic of such consumption and, more so, that they are not wary of its limitless extension. In class, we discuss the wretched case of Rajat Gupta. From 1994 through 2003, Gupta was the director of McKinsey & Company, its first head to be born outside of the United States. Throughout his time atop the world’s most prestigious consulting firm, he was widely celebrated for a string of striking accomplishments, including expanding McKinsey into 23 new countries, doubling the number of partners, and growing revenue by 280 percent. Accordingly, Gupta...
was favored with the opportunities that come with being a successful corporate chieftain. During his tenure, he received invitations to serve in prestigious advisory roles at Wharton, the UN, and the Gates Foundation, and after he retired, companies such as Procter & Gamble, American Airlines, and Goldman Sachs all pursued him to join their boards of directors.

Given this remarkable series of accomplishments, not to mention the fact that he exited McKinsey worth an estimated $100 million, by any account Gupta had more than enough to be proud of—any account, that is, except his own. Now accustomed to rubbing shoulders with individuals for whom his net worth was a rounding error on their taxes, Gupta found himself chasing the rarefied standards of dignity established by his peers. “You have to watch out for it,” he told Columbia MBAs in 2004 of the allurements of this lifestyle, “because the more you have it, you get used to comforts, and you get used to, you know, big houses and vacation homes and going and doing whatever you want, and so it is very seductive. However much you say that you will not fall into the trap of it, you do fall into the trap of it.”

To afford the linen shirts of his elite community, Gupta set his own trap. A few years after his candid admission at Columbia, he began trading on the privileged information afforded him by his membership on so many blue-chip boards. A novice to such shady bustle, he was soon snared by an SEC investigation into Raj Rajaratnam. A hedge-fund manager whose insider-trading spree landed him an 11-year prison sentence, Rajaratnam found an eager coconspirator in Gupta, who aimed to join his billionaire boy’s club but followed him, instead, to federal prison.

Many students are haunted by the story of Gupta, for what preyed on his insecurities shadows them as well: the feeling that, notwithstanding so many accomplishments, he still could not afford to hold his head high. The fear is twofold. On the one hand, the linen shirts of the world to which they aspire are so wildly extravagant that to plan their professional lives in the hopes of attaining them is to chart a course to almost-certain despair. On the other hand, if the standard of dignity they embrace is actually less a material requirement than a relative measure—indeed, if money is merely a matter of keeping score—then they are committing themselves to living out a dreary dictum: in a room full of wealthy men, all but one feel poor by comparison.

And this brings us back to Bernie Sanders. More than any of the policies he has championed this election cycle, the most subversive thing about him is his very person. From his rumpled suits to his grandpa glasses to the corona of white hair he simply can’t be bothered with, one doesn’t have to see Bernie’s red Chevy to know that, whatever’s required to support his dignity, it’s less a matter of dollars than sense.

To get a better appreciation of what makes his behavior so remarkable, consider, by way of contrast, the private choice that has dogged Hillary Clinton more than any other this election cycle: her decision to return to the paid-speaking circuit after leaving the State Department. In the 11 months after her tenure as secretary of state ended, Clinton gave 41 paid speeches that earned her $9.68 million, part of the $153 million she and her husband took in for such services between 2001 and the spring of 2015, when she launched her second presidential bid.

Now, unless you believe that there is no meaningful difference between Bernie Madoff and Michael Bloomberg, we can agree that not all ways of making money are morally equivalent. Unless you believe that there is no meaningful difference between Bernie Madoff and Michael Bloomberg, we can agree that not all ways of making money are morally equivalent.

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Summer 2016  Chicago Booth Review  65

John Paul Rollert is adjunct assistant professor of behavioral science at Chicago Booth.
All around the world, researchers have used names on resumes to show bias exists. But now, what else can we learn?

This problem has a name: Discrimination

It’s been a dozen years since Harvard’s Sendhil Mullainathan and I sent out nearly 5,000 fictitious resumes in response to help-wanted ads in Boston and Chicago. To half of the resumes, we randomly assigned white-sounding names such as Emily Walsh or Greg Baker. To the other half, we assigned African American–sounding names, such as Lakisha Washington or Jamal Jones. We responded to more than 1,300 employment ads in the sales, administrative support, clerical, and customer-services job categories—and found that white names received 50 percent more callbacks for interviews. Our evidence indicated that hiring managers were discriminating against African Americans on the basis of their names.
Since then, researchers from nearly all continents have devoted much time and effort to accumulating evidence corroborating the notion that discrimination exists. They have convincingly established that outsider groups sometimes don’t get a fair shake in cultures around the globe. I appreciate the necessity of accumulating this evidence. Local policy debates require local evidence. However, maybe because economists have devoted so much attention to measuring the extent of discrimination, little effort has been put toward answering some key questions: What causes discrimination? What does it cost us? And what can we do to mitigate it?

A world of evidence
Black people in the United States are less likely to be employed and more likely to be arrested or shot while unarmed. Women are scarce at the top of the corporate, academic, and political ladders despite the fact that (in rich countries at least) they are more likely to get better grades and graduate from college. While many in the media would argue that discrimination is a key force in driving these patterns, convincingly establishing that it is indeed the case proved difficult.

The study Mullainathan and I conducted has been repeated, like variations on a theme, all over the world, with researchers sending out pairs of fictitious resumes or letters of interest for a potential rental or job, giving some of the applicants a perceived minority trait. By far the bulk of field experiments conducted to measure discrimination have used this “correspondence method,” and studies of labor-market discrimination based on race and ethnic backgrounds have been the most popular application of the method to date. In Peru, whites were compared to indigenous applicants. Han, Mongolians, and Tibetans were compared in China. In Australia, whites were compared to Chinese applicants. In Belgium, nonimmigrants were compared to immigrants. In Ireland, candidates with Irish names were compared to candidates with distinctly non-Irish names. In all these cases, researchers found evidence of discrimination.

Correspondence studies have also been used to establish discrimination involving gender, caste, religion, employment status, and appearance. Correspondence studies in the housing market have revealed discrimination against Arabic names in Sweden, against blacks and other minority ethnicities in the US and the United Kingdom, and against immigrants (particularly Muslims) in Italy and Spain. Expansion of online platforms allows researchers to use the correspondence method to also study discrimination in retail markets.

More evidence has been accumulated using audit studies, where two people who are similar except for one trait, such as race, ethnicity, or gender, are matched up. They apply for a job or for housing, or bargain for a car, following a similar script. In one study, car dealers quoted lower prices to white men and made higher offers to white women and black men and women. Another demonstrated that fancy restaurants (which pay more) tend to offer more jobs to men, whereas low-price and lower-paying restaurants hire more women.

Discrimination has been further demonstrated in controlled lab settings. One of the most important research insights of the past two decades is that implicit, unintentional, unconscious attitudes can be measured. The implicit-association test (IAT), introduced in 1998, is a computer-based test in which a test taker must categorize up to 60 words and pictures of faces that appear in the center of the screen. A taker of the race IAT has to quickly decide whether a face is African American or European, or whether a word such as “happiness” or “tragedy” is associated with good or bad. Categories appear on either side of the screen in pairs that are either compatible or incompatible with a stereotype. For example, in a compatible version, “African American” and “bad” could appear in one corner, while “white” and “good” are in the other. In the incompatible version, the categories are paired against stereotypes, so that “African American” appears with “good” and “white” with “bad.” The test taker marks her decision by hitting a key on the right or left side of the keyboard. The race IAT revealed an implicit bias against African Americans; most people respond more quickly when “African American” is paired stereotypically, with “bad” rather than “good.”

Neuroscience studies have further demonstrated the role of conscious and unconscious processing. One study showed a correlation between the IAT and
A world of evidence

The correspondence study Bertrand co-conducted in the US has been repeated, with variations, in many other countries.

Call-back ratios from selected labor-market correspondence studies

Race and ethnicity

- USA: White vs. black (1.5)
- Canada: Canadian vs. foreign (1.39)
- Germany: German vs. Turkish (1.29)
- Peru: White vs. indigenous (1.8)
- China: Han vs. Mongolian (1.36), Han vs. Tibetan (2.21)
- Australia: White vs. Italian (1.12), White vs. Chinese (1.68)

Religion and caste

- USA: No religion vs. Muslim (1.58)
- India: Upper castes vs. Other Backward Classes (1.6)

Gender, age, and sexual orientation

- Sweden: Women vs. men (female-dominated professions) (1.07)
- United Kingdom: Younger vs. older workers (2.64)
- France: Men vs. women (younger women in high-skilled jobs) (1.13 to 2.43)
- Italy: Heterosexual vs. gay men (1.38)

Source: Bertrand and Duflo, 2015. Go to Review.ChicagoBooth.edu to find out more information about the studies, including citations.
amygdala activation, or the fear response, during the processing of black faces.

Goldberg paradigm experiments, which are laboratory versions of audit or correspondence studies, have produced yet more evidence. In the original Goldberg paradigm, students graded written essays that were identical except for the male or female name of the author. This initial experiment demonstrated a bias: females got lower grades unless the essay was on a stereotypically feminine topic.

What causes our prejudices?
As discrimination is indeed pervasive, what is causing it? Two workhorse economics models come to drastically different conclusions. In 1957, the late Gary S. Becker, of the University of Chicago, put forth a taste-based explanation, arguing that employers may simply dislike hiring members of a minority. In this model, which was developed for the context of the labor market, some employers may indulge this distaste by refusing to hire, say, blacks; or if they do hire them, they may underpay them. If enough employers do this, a wage differential will emerge in equilibrium between otherwise identically productive minority and majority employees. Racist employers will experience lower profits. And if the conditions of perfect competition are satisfied, discriminating employers will be wiped away and taste-based discrimination will disappear.

However, several other economics papers—by Columbia University’s Edmund S. Phelps, by Stanford’s Kenneth Arrow, and by University of California, Irvine’s Dennis J. Aigner and the late Glen G. Cain of the University of Wisconsin—have argued that discrimination is due to imperfect information. In this model, if an employer (or landlord, or car salesman, and so on) doesn’t know a lot about a person standing in front of her, she will use information she has—or thinks she has—about the group that person belongs to. Many economists view this “statistical discrimination” as the more disciplined explanation. However, with a few exceptions, field experiments have failed to link proven patterns of discrimination to a specific economic theory that explains the root causes.

Psychologists have made considerable progress in their own understanding of the roots of discrimination, on a largely parallel track, and they have advanced two theories that help nail down the “why” as well as blur the sharp line economists tend to draw between taste-based and statistical explanations.

Early scholarship in psychology viewed prejudice as a form of abnormal thinking and equated it to a psychopathology (think Adolf Hitler) that could be treated by addressing the personality disorders of the subset of the population that was “diseased.” Neuroscience studies have shown that different regions of the brain are activated under conscious versus unconscious processing, suggesting that unconscious processes are distinct mental activities. For example, studies suggest the area of the brain associated with emotions and fear is activated when a person is unconsciously processing black faces, while the conscious processing of the same faces increases brain activity in areas related to control and regulation. Implicit biases are more likely to drive behavior under distracting conditions, ambiguity, or high time pressure and cognitive load.

Most importantly, whether discrimination is taste based or statistical, or something else entirely, its destructive power lies in the way it can turn perceived differences into real ones. Female students who are told that girls aren’t good at math may self-select into nonmath majors, never realizing a potential talent and at the same time emptying the math field of positive, stereotype-defying models for others to follow. If teachers or employers assume that students of a particular race are less smart, they will invest less in them. Thus, discrimination can create or exacerbate existing differences between groups. Prejudice that starts as taste based and inefficient can easily morph into the more “justifiable” form.

Studies suggest the area of the brain associated with emotions and fear is activated when a person is unconsciously processing black faces.

What are the costs . . .
It’s a wide-open field for researchers interested in quantifying the costs of discrimination, both to the outsider group or groups and to society as a whole. One preliminary question recently under investigation asks, Are leaders’
biases against some groups affecting the performance of those groups? Two recent field studies in economics provide what I believe are the first field-based answers to this question. In one, three economists—Sciences Po’s Dylan Glover, Harvard’s Amanda Pallais, and William Pariente of Université Catholique de Louvain—studied a French grocery-store chain. They find that the cashiers, many of whom were from Africa, performed worse on days when assigned a manager who was more biased against them. Biased managers put less effort into managing minority workers, were less likely to check on their cashier stations, and demanded less effort from the workers.

Similarly, University of Warwick’s Victor Lavy and Bank of Israel’s Edith Sand looked at primary-school teachers’ biases, and at their students’ achievement. Being assigned to a gender-biased teacher early in school had long-term implications for students regarding their occupational choices and hence their earning ability as adults, the research finds.

There is surprisingly scant field-based literature on the costs and benefits to organizations and groups of the limited diversity that directly results from discrimination. A long literature in political economy and development has tended to emphasize the cost of diversity, in particular ethnic diversity. If members of different groups do not like each other, diversity can create hold-ups and breed conflicts—and business owners ultimately have to make a trade-off between the cost of communication and collaboration and the benefits of diverse viewpoints. There’s little in the field-experiment literature to help them make this decision. In one study, which looked at teams of undergraduate students who started businesses as part of a class, there was a clear benefit to having gender diversity on a team. But some findings are subtle and invite more questions.

... and what can be done about them? And if an organization’s head wants to help undo or weaken discrimination, what should she do? There is research exploring the impact of role models, and some has surprising results. In a project that looks at academic evaluation committees, including a woman on a committee doesn’t necessarily help female candidates, and actually could hurt them. This evidence is fascinating, as well as a little depressing. It would be interesting to see if it also carries through in other settings, such as management or political decisions. And even if there is no direct positive effect from having a woman or minority member in a leadership position, could such presence change social norms, or cause a backlash?

Researchers have started to address these questions, and related ones. But there has been relatively little activity in designing creative field experiments to better document either the consequences of discrimination or interventions that may undermine it. Given the large amount of theoretical and lab-based work that has not yet been taken to the field, a lot of promising future field research is ripe for the picking in this area. The issue of interventions to undermine discrimination is particularly ready for more field experimentation.

The issue of diversity, or lack of it, is dogging Silicon Valley, where the gender and racial makeup of the workforce has changed little since major technology firms including Google and Intel began publicizing their diversity numbers two years ago. US colleges and universities that use affirmative-action practices may be forced to change them, depending on how the US Supreme Court decides a case that is pending as of press time. In the political realm, US voters elected the first black president in Barack Obama and now are faced with a candidate, Hillary Clinton, aiming to be the first female president. With diversity such a central issue today, more economic research is greatly needed. I strongly encourage researchers to take on this work in the near future.

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This essay is adapted from “Field Experiments on Discrimination,” a chapter prepared for the Handbook of Field Experiments and coauthored with Esther Duflo, the Abdul Latif Jameel Professor of Poverty Alleviation and Development Economics in the Department of Economics at the Massachusetts Institute of Technology.

Go to Review.ChicagoBooth.edu to see citations for research in this article.
Forget what you’ve read

Most mergers create value

Mergers fail more often than marriages.” So ran a headline on CNN’s website a few years back, accompanying a story referring to a 2004 study by Bain & Company, which found that 70 percent of mergers failed to increase shareholder value.

This well-worn misconception is widespread among the financial media, fueled by high-profile incomplete deals such as MCI WorldCom–Sprint, Comcast–Walt Disney and GE–Honeywell. Late last year, John Cassidy wrote in the New Yorker about Dow Chemical and DuPont’s proposed merger, citing a study I did of mergers in the 1980s, which failed to find consistent evidence of improved performance or productivity gains.
But the notion that most merger deals are doomed to failure is a canard. When it comes to creating value, most mergers succeed.

One reason for the persistence of the popular view that mergers fail is that there is no consensus on how to measure failure or success. When a 2004 McKinsey & Company article suggested that big mergers of pharmaceutical companies were value generators, John LaMattina, the former head of R&D at Pfizer, retorted that such mergers promote short-termism in an industry that requires long-term strategic thinking, and divert employees’ attention from science to office politics. If you have experienced a merger from the inside, you may sympathize.

The cleanest method of settling the debate is by using data on stock returns. Changes in operating income, return on assets, or similar gauges of operating performance are very hard to measure, since it is high impossible to say with any certainty at all what would have happened had the merger not gone ahead. It is little surprise, then, that the results of studies using those measures are equivocal, and there is no clear-cut evidence that acquisitions tend to lead to accounting-based or productivity-based improvements.

A second reason the prevailing narrative about merger failure has survived is that financial reporters tend to take a one-dimensional view of value, looking only at the effect of mergers on the stock value of the bidding company, and overlooking the effect on the acquired company. Often, the buying company’s share price falls on the announcement of a merger deal, while that of the target company rises, suggesting that the purchaser has overpaid, a development often popularly interpreted as meaning that the merger is a bad deal.

To be fair, much depends on the question being asked. If we are interested in whether the management of the acquiring company should have done the deal, our main concern will be what happens to the bidder. If, however, we care more about whether the merger is good for the economy or for society at large, the correct focus should be the combined value the merger creates or destroys.

A highly simplified example illustrates why the analysis of mergers is often misdirected. Two companies, A and B, are worth $10 billion each. If A buys B, A will be able to cut $2 billion of costs out of the combined company. A goes ahead and buys B, agreeing to pay $15 billion. When the deal is announced, B’s value will increase by $5 billion, from $10 billion to $15 billion, while A’s value will decline by $3 billion from $10 billion to $7 billion. Why the $3 billion decline? Because A is paying $15 billion for assets that will be worth $12 billion ($10 billion plus $2 billion in cost cuts). From the perspective of A’s shareholders, executives, and consultants, A has made a bad acquisition, destroying $3 billion. However, from the perspective of all shareholders, this is a very good acquisition. The combined value of A and B has increased from $20 billion ($10 billion + $10 billion) to $22 billion ($7 billion + $15 billion).

When we look at the overall picture in the data, accounting for the combined returns to both bidders and sellers, a quite different story emerges from the popular merger myth. At the times when merger deals are announced, the combined returns are usually positive both statistically and economically. On average, the overall value of both acquirer and acquired increases, which indicates that the market believes the announced deals will create value. This has been the case for the average acquisition going back 30 years, and it remains the case today. If combined returns are positive, mergers certainly create value for the overall market, and, therefore, for investors in index funds.

From there on, however, the story gets more complex. In the longer run (in which the acquired company disappears as the merger is completed), the value of acquiring companies tends to go up in all-cash deals. Add that to the value created at the announcement of a merger, and there is significant value created.

But the value of the acquirer tends to go down in the longer run for stock deals, as was the case, for example, when AOL announced a $164 billion all-stock takeover of Time Warner in January 2000, and in a number of other large stock deals around the dot-com boom.

Stock deals are complicated by the fact that they supply investors with two important pieces of information. The first is straightforward: about the merger itself, and whether the acquisition makes sense for the buyer. The second concerns what the executives of the acquiring company think about the value of the buying company’s stock. If the acquirer is prepared to give the owners of the target company a lot of stock to complete the deal, it is effectively telling the world that it believes its stock to be overvalued—or, at the very least, that it does not think its stock is undervalued, since if it were undervalued, it would not be so willing to give it away.

Nevertheless, the average all-stock deal still creates value overall at the time of the announcement. Thereafter, however, there tends to be a downward drift. Because the

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value of an all-stock deal is a combination of how the market values the takeover itself and how it values the acquiring company; it is impossible to say whether this loss in value is because of the deal itself or because the buyer was thought to be overvalued in the first place.

In general, then, cash mergers tend to create value in both the short and longer run, while stock deals only do so in the short run. (That may reflect the dynamics of the early 2000s, when this research was conducted. Since then, it is possible that bidding companies have taken the lessons from prior mergers that failed to create value, and learned to do better deals.)

The stock-cash dichotomy may also help explain research that suggests that “megamergers” tend to reduce value while small-company mergers create it, as was found in a 2003 paper by University of Pittsburgh’s Sara B. Moeller and Frederik P. Schlingemann and Ohio State University’s René M. Stulz. It is often hard to secure loans to pay for very large mergers, so such deals tend to be either all-stock or combined cash-and-stock agreements.

So what kinds of deals do investors think create value? In general, the data suggest that mergers motivated by efficiency are more favored by the market than those that attempt to build a company’s market power. Strategically speaking, investors prefer takeovers that are likely to lead to cost cutting to those that entail putting different businesses together and trying to increase revenues. Dow-DuPont is an example of a cost-cutting deal, and one might reasonably expect that, if completed, it will be shown to have created value.

However, the deal is so big and complicated that there are many other factors at play, and it is tricky to make any definite prediction about what will happen. There is some evidence that the market reaction to mergers is a good indicator of the soundness of the deals. Combined acquisition announcement returns are significantly positively related to subsequent success, as outlined in a 1992 paper I coauthored with Michael S. Weisbach, then at the University of Rochester, and now at Ohio State University. We found that acquisitions later divested at a loss had substantially lower announcement returns than acquisitions divested at a gain and acquisitions that were not divested. Acquirers in deals with negative returns are significantly more likely to lose their jobs subsequent to the acquisitions, according to work by Lehn and University of Alberta’s Mengxin Zhao.

Aside from a narrow focus on bidders and the complications of stock deals, there is a third reason the popular narrative about mergers is one of failure: stories of big deals going sour are more newsworthy than mergers being successfully completed. The largest deals get the most attention, but as Moeller, Schlingemann, and Stulz show, these are also the most likely to run into problems. The most successful deals are often midsize takeovers that add 10–20 percent to the size of a company, rather than the headline-grabbing megamergers of equals. Moreover, the media often focus on the cultural problems inherent in mergers, which are undoubtedly real and challenging, but, as I discussed earlier, are difficult to measure.

The common view of corporate mergers as an exercise in repetitive failure, then, does not stand up to the scrutiny of the data. The average merger creates value. The media may believe that most mergers fail. Investors, however, do not.——

Steve Kaplan is Neubauer Family Distinguished Service Professor of Entrepreneurship and Finance at Chicago Booth.

Stories of big deals going sour are more newsworthy than mergers being successfully completed.
WHY CAN’T WE CLOSE THE GENDER GAP?

Chicago Booth’s Marianne Bertrand and Waverly Deutsch discuss the wage gap and corporate diversity

Why has the narrowing of the gender gap slowed in recent years?

Bertrand: No one has a definite answer. What’s more dramatic, though, is that the gap at the top of the earnings distribution, between the top-earning men and women, has not narrowed much at all over the past two or three decades. If you look at median earnings, the patterns of convergence have been stronger.

Deutsch: We know some of the causes for the gender gap from the 1940s through the 1970s, when it was based on roles in the organization. As the role of women in the workplace has changed, the dynamics around why women make less have shifted. It’s much less about lack of opportunity, though there is still some of that. Women's roles and their approach to their careers, along with socialization, might explain why the gap persists, and also make that last part of the gap harder to close.

Bertrand: In the past, it was easy to point out gender differences in terms of education. Women were much less likely than men to go to college, business school, and law school. Now, women are more likely to enter and complete college than men. It’s harder to explain gender differences in earnings when there is no longer a gender difference in education.

Are women reaching senior positions but not being paid as much?

Deutsch: About 5 percent of Fortune 1000 CEOs are female. It’s not a question any longer of, “It’s not available to you.” Once women get there, what’s going on with compensation and why? In middle management, in the pipeline to the C-suite, women have a very different approach to business. Female middle managers are far less likely to say they want a job in the C-suite, to ask for promotions and pay raises, and to change jobs for career advancement.

Bertrand: It’s not that women do not want to get to the top, but because of the role that they play at home, those jobs are less appealing. The research gives a pretty good explanation of why women are not advancing at the same rate as men. Women do something different at home than men, and children are a huge part of the explanation. Higher-
Deutsch: The issue of taking on risk is something we see in the world of entrepreneurship. Women founders get less than 20 percent—perhaps as low as 4 percent—of venture-capital dollars. Only about one-fifth of venture-backed companies even have a woman on the founding team; yet women are starting businesses at a much closer rate to men, and women own 30 percent of the businesses in the United States. When they start businesses, they look for work-life balance. They are much less likely to start employer businesses than choose self-employment. They are much less likely to start companies that require a lot of capital upfront, that are in the really competitive areas.

Bertrand: There is a set of explanations that have to do with different risk attitudes: women might not have an appetite for these very risky jobs; women may not have an appetite for the competitive nature of a job on Wall Street. These have been documented to exist. They are part of the phenomenon of raising our girls not to have an appetite for risk because they should be at home taking care of kids. But the research on this nature-versus-nurture stuff is not definitive at all.

Deutsch: We have to consider compensation across more than just money. When a woman is following the same career trajectory, are there factors that are holding her back from earning what her male counterparts are earning? Women are making less than men for comparable work. A senior female consultant told me her boss told her, “You talk too much about your family. That’s going to hold you back from climbing the ladder here.” She asked, “Was there ever a time when I wasn’t with my team when I needed to be, when I missed a critical meeting, when I didn’t take on travel or work that I needed to?” He couldn’t cite one. It was purely a perception issue.

Bertrand: Perceptions are important, but that’s just one data point. There is a 50 percent pay gap between male and female MBAs 10 years out of graduate school. In the jobs they’re in, very long hours get very high rewards. Taking any kind of time off, for whatever reason, is going to hurt you. So you can explain 95 percent of that 50 percent pay gap by differences in labor supply: female students are more likely to have taken six months off to have kids, and then to work fewer hours than men, because women tend to take on the greater share of the work at home. They cannot as easily work those long hours, so they earn less. So you could either change the model at the Wall Street and consulting firms, or change gender norms. We cannot outsource breastfeeding to the guys, but women should not be viewed as responsible for the greater share of what happens at home.

Is there a public-policy solution?

Bertrand: Scandinavia has been the most creative region. They incentivize fathers to take paternity leave. I was recently in Stockholm, and the pressure on men to take paternity leave is huge. The policy was introduced 15 years ago, but even in a very short amount of time, public policy can move norms in the right direction.

Deutsch: Public policy is probably more effective in Scandinavia than in the US, where the pressure tends to come from the corporations. If corporations saw that by encouraging men to do more at home they would allow their female employees to be more productive, they would make changes.
"The danger with quotas is the sense that, 'We’ve checked the box. We’ve done it. We have a policy in place, and now there is no more problem to solve.'"

— MARIANNE BERTRAND

Bertrand: Education is going to play an important role. At some point, if current education trends continue, companies will have to get creative about how they attract and retain female talent.

How can we improve the number of female CEOs?

Deutsch: The challenge is the pipeline. During women’s childbearing years, they decrease their emphasis on their careers, and it’s hard for them to get back later. There is substantial evidence of a correlation between a higher number of women executives and success. Women start-up founders have more success. Having more women executives correlates with better relative returns on equity.

Bertrand: There may be a correlation between more diversity at the top of organizations and performance, but there are lots of reasons why that might not be a causal relationship. We should try to research this question, and maybe that will produce more credible evidence that having more women at the top is good for organizations. Maybe that will be more of an incentive for organizations to be more diversified.

Deutsch: Once you have a woman on your executive board, her network is more likely to include highly qualified, highly experienced women. It is much easier to recruit women to that board or executive team.

Do quotas work?

Bertrand: We should be careful in throwing around the idea that diversity is good for business. In Scandinavia, they force companies to have more women on their boards. There is not sound evidence that this has been good for company performance. Between 30 percent and 40 percent of the boards of large corporations must be women. Our research on Norway, where they introduced that rule 10 years ago, suggests the impact of these policies is not very positive. There are some good aspects. Companies lobbied against the policy, saying they would not be able to find talented enough women to serve on these boards. The evidence clearly shows that they could. In fact, the women who then came on to boards were better qualified than the few women who had been on the boards before. That’s the only good news.

We looked to see if, once there were more women in the boardroom, they’d find more women to serve in the C-suite or slightly below the C-suite. We found no evidence for that. We looked at the next generation to see if young women in Norway would choose a career in business or think differently about trading off early fertility for staying on the career track. Again, we found no evidence.

The danger with quotas is the sense that, “We’ve checked the box. We’ve done it. We have a policy in place, and now there is no more problem to solve.”

Deutsch: We don’t like to solve problems with quotas, just by checking the box. I do think that once diverse talent is in the door, it’s easier for organizations to bring in even more.

Bertrand: Again, one has to be very careful. Some of the best research has a hard time finding that this stuff really works. There is some fantastic work looking at the entry evaluation committees for law careers in Spain, where a candidate is being interviewed by a panel. They found that once you put a woman on the panel, the female candidates do much more poorly compared to the male candidates.
Don’t confuse professional managers with good managers

BY H. EDWARD WRAPP

Talented performers often fail miserably when they are charged with earning a profit

A n organization is doomed to mediocrity unless it is guided by good general managers in key positions. A company can bumble along for years, but good general managers are the ingredient that will make it stand out from the pack. No matter how rich its other resources—such as technical know-how, uniqueness of product, market monopoly, ample finances, and luck—an organization will not excel unless it is led by what are becoming increasingly rare individuals.

Good general managers have always been scarce, but today the widespread addiction to professional management is drying up the supply. The combination of higher education and on-the-job experience is producing a generation of management candidates who have little training or appetite for the job of general management. Whether the aspiring men or women come from a graduate school or from humbler origins, the organization immerses them in highly specialized units that reinforce the concepts implemented by the school or by books on management.

The system is producing a horde of professional managers with demonstrable talents, but talents nonetheless that are not in the mainstream of the enterprise. Professional managers can describe management concepts, apply elegant techniques, catalog the tools available, and make penetrating analyses of problems. In some organizations, they can succeed if they are simply good at making presentations to the board of directors, or writing strategies and plans, or even creating imaginative position descriptions. The tragedy is that these talents may mask real deficiencies in overall general-management capabilities. These talented performers often fail miserably when they are charged with earning a profit, getting things done, choosing a strategy and backing up that choice, and moving an organization forward.

The job of the general manager is integration. While the ultimate integrator is the CEO of an organization, jobs with large elements of general management may be found under titles such as president, COO, division manager, product manager, branch manager, store manager, and plant manager. Whatever the title, the general manager is the one who must convert the throngs of specialists into a vibrant enterprise.

Most good general managers probably develop in an environment requiring quick and continual response to change. In such an environment, the person who is stimulated to his best thinking by the unexpected will emerge as a leader. This manager learns to deal calmly with difficult developments that cannot be anticipated. He faces the unforeseen with appetite and equanimity. By contrast, the person who develops in a highly controlled environment where the lead times are lengthy and
everything is studied and planned does not gain the self-confidence needed to deal with the unexpected.

Defining this form of manager, the professional general manager, is more difficult than describing the things he does. He immerses himself in a world of techniques, planning, financial controls, budgets, financial incentives, explicit manuals on what to do and how to do it, neatly defined job responsibilities, reorganizations, orderly reporting, and formal training programs. Conceptually, he is steeped in specialization, standardization, efficiency, productivity, and quantification. He insists on objective goals such as earnings per share and return on investment. He prefers to work with aggregates and averages rather than with random bits of information. His initial response to a problem is to turn to his staff for in-depth studies and to consultants for advice on every topic imaginable. He takes great comfort in making long lists of problems, facts, variables, conclusions, and alternatives. In his mind, the astuteness of the management correlates with the length of the lists. He likes to make policy decisions and to embalm all the policies in elaborate manuals.

**Appraising general managers**

Our knowledge of what makes a good general manager and how to recognize one is extremely limited. In an earlier paper, “Good Managers Don’t Make Policy Decisions,” I discuss the five most critical skills of the general manager:

1. **Communicating across roles.** The good general manager keeps open a considerable range of pipelines within and without the organization. He continually checks his subordinates’ perceptions of their problems against the size-up of others. He knows where to go in the organization for reliable information, and frequently bypasses the chain of command.

2. **Focusing on the key issues.** The good general manager knows that he must concentrate his attention on certain issues. They may be ones that only he can deal with or ones that he is best qualified to deal with, ones that the organization has not yet perceived as significant or ones that actually threaten the survival of the organization. In the face of impossible demands on his time, he must remind himself regularly to avoid being swamped in detail.

3. **Knowing how hard he can push the organization.** The good general manager knows that he must not impose a heavy load of his own ideas on the organization. If he goes too far, indigestion in the form of resistance from the organization will disrupt and postpone his programs. Only during crises will the organization accept the dictates of the boss with tolerable resistance.

4. **Giving the organization a sense of direction.** In many instances, the organization can produce a viable strategy, but should it falter, the good general manager must have in his own mind a concept of where he is trying to take the organization. He will translate this concept into a language appropriate to each level of the organization so that he can gain support for his intended strategy. A formal corporate strategy often results from the exercise of this skill.

5. **Maintaining relationships in the stream of operating decisions.** The good general manager does not permit himself to be insulated from operations, because he knows that the most innovative elements of an overall strategy may evolve from opportunities presented by operating decisions.

These five skills, then, become benchmarks for appraising a general manager. In order to sharpen comprehension of the differences in approach between professional general managers and good general managers, it may be useful to focus on a few favorite techniques of modern management.

**The paradox of planning**

The introduction of formal long-range planning almost always leads to overemphasis on the technique. The people assigned to planning may find it to be a welcome respite from operating problems. It is intellectually more rewarding. It does not carry the pressure that operations entail. Professionally, it is more respectable. Board members and other influential outsiders give it high status by their interest and support.

The professional general manager will probably set up a staff for planning and hire consultants to reinforce the staff. He will encourage the preparation of a planning manual and a proliferation of forms to be filled out by many different units in the organization. He will stress the preparation and analysis of the numbers that summarize his plans. He will demonstrate his mastery of the numbers in presentations to corporate management and the board. He may even convince himself that preoccupation with the numbers is the best focus for the exchanges among his subordinates and with corporate management.

The good general manager does not permit himself to be insulated from operations.
One corporation I am familiar with employed a consulting firm to devise an overall corporate strategy. Over a period of 14 months and after the expenditure of almost $200,000, the consultant produced a report; however, the report stimulated almost no action in the management group. About a year later, the company hired a director of planning. He elected to approach his new task by organizing discussions throughout the company on the mechanics of planning. After some nine months of discussions, management has still not been able to agree on how planning is to be carried out. Almost three years have elapsed, and management is still discussing how to plan.

By contrast, the good general manager and his operating managers may appear to be almost indifferent to the planning activity, if not openly derisive in their comments. The general manager may see planning as handicapping his efforts to instill a sense of urgency in the organization. He is skeptical that the entrepreneurial function can be synthesized by planners. He has discovered that the future cannot be predicted with any great certainty and that he must hedge against any one of several eventualities. He is reminded daily of the crises, major and minor, that demand a quick response rather than in-depth study.

At heart, the good general manager knows that he and his organization must be concerned with long-range plans, for the strategy that evolves from planning is essential to holding together the ever-growing swarms of specialists who work for him. Periodically, he pulls out the plans for review with his subordinates, but he avoids the constant nagging and reference to plans that over time may convince them that skill in planning is the only thing that matters.

One successful general manager who takes an extreme position against planning describes his dilemma in these terms:

We pay strict attention to details. The company will do all right so long as everyone here understands how important that is. We plan operations carefully. When we moved to this location a couple of years ago, we planned it so carefully that we moved on a Saturday and Sunday, and were back in operation on Monday. But we don’t even draw up a one-year plan or budget. An organization is likely to go stale and forget details if they emphasize budgets and long-term plans.

Keeping the organization lean, or understaffed, may be one of the most effective devices for maintaining a sense of urgency.

Clearly, the professional general manager and the good general manager pursue divergent courses as they try to harness the power in the planning process.

The empty promise of reorganization

Frequent and major reorganizations are an obsession of the professional general manager. Reorganizations are proposed as the solution for all kinds of problems, from lagging earnings to nagging operations quagmires. If management is under fire, the critics can usually be silenced by a reorganization. The announcement of a reorganization carries with it a symbol of decisive action; and yet, if you observe an organization over a period of months, how often does it go through a series of changes and then revert to structures that were earlier abandoned?

The professional general manager takes an orgiastic delight in rearranging the boxes on the chart, changing the reporting relationships, concocting new titles, polishing the job descriptions, and moving the players from job to job. Specialization is a way of life for him. He has been taught to break a problem into parts for analysis, so it is a natural tendency to fragment the management element in an operation. Part of the rationale for the continuous movement toward greater specialization in jobs is that the narrower the responsibility, the greater the opportunity to develop technical expertise. And many organizations have grown so complex with legal, accounting, financial, social, scientific, and legislative dimensions that a generalist is not able to master the many areas of expertise. In this environment, a powerful argument can be made for accumulating inside specialists in order to avoid the use of expensive outside specialists. And, of course, at some point as the boxes increase, more levels of management must be added to supervise the units.

One victim of specialization in a well-known company is bitter about what has happened to him:

Once upon a time I was an all-round marketing man. I knew my product line, my customers, the competition. Over the years, they have whittled away at my job until today I am strictly an order taker. The product managers plan the strategy. The market researchers study the market by talking to strangers. They aren't even interested in my opinions. So, I say, “To hell with it. Let somebody else do the thinking.”
The good general manager is wary of reorganizations. He is likely to concentrate on making the present organization work rather than devising drastic changes. He has seen the havoc wrought by reorganization and sees its primary benefit as a device for keeping management consultants off the welfare rolls. He knows that major reorganizations almost never deal with the real problems. He insists that his organization be lean with a minimum of staff departments. It is difficult for overspecialization to make much headway in a lean organization, because the demands of the company require that each member of management keep closing the gap and trying his hand at something where he is not a specialist. So a lean organization is consistent with an organization strategy of low profiles for specialists. One successful company president describes his difficulty in persuading his staff subordinates to relate their activities to the overall company goals:

A good part of my day is spent in cutting the staff people down to size. I don't want to demoralize them, but most of them have an inflated idea about their contribution to the company. They seem to be dedicated to finding something wrong as justification for their existence. They would be more useful to me if they could plan their work in the context of things going on in other staff departments and in the offices of the line managers.

Keeping the organization lean, or understaffed, may be one of the most effective devices for maintaining a sense of urgency. Employees who are stretched out and working harder than they ever thought they could don’t have time to devise a complicated solution for a problem that doesn’t require such an approach.

An overdose of standardization
The professionals in general management and in sales are volume oriented, and therefore are searching for the high volumes that often accompany standardization. Many companies have been persuaded to abandon low-volume, high-margin products in favor of high-volume, low-margin products. The “old fashioned” customer who voices his willingness to pay extra for custom products or services is silenced between blankets of modern management.

How many thousands of specialists are working away in their cubicles on projects no one with clout cares about?

The good general manager is one of the last bastions in the defense against the excesses of standardization. He recognizes that a pervasive preoccupation with standardization builds resistance to the introduction of new products; that it results in manufacturing plants that are difficult to adapt to changing market conditions; that it reduces customer service to routine simplistic responses that satisfy no one; that it leads to the most destructive kind of price competition; and that it nullifies the negotiating skills of his best salespeople. He sees the “standardize-it” mentality as the antithesis of the innovative mind. Much of his ammunition must be wasted on shooting down the extremists who see no practical limits to the standardization movement.

Management consultants
The management consultant has become a status symbol for the professional general manager. The hundreds of management consultants who roam the business world have provided much of the horsepower for the professional management movement, for the trappings of the movement are readily saleable merchandise. The mystique of the consultant is reflected in these comments by a division manager in a large conglomerate:

It is virtually impossible for a division manager to gain approval from the corporate office for a project of any size unless it is supported by a report from an outside consulting firm. In refusing to play this game I have relied on my own staff. This policy has confirmed to my staff specialists that they are the experts I have confidence in and will rely on. As a consequence, the staff work in this division is the best in the company.

The good general manager uses consultants in narrowly defined roles such as a tax negotiation, a pension question, or a patent matter. He refuses to permit them any major influence in the mainstream issues, mainly because he is unwilling to relieve his line managers of full responsibility for these decisions.

The search for management talent
Businesspeople are deluding themselves as they listen to each other chant the litany of modern management achievements. How many thousands of specialists are working away in their cubicles on projects no one with clout cares about? In fact, how many general managers are hoping that the specialists never complete their projects because they are almost certain to come up with grandiose recommendations that the managers can’t possibly implement?

Boards of directors don’t know how to select CEOs and CEOs don’t know how to pick division managers. They promote a successful functional manager to general management and hope that he works out. If he doesn’t, he usually must leave, and his years of experience are lost to the company. The turnover of general managers in some companies is little short of criminal.

Ask a top manager how he picks persons with high potential for general management, how he grooms those candidates, and how he measures their performance once they are promoted to general management. The answers will be scanty.

H. Edward Wrapp was professor of business policy, associate dean for management programs, and director of the Executive MBA Program at Chicago Booth. He died in 2009.

Go to Review.ChicagoBooth.edu to see citations for research in this article.
WHAT ECONOMISTS THINK ABOUT CHINA’S GROWTH MODEL

China’s economy grew by 6.9 percent in 2015, marking its first dip below 7 percent annual growth in 25 years. The slowdown is not an anomaly. Chinese GDP growth has steadily declined in recent years, and is expected to fall further: the International Monetary Fund projects growth of 6.3 percent this year and 6 percent in 2017. To explore the long-term prospects for the world’s second-largest economy, the Initiative on Global Markets polled its Economic Experts Panel on whether China’s economic growth model is sustainable. More than 70 percent say it’s not—but many point out that, even if the model isn’t indefinitely tenable, China’s growth will continue in the immediate future.

See more online
All responses to the Chinese Economy poll can be seen at igmchicago.org/igm-economic-experts-panel.
Question: China’s growth model, specifically the unusually high investment rate and low consumption rate, is unsustainable.

Austan D. Goolsbee, Chicago Booth
“Must we relearn the same lesson in the same painful way again?”
Response: Strongly agree

Oliver Hart, Harvard
“As China becomes richer it will resemble other rich countries: growth rates will fall, wages and consumption will rise, and investment will fall.”
Response: Agree

Caroline Hoxby, Stanford
“Of course it is unsustainable in the very long run, but near- to mid-term sustainability is at least plausible.”
Response: Uncertain

Christopher Udry, Yale
“In the long run, growth has to slow as the process of structural change approaches completion. Consumption eventually converges near income.”
Response: Agree

KEY: Responses Responses weighted by experts’ confidence

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About the IGM Economic Experts Panel
To assess the extent to which economists agree or disagree on major public policy issues, Booth’s Initiative on Global Markets has assembled and regularly polls a diverse panel of expert economists, all senior faculty at the most elite research universities in the United States. The panel includes Nobel laureates and John Bates Clark medalists, among others. Questions are emailed individually to the panel members, and panelists may consult whatever resources they like before answering. Members of the public are free to suggest questions.
Will that art history degree pay off?

When deciding where to go to school and what to study, it helps to look at cost-benefit information that compares college costs to earnings outcomes for past students. Using data from an experiment conducted in Chile, Chicago Booth’s Seth Zimmerman finds that giving high-school graduates a “net value” metric helped them make better choices. The intervention helps guide students, particularly low-income ones, away from potentially costly mistakes.

Learn more about this model at Review.ChicagoBooth.edu and on page 38 of this issue.
OCTOBER NOVEMBER

SEPTEMBER 29
Marketing Analytics and Big Data Conference, Chicago. This 1.5-day conference will feature Chicago Booth’s Robert E. McCulloch presenting the tutorial “Trees, Random Forests, and Boosting.”

OCTOBER 27
6th Annual Booth Women Connect Conference, Chicago. This conference connects women of the broader Chicago business community with members of the Chicago Booth network. Open to all students, alumni, prospective students, and business leaders prepared to face the toughest challenges. Visit ChicagoBooth.edu/programs for more information about our Full-Time MBA, Evening MBA, Weekend MBA, and Executive MBA programs, our PhD degree, and our Executive Education.

OCTOBER TO NOVEMBER 4
Asia Executive Series: Emerging CFOs for Asia, Singapore. This program features Chicago Booth’s Randall S. Kroszner, a former Federal Reserve Board governor. Visit ChicagoBooth.edu.

JUNE 20–24
High-Performance Leadership program, Chicago. Learn attributes, tools, and techniques critical to creating a high-performance work environment, and take part in interactive exercises and exercises.

JUNE 27–28
Strategic Marketing Analytics program, Hong Kong. Learn analytic frameworks for evaluating marketing strategies and tactics, even with crude or limited data. Visit ChicagoBooth.edu/ExecutiveEducation for more information.

JULY 13
Evening MBA and Weekend MBA information sessions, Chicago. Learn more about Booth’s part-time programs from admissions directors, current students, and alumni. Visit ChicagoBooth.edu/

SEPTEMBER 1
5th Annual Polsky Accelerator Demo Day, Chicago. After 10 weeks developing their businesses, teams from the Polsky Accelerator showcase their achievements and pitch to potential local investors. Visit ChicagoBooth.edu/programs.

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Page 14