ARE WE REALLY MORE PRODUCTIVE WORKING FROM HOME?

Data from the pandemic can guide organizations struggling to reimagine the new office

Plus:

A new approach to evaluating drug safety / Who is right about inflation? / The cycle behind sovereign debt disasters
“Authenticity is signaled through the publicly visible cost of an action, and this signaling cannot probably needs to be expensive to resonate.”

Page 54
WHERE ARE YOU MORE PRODUCTIVE, THE OFFICE OR THE COUCH?

Are you going back to the office? The answer depends a lot on your organization and its culture. If you work for a Wall Street bank, you’re probably already back. Goldman Sachs, JPMorgan Chase, and Morgan Stanley have all made it clear that remote work was, as Goldman’s CEO David Solomon put it, an “aberration.” By contrast, at Facebook, Novartis, and SAP, employees can work from home permanently. Meanwhile, companies such as Ford, Intuit, and Microsoft are allowing staff to work from home for a portion of their workweek.

Workplaces, with their opportunities for casual interaction, are lauded as cauldrons of creativity and innovation. They also enable employees to focus on work, rather than feeding the cat, playing with the kids, or checking what’s in the fridge.

So will more remote work mean lower productivity? This question, posed in our cover story (page 26), is on the minds of many corporate leaders. Jose Maria Barrero of the Mexico Autonomous Institute of Technology, Stanford’s Nicholas Bloom, and Chicago Booth’s Steven J. Davis find that at-home work during the pandemic has been surprisingly productive, in part because of time saved from commuting. Not everyone is as bullish, but a growing body of research is helping to inform the crucial decisions that businesses face today and that they will have to make in the next few years at least.

Another challenge beyond the pandemic is monetary-policy making amid the possibility of higher inflation. The rate of inflation rose sharply in the United States in the first few months of this year, but will prices continue to rise at a historically fast pace? The Fed and consumers have different views on that question, explains Booth’s Michael Weber (page 40). For one thing, the Fed’s predictions focus on the core-inflation rate, which strips out energy and food prices—the very prices that play a big role in shaping consumers’ opinions and behavior. The gap in understanding between the Fed and consumers has important economic implications, as our story explains.

Whether we are talking about corporate policy or government policy, the best decisions come from a careful analysis of the data. This issue covers a variety of other research findings that can help you navigate changing conditions, whether those have to do with beer (page 7), automated factories (page 10), consumer finance (page 14), or politics in the office (page 23).

Find us between print issues at Review.ChicagoBooth.edu, where you’ll see exclusive articles, videos, and interactive charts. As always, let us know your thoughts, either by sending us an email or by contributing to the conversation on our social media channels. We’re keen to hear about your thoughts and experiences of remote work, or anything else covered in these pages.

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Abigail Sussman, associate professor of marketing and the Beatrice Foods Co. Faculty Scholar, is interested in understanding how consumers form judgments and make decisions. Her central research aims to improve consumer well-being by examining psychological processes that influence financial decisions. She also explores how similar processes extend to other choices—such as the decision of whether to get vaccinated. (Page 18)

Yiran Fan, a 2021 Booth PhD graduate, was finishing the Joint Program in Financial Economics at Chicago Booth and the University of Chicago when he was killed in January. A native of China, he earned a master's degree from UChicago in 2015 and served as a research professional at the Fama-Miller Center for Research in Finance. Booth's Zhiguo He described him as “an intuitive thinker on deep economic questions.” Fan's PhD degree was awarded posthumously. (Page 20)
Help the student-debt holders who really need it
By Constantine Yannelis

The end of ‘the end of inflation’
By John H. Cochrane

Marketing for good is a business imperative
By Jean-Pierre Dubé

Should you accept a promotion with no raise?
By George Wu

Why Jeff Bezos should donate $100 billion to the humanities
By John Paul Rollert

What are the biggest barriers to behavior change?
The Big Question

Would a global minimum corporate tax rate work?
The IGM Panels

Steven J. Davis, the William H. Abbott Distinguished Service Professor of International Business and Economics, studies business dynamics, hiring practices, job loss, the effects of economic uncertainty, and other topics. He co-organizes the annual Asian Monetary Policy Forum, is one of three founding researchers of the Economic Policy Uncertainty Indexes, and is a senior fellow at the Hoover Institution and an advisor to the US Congressional Budget Office. (Pages 15 and 26)

George Wu, the John P. and Lillian A. Gould Professor of Behavioral Science, studies the psychology of decision-making, goal setting and motivation, and cognitive biases in bargaining and negotiation. He received in 2020 the Chicago Urban League’s Humanitarian Award, in honor of his work developing and championing the IMPACT Leadership Development Program, which connects up-and-coming professionals with senior Black leaders. (Page 58)
IS THERE A LIMIT TO THIS ‘NEVER-ENDING’ LENDING?

How the 1 percent’s savings buried the middle class in debt (Summer 2021)

In political economy, we have focused so much on showing why financialization happened and how it increases inequality that we’ve overlooked that extreme wealth inequality makes financialization inevitable. People buy houses, cars, vacations, or college degrees they can’t afford, fueled by a never-ending supply of credit that’s someone else’s portfolio asset. The problem really is the quantity of debt.

—@BJMbraun

This is the economic glacier. Creditor and debtor classes both want the party to keep going so we get massive bailouts. I wish we could land somewhere more sustainable. Everyone is culpable here.

—@davidralbrecht

When that money is spent, there’s no guarantee it’ll be spent domestically. Just as an example, Jeff Bezos bought his $500 million superyacht from Oceanco, a Dutch yacht maker. Increasingly, the ultrarich are, like many of the companies they control, multinational.

—@AhmedDanyalArif

Concentrating wealth into the hands of the rich reduces overall demand in the economy: the rich can only eat so much; they only need so many clothes, etc. They may buy extra luxuries with some of their surplus, but mostly they use it to hoard, or they lend it out at usury.

—Gregory Graham

THE ENDURING LEGACY OF MILTON FRIEDMAN

Is the Friedman doctrine still relevant in the 21st century? (Summer 2021)

The Friedman doctrine is absolutely still relevant, though much of the debate around the Friedman doctrine is improperly framed. Remember that Friedman thought corporations must adhere to “basic rules of the society, both those embodied in law and those embodied in ethical custom.” All of the corporate actions cited in this article and others similar that I can think of fall under the category of corporate responses to changing customs, expressed as changes in marketing strategy. These actions are designed to make more money for shareholders, not less. Pitting these examples against the Friedman doctrine is therefore a false dichotomy.

So what about any true examples of corporate governance acting outside of maximizing shareholder gains? Any such governance, even if not optimized according to shareholder value, as a matter of law is still subject to the whims of shareholders. It’s weird for so many to champion the idea that a corporate system that gives the most weight to those with enough money to buy the most votes would somehow be less regressive than governance of corporations themselves through the ballot box, however imperfect. In Bezos, we trust?

—Gregory Graham
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Craft beer’s rise is a warning flag for all sorts of big brands

Over the past 20 years, the largest US consumer packaged goods companies have seen their sales erode while smaller companies selling artisanal and locally sourced products have grown. These changes, many believe, occurred as millennials came of age and used their buying power to disrupt established brands with significantly different preferences from those of their forebears.

Those who buy into this demand-side explanation can point to countless surveys in which millennials—born after 1980—profess a desire to support companies that align with their values, offer more sustainably produced or nutritious foods, or take part in social causes.

But Tilburg University’s Bart J. Bronnenberg, Chicago Booth’s Jean-Pierre Dubé, and University of Texas at Dallas’s Joonhwi Joo analyzed the recent surge in sales of craft beers and reject the demand-side explanation in favor of an alternative supply-side one. Millennials often have a wider selection of craft beers to choose from than past generations did, as artisanal products have disrupted a century-old market structure dominated by a small number of big players, and they have developed preferences on the basis of that experience, the researchers argue. It’s important to understand the mechanisms, they note, because the same dynamics could erode the dominance of
How millennials became the craft-beer industry’s best customers

Research finds that the rise in availability of craft beer as millennials reached drinking age influenced their spending habits.

When generations began turning age 21

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Government deregulation allows craft brewing in the US

Availability of craft beer when people in each generation turned 21

Median measure (higher = more availability)

Generations’ household spending on craft beer

Average annual share of all craft-beer spending over 2004–18

Do these sales patterns reflect what beer customers demanded, or the kinds of beers that were available historically? Older generations had fewer choices when they began consuming beer and developing their tastes and habits—maybe only a handful of pale lagers, mostly from dominant brewers such as Anheuser-Busch and Miller.

To test for the effect of historic availability, the researchers looked at differences in the diffusion of craft-beer availability across US cities, two drivers of which were population growth in various cities on the one hand and local alcohol manufacturing and distribution restrictions on the other. States deregulated home brewing and brew pubs at different times, affording the researchers an opportunity to analyze the changes it brought to the overall industry. The availability of craft beer, they conclude, is what most affected each generation’s tendency to buck the brand-name beers. After accounting for the effect of which beers historically consumers could buy in their local areas, the researchers saw no intrinsic difference between generations beyond the effect of availability.

The takeoff in craft brewing is not a coincidence. Deregulation and low-cost digital advertising have made it easier for new craft-beer players to enter the market, especially since the late 1990s. As a result, millennials have had access to craft alternatives since they turned 21, whereas older generations first encountered those long after they had established a preference for national brands.

“People form habits slowly, and it takes time to form a strong habit. But once you have it, it’s ingrained and you’re unlikely to switch,” Dubé says.

“We are seeing a similar trend in other product categories,” he adds. In many segments of consumer packaged goods, the market shares of big, established brands are falling as smaller companies grow, fragmenting categories that were dominated by a small number of established brands for most of the 20th century.

“What craft beer shows us is that shopping habits are formed not because one generation is intrinsically different from another,” says Dubé. “Their habits are caused by firms’ strategic decisions to supply variety.”—Brian Wallheimer

The cycle behind sovereign debt disasters

In theory, sovereign debt can be a healthy part of a growing economy. Governments can borrow from creditors to fund trade deficits, importing goods from other countries so their citizens can buy the products and enjoy the benefits. While that may be the idea, the results of such borrowing are generally disastrous, warns research by Stanford’s Peter M. DeMarzo, Chicago Booth’s Zhiguo He, and Copenhagen Business School’s Fabrice Tourre. There is no default plan for a sovereign borrower the way there is for, say, a corporate one—and borrower countries have proven unable or unwilling to commit to anything like one. Without the disciplining force of covenants, which are common in private-sector borrowing, the system doesn’t wholly account for the risks associated with economic booms and busts, which works against strategic, responsible borrowing.

The trio's work on sovereign debt risks rests on a foundation of work by DeMarzo and He on private-sector debt, in which they describe the tendencies of corporations to borrow without restraint when they do not pledge collateral to specific lenders. As uncollateralized borrowers tend to issue debt in good times and bad, lenders demand ever-higher borrowing costs over time, erasing the benefits to the borrower company and increasing default risk. Collateral adds discipline to the process. In another study, DeMarzo argues that sovereign borrowers should pledge assets to creditors as collateral in the event of default. This latest research, with He and Tourre, suggests that such collateralization could crystallize the consequences of default and break the debt cycle that is so costly to so many citizens.

Seeking to better understand what causes sovereign defaults, the researchers created a model and tested it under different circumstances. They find that debt can spark a dangerous boom-and-bust cycle that is perhaps familiar to individuals and households caught in a similar spiral. A debt ratchet, or a destructive risk that afflicts even the most careful borrowers, is key to this process. When debt levels rise relative to economic growth, a country’s solvency falters. At that point, the country needs to either renege or borrow more to meet its obligations, which only worsens its solvency, sparking greater demand for refinancing or borrowing. The cycle continues until investors either refuse to buy more debt or demand higher interest, which can result in a default or a crisis.

The citizens of borrower countries are worse off than they would be living in an entirely self-sufficient economy isolated from global markets and trade, write DeMarzo, He, and Tourre. But such autarky is entirely theoretical.

The lack of discipline in borrowing leads to costly boom-and-bust cycles. Countries are typically willing to borrow until debt-to-income or asset levels reach proportions that lenders will no longer support, setting no other limits or conditions for themselves. Patient citizens, willing or able to put off purchases, end up hurt by future costs related to government default.

Ambiguity around the consequences of sovereign defaults is central to the problem. If a home buyer fails to pay on a mortgage loan, the bank seizes the home. If a private company fails to pay bondholders, lenders might take control of the company. A country cannot be similarly taken over by its creditors, and the consequences of default vary from severe (Argentina’s 2001 crisis) to manageable (the more recent eurozone crisis).

This ambiguity saps the disciplinary power of the possibility of default. Without countries having a process in place for default, the consequences are unclear, and there is no effective deterrent to borrowing.

—Michael Maiello
CASH-FLOW BORROWING DOMINATES IN CORPORATE DEBT

IN THE TRADITIONAL view of corporate debt, when a company wants to borrow $1 million, creditors ask for something they can seize and keep in case of default, such as equipment and real estate. But this doesn’t work for all businesses: a company that builds code, for example, doesn’t have much to pledge to creditors. Recognizing this, lenders also allow companies to borrow against the cash flow from their operations.

While less traditional, this method of corporate borrowing has actually become dominant, according to an analysis by University of California at Berkeley’s Chen Lian and Chicago Booth’s Yueran Ma. They estimate that 80 percent of US business borrowing by value is made on the basis of cash flow from operations, while only 20 percent is tied to the kind of assets that can be seized by lenders.

Lian and Ma created a database of corporate debt, excluding financial companies. They observed variation in borrowing patterns across industries. Airlines, for example, largely borrowed against physical assets, as did small companies.

Meanwhile, for companies that borrowed against their cash flow, their total debt was typically limited not by the number of assets, say, but by a multiple of recent operating earnings. “Among large, nonfinancial firms, around 60 percent have earnings-based covenants explicitly written in their debt contracts,” the researchers write.

For companies that used cash flow–based credit, every $1 increase in operating earnings was associated with an additional 28 cents in the net issuance of debt. This link was strongest at companies with borrowing amounts that were limited by contracts, and it was also strongest when the economy was weak and lenders were therefore likely to be checking in on borrowers more often.

The researchers also collected real-estate values but observed only a weak connection between debt levels and real-estate prices. At large nonfinancial companies, for every additional dollar value of property, borrowing went up only 2–3 cents.

“The good news from this research is that, in the United States, we’ve established a good institutional environment that allows firms to pledge their business value,” says Ma. Even if a company doesn’t have machinery to put up as collateral, it can usually borrow money if it can show its business is profitable. Legal structures including Chapter 11 bankruptcy laws facilitate cash flow–based lending in the US, and similar institutions can do the same in other countries.

The flip side, she notes, is that businesses in countries with legal systems that are more oriented to liquidating companies in bankruptcy, or that have less robust and reliable accounting and auditing systems, are at a disadvantage.

The study has implications for economic models, and Ma says that the observations could be particularly noteworthy in the coronavirus era, where asset-heavy industries such as airlines, hotels, and oil and gas have been hit hard. To ensure that policies effectively support an economic recovery, older macroeconomic models may need to be reconsidered.

—Emily Lambert


Smarter algorithms stop factory robots from colliding

China’s e-commerce warehouses shipped more than 83 billion parcels in 2020, a nearly 23-fold increase from a decade ago. This online-shopping boom has created an enormous logistics problem for retailers such as JD.com, which sells everything from books to appliances, offering same-day delivery to 470 million customers in China who place orders by 11 a.m., whether they buy something big or small, common or hard to get.

The solution for this challenge could be robot-driven automation, according to a team of researchers from JD.com, Shanghai University of Finance and Economics, Chicago Booth, and the University of Southern California. In work they conducted at JD.com, the researchers helped the company improve the efficiency of its fulfillment warehouses by adopting a model of facility management in which workers stay at stations while robots bring them products to be packed. The findings could one day help companies deliver products efficiently by drone and robots, they write.

JD.com is comparable to the better-known Alibaba in terms of revenue ($114 billion in 2020 for JD.com compared with $109 billion for Alibaba). But JD.com manages its own inventories and fulfillment while Alibaba operates more as an online marketplace, akin to eBay or Etsy. To get goods into boxes and onto trucks and planes, JD.com has largely automated its warehouses and handles its own shipping. (Imagine if Amazon owned FedEx.)

In its use of robots, JD.com flips the conventional human-driven fulfillment-center model. In a standard warehouse, people rush around on foot or forklift, grabbing and packing products as orders come in. This is called a picker-to-parts model. JD.com uses a parts-to-picker system, where swarms of football-size robots scurry across fulfillment-center floors to bring racks of materials from shelves to humans waiting to grab and

The findings could help companies deliver products efficiently by drones and robots.
package products. The system increases productivity, preserves worker safety, and cuts costs, the researchers write.

However, to make parts-to-picker work, each of the warehouses’ hundreds of robots must solve the complex problem of which shelves to bring to which packers once every five seconds—without colliding with each other. JD.com initially tried to accomplish this by using off-the-shelf artificial-intelligence software to control the robots, but “commercial software proved too slow,” says Chicago Booth’s Linwei Xin, one of the researchers involved. Because of this, the company found that many of its automated warehouses didn’t ship enough packages to justify the construction costs.

About five years ago, the researchers began developing algorithms to improve the functioning of the warehouse robots. They broke the problem into discrete layers, or challenges. For example, an integrated management layer meshes fulfillment with other systems such as order processing. Each layer is defined by multiple algorithms, and all are continuously monitored and updated to help the automated centers deal with changing demand and conditions.

The algorithms the researchers created allow the company’s warehouses to function smoothly even when orders accelerate to 10 times normal, as they did during the worst of the coronavirus pandemic, according to the research. While many conventional factories slowed operations or were shut entirely to prevent the spread of the virus during the height of the pandemic, JD.com’s warehouses were able to operate thanks to the algorithm-driven parts-to-picker system.

JD.com recorded a decrease in its fulfillment expense ratio (which measures fulfillment costs to sales) to 6.5 percent in 2020 from 7.2 percent in 2016. Also, in 2020, 90 percent of orders sold by JD.com, rather than third-party sellers, were delivered on the same day or the day after they were placed, the researchers report.

Xin sees potential outside the warehouse, perhaps to control drone or robot delivery of products to urban areas, or to deliver items such as vital medical supplies to hard-to-reach areas.

However, “100% automation is not ideal,” the researchers write. Even the most automated warehouses still need people to conduct oversight, service the robots, and pack nonstandard items, they note. That said, they also have yet to find a point at which investing in robots yields diminishing benefits. —Michael Maiello

You have researched how people form first impressions. Has anything about this changed as more people have been meeting on Zoom instead of in person?

I don’t think anything in terms of the basic psychology changes, just the medium is different, and the cues are different. To form impressions, people will graft onto whatever information is available. A lot of it has to do with appearance, grooming, and clothes.

Even if you tell them not to use a particular cue, they will still do it. In an experiment, participants who were shown photos of people they were told were in the same industry and had the same salary still said those with the more expensive clothing were more competent. A lot of these processes about impressions are almost automatic, certainly effortless. You can’t help it.

Can you shake a bad first impression? It’s not that difficult as long as people have good information. If you have a new colleague and your first impression of them is bad, but you have lots of opportunities to observe them, you may change your mind.

The question is whether you will be in a situation where you can shake that first impression, whether you will have the opportunity to observe someone under different circumstances. Stereotypes can persist in the absence of information to correct them.
First impressions can become stereotypes? Yes, I actually think of first impressions that are based on facial appearance as stereotypes. They draw on certain cues that are not specific to the person we form an impression of but are shared across many people. For example, faces perceived to be trustworthy tend to be smiling and more feminine, and have more baby-faced features.

But these stereotypes can persist. Think about it in a hiring context. I never observe the people I don’t hire. Everything I observe is around the people who got the opportunity. What I see is the positive outcome of my decision.

My colleagues and I are doing some studies on this. Imagine a situation in which you have to decide whether to trust someone. If I trust you, and you reciprocate, that’s positive feedback. And in these situations, a person given trust most likely reciprocates. But if I decide on first impression to remove someone from this interaction in which most people cooperate, maybe because of ethnicity or gender, this is where the problem is. The people I interact with, I observe. The others, I cannot get any information about.

Think about social groups. If I have a preference for particular people, I frequently get good feedback about them. But if I don’t interact with others, I will never learn. I will continue living with stereotypes.

You’re bound to see stereotypes. Kids pick up on this early on. It’s not that kids are born with prejudices; they observe and learn them. Our brains are like statistical machines: we observe things around us, and we learn contingencies. If an unfair fact has a long history, we don’t think about the history, just what we see.

NUMBERS OR WORDS? HOW PEOPLE COMBINE FORECASTS

IS A TOYOTA Camry the best car for your family, or a Honda Accord? How likely is it that a particular stock will increase in price, and should you invest? When making such choices, people often consult multiple experts for advice. But research by Johns Hopkins’s Robert Mislavsky and University of California at Berkeley’s Celia Gaertig (who conducted the research while at Chicago Booth) suggests that the way expert forecasts are presented to us can change how we combine them.

If the forecasts are numeric, people tend to average the probabilities. For example, if two experts say that the likelihood of a stock price increasing is 60 percent, you’ll average this advice and also assume the probability is about 60 percent.

However, if the experts express the probabilities in words, you’ll tend to “count” the predictions, leading you to feel that the likelihood is more certain than either expert said. For example, if two experts say it’s “likely” a stock price will increase, you may add up the advice and wind up believing it’s “very likely.”

Mislavsky and Gaertig examined this effect with more than 7,000 participants over eight studies. In one study, they asked participants to predict how likely it was that a stock’s price would be higher one year later. Before making their own forecasts, participants saw forecasts from two (fictional) financial advisers, both of whom said it was “rather likely” that the stock price would increase. In this case, “rather likely” equated to a 7 on the 10-point scale participants used to make their estimate, with the scale ranging from 1 (“nearly impossible”) to 10 (“nearly certain”).

More than 29 percent of people who heard from the two advisers that a price rise was “rather likely” chose an 8, 9, or 10 for their own forecast. The researchers call this an “extreme forecast” because the participants took two forecasts that equated to a 7 on the scale and determined that the actual probability must be higher. In contrast, most participants who saw numeric forecasts (almost 90 percent) did not make extreme predictions, instead averaging the probabilities.

These results held in another study, when participants made forecasts on the outcome of one of 10 upcoming Major League Baseball games. More people who saw multiple verbal forecasts made extreme predictions than did people who saw multiple numeric forecasts. The effect also held in studies in which participants saw forecasts sequentially instead of simultaneously, in which experts predicted negative outcomes, in which participants saw more than two expert forecasts, and in which participants were incentivized to give accurate guesses (because they bet money on who would win a football game).

Although many participants counted verbal probabilities and therefore made a more confident estimate than advisers, it’s unlikely that participants believed an additional verbal forecast gave them more new information. The researchers tested several other possible explanations for the effect but did not find strong evidence supporting one specific reason.

Regardless of why people combine verbal versus numeric probabilities in different ways, anyone gathering or providing advice from multiple sources would do well to remember that they do.—Kasandra Brabaw

Robert Mislavsky and Celia Gaertig, “Combining Probability Forecasts: 60% and 60% Is 60%, but Likely and Likely Is Very Likely,” Management Science, forthcoming.
How open banking could backfire

In the European Union, open banking is transforming finance. Regulations are enabling consumers to control their banking data and share it, if they wish, with third parties such as fintech companies. The aim is for this to promote competition and allow innovation to flourish—moving us more quickly toward lower-fee banking and perhaps even a cashless society.

But the idea has critics, among them Mick McAteer of the United Kingdom’s Financial Inclusion Centre. In 2017, he called it a “daft idea” and told BBC News it could lead to consumers being exploited. And research by Chicago Booth’s Zhiguo He, Booth postdoctoral principal researcher Jing Huang, and Yale’s Jidong Zhou outlines how consumers could indeed be worse off with open banking.

Traditional banks serve as gatekeepers for a lot of customer data. Allowing data to circulate more easily would promote more competition between banks and fintech companies, the latter of which have pushed innovation and automation in everything from lending and trading to advising and digital currencies.

Giving customers the ability to share their data more widely could net them better deals. It would make banking data portable, lower prices, and potentially unleash more innovation. EU regulation is pushing banks hard in this direction, having mandated them to change their back-end infrastructure to allow for data sharing.

The researchers worked through the potential theoretical outcomes of loans, and offer some notes of caution. On the surface, open banking may be good for customers by forcing big banks to open up and allow competition from young upstarts—but the costs rise as those young upstarts mature.

The first potential problem He, Huang, and Zhou identify involves an information externality: a consumer who chooses to share data may hurt other consumers. Say one banking customer voluntarily shares their data with a bank and a fintech lender, choosing to reveal their own history in hopes of qualifying for a lower rate. But while the fintech lender learns about them, it also infers things about customers who are less willing to reveal their information.

In the short run, what’s good for one open-banking customer has costs to others. The second risk is what’s called the winner’s curse. If the banking customer who shares their data is coming to the fintech lender for a loan, it’s presumably because they don’t like the rate their bank is offering. The fintech will do its own assessment, and if it beats out the bank, it may be because it has fallen prey to the winner’s curse: it got the customer, but it’s also taking on risk that it didn’t detect but the bank did.

The winner’s curse is rooted in information asymmetry, the balance of which is likely to shift as fintech lenders grow. Right now, many fintechs are essentially software startups, some of which have powerful abilities to analyze data of all kinds, such as social media postings. Open banking gives them access to far more data. Eventually, when they offer a rate to a consumer, it could be one that’s really precise. A traditional bank would be outmatched, loathe to underbid such a competitor because doing so would mean it would have failed to spot something that the fintech’s powerful models had identified.

Importantly, the existence of both risks—the information externality and the winner’s curse—means that all parties can be worse off in equilibrium, even if everyone who owns data is able to refuse to share them. Open banking would allow a fintech to analyze so much information that it could come up with a precise rate and scare away other competition, even if a banking customer decides not to share their data, so long as others are willing to share.

The researchers identify yet a third risk: precision marketing. Companies are learning to market to consumers in real time—for example, by texting a coupon to a shopper whom they know to be in a store. Fintech lenders could act similarly and factor this information into their offered rates.

“As the global discussion unfolds, many practitioners and policy makers expect ‘open banking’ to represent perhaps the most transformative trend in the banking industry in the coming decade,” write He, Huang, and Zhou. But it’s a trend that may look better when fintechs are small—and less so when big banks start competing with big tech.—Emily Lambert

The corporate winners and losers of COVID-19

The initial US stock market reaction to the COVID-19 crisis as it hit the United States was swift and brutal, and the recovery was nearly as fast. But the reaction of individual stocks varied enormously, according to research by Chicago Booth’s Steven J. Davis, Imperial College London’s Stephen Hansen, and University of Chicago PhD student Cristhian Seminario-Amez. They find that risk exposures described in annual regulatory filings from before the pandemic helped predict how companies were affected by coronavirus news and how they might react in the longer run.

Davis, Hansen, and Seminario-Amez focused on 17 key trading days from February 24 to March 27, 2020, when the broad stock market fell by at least 2.5 percent. When bad news about COVID-19 drove the broader market, companies performed in line with the specific risk factors outlined in their 10-K filings, the research demonstrates. For example, bad COVID-19 news led to stock-price declines for companies in aircraft production but powered higher stock prices for companies in basic foodstuffs.

These stock-price reactions highlight the effects of downstream demand shocks on upstream suppliers, the researchers write. Aircraft production and energy supply were hurt by the fall in travel demand, while there was a positive effect for suppliers to businesses that were able to capitalize on social-distancing and work-from-home trends.

Company-level stock-price reactions helped to predict corporate earnings surprises later in the year and foreshadowed other broad economic shifts. For example, the traditional retail sector’s weak returns were followed by significant job losses, while online shopping and delivery companies increased employment.

The economic and social effects of the pandemic will most likely continue for years to come, the researchers note. Interpreting company-level risk factors now may help us fathom at least some of what the postpandemic future may bring. --Rebecca Stropoli

When private equity buys nursing homes, death rates rise

PRIVATE-EQUITY firms are known for generating outsize returns for wealthy investors. A favorite target industry in the past 20 years has been health care, and specifically nursing homes.

While PE investors have done well, the same can’t be said for patients at nursing homes acquired by such funds, according to University of Pennsylvania’s Atul Gupta, New York University’s Sabrina T. Howell, Chicago Booth’s Constantine Yannelis, and NYU PhD student Abhinav Gupta. After a nursing home’s purchase by a PE firm, its residents’ short-term mortality rate jumped by 10 percent, the researchers determine through an analysis of Medicare and Medicaid data covering more than 18,000 US nursing homes between 2004 and 2019. During this period, 1,700 facilities were bought by PE firms.

“What we found is that in the private-equity-acquired nursing homes, this 10 percent hike in mortality translates to more than 20,000 additional deaths relative to other homes during this time frame,” Yannelis says. “That’s more than 1,000 deaths every year, on average.”

The findings are all the more urgent as the COVID-19 pandemic has exposed flaws in the regulation and financing of long-term care facilities, the researchers write.

In the past two decades, PE acquisitions have ballooned in US health care to more than $100 billion in 2018, from less than $5 billion in 2000. Today, private-equity-owned businesses provide staffing for more than a third of America’s emergency rooms, and own large hospital and nursing-home chains across the nation. In the nursing-home sector, the industry’s investment is expected to jump to $240 billion by 2025, from $166 billion in 2017.

The researchers find an average reduction in staffing of 1.4 percent after a PE firm bought a nursing home and a 3 percent drop in the number of hours that nurses and other staff were paid to provide basic services such as hygiene, infection management, and monitoring or bed turning.

Another cause could be the use of antipsychotic medications. “We find that while these homes are cutting back on staff and staffing hours on the one hand, on the other they are administering far more antipsychotic medication to elderly patients,” Yannelis says. “The study demonstrates a full 50 percent increase in the use of these drugs in private-equity-owned care homes—most probably to offset the drop in nursing hours and availability.”

 Fewer staff and more medication are a “lethal combination” that most likely account for the spike in deaths, the researchers write. They’re cost-saving measures that also point to a shift in focus from patient outcomes to profit margins when nursing homes are taken over by entities with a primary duty to shareholders, they note.

With PE ownership of nursing homes rising, more needs to be done to align the welfare of patients with the profit motives of owners, Yannelis says. He argues that regulators and decision makers have a critical duty to address incentives so that the efficiency promises of private investment can be fully realized without causing trade-offs in people’s well-being.—Aine Doris


Why people are good at avoiding unpleasant information

In some situations, people may avoid information they’d otherwise say is important to them—such as the number of calories in a dish at a restaurant or the manufacturing practices behind a potential product purchase. Why reduce our enjoyment by entertaining unwanted facts?

Cornell’s Kaitlin Woolley, a graduate of Chicago Booth’s PhD Program, and Booth’s Jane L. Risen explain how people manage to avoid information so successfully: we’re able to justify our avoidance by focusing on a different but relevant element.

Past research in this vein has generally applied the phenomenon, known as “cover,” to discrimination. For instance, Woolley and Risen cite one study in which participants chose between two rooms to watch a movie in. One room held a person in a wheelchair; the other was empty. Some participants were told that the same movie would play in both rooms, so the choice of where to watch boiled down to whether to sit next to the person in a wheelchair. Other participants learned that each room would host a different movie, thus they could attribute their choice to differences in movies rather than to the room’s occupant. With this cover, they could avoid the person in a wheelchair without acknowledging it as the reason for their choice. Because the experimenters counterbalanced which room played which movie, they were able to determine that the movie itself did not drive choice; those with cover were avoiding interacting with a disabled person.

Woolley and Risen wondered if the effect of cover would also apply more broadly, including to the type of “want-should” situation people might encounter, say, at a restaurant, where they might want an indulgent menu item but know they should look at the calorie count.

In one in a series of experiments, the researchers had online participants view lunch menus from two restaurants and then choose the restaurant to which they wanted a gift card. Participants were divided into a cover and a no-cover group. In the no-cover condition, the only difference in the two menus was that one presented calorie counts and one did not, so participants who chose the restaurant without calories on the menu would know that they were choosing to avoid this information. In the cover condition, however, the two menus included additional information: the ratings of the restaurants’ service and atmosphere, which were counterbalanced across participants. Those with cover could avoid calorie information without acknowledging their motivation.

As the researchers anticipated, in the cover condition, more people chose the restaurant whose menu didn’t include calorie information—about 44 percent, versus about 33 percent in the no-cover condition. This suggests when supplemental information offers people an out, they take it.

The same was true in two in-person experiments that examined avoidance of product labels containing information that people generally don’t want to see but believe they should. In one, participants given supplemental, counterbalanced information about the size and price of bottles of water tended to avoid buying the bottles whose labels included information about the global clean-water crisis.

In the other, when choosing a candy, participants given cover information about the candy’s popularity more often chose the option without information about the ill effects of sugar.

But what happens when the nagging “should” element—such as the obligation to watch calories—is quieted? In this case, the researchers find, the effect dissolves, at least in part. They designed a setup almost identical to the menu experiment, with cover and no-cover conditions. The main difference was that participants were split again: some were told they were eating out on a special occasion (their birthday), while the others were told it was an ordinary after-work meal with coworkers.

Presumably those out for a birthday celebration would feel at liberty to indulge. Indeed, the effect of cover all but disappeared in the special-occasion condition, suggesting that when people don’t feel the “should” pull, there’s no need for cover.

In another study—which involved choosing whether to look at informative but potentially disturbing ultraviolet photos of skin damage—the effect of cover disappeared when researchers dampened the desire to avoid information. When participants had to choose if a friend, rather than themselves, should see the images, they were more inclined to agree to it, cover or no cover. The findings demonstrate that cover affects avoidance specifically when people are experiencing inner conflict over information they believe they should receive, but don’t really want.

Information avoidance is often estimated by explicitly asking consumers whether or not they want information. Because many situations in which consumers make decisions involve the presence of cover, however, these findings suggest that previous estimates may provide a lower bound for a more common behavior. Indeed, when people don’t need to acknowledge that they are avoiding information, they seem much more likely to do so.—Alice G. Walton

Go to Review.ChicagoBooth.edu to see citations for research mentioned in this article.
A way to ration scarce resources fairly

Among the many failures in America’s early COVID-19 disaster response, unprepared federal authorities mismanaged the allocation of emergency medical equipment as the pandemic mushroomed. Decisions by the Federal Emergency Management Agency “were inconsistent and lacked transparency, which frustrated state officials,” according to Yale’s Vahideh Manshadi, Chicago Booth’s Rad Niazadeh, and Yale PhD student Scott Rodilitz.

To be fair, the government stockpile of emergency medical and personal protective equipment was designed to help manage localized emergencies, not a pandemic. But rationing—during a pandemic or in other disaster-response settings—can be done fairly and efficiently, the researchers say.

They developed a method they call projected proportional allocation that makes a good-faith effort to deploy public resources not only to alleviate current suffering but also to care for future victims who would be left out in a first-come-first-serve system.

As the coronavirus started spreading from the early hot spots, government planners realized the disease would quickly go nationwide and had to decide how to allocate resources among communities already suffering and those next to become infected. Faced with global shortages of equipment, FEMA struggled to keep up, prioritizing deliveries to medical facilities in danger of running out within 72 hours, according to congressional testimony by administrator Peter Gaynor. That left some communities on their own as a FEMA stockpile of protective medical gear that would normally have lasted a year ran out in weeks.

The researchers base their proportional allocation alternative on the theory of justice proposed by the late philosopher John Rawls, which defines fairness from the vantage point of a neutral observer. Accordingly, they aim to maximize the well-being of the worst-off communities. The goal is to balance equity and efficiency, plus to be simple and transparent, two qualities that are particularly important for public policy, they say. In order to achieve this, their model takes the complicated correlation structure of future demands into consideration when making allocation recommendations for a community in need. It then relies on a straightforward statistical analysis of likely needs and outcomes, which tend to be difficult to predict with high precision in various communities during a pandemic such as COVID-19.

Using April 1, 2020, projections by the Institute for Health Metrics and Evaluation at the University of Washington, the researchers split US states into four groups on the basis of when they were expected to hit peak demand for ICU beds. They then ran 10,000 simulations using their mathematical model for distributing medical and protective equipment. The output was a fill rate (FR) that determines what fraction of a community’s need can be met while maintaining enough of the emergency stockpile for future needs.

A challenging time to keep things equitable

The researchers looked at April 2020, as COVID-19 infections spread across the US, to test their model for allocating emergency medical equipment from week to week.

- **First wave**
  - Five states over April 1–7
  - Average peak demand: 15,366 extra ICU beds
  - Standard deviation: 3,287

- **Second wave**
  - Seven more states plus Washington, DC, over April 8–14
  - Average peak demand: 2,193 extra ICU beds
  - Standard deviation: 710

- **Third wave**
  - Another 17 states over April 15–21
  - Average peak demand: 9,719 extra ICU beds
  - Standard deviation: 3,600

- **Remaining states**
  - 20 more after April 21
  - Average peak demand: 3,831 extra ICU beds
  - Standard deviation: 1,763
Who benefits from not paying college athletes? Their coaches, for starters

College football and men’s basketball players generate millions of dollars of revenue for their universities and athletic conferences from TV contracts, ticket revenue, and merchandise sales. The athletes have been fighting for a share of all that money, disputing rules imposed by the National Collegiate Athletic Association that bar them from any compensation beyond scholarships and modest living expenses.

That money, instead of going to the players, is benefiting others in the university community, according to Northwestern’s Craig Garthwaite, University of Michigan PhD student Jordan Keener, Chicago Booth’s Matthew Notowidigdo, and Northwestern PhD student Nicole F. Ozminkowski. They find the revenue from football and men’s basketball subsidizes other sports, and leads to higher spending on coaching salaries and facilities.

The researchers reviewed data for college athletics departments between 2006 and 2019, and analyzed roster data scraped from the departments’ websites in October 2018.

They focused on the cream of the crop in the college sports world, the 65 universities in the Power Five athletic conferences, which rake in the biggest bucks: the Atlantic Coast, Big Ten, Big 12, Pac-12, and Southeastern. At universities in this group, which include public schools such as Ohio State and Alabama and private institutions such as Notre Dame and Stanford, football brings in an average of more than $25 million a year and men’s basketball brings in about $5 million, accounting for 58 percent of athletics department budgets, the research uncovers.

US college sports programs would pay more than $1 million a year to each of their top male players if they distributed as much of their revenue to athletes as the National Football League and the National Basketball Association do, according to the study. Star quarterbacks would get $2.4 million yearly, and the best basketball players $1.2 million.

Instead, college football and men’s basketball players received benefits amounting to less than 7 percent of the revenue they generated, according to the research.

This freed up funds for money-losing sports and facilities construction, as well as for salaries for coaches and administrators. For every additional $1 that came into football and men’s basketball, 31 cents were reinvested in those sports, with the rest going elsewhere in the athletics departments, the researchers find. Twenty cents went to facilities, such as the University of Central Florida’s $25 million athletic compound complete with a lazy river, and Clemson University’s $55 million version including laser tag and miniature golf.

Another 11 cents went to other sports, which as a group lose money. At the 46 public universities in the researchers’ sample, average athletics department revenues rose 60 percent from a decade earlier, while losses in nonrevenue-generating sports increased 71 percent.

Nine cents went to administrative compensation, and six cents went to coaches’ salaries—half of that going to football coaches, and the other half going to other sports. In the researchers’ data, the average salaries of Power Five football coaching staff at public schools nearly doubled to almost $10 million between 2008 and 2018, while salaries for other coaching staff rose 70 percent, to $12.5 million. The remainder of each $1, the researchers conclude, was either used in future years or was moved out of the athletic department.

The transfers, rather than promote equity, exacerbate long-standing racial inequities, the study argues. Black players account for about half of football and men’s basketball players in the Power Five conferences but only 11 percent of players in money-losing sports, according to the researchers. Football and men’s basketball players attended high schools with a median family income of $58,400, while players in other sports came from high schools with a median family income of $80,000, they find.

This system “effectively transfers resources away from students who are more likely to be Black and more likely to come from poor neighborhoods towards students who are more likely to be white and come from higher-income neighborhoods,” the researchers write. Coaches and administrators also are more likely than their players to be white. —Amy Merrick

Financial-risk preferences predict vaccine acceptance

The US Food and Drug Administration’s emergency authorization of three COVID-19 vaccines in a span of three months was welcome news to many who were eager to get inoculated; but for others, it spelled risk.

While it’s generally accepted that health status, income, and race may influence vaccine hesitancy, Vanderbilt’s Jennifer S. Trueblood, Chicago Booth’s Abigail Sussman, and Booth postdoctoral scholar Daniel O’Leary find that aversion to financial risk is also predictive. Their study suggests that public-health messages that take risk tolerance into account could encourage vaccine take-up.

The researchers looked at data from surveys they conducted from June to December 2020, which asked respondents a range of questions, some pertaining to psychological variables, such as risk preferences, and others to attitudes and beliefs about the pandemic, such as openness to vaccines. For most of this time period, vaccines were still in the process of being tested and authorized, so efficacy and safety remained unknown. The surveys were given in waves, mostly weekly, and included more than 34,000 US participants in total.

The researchers were particularly interested in how likely respondents said they’d be to get a vaccine if it was authorized by the FDA on either a standard time frame or an expedited one. They correlated the responses with two measures of financial-risk tolerance: how regularly participants played the lottery and how likely they were to risk money in a theoretical gambling scenario.

Why affirmative action could prevent lost talent in economics

Economics is an overwhelmingly male profession. In spite of efforts to increase women’s representation, top US university economics departments have made precious little progress in achieving greater gender balance over the past 26 years, according to the American Economic Association. This has meant that the talent of countless women who might have become leaders in the field has been lost.

One reason these efforts may have failed is their focus on combating explicit or implicit bias that discriminates against women as a group, according to Northwestern’s Marciano Siniscalchi and Chicago Booth’s Pietro Veronesi. They accept that explicit or implicit bias may partly account for women’s underrepresentation. But they argue that the gender gap may be exacerbated by a more subtle phenomenon called self-image bias whereby individuals tend to overvalue their own attributes when judging others.

In the case of researchers, these attributes may include items such as favored research topics, methodologies, policy relevance, and the like. Thus, if most researchers are male to begin with, the profession will, on average, prize characteristics more common among men and effectively devalue those found more often among women.

The model that Siniscalchi and Veronesi constructed explains how self-image bias keeps women from achieving greater representation even when reviewers use gender-neutral evaluation criteria. The model also highlights why research universities have been particularly bad at tackling the problem. The researchers argue that the presence of self-image bias provides a new rationale for targeted affirmative action, in addition to outreach and mentoring.

When female and male candidates are otherwise equally qualified for a position, such policies could serve as a possible tie-breaking factor and help address gender imbalance in the profession.

Data collected by the AEA point to a “leaky pipeline,” in which women are lost at every stage of the academic career. Although the share of women economics undergraduates at the top 20 US schools has increased steadily since 1994 to around 40 percent, the fraction of female PhD students has stayed flat at about 30 percent, and the proportion of women among entry-level tenure-track assistant economics professors has stagnated at 22 percent.

The economics departments of research universities are particularly imbalanced. By contrast, at institutions without doctoral programs, more than 40 percent of tenure-track faculty are women. Among nontenured teaching faculty, women account for 37 percent at both types of institutions, suggesting that the barrier to women’s progress has something to do with research.

The root of the problem is in how established researchers evaluate the work of younger colleagues, according to Siniscalchi and Veronesi. If the lack of senior women were just down to implicit bias, the proportion of women at both research and nonresearch colleges would be similar, as would women’s share of tenure-line and nontenure-line professorships. The difference, they reason, could be the way research is evaluated.

Self-image bias is a well-established phenomenon in psychology, but Siniscalchi and Veronesi are the first to build it into a mathematical model to explain the gender gap in academic economics.

Their model assumes some heterogeneity in research characteristics, such as whether the research is empirical or theoretical, deep or broad, as well as its methodology, the field, the topic, the type of questions it asks, and its policy relevance. All of these approaches are equally valuable, but women and men tend to cluster around different characteristics. Consistent with the empirical evidence, the model assumes that the differences within the genders are much more pronounced than the distinctions between them.

Tenured men dominate decisions to hire or promote female economists, and their self-image bias gives extra weight to the more “male” characteristics in making hiring decisions, the researchers argue. In this world, it makes sense that fewer women choose to pursue PhDs because the odds of eventually securing tenure are slimmer than for men. This, in turn, reinforces the dominance of “male” research characteristics.

Without intervention, Siniscalchi and Veronesi’s model suggests, economics cannot achieve gender parity. They therefore conclude that affirmative action—mandating equal gender representation among researchers—may be more effective at preventing the loss of talent incurred because of self-image bias than more traditional policies.—Hal Weitzman


RATIONAL BANK BEHAVIOR CAN LEAD TO RISKY LENDING

IN THE AFTERMATH of the 2008–09 financial crisis, many people questioned why bankers kept issuing subprime loans that were risky and likely to fail. “When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you have got to get up and dance. We are still dancing,” said Citibank’s then CEO Chuck Prince in 2007. Did bankers dance because they were overconfident? Because they expected something different to happen than ultimately did? Neither, according to research by the late Yiran Fan, who earned his PhD from Chicago Booth. Fan’s research explains why bankers’ actions were rational, arguing that Prince and his colleagues knowingly issued low-quality loans to raise liquidity, and that they issued more when there was a possibility of a liquidity crunch.

Fan recognized the risk embedded in the model of a traditional bank, and used it as a jumping off point for his research. Households and businesses deposit money at banks, and banks then lend out those funds for a profit. This works fine unless many depositors suddenly want to withdraw money that has been lent out for, say, 30 years. To manage this risk, banks often utilize the secondary market, where they sell the loans they make to other parties in order to keep liquid assets on hand.

However, Fan’s study points out that trading in the secondary market is somewhat complicated by, for starters, market expectations about what banks are selling. The market presumes that a bank is keeping high-quality loans in house and so bakes in a discount. Additionally, the bank knows more than potential buyers about the quality of the loans, which lessens its incentive to screen borrowers carefully. Thus, when a bank wants to raise cash to manage its liquidity risk, it’s rational to scrimp on screening, issue low-quality loans, and unload them on the secondary market.

But a bank’s decisions have wider implications and drive, among other things, how much people earn and then save or need to withdraw from the bank. In circular fashion, this affects a bank’s liquidity risk and the amount it trades to raise liquidity.

Fan’s model indicates how this can play out when the economy tightens. Some households are steady savers, but others are what Fan termed runners, prone to withdrawing money if they see the economy slowing. If something bad happens, more people will become runners, a scenario that creates liquidity implications for banks, which then issue more low-quality loans to resell.

Fan considered a hypothetical situation in which the economy picks up but then reverts back to its previous state. The growth leads banks to increase their leverage, but following the reversal, higher leverage becomes a liquidity burden, prompting them to issue more low-quality loans. “Thus the economy falls into a bust, even though no negative shocks ever happen at all,” wrote Fan.

Ultimately, the study argues, banks issue risky loans to manage their liquidity risk, even if doing so ultimately leads to a destabilizing bust. What is rational for banks is not necessarily optimal for the banking system and those who rely upon it.—Emily Lambert

Bankers issue risky loans to manage their liquidity risk.

A new approach to evaluating drug safety

In May 2007, the US Food and Drug Administration issued a strict warning for rosiglitazone after studies linked the approved diabetes drug to an increased risk of heart problems. Use of the drug plummeted 78 percent in 15 months; annual sales dropped from $3 billion to $183 million.

In 2013, following additional studies of the drug’s safety, the FDA reversed course and removed restrictions on rosiglitazone. But it was too late to undo the damage caused by their initial warnings—sales never recovered, and patients had to resort to taking potentially less suitable medications.

The FDA could have prevented this six-year roller-coaster ride if it had taken a more robust, data-driven approach to its postmarket drug surveillance process, suggests research by Southern Methodist University’s Vishal Ahuja, Texas Tech’s Carlos Alvarez, and Chicago Booth’s John R. Birge and Chad Syverson.

Using rosiglitazone as a retrospective case study, the researchers propose a new empirical method for monitoring and evaluating the safety of drugs already on the market. Their approach uses large, relevant, and reliable longitudinal databases and established econometrics methods to assess the relationships between approved drugs and potentially related adverse health events.

This evaluation method could help prevent incorrect drug recalls and warnings that cause financial consequences for drugmakers, confusion among doctors, and potential harm to patients’ health, the researchers argue.

“We should be doing these sorts of independent verifications when there’s a potential adverse event because a lot of people were taken off the drug and were possibly hurt because they weren’t being treated when they could’ve been,” Birge says.

To demonstrate their approach, the researchers analyzed Veterans Health Administration data from more than 320,000 diabetes patients over eight
years. Comparing the health outcomes of rosiglitazone users and nonusers, they uncover no link between the drug and increased risk of heart conditions. In fact, says Birge, “we find that, if anything, rosiglitazone is associated with lower coronary events than not having any treatment at all.”

To demonstrate further the generalizability of the approach, they also retroactively assessed two additional FDA postmarket drug warnings—one for statins and another for atenolol—and determined that those warnings were warranted.

The researchers say their proposed method improves upon the FDA’s postmarket drug review process, which they argue is subject to bias, relies on incomplete and underreported information, and mistakes correlation for causation. “The shortcomings of existing approaches can produce high error rates, resulting in an untimely, or, worse, incorrect regulatory decision with serious ramifications for patients, providers, and firms,” they write.

The FDA’s pause and restart of the Johnson & Johnson COVID-19 vaccine following six reports of blood clots out of nearly 7 million administered doses exemplifies some of those ramifications, though Birge notes that this is an imperfect example because the FDA has so far approved the vaccine for emergency use only.

Even so, the situation illustrates the impact of the FDA’s decisions on public opinion. As the country strives for herd immunity, a *Washington Post*-ABC poll in April found that less than 25 percent of Americans who had not yet been vaccinated would be willing to get the Johnson & Johnson shot.

The new approach could improve the FDA’s response to spontaneously reported adverse events while also proactively monitoring approved drugs by studying their relationships with a wide swath of harmful side effects, the researchers write.

“We know that these types of adverse events are going to be observed randomly, but what we’d like to do is ensure that we’re not being too aggressive in terms of removing the drug from the market when that drug could actually be helping people,” Birge says.—*Sarah Kuta*

many entrepreneurs spend years planning and launching their startups, but others quickly put together a new company on the basis of changing circumstances.

Stanford’s Shai Bernstein, Chicago Booth’s Emanuele Colonnelli, the International Monetary Fund’s Davide Malacrino, and University of Colorado’s Tim McQuade examined the characteristics of Brazilian entrepreneurs who quickly launch companies in hopes of capturing sudden upswings in demand.

These “responsive entrepreneurs” tend to be younger and more skilled than typical new business owners and may play an important role in sustaining dynamic economies and prolonging economic expansions, the researchers find.

“In an aging economy, understanding the impact of local demographic composition on economic responsiveness is very relevant,” says Colonnelli.

They paired economic data with background information on newly minted entrepreneurs. In Brazil, agribusiness accounts for nearly a quarter of GDP and a third of employment, which allowed the researchers to gauge the entrepreneurial response to defined spikes in crop demand.

For example, when coffee prices shoot up, more producers come online, as do new restaurants and retail shops aiming to serve a larger pool of customers. The researchers estimate that, in a given Brazilian municipality, a 10 percent change in the value of a local commodity tends to increase employment by about 2 percent.

Younger people drive this entrepreneurial surge: while about 40 percent of all new business owners came from the youngest quarter of the working-age population, the fraction who specifically responded to demand shocks jumped to greater than 60 percent, the researchers find. Younger entrepreneurs are more likely to leap when opportunity strikes for two reasons, the study suggests: they have a greater tolerance for risk and fewer personal constraints (such as a family) that could hamper their ability to act quickly.

Bernstein, Colonnelli, Malacrino, and McQuade studied the period between 1998 and 2014, using crop-production figures compiled by the Brazilian Institute of Geography and Statistics (responsible for the census and other national

Brazil’s responsive entrepreneurs
Younger people were by far the most likely group to quickly launch companies in response to sudden changes in market demand.

New entrepreneurs
Distribution by age quartiles

Responsive entrepreneurs
Distribution by age quartiles

Share with an above-median amount of work experience

Share with experience in nonroutine, cognitive occupations

Share with at least a high-school education
THE C-SUITE IS BECOMING MORE POLITICALLY POLARIZED

POLARIZATION HAS, over the past several decades, increasingly driven Americans into ideological camps. A string of research projects has established that people are more likely to live with and among people who share their views, and to spend free time with them. “The workplace is one of the few remaining settings where individuals still regularly interact with others who do not necessarily share their own political views,” write Boston College’s Vyacheslav Fos, Chicago Booth’s Elisabeth Kempf, and Cornell’s Margarita Tsoutsoura—and yet they present evidence that the ideological divide is also growing in the business world, with executives increasingly clustering with each other on the basis of political party. Not only that, political events are shaping how those executives sell their own stocks and make capital investments for their companies.

The researchers used Execucomp data to identify the five most highly paid executives of S&P 1500 companies and match them with voting records from 2008 to 2018. This enabled them to measure how often two randomly chosen executives from a company were affiliated with the same political party. The analysis focused on executives registered as either Democrat or Republican. Between 2008 and 2018, the likelihood that two randomly chosen executives shared a political party increased by 5 percentage points. By contrast, over the same time period, the probability that two executives had the same gender decreased by 4 percentage points. The increase in political homogeneity mostly took place after major political events—such as the passage of the Affordable Care Act in 2010 and presidential elections.

The researchers also conducted simulations, randomly assigning executives to party affiliations matching the share of Republicans and Democrats each year and running 1,000 polarization scenarios. Real-life executive teams exhibited far more polarization than almost all the simulations did. Fos, Kempf, and Tsoutsoura estimate that 80 percent of the extra polarization was driven by increased sorting of executives into businesses that aligned with their own political ideologies.

Politics also colored the decisions executives made, according to data from Thomson Reuters, which collects insider filings. The researchers compared the months before and after the election of Republican president Donald Trump in 2016 and find that after his victory, Republican executives were far less likely to sell their company stocks than Democrats were.

Companies dominated by Republican executives also increased capital spending more than Democratic-led and neutral companies in 2016. The findings are particularly significant in an era when many companies maintain that they strive for diversity among employees, argue Fos, Kempf, and Tsoutsoura. “The increase in the political homogeneity of executive teams is even more remarkable in light of the decreasing homogeneity along the gender and race dimensions, which should, if anything, lead to greater diversity in political views,” they write.—Brian Wallheimer


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Retail traders still learn by watching the ‘smart money’

S
ince the 1980s, equity markets have evolved from dealer-based models to more complex interactions among myriad traders pursuing separate and often opaque agendas. Digitization and algorithmic trading have created a complex and nuanced market structure, one that researchers have struggled to understand and model.

As these changes occurred, and particularly when physical trading floors went virtual, many in the market were concerned about losing transparency and creating an environment where some investors could maintain an unfair edge. Baruch College’s Ayan Bhattacharya, a visiting professor at Chicago Booth, and Cornell’s Gideon Saar have created a theoretical, dynamic model that seeks to explain an important aspect of financial markets, and they use it to demonstrate that less-informed traders, such as retail traders, can still learn from more informed others, including professional money managers.

In the older, dealer-based models, each exchange-listed stock had a market maker providing liquidity for investors seeking to trade it. Anybody buying and selling could rely on the market maker to complete trades in return for part of the difference between the bid and ask prices on the stock. The market maker was officially neutral, trading regardless of what they did or didn’t know about the stock and its movements.

Now, however, stocks no longer have a single market maker. Instead, the market is divided into “makers” and “takers.” Investors also more often put in limit orders, which specify the prices at which they would buy or sell a stock, and then frequently cancel or modify the orders.

“The old model was static and easier to understand,” Bhattacharya says. “What happens now is dynamic as people come in, trade, and go away, with everyone competing.”

Limit order books provide the canvas for a model in which “a subset of traders knows more than the rest of the market,” as Bhattacharya describes it. Because this is theoretical rather than empirical research, the model leaves unspecified what the “smart money” knows about a stock. It could be about the next quarter’s earnings or about a supply/demand imbalance forced by the liquidation of a large and leveraged hedge fund, for example.

Informed traders tend to “make” liquidity in illiquid markets and “take” liquidity from liquid markets, the research finds. This means that in an illiquid market, the informed traders know what price they want and will walk away if they don’t get it. When the market is more liquid, informed traders will take the trades—buying from and selling to what the researchers call uninformed traders. In short, the smart money knows its prices and won’t accept anything less, or will pounce if its prices are abundantly available.

Uninformed traders, meanwhile, want to figure out what’s motivating the smart money and turn that information to their advantage. That has always been the case, and the research finds it continues to be so.

In Bhattacharya and Saar’s model, the evolving bid and ask prices from order books, including the volume of trades executed and those canceled, all contain information that informed and uninformed traders use in competition with each other. Order books are more complex now, in a world without a single market maker, but they still contain useful information.

“Why do we have messages in the market that don’t lead to immediate order execution?” Bhattacharya asks. “We suggest in our model that the entire limit order book readjusts prices to reflect information in the market.”

The model helps academics understand the structure of an increasingly complex and competitive market and could eventually form the basis for empirical studies of these dynamics, including questions about what information is transmitted, how quickly it flows from one trader to another, and even when, or if, an uninformed trader becomes an informed trader. By introducing a new methodological toolbox—the core of which is a recursive framework for the analysis of order-book prices—their work enables researchers to explore fresh territory in this area.

Reliable models for how markets spread information would be valuable to investors—especially those trying to understand what moves stock prices—to regulators, and to public companies that are communicating with investors. The research paints a picture of the markets that’s far more nuanced and detailed than the simpler models of yore.—Michael Maiello

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HOW TO GET MORE DONORS OR BIGGER DONATIONS

WHAT’S THE BEST way to get people to donate money or time to your cause? It depends on whether you’re going for more donors or for bigger donations, according to Sungkyunkwan University of South Korea’s Minjung Koo, Chicago Booth’s Ayelet Fishbach, and Yonsei University’s Hye Kyung Park.

If the goal is to elicit broader participation, requests for people to “express support” or “show that you care” will be more effective, the researchers find in a series of five experiments. To generate bigger contributions, it’s better to frame a request in terms of making a difference, the research suggests.

Understanding what really works in fundraising is a make-or-break issue for the many charities around the world, especially given the volume of appeals that jam mailboxes. In 2019, US organizations backing educational, health-related, environmental, and other causes got Americans to cough up $450 billion, according to the researchers. The high stakes have inspired decades of research into what makes people give, how and how much and studies have teased apart various motivations, including whether people give for selfish or selfless reasons—or, in this case, whether they give to signal their commitment to a cause or to make progress toward a goal.

In their experiments, they find that an appeal to “express support” made participants feel that a cause was important and they should contribute, even if only a small amount. An appeal to “make a difference” tapped into participants’
motivation to advance a goal, thereby getting them to make a bigger donation.

In one experiment, the researchers partnered with a large US university to design its annual fundraising campaign. Working with the campaign office, they created two versions of the solicitation letter, which asked alumni to either “express support” or “make a difference” for their school. More alumni who received “express support” letters donated, but those who got “make a difference” letters gave more money. On average, donors in the “make a difference” group contributed $371, while “express support” donors sent $249.

The same pattern held in two studies at universities in South Korea when people were asked to donate either time or money for children in need. Comparisons with neutral messages did not uncover evidence that “expressing support” campaigns suppressed how much people donated nor that “making a difference” letters reduced the number of people who chose to donate—only that an emphasis on the former increased the number of donors and an emphasis on the latter increased the average donation.

The research suggests that charities should think carefully about their messaging when soliciting donations. An organization that wants to increase its reach can use a message to “express support,” while an organization wanting to increase how much donors give can ask people to “make a difference.”

Why not do both? The researchers didn’t test this approach but caution against trying it. Citing several previous studies, they hypothesize that offering both messages could dilute each, potentially rendering both less effective. —Kasandra Brabaw

Riding coattails can help counter discrimination

T wo friends walk into a flea market, both looking for vintage leather jackets. One of the friends is what the average person would consider attractive. The other is not. Their relative attractiveness can play a role in each person getting a great price, suggests research from Chicago Booth PhD student Xilin Li and Booth’s Christopher K. Hsee. They find that successful negotiations with a vendor can depend on who approaches first: generally, it should be the attractive person.

Li and Hsee studied the relationship between approach order and vendor discrimination on consumer welfare. They documented a positive and corresponding negative effect depending on whether the vendor first encountered an advantaged person—in this case, the attractive friend at the flea market—or a less advantaged one, i.e., the less attractive person.

Of course, the potential benefits and costs aren’t limited to leather jackets, and the advantage isn’t limited to attractiveness. A person might gain an upper hand by possessing valued traits related to sex, gender, race, or another factor.

A host of past research on discrimination finds that individuals, be they jacket vendors, other sellers, or hiring managers, tend to favor those who are advantaged—but also that people want their choices to be justifiable and consistent.

Li and Hsee predicted that the order in which vendors interact with people could affect their treatment of them. Perhaps, not wanting to seem discriminatory, either to themselves or others, vendors might give the second person who approached them the same deal as the first. If you’re that vendor selling leather jackets at a flea market and an unattractive person haggles the price of a jacket soon after an attractive person, your wish to make consistent and justifiable decisions might mean you give them a lower price than you might have had the attractive person not approached you first. But if the unattractive person haggles first, you might charge the attractive person more than you otherwise might have, Li and Hsee conjectured.

They conducted a field experiment at a large open market where prices were negotiable. Two women who were in on the study (but not told about its purpose) approached 62 vendors over two days. As the researchers expected, the less attractive woman (as measured by a pretest) received significantly worse prices when she was the first to approach the vendors and better prices when she was the second to approach. The more attractive woman, however, got worse prices when she was the second to approach the vendor.

These results suggest a less attractive person can ride the coattails of an attractive person’s advantage. Conversely, riding off an unattractive person has costs.

The researchers replicated these results in a study in which ethnicity was the factor at work. Research participants, a group of online survey takers in the United States, were told to imagine that they had a basement apartment for lease and could rent it on a sliding scale from roughly $400 to $1,000 per month—and that they would meet two potential tenants in sequence. When they were faced with a scenario in which a man from Saudi Arabia approached them first, the participants offered him worse prices than when a man from Canada arrived first. The Canadian man also received worse prices in this situation.

This effect dwindled when the participants felt justified in making a decision on the basis of an alternative characteristic, namely a propensity to make noise. Participants prompted to imagine that they were sensitive to noise felt justified in asking for more money from a man who admitted to regular late-night phone conversations than from one who didn’t, regardless of which man approached first.

Overall, the researchers write, both people in line likely come out better when the advantaged person is evaluated first. When both people are evaluated simultaneously, as would happen if the two leather-jacket seeking friends shopped together, the researchers say more study is needed to determine how the vendor will treat them.

What does this mean for the friends or, for, say, two colleagues who are up for performance reviews? If they recognize that one person may be treated better than the other, the advantaged person should go first. That way, they might both get the best deal. —Kasandra Brabaw


ARE WE REALLY MORE
PRODUCTIVE WORKING FROM HOME?

Data from the pandemic can guide organizations struggling to reimagine the new office

BY REBECCA STROPOLI / ILLUSTRATIONS BY SAM PEET
Facebook founder and CEO Mark Zuckerberg isn’t your typical office worker. He was No. 3 on the 2020 *Forbes* list of the richest Americans, with a net worth of $125 billion, give or take. But there’s at least one thing Zuckerberg has in common with many other workers: he seems to like working from home.

In an internal memo, which made its way to the *Wall Street Journal*, as Facebook announced plans to offer increased flexibility to employees, Zuckerberg explained that he would work remotely for at least half the year.

“Working remotely has given me more space for long-term thinking and helped me spend more time with my family, which has made me happier and more productive at work,” Zuckerberg wrote. He has also said that he expects about half of Facebook’s employees to be fully remote within the next decade.

The coronavirus pandemic continues to rage in many countries, and variants are complicating the picture, but in some parts of the world, including the United States, people are desperate for life to return to normal—everywhere but the office. After more than a year at home, some employees are keen to return to their workplaces and colleagues. Many others are less eager to do so, even quitting their jobs to avoid going back. Somewhere between their bedrooms and kitchens, they have established new models of work-life balance they are loath to give up.

This has left some companies trying to recreate their work policies, determining how best to handle a workforce that in many cases is demanding more flexibility. Some, such as Facebook, Twitter, and Spotify, are leaning into remote work. Others, such as JPMorgan Chase and Goldman Sachs, are reverting to the tried-and-true office environment, calling everyone back in. Goldman’s CEO David Solomon, in February, called working from home an “aberration that we’re going to correct as quickly as possible.” And JPMorgan CEO Jamie Dimon said of exclusively remote work: “It doesn’t work for those who want to hustle. It doesn’t work for spontaneous idea generation. It doesn’t work for culture.”

This pivotal feature of pandemic life has accelerated a long-running debate: What do employers and employees lose and gain through remote work? In which setting—the office or the home—are employees more productive? Some research indicates that working from home can boost productivity and that companies offering more flexibility will be best positioned for success. But this giant, forced experiment has only just begun.

**An accelerated debate**

A persistent sticking point in this debate has been productivity. Back in 2001, a group of researchers from the Human-Computer Interaction Institute at Carnegie Mellon, led by Robert E. Kraut, wrote that “collaboration at a distance remains substantially harder to accomplish than collaboration when
members of a work group are collocated.” Two decades later, this statement remains part of today’s discussion.

However, well before Zoom, which came on the scene in 2011, or even Skype, which launched in 2003, the researchers acknowledged some of the potential benefits of remote work, allowing that “dependence on physical proximity imposes substantial costs as well, and may undercut successful collaboration.” For one, they noted, email, answering machines, and computer bulletin boards could help eliminate the inconvenience of organizing in-person meetings with multiple people at the same time.

Two decades later, remote-work technology is far more developed. Data from the US Bureau of Labor Statistics indicate that, even in pre-pandemic 2019, more than 26 million Americans—approximately 16 percent of the total US workforce—worked remotely on an average day. The Pew Research Center put that pre-pandemic number at 20 percent, and in December 2020 reported that 71 percent of workers whose responsibilities allowed them to work from home were doing so all or most of the time.

The sentiment toward and effectiveness of remote work depend on the industry involved. It makes sense that executives working in and promoting social media are comfortable connecting with others online, while those in industries in which deals are typically closed with handshakes in a conference room, or over drinks at dinner, don’t necessarily feel the same. But data indicate that preferences and productivity are shaped by factors beyond a person’s line of work.

The productivity paradigm
Before the COVID-19 pandemic, Stanford’s Nicholas Bloom was bullish on work-from-home trends. His 2015 study, for one—with James Liang, John Roberts, and Zhichun Jenny Ying, all then at Stanford—finds a 13 percent increase in productivity among remotely working call-center employees at a Chinese travel agency.

But in the early days of the pandemic, Bloom was less optimistic about remote work. “We are home working alongside our kids, in unsuitable spaces, with no choice and no in-office days,” Bloom told a Stanford publication in March 2020. “This will create a productivity disaster for firms.”

To test that thesis, Jose Maria Barrero of the Mexico Autonomous Institute of Technology, Bloom, and Chicago Booth’s Steven J. Davis launched a monthly survey of US workers in May 2020, tracking more than 30,000 workers aged 20–64 who earned at least $20,000 per year in 2019.

The survey measured the incidence of working from home as the pandemic continued, focusing on how a more permanent shift to remote work might affect not only productivity but also overall employee well-being. It also examined factors including how work from home would affect spending and revenues in major urban centers. In addition to the survey, the researchers drew on informal conversations with dozens of US business executives. They are publishing the results of the survey and related research at wfhresearch.com.

In an analysis of the data collected through March 2021, they find that nearly six out of 10 workers reported being more productive working from home than they expected to be, compared with 14 percent who said they got less done. On average, respondents’ productivity at home was 7 percent higher than they expected. Forty percent of workers reported they were more productive at home during the pandemic than they had been when in the office, and only 15 percent said the opposite was true. The researchers argue that the work-from-home trend is here to stay, and they calculate that these working arrangements will increase overall worker productivity in the US by 5 percent as compared with the pre-pandemic economy.

“Working from home under the pandemic has been far more productive than I or pretty much anyone else predicted,” Bloom says.

No commute, and fewer hours worked
Some workers arguing in favor of flexibility might say they’re more efficient at home away from chatty colleagues and the other distractions of an office, and that may be true. But above all, the increased productivity comes from saving transit time, an effect overlooked by standard productivity calculations.

“Three-quarters or more of the productivity gains that we find are coming from a reduction in commuting time,” Davis says. Eliminate commuting as a factor, and the researchers project only a 1 percent productivity boost in the postpandemic work-from-home environment, as compared with before.
Aside from commuting less, remote workers may also be sleeping more efficiently, another phenomenon that could feed into productivity.

It makes sense that standard statistics miss the impact of commutes, Davis explains. Ordinarily, commuting time generally doesn’t shift significantly in the aggregate. But much like rare power outages in Manhattan have made it possible for New Yorkers to suddenly see the nighttime stars, the dramatic work-from-home shift that occurred during the pandemic made it possible to recognize the impact traveling to and from an office had on productivity.

Before the pandemic, US workers were commuting an average of 54 minutes daily, according to Barrero, Bloom, and Davis. In the aggregate, the researchers say, the pandemic-induced shift to remote work meant 62.5 million fewer commuting hours per workday.

People who worked from home spent an average of 35 percent of saved commuting time on their jobs, the researchers find. They devoted the rest to other activities, including household chores, childcare, leisure activities such as watching movies and TV, outdoor exercise, and even second jobs.

Aside from commuting less, remote workers may also be sleeping more efficiently, another phenomenon that could feed into productivity. On days they worked remotely, people rose about 30 minutes later than on-site workers did, according to pre-pandemic research by Sabrina Wulff Pabilonia of the US Bureau of Labor Statistics and SUNY Empire’s Victoria Vernon. Both groups worked the same number of hours and slept about the same amount each night, so it’s most likely that “working from home permits a more comfortable personal sleep schedule,” says Vernon. “Teleworkers who spend less time commuting may be happier and less tired, and therefore more productive,” write the researchers, who analyzed BLS data from 2017 to 2018.

While remote employees gained back commuting time during the pandemic, they also worked fewer hours, note Barrero, Bloom, and Davis. Hours on the job averaged about 32 per week, compared with 36 pre-pandemic, although the work time stretched past traditional office hours. “Respondents may devote a few more minutes in the morning to chores and childcare, while still devoting about a third of their old commuting time slot to their primary job. At the end of the day, they might end somewhat early and turn on the TV. They might interrupt TV time to respond to a late afternoon or early evening work request,” the researchers explain.

This interpretation, they write, is consistent with media reports that employees worked longer hours from home during the pandemic but with the added flexibility to interrupt the working day. Yet, according to the survey, this does not have a negative overall effect on productivity, contradicting one outdated stereotype of a remote worker eating bonbons, watching TV, and getting no work done.
Remote-work technology goes mainstream

The widespread implementation of remote-working technology, a defining feature of the pandemic, is another important factor for productivity. This technology will boost work-from-home productivity by 46 percent by the end of the pandemic, relative to the pre-pandemic situation, according to a model developed by Rutgers’s Morris A. Davis, University of North Carolina’s Andra C. Ghent, and University of Wisconsin’s Jesse M. Gregory. “While many home-office technologies have been around for a while, the technologies become much more useful after widespread adoption,” the researchers note.

There are significant costs to leaving the office, Rutgers’s Davis says, pointing to the loss of face-to-face interaction, among other things. “Working at home is always less productive than working at the office. Always,” he said on a June episode of the Freakonomics podcast.

One reason, he says, has to do with the function of cities as business centers. “Cities exist because, we think, the crowding of employment makes everyone more productive,” he explains. “This idea also applies to firms: a firm puts all workers on the same floor of a building, or all in the same suite rather than spread throughout a building, for reasons of efficiency. It is easier to communicate and share ideas with office mates, which leads to more productive outcomes.” While some employees are more productive at home, that’s not the case overall, according to the model, which after calibration “implies that the average high-skill worker is less productive at home than at the office, even postpandemic,” he says.

And yet Davis, Ghent, and Gregory’s model projects that after the pandemic winds down, highly skilled, college-educated workers will spend 30 percent of their time working from home, as opposed to 10 percent in prior times. While physical proximity may be superior, working from home is far more productive than it used to be. Had the pandemic hit in 1990, it would not have produced this rise in relative productivity, per the researchers’ model, because the technology available at the time was not sufficient to support remote work.
A June article in the *MIT Technology Review* by Stanford’s Erik Brynjolfsson and MIT postdoctoral scholar Georgios Petropoulos corroborates this view. Citing the 5.4 percent increase in US labor productivity in the first quarter of 2021, as reported by the BLS, the researchers attribute at least some of this to the rise of work-from-home technologies. The pandemic, they write, has “compressed a decade’s worth of digital innovation in areas like remote work into less than a year.” The biggest productivity impact of the pandemic will be realized in the longer run, as the work-from-home trend continues, they argue.

**Lost ideas, longer hours?**
Not all the research supports the idea that remote work increases productivity and decreases the number of hours workers spend on the job. Chicago Booth’s Michael Gibbs and University of Essex’s Friederike Mengel and Christoph Siemroth find contradictory evidence from a study of 10,000 high-skilled workers at a large Asian IT-services company. The researchers used personnel and analytics data from before and during the coronavirus work-from-home period. The company provided a rich data set for these 10,000 employees, who moved to 100 percent work from home in March 2020 and began returning to the office in late October.

Total hours worked during that time increased by approximately 30 percent, including an 18 percent rise in working beyond normal business hours, the researchers find. At the same time, however, average output—as measured by the company through setting work goals and tracking progress toward them—declined slightly. Time spent on coordination activities and meetings also increased, while uninterrupted work hours shrank. Additionally, employees spent less time networking and had fewer one-on-one meetings.

**In a study of 10,000 high-skilled workers at a large Asian IT-services company, researchers find that productivity decreased by around 20 percent.**
with their supervisors, find the researchers, adding that the increase in hours worked and the decline in productivity were more significant for employees with children at home. Weighing output against hours worked, the researchers conclude that productivity decreased by about 20 percent. They estimate that, even after accounting for the loss of commuting time, employees worked about a third of an hour per day more than they did at the office. “Of course, that time was spent in productive work instead of sitting in traffic, which is beneficial,” they acknowledge.

Overall, though, do workers with more flexibility work fewer hours (as Barrero, Bloom, and Davis find) or more (as at the Asian IT-services company)? It could take more data to answer this question. “I suspect that a high fraction of employees of all types, across the globe, value the flexibility, lack of a commute, and other aspects of work from home. This might bias survey respondents toward giving more positive answers to questions about their productivity,” says Gibbs.

The findings of his research do not entirely contradict those of Barrero, Bloom, and Davis, however. For one, Gibbs, Mengel, and Siemroth acknowledge that their study doesn’t necessarily reflect the remote-work model as it might look in postpandemic times, when employees are relieved of the weight of a massive global crisis. “While the average effect of working from home on productivity is negative in our study, this does not rule out that a ‘targeted working from home’ regime might be desirable,” they write.

Additionally, the research data are derived from a single company and may not be representative of the wider economy, although Gibbs notes that the IT company is one that should be able to optimize remote work. Most employees worked on company laptops, “and IT-related industries and occupations are usually at the top of lists of those areas most likely to be able to do WFH effectively.” Thus, he says, the findings may represent a cautionary note that remote work has costs and complexities worth addressing.

As he, Mengel, and Siemroth write, some predictions of work-from-home success may be overly optimistic, “perhaps because professionals engage in many tasks that require collaboration, communication, and innovation, which are more difficult to achieve with virtual, scheduled interactions.”

**Attracting top talent**
The focus on IT employees’ productivity, however, excludes issues such as worker morale and retention, Booth’s Davis notes. More generally, “the producer has to attract workers . . . and if workers really want to commute less, and they can save time on their end, and employers can figure out some way to accommodate that, they’re going to have more success with workers at a given wage cost.”

Companies that offer more flexibility in work arrangements may have the best chance of attracting top talent at the best price. The data from Barrero, Bloom, and Davis reveal that some workers are willing to take a sizable pay cut in exchange for the opportunity to work remotely two or three days a week. This may give threats from CEOs such as Morgan Stanley’s James Gorman—who said at the company’s US Financials, Payments & CRE conference in June, “If you want to get paid New York rates, you work in New York”—a bit less bite. Meanwhile, Duke PhD student John W. Barry, Cornell’s Murillo Campello, Duke’s John R. Graham, and Chicago Booth’s Yueran Ma find that companies offering flexibility are the ones most poised to grow. (See “Companies with workplace flexibility are set to hire more,” page 37.)

Working policies may be shaped by employees’ preferences. Some workers still prefer working from the office; others prefer to stay working remotely; many would opt for a hybrid model, with some days in the office and some at home (as Amazon and other companies have introduced). As countries emerge from the pandemic and employers recalibrate, companies could bring back some employees and allow others to work from home. This should ultimately boost productivity, Booth’s Davis says.

Or they could allow some to work from far-flung locales. Harvard’s Prithwiraj Choudhury has long focused his research on working not just from home but “from anywhere.” This goes beyond the idea of employees working from their living room in the same city in which their company is located—instead, if they want to live across the country, or even in another country, they can do so without any concern about being near headquarters.
DOES REMOTE WORK PROMOTE EQUITY?

At many companies, the future will involve remote work and more flexibility than before. That could be good for reducing the earnings gap between men and women—but only to a point.

“In my mind, there’s no question that it has to be a plus, on net,” says Harvard’s Claudia Goldin. Before the pandemic, many women deemphasized their careers when they started families, she says. A mother wanting a more-flexible schedule might, for example, leave a major law firm for a boutique one.

The cost of that flexibility has shrunk, Goldin says. It’s now more widely understood that many tasks can be done and deals made remotely, which reduces costs for employers. A Zoom meeting is much less expensive than a trip to Tokyo, so companies are inclined to let employees travel less and work from home more.

However, research from Jose Maria Barrero of the Mexico Autonomous Institute of Technology, Chicago Booth’s Steven J. Davis, and Stanford’s Nicholas Bloom finds that women, on average, want more work-from-home days than men do, particularly college-educated women with children under 12, who are the most likely to want a full-time remote-work schedule.

If more women than men take companies up on their offers of flexibility and remote work, women may still experience costs in terms of fewer opportunities to advance, Goldin cautions. “If you don’t get men on board, you’re never going to have equity in the workplace,” she says.

Moreover, the pandemic didn’t erase gender imbalances at home, even though it underscored them. For example, among couples who were both working remotely, 72 percent of mothers said they were primarily responsible for childcare, compared with 33 percent of men, finds research by University of Pennsylvania PhD student Allison Dunatchik, New York University’s Kathleen Gerson, University of Texas’s Jennifer Glass, Penn’s Jerry A. Jacobs, and UT PhD student Haley Stritzel. Further, mothers were far more likely than other household members to be spending time managing their children’s remote schooling—84 percent versus 50 percent of fathers.

The gendered division of household labor from pre-pandemic days persisted; while it may not have gotten markedly worse, it did not improve even during drastically altered working conditions. “These findings suggest that gender remains a powerful force in organizing domestic work despite the greater flexibility that remote work allows,” the researchers write.

Other workers from marginalized groups may also be more likely to opt out of the office. Future Forum, a research and thought-leadership arm of Slack, whose messaging app facilitates remote work, reports that just 3 percent of Black knowledge workers who did their jobs remotely during the pandemic, versus 21 percent of their white counterparts, want to return to the office full time. Its survey also indicates that fewer Black professionals say they have a strong sense of belonging at work or are treated fairly. Remote work reduces the need to code-switch and to fend off office workers’ microaggressions, notes a Future Forum blog post.

Employers that grant workers flexibility must do more than that to reduce bias and discrimination, says University of Pittsburgh’s Audrey J. Murrell. “While remote work seems like protection from noninclusive workplaces, microaggressions, and other challenges for Black professionals, it is not a long-term solution,” she says. “Remote work may address symptoms, but a comprehensive diversity, equity, and inclusion strategy is essential so that the pipeline of diverse talent with any organization is not lost.”

Go to Review.ChicagoBooth.edu to see citations for research mentioned in this article.
Research Choudhury conducted with Harvard PhD student Cirrus Foroughi and Northeastern University’s Barbara Larson analyzes a 2012 transition from a work-from-home to a work-from-anywhere model among patent examiners with the United States Patent and Trademark Office. The researchers exploited a natural experiment and estimate that there was a 4.4 percent increase in work output when the examiners transitioned from a work-from-home regime to the work-from-anywhere regime.

“Work from anywhere offers workers geographic flexibility and can help workers relocate to their preferred locations,” Choudhury says. “Workers could gain additional utility by relocating to a cheaper location, moving closer to family, or mitigating frictions around immigration or dual careers.” He notes as well the potential advantages for companies that allow workers to be located anywhere across the globe. “In addition to benefits to workers and organizations, WFA might also help reverse talent flows from smaller towns to larger cities and from emerging markets,” he says. “This might lead to a more equitable distribution of talent across geographies.”

More data to come
It is still early to draw strong conclusions about the impact of remote work on productivity. People who were sent home to work because of the COVID-19 pandemic may have been more motivated than before to prove they were essential, says Booth’s Ayelet Fishbach, a social psychologist. Additionally, there were fewer distractions from the outside.
because of the broad shutdowns. “The world helped them stay motivated,” she says, adding that looking at such an atypical year may not tell us as much about the future as performing the same experiment in a typical year would.

Before the pandemic, workers who already knew they performed better in a remote-working lifestyle self-selected into it, if allowed. During the pandemic, shutdowns forced remote work on millions. An experiment that allowed for random selection would likely be more telling. “The work-from-home experience seems to be more positive than what people believed, but we still don’t have great data,” Fishbach says.

Adding to the less optimistic view of a work-from-home future, Booth’s Austan D. Goolsbee says that some long-term trends may challenge remote work. Since the 1980s, as the largest companies have gained market power, corporate profits have risen dramatically while the share of profits going to workers has dropped to record lows. “This divergence between productivity and pay may very well come to pass in the long run about productivity, many workers are already demanding flexibility in their schedules. While only about 28 percent of US office workers were back onsite by June 2021, employees who had become used to more flexibility were demanding it remain. A May survey of 1,000 workers by Morning Consult on behalf of Bloomberg News finds that about half of millennial and Gen Z workers, and two-fifths of all workers, would consider quitting if their employers weren’t flexible about work-from-home policies. And additional research from Barrero, Bloom, and Davis finds that four in 10 Americans who currently work from home at least one day a week would look for another job if their employers told them to come back to the office full time. Additionally, most employees would look favorably upon a new job that offered the same pay as their current job along with the option to work from home two to three days a week.

The shift to remote work affects a significant slice of the US workforce. A study by Chicago Booth’s Jonathan Dingel and Brent Neiman finds that while the majority of all jobs in the US require appearing in person, more than a third can potentially be performed entirely remotely. (For more, read “Only 37 percent of jobs can be done from home,” in the Summer 2020 issue or online at Review.ChicagoBooth.edu.) Of these jobs, the majority—including many in engineering, computing, law, and finance—pay more than those that cannot be done at home, such as food service, construction, and building-maintenance jobs.

Barrero, Bloom, and Davis project that, postpandemic, Americans overall will work approximately 20 percent of full workdays from home, four times the pre-pandemic level. This would make remote work less an aberration than a new norm. As the pandemic has demonstrated, many workers can be both productive and get dinner started between meetings.

Employers may try to claw back time from those who are remote by expecting employees to work for longer hours or during their off hours.

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Go to Review.ChicagoBooth.edu to see citations for research mentioned in this article.
The COVID-19 pandemic for the first time made workplace flexibility a key determinant of companies’ ability to respond to a crisis, on par with financial and investment flexibility.

That’s the takeaway from research by Duke PhD student John W. Barry, Cornell’s Murillo Campello, Duke’s John R. Graham, and Chicago Booth’s Yueran Ma. While businesses with financial flexibility were best equipped to weather the 2008–09 financial crisis, the researchers find that in the pandemic, companies whose employees could work remotely are coming through with the best prospects.

“High workplace-flexibility firms foresee continuation of remote work, stronger employment recovery, and shifting away from traditional capital investment, whereas low workplace-flexibility firms will rely more on automation to replace labor,” they write. “The COVID-19 shock appears to accelerate automation adoption” particularly in sectors with low workplace flexibility, raising “the prospect of a ‘robot-led recovery’ in these industries.”

The researchers surveyed 520 CFOs representing a cross section of American businesses from February through April 2020, asking their outlook about revenue, employment, and capital spending. They conducted follow-up soundings in June, September, and December. The study defines financial flexibility as a company’s access to internal funds and external financing, investment flexibility as the power to adjust the timing of capital expenditures, and workplace flexibility as the ability for employees to work remotely.

As in 2008, when CFOs were surveyed by Campello, Graham, and Duke’s Campbell R. Harvey, CFOs with more financial flexibility said they expected higher employment and capital expenditure growth in 2020. But they also reported that workplace flexibility has a new importance. In the 2008–09 financial crisis, workplace flexibility didn’t play a role in a company’s outlook, while this time, executives at businesses with greater workplace flexibility projected significantly higher employment growth than those with less. Companies in the top quartile of workplace flexibility predicted 3–4 percentage points more employment growth than companies in the bottom quartile.

Companies with low workplace flexibility expected less rosy conditions and planned to delay capital expenditures if they had the investment flexibility to do so.

Overall, among companies negatively affected by COVID-19, CFOs said they expect the recovery to take several years. In the surveys conducted largely later in the year, 42 percent of respondents predicted employment levels would remain below pre-COVID-19 levels until the end of 2021, and 20 percent said they wouldn’t return to normal until after 2022, if ever. Forty percent projected that capital investments would remain low until the end of this year, and 30 percent said it would take another year to return to normal levels, if at all.

The COVID-19 crisis has changed how companies invest, the researchers observe. CFOs at businesses with high workplace flexibility reported early on that they would be less likely to invest in storefronts and office space in 2020, and the later surveys indicate a weakening willingness to dedicate money to capital spending going forward. These businesses are shifting away from traditional capital investment and likely focusing more on technologies and assets that can facilitate remote collaboration, according to the researchers. Importantly, they note, even as the US economy recovers, macroeconomic statistics may show sluggish capital spending, which could reflect the changing nature of investment rather than companies’ financial weakness.

There may also be a long-term impact on workers. Large companies with low workplace flexibility are turning more to automation to protect against shutdowns in another health-related crisis, which would particularly hurt low-skilled workers, who have a higher risk of being replaced. Some high-skilled workers, such as back-office staff, may also be displaced over time.

The rise of workplace flexibility as a factor in business success should play a role in future stimulus and recovery plans, the researchers suggest. For example, as workers in less-flexible industries lose their jobs, policy makers with their eye on the greater economic picture may want use unemployment insurance and educational programs to help those workers train for different careers.

“When financial flexibility is the binding constraint, monetary and fiscal policies may help alleviate problems,” they write. “When workplace flexibility is the binding constraint, however, traditional policy tools may be less effective.”

—Brian Wallheimer

Go to Review.ChicagoBooth.edu to see citations for research mentioned in this article.
People want working from home to stick after the pandemic subsides

With widespread lockdowns abruptly forcing businesses to halt nonessential, in-person activity, the COVID-19 pandemic drove a mass social experiment in working from home, according to Jose Maria Barrero of the Mexico Autonomous Institute of Technology, Stanford’s Nicholas Bloom, and Chicago Booth’s Steven J. Davis. The researchers launched a survey of US workers, starting in May 2020 and continuing in waves for more than a year since, to capture a range of information including workers’ attitudes about their new remote-work arrangements. The survey results suggest not only that people’s perceptions of working from home have exceeded their expectations, but also that they would like to continue doing it after the pandemic ends—even more frequently than their employers are planning. These charts offer snapshots of people’s time spent working from home in the United States during the pandemic, their impressions of the experience, and their postpandemic outlook.

**How people perceived the experience**

How has working from home turned out relative to your expectations?

<table>
<thead>
<tr>
<th>Perception</th>
<th>Share of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hugely better</td>
<td>21.4%</td>
</tr>
<tr>
<td>Substantially better</td>
<td>22%</td>
</tr>
<tr>
<td>Better</td>
<td>16.3%</td>
</tr>
<tr>
<td>About the same</td>
<td>26.7%</td>
</tr>
<tr>
<td>Worse</td>
<td>6.4%</td>
</tr>
<tr>
<td>Substantially worse</td>
<td>3.5%</td>
</tr>
<tr>
<td>Hugely worse</td>
<td>3.6%</td>
</tr>
</tbody>
</table>

How have perceptions of working from home changed among people you know?

<table>
<thead>
<tr>
<th>Perception</th>
<th>Share of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved among almost all</td>
<td>22.1%</td>
</tr>
<tr>
<td>Improved among most</td>
<td>27.9%</td>
</tr>
<tr>
<td>Improved among some</td>
<td>14.4%</td>
</tr>
<tr>
<td>No change</td>
<td>29%</td>
</tr>
<tr>
<td>Worsened among some</td>
<td>3.6%</td>
</tr>
<tr>
<td>Worsened among most</td>
<td>1.7%</td>
</tr>
<tr>
<td>Worsened among almost all</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

**How people want to proceed postpandemic**

Weekly number of paid work-from-home days, by workers’ earnings level

- **Desired by workers**
- **Planned by employers**

Circle size is proportional to the number of survey respondents in each income group.

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Annual earnings in 2019

$20k $50k $100k $200k $250k+

- $20k
  - 21.4%
- $50k
  - 22%
- $100k
  - 16.3%
- $200k
  - 26.7%
- $250k+
  - 3.5%

- $20k
  - 22.1%
- $50k
  - 27.9%
- $100k
  - 14.4%
- $200k
  - 29%
- $250k+
  - 3.6%

- $20k
  - 1.7%
- $50k
  - 1.3%
- $100k
  - 3.6%
- $200k
  - 3.5%
- $250k+
  - 3.6%
Who is right about inflation?
The US Fed and consumers have very different expectations about the future.

BY BRIAN WALLHEIMER
ILLUSTRATIONS BY EDMON DE HARO
Inflation chatter started heating up this spring, along with inflation itself. In April 2021, the US Consumer Price Index, which measures how fast prices change, rose at a 4.2 percent annual rate, more than double the usual target rate. Then in May, the inflation rate soared to 5 percent. With the worst of the pandemic seemingly easing, US consumers were apparently venturing out again and spending at a fast clip.

The figures took inflation watchers off guard. The Wall Street Journal’s editorial page noted that Federal Reserve chairman Jerome Powell had wanted some inflation but would likely be surprised by the force of April’s numbers, saying, “Powell’s inflation ship has come in, albeit more rudely than he probably wanted.”

Financial journalists and investors, always looking for signs of how the central bank will react to signs of inflation or deflation, kicked into high gear, trying to anticipate the timing of any Fed actions.

But consumers—who actually drive inflation—seemed unfazed, apparently already operating with the understanding that prices were rising fast, and would continue to do so. Homeowners remodeling their homes during the pandemic were aware of historically high lumber prices. Home cooks felt the impact on food prices. Buyers of both new and used cars saw prices surge due to a shortage of computer chips.

This diversion in inflation views between policy makers and consumers is notable and runs deep, says Chicago Booth’s Michael Weber. Central banks and shoppers are living, to some extent, in different worlds—focusing on different things, and forming expectations on the basis of those.

And the gap in outlooks is potentially problematic, he explains. Arguably, the main job of the Fed is to keep inflation steady, and it does that in large part by influencing markets and consumers. But if consumers have significantly different ideas about inflation than the monetary-policy experts, they won’t see the institution as credible. That’s the challenge the central bank faces as it seeks to put the economy on more stable footing in the wake of the coronavirus crash and recession, but it could also have implications for the future of the institution.

“If the Fed says inflation is under 5 percent, but I think it’s 10 percent, I don’t have faith in the Fed,” Weber says. “That can be a slippery slope, and you can see how it could lead to the Fed losing some of its independence if politicians, hearing from the public, get involved.”

**Inflation: A key mandate**

Central banks have a number of mandates, but in the United States, two are key: keeping prices stable and seeking maximum sustainable employment in the economy. Having stable prices boils down to managing inflation, for which the goal in the US is about 2 percent annually. Inflation hit double digits in the 1970s, sparking demonstrations by mothers and children outside grocery stores, and a weeklong boycott of meat, among other protests. But since then, there have been a few peaks and valleys during recessions and other global economic events. Otherwise,
prices have been pretty reliable for American consumers, and Powell indicated in July that he expected the same going forward.

When inflation seems too low, or too high, the Fed tends to adjust interest rates to tap the gas or apply the brakes. When the economy needs a jolt, the Fed lowers rates, increasing spending and potentially inducing hiring. Raising rates makes borrowing more expensive and slows down spending, and by extension inflation.

However, in the past decade or so, the Fed has seemed to lose some of its influence in controlling inflation. (For more, read “Have central bankers lost their power?” in our Summer 2017 issue and online at Review.ChicagoBooth.edu.) The 2008–09 financial crisis led the Fed, for the first time in its history, to drop the interest rate effectively to zero in an effort to jump-start spending and revive the economy. Rates hovered near this zero lower bound until December 2015, when the Fed started adjusting them upward, only to have the COVID-19 pandemic crash global economies again and force rates back down. This has made the interest rate a much less useful tool for fighting inflation. The Fed can raise rates to stave off inflation if necessary, but there’s really no way to drop them further.

Thus, the Fed has embraced what watchers call unconventional monetary policy to maintain its influence. It has bought trillions of dollars’ worth of assets to get financial institutions moving and money flowing through the economy. And it has used forward guidance to tell the market, and the public, what it thinks is going on, with the goal of influencing their spending decisions. If the Fed says inflation could make their money less valuable in the future, for example, consumers are more likely to spend it today.

The Fed uses such strategies to try to maintain a grip on the economy. But ultimately, it’s important for the Fed and consumers to agree largely about the future. If they don’t, any decisions meant to jump-start the economy may be less effective, and the public’s perceptions could lead to decisions that run counter to the Fed’s goals, and perhaps push inflation or employment in the wrong direction.

If consumers disagree, the Fed’s asset purchases, for example, could still get the financial system moving—but people still might not want to borrow and spend. Similarly, they may tune out Fed statements. Research suggests that both of these things are happening.

The source of disconnect
The rate of inflation is the percentage rise of the cost of goods and services from one period to the next in an economy. In an economy with runaway inflation, a can of Coke might cost $1 on Monday, $1.25 on Tuesday, and $1.50 on Wednesday.

The Fed measures inflation with the Personal Consumption Expenditures price index, which takes into account the changes
Women and men in households tend to have different expectations of inflation, with women expecting higher inflation.

in cost for durable goods such as automobiles and appliances, nondurable goods including clothing and personal care supplies, and services.

But the Fed is specifically interested in core inflation. To get that, it strips out energy and food, both of which have particularly volatile prices, but are also likely to influence consumer expectations. The average American might buy a car or washing machine once every few years, if that often, so isn’t paying close attention to how much prices for those items rise, says Weber. But consumers regularly fill up their gas tanks and go grocery shopping, thus the prices for energy and food, which the Fed ignores, color many opinions about inflation.

The Fed isn’t wrong to want to evaluate inflation without those influences, notes Weber.

“It’s normal for consumers to use those gas and grocery price signals because we see them so frequently, but they’re certainly volatile and not representative of the consumption bundle we use to measure inflation,” he says.

But the Fed is wrong in some of the assumptions it holds about consumers, he adds. “Fed officials assume households are like robots and rationally gather all available information, listen to what the Fed is doing, and act accordingly. That’s just not how most people behave.”

When Powell and his colleagues consider consumer behavior, they assume that people have well-anchored views of inflation—that is, if the Fed sets a target of 2 percent inflation each year, the general public will act and spend accordingly. For example, if inflation is high for a quarter, a well-anchored public won’t change its spending habits much or at all because it has and maintains faith in the goal of 2 percent inflation.

In this view of the world, the Fed’s statements carry a lot of weight. If the bank suggests that inflation could outpace its target, consumers would worry about their spending power. They would make some large purchases sooner than they might have otherwise, which could open up options for the Fed. With interest rates at or near zero, a bump in spending would push the economy toward higher inflation, which would allow the Fed to raise interest rates and tap the brakes. In that scenario, the Fed recovers its ability to influence the economy through rate increases and decreases.

But research suggests that this view is incorrect, in part because Americans aren’t paying close attention to what the Fed does or says. University of Texas’s Olivier Coibion, University of California at Berkeley’s Yuriy Gorodnichenko, and Weber surveyed more than 20,000 Americans in 2018 and asked what they expected the Fed’s inflation goal to be. Fewer than 20 percent answered correctly, while a whopping 40 percent thought the Fed was targeting 10 percent inflation, more than five times the actual level. This “suggests a pervasive lack of knowledge on the part of households about the objectives of the Federal Reserve,” the researchers write.

Executives, surveys indicate, are similarly situated. UC Berkeley PhD student Bernardo Candia, Coibion, and Gorodnichenko have since 2018 collected quarterly data from CEOs and senior business leaders at companies of all sizes. Executives, less than half of whom said they knew the Fed’s inflation target, also often expect inflation to be higher than the central bank predicts, they find, although individuals’ forecasts vary widely.

Both executives and consumers are influenced by what they see and experience. Work by Boston College’s Francesco D’Acunto, UC Berkeley’s Ulrike Malmendier, the Central Bank of Colombia’s Juan Ospina, and Weber finds that grocery prices—despite the Fed’s focus—have a big influence on consumers’ expectations about inflation. The researchers analyzed data from the Nielsen Datasets at Booth’s Kilts Center for Marketing, specifically consumer panel data gathered by a representative group of households about their purchases, and conducted surveys in 2015 and 2016 to establish that the average consumer expected inflation to rise nearly 5 percent over the next year. Their expectations were tied to the changes in prices of items they most often purchase at the grocery store.

Moreover, women and men in households tend to have different expectations of inflation, with women expecting higher inflation, according to D’Acunto, Malmendier, and Weber. Women, they argue, tend to be the primary grocery shoppers in their households, which exposes them more often to the very price signals the Fed deems unstable.

“Because grocery prices are highly volatile, and consumers focus disproportionately on positive price changes, frequent exposure to grocery prices increases perceptions of current inflation and expectations of future inflation,” the researchers write. “The gender expectations gap is largest in households whose female heads are solely responsible for grocery shopping, whereas no gap arises in households that split grocery chores equally between men and women.”

The Fed’s expectations about inflation, determined on the basis of core inflation, may correctly signal future inflationary pressure for the overall economy. And though the Fed is more likely than consumers to be correct in making inflation expectations, it doesn’t really matter, says Weber, if the disconnect blunts the Fed’s abilities. It can’t use forward guidance as an effective policy tool unless it can get consumers on the same page.
Getting the word out

Assuming that the Fed is correct about how it calculates inflation, it needs to do a lot of work to reach and educate consumers. But the Fed has a communications problem. For starters, research finds that it filters its messages through traditional media—to consumers who are barely noticing.

In the same study in which people overestimated the target inflation rate, Weber and his colleagues gave consumers simple statistics on inflation such as the most recent rate, the Fed’s inflation target, and the FOMC’s inflation forecast. (The 12-member Federal Open Market Committee is the body that votes on monetary-policy actions.) This information reduced the average household’s forecast of inflation by more than 1 percentage point, bringing it closer to the Fed’s projections. But consumers given a *USA Today* article summarizing all these same data adjusted their inflation expectations by half as much.

It’s possible, the researchers write, that consumers simply don’t trust Fed messages that have been distilled by traditional media. Indeed, they find that people generally have a low level of trust in the economic news delivered by newspapers, which ranked behind social media as an information source. Consumers perceived *USA Today* to be more credible than other national newspapers including the *Wall Street Journal*, *New York Times*, and *Washington Post*.

“Despite being written explicitly for the general public, this media transmission of the FOMC’s decision and motivation seems to have either dissipated the message or, more likely given that the article is much clearer than the FOMC statement, been discounted by households because of its origin,” write Coibion, Gorodnichenko, and Weber. “This suggests one reason why monetary policymakers have had so little success in affecting the inflation expectations of households: relying on the conventional media to diffuse their message to the public can be ineffective because many households no longer read newspapers and even if they do, individuals discount reports from the news media.”

Communicating directly with the public is difficult, however. The Fed has been at times notoriously opaque in its messages to everyday Americans. Former Fed chairman
THE FED HAS NOT LOST CONTROL OVER INTEREST RATES

In times of crisis, the US Federal Reserve employs monetary-policy tools to help stabilize the situation. But in the past few years, there’s been some public speculation as to whether it has lost a crucial tool and, by extension, its control over short-term interest rates. “As Fed Loses Control of Overnight Rates, Blame Shifts to T-Bills,” blared a Bloomberg headline in 2018. The article quoted Credit Suisse analyst Zoltan Pozsar as saying, “Only the US Treasury can fix this, not the Fed.”

The concern that the Fed has lost control is overblown, according to Chicago Booth’s Quentin Vandeweyer. It can still move short-term rates, his research suggests, but it does so in a new way because of regulatory changes.

Traditionally, to influence monetary conditions, the Fed changes the reserves available to banks. To push rates up, it reduces reserves; to suppress them, it does the opposite, as it has when financial markets need liquidity, such as during a crisis.

Only traditional banks have reserves with the Fed, and so it has relied on them to act as mediators to reach the broader economy. When the Fed has increased reserves, thus growing the money supply available to banks, those banks have done deals in the repo market, where they trade with money market funds, spreading liquidity further into the economy and broadcasting the level of interest rates.

However, since the 2008–09 financial crisis, there have been signs that something has changed. In 2018, for example, short-term rates moved sharply up, to the limit of what the Fed had targeted. “There was a big puzzle as to why this was the case and whether this meant the Fed had lost control more broadly,” Vandeweyer says.

Regulatory changes stemming from the 2009 international accord Basel III and the 2010 Dodd–Frank Wall Street Reform and Consumer Protection Act made repo-market deals less profitable for banks, which could have stopped them from acting as intermediaries, he finds. With liquidity essentially stuck at banks and not reaching the rest of the market, the supply of Treasury bills, rather than reserves, became the primary driver of short-term rates. Money market funds are large and important participants in the market, but they can’t access Fed reserves as banks do, so instead hold T-bills as short-term assets, says Vandeweyer, who analyzed data including the share of available T-bills held by money market funds.

However, the Fed appears to have found two ways around this problem. One way prevents short-term rates from falling too low, and the other prevents them from rising too high.

To establish a floor, the central bank in 2014 created an asset that money market funds can hold directly at the Fed. Through the Fed’s reverse-repo facility, money market funds can deposit at the Fed, but they receive a lower rate than the Fed pays banks on their deposits. In this way, the Fed is able to bypass banks and provide liquidity to money market funds and prevent rates from falling below this threshold. As money market funds have the option to lend to the Fed at this rate, they will never accept a lower rate from other borrowers, effectively setting a lower bound for short-term rates.

But at one point in 2018, the Trump administration increased the supply of T-bills, which sent short-term rates skyward, surprising the Fed. After that, to control the upper bound of rates, the Fed directly changed the amount it pays to banks on their reserves, which in turn affected rates on most other assets.

After March 2020, a similar situation occurred when the Treasury increased the supply of T-bills to finance stimulus spending. But a year later, the situation reversed and the supply of T-bills grew sparse. In late April, T-bill rates turned negative, and the Fed seemed poised to once again rely on its reverse-repo facility to influence short-term rates. Since then it has gradually removed its self-imposed cap on the quantity of assets that money market funds can place at the central bank in order to accommodate inflows of almost $1 trillion.—Emily Lambert


Alan Greenspan, knowing that a misspoken word could send markets soaring or tumbling, prided himself on being overly technical in his communications. “If I turn out to be particularly clear, you’ve probably misunderstood what I said,” he jested in a 1988 speech at the Economic Club of New York.

Current chairman Powell has become the anti-Greenspan in that respect. At a town hall meeting in 2019, he said, “Federal Reserve policy affects everyone, and we need to work hard, and we do work hard, at trying to communicate in a way that doesn’t lapse into economic jargon, and so it can be understood by the interested public.”

But while Powell might be invested in having a better connection with consumers, many Americans are barely aware of the Fed. Although a 2013 Pew Research survey found that about three-quarters of Americans knew that the Federal Reserve is responsible for setting monetary policy, an Associated Press/GfK Knowledge Networks poll a year later indicated that about 70 percent found it difficult to understand those policies. And according to a 2019 Reuters/Ipsos poll, only 57 percent of Americans are familiar with the Fed, and only 28 percent believe it is an independent body—which it is.
Weber says Americans have had the luxury of being “rationally inattentive” for quite some time when it comes to monetary policy. In places such as Argentina—where the inflation rate was 54 percent in 2019 and 42 percent in 2020—inflation is on the minds of consumers daily. But in the US over the past three decades, realized inflation has been low and near its target, meaning consumers haven’t had to think about the value of their money. A dollar is worth a little less each year, but not by much.

“In Argentina or Ukraine, where prices are high and volatile, being uninformed about inflation is costly,” Weber says. “In the US, there’s no real cost to being uninformed about it.”

How to capture attention

The good news for the Fed is that central banks can reach consumers, if they reach out correctly, research suggests. Weber, along with D’Acunto and Karlsruhe Institute of Technology’s Daniel Hoang, finds that consumers are more receptive to certain types of messages from central banks.

The researchers compared forward guidance from then European Central Bank president Mario Draghi, about the future path of monetary-policy rates, with a less-conventional statement: the preannounced of higher future consumption taxes in Germany a year ahead of a tax rollout in 2007.

The first statement said that interest rates would remain low for the foreseeable future; the second said explicitly that prices would rise and articulated by how much. The goal for both was to spur consumer spending in the short run. Yet only the tax announcement led to more short-term spending, with the German public increasing durable-goods consumption 10 percent for the year.

“If interest rates remain low for the foreseeable future, consumers expect that prices will rise,” the researchers write.

In another example, D’Acunto, Hoang, the Bank of Finland’s Maritta Paloviita, and Weber find that consumers are more swayed by messages that tell them the target that policy makers plan to reach rather than how they intend to get there.

The researchers compared the responses of readers to two tweets from Olli Rehn, governor of the Bank of Finland. In one, Rehn focused on a target, saying that the “European Central Bank will do whatever is necessary to minimize the financial damage to citizens caused by the corona crisis.” In another, he focused on the instrument for achieving that goal, announcing the €750 billion Pandemic Emergency Purchase Programme.

Those who saw the target tweet were more likely to believe that the ECB’s policies would benefit their households, and they expected their average monthly gross income to increase €70–€80 per month compared with a control group. The instrument tweet had no effect on consumer attitudes.

It’s not just the message that matters, but also the messenger. D’Acunto, the Swiss National Bank’s Andreas Fuster, and Weber gave randomized groups Fed forecasts—along with photos of the people on the FOMC, including a white male, a white female, and a Black male—and asked for individuals’ beliefs on unemployment expectations. Female and Black study subjects trusted the data more when made aware of female and minority representation on the committee. White male subjects didn’t change their forecasts with or without the information about committee representation.

“Overall, diversity salience appears to increase the FOMC’s ability to manage the expectations of underrepresented groups without any negative consequences on the expectations of overrepresented groups,” the researchers write.

But diversity is more than a messaging tool, and more of it could make the Fed better informed, not just more trustworthy. Weber says that diversity on the FOMC could change policy decisions, as members would bring different experiences and perspectives to discussions about issues such as unemployment. Say the Fed is considering raising interest rates because overall unemployment is low and it sees higher inflationary pressures on the horizon. The unemployment rate of Black Americans tends to be higher than that of white Americans, and would a more diverse FOMC consider leaving rates low a little longer to push for better employment numbers in the Black community?

The Fed has been seeking outside opinions as part of a listening tour it has billed Fed Listens. At each of a series of events in 2019 and 2020, senior Fed officials gave only brief remarks and spent the rest of the time listening to and asking questions of members of the public, including small-business owners, residents of low- and moderate-income communities, and retirees, among others.

The listening tour and other outreach efforts may help the bank refine its message and presentation, which research finds also has power. Jamaica has worked with popular reggae singers, putting out songs about inflation to educate Jamaicans. A 2019 video by reggae singer Tarrus Riley, widely seen as effective, has more than 340,000 views on YouTube.

In the US, the Cleveland Fed is also reaching into popular culture. In June, it released three videos featuring LEGO people to explain what inflation is and why consumers and the Fed care about it. In two days, the videos attracted almost 15,000 views. But even with LEGO helpers, the Fed has a lot of work to do to reach most Americans and convince them its inflation view is the correct one.—CBR

Diversity inside the Fed could change policy decisions, as members would bring different experiences and perspectives to discussions.
Help the student-debt holders who really need it

Blanket loan forgiveness chiefly benefits high earners

Education is the single highest-return investment most Americans will make, so getting our system of higher-education finance right is fundamentally important for US households and the economy.

A key point in the student-loan debate is that the outcomes of borrowers vary widely. Undeniably, a significant number of borrowers are struggling, and are sympathetic candidates for some kind of relief. Student-loan balances have surged over the past decades. According to the New York Fed, last year student loans had the highest delinquency rate of any form of household debt.

Most student borrowers end up as higher earners who do not have difficulties repaying their loans. A college education is, in the vast majority of cases in America, a ticket to success and a high-paying job. Of those who struggle to repay their loans, a large portion attended a relatively small number of institutions—predominantly for-profit colleges.
The core of the problem in the student-loan market lies in a misalignment of incentives for students, schools, and the government. This misalignment comes from the fact that borrowers use government loans to pay tuition to schools. If borrowers end up getting poor jobs, and they default on their loans, schools are not on the hook—taxpayers pay the costs.

How do we address this incentive problem? There are many options, but one of the most commonly proposed solutions is universal loan forgiveness.

Various forms of blanket student-loan cancellation have been suggested, but all are extremely regressive, helping higher-income borrowers more than lower-income ones. This is primarily because people who go to college tend to earn more than those who do not go to college, and people who spend more on their college education—such as those who attend medical and law schools—tend to earn more than those who spend less on their college education, such as dropouts or associate's degree holders.

My own research with Sylvain Catherine of the University of Pennsylvania demonstrates that most of the benefits of a universal-loan-cancellation policy in the United States would accrue to high-income individuals, those in the top 20 percent of the earnings distribution, who would receive six to eight times as much debt relief as individuals in the bottom 20 percent of the earnings distribution. These basic patterns are true for capped forgiveness policies that limit forgiveness up to $10,000 or $50,000 as well.

Another problem with capped student-loan forgiveness is that many struggling borrowers will still face difficulties. A small number of borrowers have large balances and low incomes. Policies forgiving $10,000 or $50,000 in debt will leave their significant problems unaddressed.

While income phaseouts—policies that limit or cut off relief for people above a certain income threshold—make forgiveness less regressive, they are blunt instruments and lead to many individuals who earn large amounts over their lives, such as medical residents and judicial clerks, receiving substantial loan forgiveness.

If policy makers want to ensure that funds get into the hands of borrowers at the bottom of the income distribution in a progressive way, blanket student-loan forgiveness does not accomplish this goal. Rather, the policy primarily benefits high earners.

While I am convinced from my own research that student-loan forgiveness is regressive, this is also the consensus of economists. The Initiative on Global Markets at Chicago Booth asked its US panel of prominent economists to weigh in on this statement: “Having the government issue additional debt to pay off current outstanding loans would be net regressive.” The panel included economists from leading institutions from both the left and the right. The results of the survey were telling. Not a single economist disagreed with the idea that student-loan forgiveness is regressive. This is because the facts are clear—to borrow a phrase commonly used, “The science is settled”—student-loan forgiveness is a regressive policy that mostly benefits upper-income and upper-middle-class individuals.

Another facet of this policy issue is the effect of student-loan forgiveness on racial inequality. One of the most distressing failures of the federal loan program is the high default rates and significant loan burdens on Black borrowers. And student debt has been implicated as a contributor to the Black-white wealth gap. However, the data show that student debt is not a primary driver of the wealth gap, and student-loan forgiveness would make little progress closing the gap but at great expense. The average wealth of a white family is $171,000, while the average wealth of a Black family is $17,150. The racial wealth gap is thus approximately $153,850. According to our paper, which uses data from the Survey of Consumer Finances, and not taking into account the present value of the loan, the average white family holds $6,157 in student debt, while the average Black family holds $10,630. These numbers are unconditional on holding any student debt.

Thus, if all student loans were forgiven, the racial wealth gap would shrink from $153,850 to $149,377. The loan-cancellation policy would cost about $1.7 trillion and only shrink the racial wealth gap by about 3 percent. Surely there are much more effective policy options for legislators to consider. One is to bring back bankruptcy protection for student-loan borrowers.
ways to invest $1.7 trillion if the goal of policymakers is to close the racial wealth gap. For example, targeted, means-tested social-insurance programs are far more likely to benefit Black Americans relative to student-loan forgiveness. For most American families, their largest asset is their home, so increasing property values and homeownership among Black Americans would also likely do much more to close the racial wealth gap. Still, the racial income gap is the primary driver of the wealth gap; wealth is ultimately driven by earnings and workers’ skills—what economists call human capital. In sum, forgiving student-loan debt is a costly way to close a very small portion of the Black-white wealth gap.

How can we provide relief to borrowers who need it, while avoiding making large payments to well-off individuals? There are a number of policy options for legislators to consider. One is to bring back bankruptcy protection for student-loan borrowers. Another option is expanding the use of income-driven repayment. A fact that is often missed in the policy debate is that we already have a progressive student-loan forgiveness program, and that is IDR. IDR plans link payments to income: borrowers typically pay 10–15 percent of their income above 150 percent of the federal poverty line. Depending on the plan, after 20 or 25 years, remaining balances are forgiven. Thus, if borrowers earn below 150 percent of the poverty line, as low-income individuals, they never pay anything, and the debt is forgiven. If borrowers earn low amounts above 150 percent of the poverty line, they make some payments and receive partial forgiveness. If borrowers earn a high income, they fully repay their loan. Put simply, higher-income people pay more and lower-income people pay less. IDR is thus a progressive policy.

IDR plans provide relief to struggling borrowers who face adverse life events or are otherwise unable to earn high incomes. There have been problems with the implementation of IDR plans in the US, but these are fixable, including through recent legislation. Many countries such as the United Kingdom and Australia successfully operate IDR programs that are administered through their respective tax authorities.

Beyond providing relief to borrowers, which is important, we could do more to fix technical problems and incentives. We could give servicers more tools to contact borrowers and inform them of repayment options such as IDR, and we could also incentivize servicers to sign more people up for an IDR plan. But while we may be able to make some technical fixes, servicers are not the root of the problem in the student-loan market: a small number of schools and programs account for a large portion of adverse outcomes.

To fix this, policymakers can also directly align the incentives for schools and borrowers. For example, Brazil, which has had similar problems with its student-loan program, recently gave schools skin in the game by requiring them to pay a fee based on dropout and default rates. This helped align the incentives of the schools and the student borrowers. Making revenues go directly to schools from IDR plans, or implementing income-share agreements in which individuals pay an uncapped portion of their income, could also help align the incentives of schools, students, and taxpayers.

Federal student loans are an important part of college financing and intergenerational mobility. The root of our student-loan crisis is a misalignment of incentives. Since the problem has been so slow moving and continuous, I like the analogy of a frog slowly boiling in a pot of water over a flame. Policies such as student-debt cancellation are not extinguishing the flame—they aren’t fixing the incentive problem. All they do is move the frog into a slightly cooler pot of water. And if we don’t fix the core of the problem, even if we forgive $50,000 of debt for current borrowers, balances will continue to grow, and we will be facing a similar crisis in 10 or 20 years.—CBR

Constantine Yannelis is assistant professor of finance and an FMC Faculty Scholar at Chicago Booth. This essay is based on testimony submitted to the US Senate Committee on Banking, Housing, and Urban Affairs’ Subcommittee on Economic Policy in April 2021.

The end of ‘the end of inflation’

Inflation can no longer be dismissed as only a concern of the past

Concerns about inflation began to look much more prescient when the price index for personal consumption expenditures this past April was up 3.6 percent year over year, the biggest such jump since 2008. Core PCE (the same index, but without food or energy prices factored in) for the month rose 3.1 percent, a leap the likes of which we haven’t seen since the early 1990s. Fed officials have assured us this spurt of inflation is temporary.

Whether it really is temporary or the beginning of a more persistent rise, the surge clearly already means one thing: the end of “the end of inflation.”

For 25 years, inflation has seemed stuck on a downward trend. Those of us who worry about inflation seemed like end-of-the-world sign holders who couldn’t leave the 1970s behind. It’s hard to buck the trend. A famous economist advised me to give up studying inflation—inflation is 2 percent, he said, that’s all you need to know.

Well, apparently not. Inflation can happen, and there is an economics of inflation. Right now it’s pretty obvious where inflation is coming from—supply constraints both natural and artificial, coupled with rampant demand.

Nobody is really sure where inflation will go. A June poll of US economists conducted by Chicago Booth’s Initiative on Global Markets provides a good indication of how wide sensible consensus is on the issue: 26 percent of the economists agreed that “the current combination of US fiscal and monetary policy poses a serious risk of prolonged higher inflation,” 23 percent disagreed, and 40 percent said the answer was uncertain.

Maybe these are just temporary shocks, supply bottlenecks, a one-time price-level rise from stimulus. Or maybe it is the beginning of the 1970s again, when exactly the same excuses were offered.

I’ll summarize my bottom line in thinking about this issue.

First, the dynamics of inflation are roughly:

\[ \text{inflation} = \text{expected inflation} + \text{inflation pressure} \]

If people expect higher inflation next year, sellers will be quicker to raise prices, and buyers will be quicker to pay higher prices. The right measure of inflation pressure is more contentious. Traditional metrics such as the unemployment rate or the GDP gap have been pretty terrible measures. For fundamental pressures, take your pick of too-low interest rates set by the Fed, too much money, or too much debt and deficit. Whichever it is, if expected inflation remains “anchored,” inflation comes back quickly once the pressure is off. If expected inflation rises, we’re in trouble.

The Fed seems to think that anchored expectations come from soothing speeches about how anchored expectations are. At worst, it may say it has “the tools” to contain inflation should it break out, but it seldom says just what those tools are.

I believe that expectations come from expected actions, not speeches—and better, from robust institutional rules and commitments that force necessary but unpleasant actions when needed. At least, people must believe that the Fed is willing to repeat 1980—dramatically high interest rates, causing a deep recession, if that’s what it takes.

And raising interest rates will be much harder now than it was in 1980 for a number of reasons:
• The debt-to-GDP ratio is 100 percent, rather than 25 percent, so higher interest rates will immediately hurt the budget.
• Huge reserves mean the Fed will be seen to pay a windfall to big banks to not lend out money.
• The too-big-to-fail banks will all lose a bundle if interest rates rise.
• The Fed’s current emphasis on inequality will also restrain it, as a recession will hurt the most vulnerable the most.

Second, in today’s economy, in the end, inflation comes when people do not believe the government will repay debt. Beyond changing interest rates, the Fed only changes the composition of government debt—reserves versus Treasurys—but not the amount of debt. Whether we hold Treasurys via the world’s largest money market fund (that’s what the Fed is) or directly really does not matter.

Inflation does not come from debt alone, but from debt relative to a credible plan and expectation that debt will be repaid. Expected inflation is anchored by the belief that if inflation gets out of control, our government will promptly put its fiscal as well as monetary house in order. Moreover, since our government has tragically borrowed short term, inflation comes when people believe that other people will lose this faith.

Putting the fiscal house in order is not hard as a matter of economics—it requires a straightforward pro-growth reform of the tax code and entitlements. But our government has kicked that can down the road for nearly 40 years, and nobody wants to do it. It may have to come during or after the crisis, which will be much harder.

None of these thoughts are useful as a short-term forecast, which I do not offer. Both fiscal- and monetary-policy expectations can switch quickly. I can offer, then, a summary of the forces at work, but those forces only emphasize how hard forecasting must be. If anyone could tell you for sure that we will have inflation next year, we would already have inflation today. The logic of my inflation equation is like the logic of a bank run or a stock market crash. That nobody can predict inflation well is proof of the theory.

This spurt may pass, and expected inflation, reflecting faith in the ultimate sanity of US fiscal and monetary policy, remain anchored. Or this spurt may lead to a quick undermining of that faith.

But at least the question is alive again, and a matter of useful economic analysis and debate. This is for sure: the end of “the end of inflation” is at hand.—CBR

John H. Cochrane is a senior fellow of the Hoover Institution at Stanford University and was previously a professor of finance at Chicago Booth. This essay is adapted from a post on his blog, The Grumpy Economist.
The pandemic, like most crises, forced us all to take a hard look at the meaning of our careers and our lives. The same was true for companies, which suddenly found themselves exposed to a social test that involved some tough questions by the general public. Among them: What does your company stand for? How is it making a difference in society? Are your products healthy? Are your ingredients natural and sourced through fair labor and sustainable supply chains? Do your products’ brand images reflect values espoused by disadvantaged segments of our communities? Is your competitive strategy ethical and fair? In short, what is the social image of your corporate and product brands?

Some companies passed this test with flying colors. Many companies failed miserably. It’s too soon to judge the long-term implications for those that failed the social test, but it’s time that they recognize something important: we have entered the era of marketing for good.

The lack of qualified leadership may be the largest obstacle companies face today in implementing successful marketing for good. According to a 2019 McKinsey study, 83 percent of
Early adopters of a scalable sustainable supply chain will have a long-term advantage as governments continue to restrict emissions and other environmentally objectionable practices.
that most European companies would need to double their efforts to emphasize their purpose just to regain consumer trust after the pandemic. In Asia Pacific markets, almost 60 percent of consumers self-reported trying a new brand simply because of the way it responded to the pandemic. In sum, a prosocial corporate image is important for consumer demand and thus for revenues and revenue growth.

Companies are also marketing, to some extent, to employees. Over half of the millennial workforce is considering leaving or plans to leave their jobs, and 60 percent are open to a new job opportunity. That is a strikingly lower employee loyalty rate than in any other generation.

Millennials work for a purpose, not just a paycheck, and can find a purpose in the role their company plays in the community and society. Anecdotally, we’ve heard that Booth students on the job market interview recruiters about their priorities and their social-responsibility initiatives. A 2003 survey by Stanford’s David M. Montgomery and UC Santa Barbara’s Catherine A. Ramus found that over 90 percent of MBA students from 11 leading North American and European schools were willing to forgo financial benefits to work for a company with a good reputation for corporate social responsibility and ethics. A 2004 study by Deloitte found that 72 percent of Americans choosing between jobs with comparable benefits said they would pick the company that supported charitable causes. A prosocial corporate image also bolsters a company’s human-resources strategy by improving its ability to hire top talent in what is an increasingly competitive labor market.

Consumers and employees place a premium on companies and brands that are authentic and engaged in helping the world. And because few stakeholders can verify the true social impact of a company’s initiatives, authenticity is typically signaled through the company’s actions, not its words. Authenticity cannot be cheap talk, puffed up press releases, unverifiable packaging claims such as organic or natural, or empty promises of diversity in the workplace.

Authenticity is signaled through the publicly visible cost of an action, and this signaling can and probably needs to be expensive to resonate. Starbucks attempted in 2015 to open racial discourse in the United States by getting all of its baristas to write “Race Together” on each coffee cup sold. People felt this was tone deaf because Starbucks didn’t engage with the issues or pay any real cost—its action felt like cheap talk. By contrast, in what has been held up as a prime example of marketing for good, Dove made over its entire creative portfolio, including women of all physical shapes and ethnicities and eliminating photoshopping. In 2018, Nike’s share price tumbled following a boycott over its 30th anniversary “Just Do It” campaign with Colin Kaepernick. The campaign was risky and expensive, and the company paid a price with a brief dive in investor sentiment after the ad released. But one year later, Nike’s sales were booming, and its share price was 8 percent higher than where it was the day before the campaign launched.

My research with Tilburg University’s Bart Bronnenberg and Stanford’s Matthew Gentzkow has measured the long-term advantages over decades to brands that are first to strike the right chord with consumers, and therefore it seems clear that the right social brand image has long-term value. Marketing for good is already synonymous with the long-term profitability of the modern company, and it’s an investment in the creation of an authentic and credible public image with all stakeholders. The successful CMO fosters marketing for good through a nexus of relationships, some internal and others communicated publicly to all stakeholders, not just shareholders. The heart of marketing leadership in the 21st century is the management of this public image at the nexus of stakeholder relationships, both internal and external. —CBR

Jean-Pierre Dubé is the James M. Kilts Distinguished Service Professor of Marketing and a Charles E. Merrill Faculty Scholar at Chicago Booth. This essay is adapted from a speech given in June at the Chicago Booth diploma ceremony of the 534th Convocation of the University of Chicago. Go to Review.ChicagoBooth.edu for links to a video, a full transcript of this address, and citations for research mentioned in this article.
Should you accept a promotion with no raise?

You’ve been asked to take on more work—for the same money.

The most recent installment of our Business Practice feature involves a promotion without a commensurate increase in salary:

You’ve been at your current company for three years in a middle-management role. You get on well with your handful of direct reports, and your team has earned a reputation for high-quality work over the course of a number of successful projects. In fact, things have gone so well that your boss has just delivered the good news that you’re being promoted: senior is being appended to your job title, and you’re being given another team, effectively doubling your managerial duties.

This new position is a standard part of the career path at your company for those moving from middle-management to executive-level positions. But it’s not all good news. “As you know,” your boss tells you, “the economic downturn has really affected revenue, at least temporarily. Although we’ve avoided implementing a formal hiring or salary freeze, there’s just no budget to give you a raise at this time. We’ll make it up to you down the road.”

You’re pleased to have been recognized for your work and to have taken a necessary step up the corporate ladder, but promotions are the key inflection points for compensatory changes at your company. You’re concerned that if you don’t get a raise now, your salary won’t fully level up until your next promotion—which could be years away, if it ever happens. Do you try to negotiate for a raise, or hope that when economic conditions improve, your patience will be rewarded? Write a script for what you would say to your boss.
This scenario shares some similarities with previous installments of *Business Practice*. Like many of our scenarios, you face a decision to engage or acquiesce. And if you do engage, what do you say? In this case, engagement is negotiating. And the negotiation involves something we all care about—salary, a domain we’ve addressed before in different contexts.

**Why is this question difficult?**
Negotiating a salary increase is difficult even under ideal circumstances. Ordinarily, a promotion, especially a substantial one such as that depicted in this scenario, would create a natural opening for asking for a raise (or negotiating an even bigger raise than what your boss offers). In this case, however, your boss is NOT inviting you to negotiate. In fact, your boss is explicitly trying to shut down this possibility—“There’s just no budget to give you a raise at this time.”

This scenario is challenging for many reasons. First, it’s not clear what’s going on. Maybe it’s true that a raise right now is impossible, in which case the vague promise to “make it up down the road” serves to ease this uncomfortable situation. Or, perhaps, a raise is possible, but your boss is hoping that he or she does not have to work to find a little extra money. Or maybe it’s a hardball tactic: Why wouldn’t your boss give you a bunch more work without any extra compensation? And later on, why wouldn’t that boss just kick any salary requests further and further down the road?

Maybe it is true that a raise at this time is off the table. But then what? Should you trust your boss to be proactive about getting you that raise when things are better? And if your boss isn’t one to be proactive, when and how do you remind them that now is the time to play catch up?

As uncomfortable as this situation is for most of us, research suggests that it is hardest for women. Data from employment website Glassdoor indicate that under normal circumstances, men are slightly more likely to negotiate for a better salary when starting a new job, which is consistent with the findings of a meta-analysis that examined gender differences in initiating negotiations.

A 2015 study by Monash University’s Andreas Leibbrandt and University of Chicago’s John A. List further suggests that our *Business Practice* scenario could be especially challenging for women. The researchers manipulated a job advertisement, with one version of the

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**Respondents who were ready to negotiate rated higher**
Evaluators gave better marks to respondents who wanted to negotiate the terms of the promotion offer immediately, and to those who laid out conditions for accepting.

**Distribution of ratings for all responses**

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**Respondents who indicated that they wanted to negotiate:**
- Immediately
- Later
- Neither

**Share of all responses**

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**Average rating for those responses**

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**Respondents who:**
- Accepted the promotion and salary, but with conditions
- Accepted unconditionally
- Declined

**Average rating for those responses**

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Wu, 2021
ad indicating the salary was “negotiable” and another merely stating the salary and leaving the possibility of negotiating ambiguous. While there was no gender difference in negotiating when doing so was explicitly invited, women were considerably less likely than men to negotiate for more money when it wasn’t. That finding may be particularly salient here, where negotiation is effectively discouraged by the manager.

Ratings
The 94 responses we received, which ranged in length from 2 to 518 words, were rated on average about 11 times each on a 1 (“Strongly disapprove”) to 7 (“Strongly approve”) scale. A histogram of all ratings is shown on the previous page.

As has been the case with past Business Practice scenarios, the average rating, 4, was pretty modest, which I interpret as a reflection of the scenario’s difficulty. Of the 65 responses that had five or more ratings, 69 percent came from men, but answers from women were rated considerably higher (4.47 average versus 3.98 for men).

Sample responses
To give you a sense of the range of ratings, below are a few responses spanning the range from unfavorably rated (10 percent in the distribution, meaning that 90 percent of responses were rated better), to average (50 percent in the distribution), to favorably rated (90 percent in the distribution). All of these responses had 5 or more ratings.

10 percent response
Answer: “I am not able to accept this promotion without a raise.”
Average rating: 2.36

50 percent response
Answer: “Take on the new title and promotion despite the lack of a pay increase. Opportunity and experience are more valuable than the higher salary. Later, as business conditions improve, if you continue to be underpaid relative to the value you create, have that conversation with your manager— or leave for a job that compensates you appropriately.”
Average rating: 4.38

90 percent response
Answer: “Hi [Boss’s name],
First, thank you for the promotion and the vote of confidence in my abilities as a manager. I’m confident I will continue to perform well as I take on these new responsibilities.
“I fully understand that the budget is tight at the moment, but I also believe that I will create more value for the firm in my new role, and deserve to be compensated accordingly. While it is fair to push back a raise at this time given the state of the market and the company, I would like to have an agreement in writing to raise my salary [x percent], in line with the typical progression for promotion to my new role, by six months from now. At that point, I will have fully grown into the new role, and the company is likely to be in better financial position as the economy continues to rebound.
“Please let me know if this is possible. I am happy to discuss further and explore alternate arrangements if necessary.
“Best,
[Employee’s name]”
Average rating: 4.77

Ratings analysis
To examine more systematically which elements lead to more favorable evaluations, I coded the responses on various dimensions. First, I examined the effect of turning down the promotion, an option explored by a small minority of respondents. The 7 percent of responses that declined the promotion were evaluated quite negatively (2.61) relative to other responses (4.23).

Next, I examined the responses in terms of whether respondents intended to negotiate immediately (26 percent) or later (4 percent) or not at all (70 percent). Responses that called for immediate negotiations were rated more favorably (4.51) than intentions to negotiate in the future (4.18) or not at all (3.96).

Sixty-three percent of responses accepted the salary, with 50 percent of the responses conditional (e.g., “I understand the budget constraints and am willing to be a team player. Can we please discuss what the raise would be and when it would be effective?”) and 13 percent of the responses unconditional (e.g., “Thank you!” or “Hmmm OK. I appreciate the new title and responsibility and recognition that comes with it, but I’m disappointed that it doesn’t come with a commensurate salary increase. Thanks for the promotion and I’ll certainly take it, but I’d be lying if I say I’m not disappointed.”). The remaining 37 percent of responses never accepted the salary or the promotion. Conditional acceptances were viewed most positively (4.43), followed by nonacceptances (3.99), and finally unconditional acceptances (3.21).
Finally, responses varied in whether they attempted to leverage the new title as a résumé booster that could be used in the search for other opportunities. (E.g., “Gladly take the position. Start looking for opportunities elsewhere within a year to capitalize on your new, stronger résumé.”) The 22 percent of responses that highlighted external options were rated more favorably (4.37) than responses that focused more internally (4.03).

Top-rated responses
Now for the top three responses! I’ve listed names and backgrounds when I’ve gotten permission to do so.

3 Response: “I would attempt to negotiate for a raise. If they didn’t budge, I would take the promotion and new title . . . and then begin looking for a lateral role at a new company where I could get my raise. Unless this was a small company with ownership that had a proven track record of taking care of employees, I’d have little faith that my patience would get rewarded.”
Average rating: 5
Participant: Leslie DeChurch
Background: Education

2 Response: “Thank you! I am very excited about the promotion and the recognition of my work over the past few years. I look forward to taking on this new team and continuing to produce strong results with my teams toward our goals. Obviously, I understand and can appreciate the financial uncertainty of the current environment. I also know that salary increases generally are most significant during promotion years, so I am concerned about what this could mean in terms of my compensation trajectory at this company. While I appreciate the reassurance of being rewarded once conditions turn around, given that I will be taking on new work immediately, I think it is appropriate for some measure of salary increase now. While salary increases across the board have been frozen, consideration should be given in cases of promotion and where additional responsibility is being taken on by managers. I believe this is important not just for me personally, but for us as a company in order for us to remain market competitive.”
Average rating: 5.50
Participant: Nena Bajaj
Background: Education

It’s possible to acknowledge the company’s difficult position but still hope to extract concrete promises about the timing and magnitude of a future raise.

The Basics of Business Practice

Business Practice is a quarterly tool created in cooperation between Chicago Booth Review and the Harry L. Davis Center for Leadership at Chicago Booth. Its purpose is to allow readers to rehearse their responses to challenging professional situations, and to get crowdsourced feedback on those responses from other readers. For each installment of Business Practice, we:

- Describe a workplace scenario that includes a strategic or interpersonal conundrum
- Invite readers to script a response to the scenario
- Allow respondents to rate each other’s answers on a scale of 1 (“Strongly disapprove”) to 7 (“Strongly approve”)

Response: “Thank you. I appreciate your support, and all of the support my team members, peers, and colleagues have extended over these years. I appreciate the current challenges, and that the organization will ‘make it up to me down the road.’ However, I think it’s reasonable to define what that means in terms of timing and compensation. Given my direct impact on the organization’s performance, and growing potential impact, I think it is worth considering increasing my compensation by X percent before the end of the fiscal year in June (or the end of the first quarter at the end of March, etc.). Is that reasonable?”
Average rating: 5.60
Participant: Robert Mattaliano
Background: Education

Strategic takeaways
- Clearly this is a frustrating situation to be in, and losing out on a raise at this pivotal moment could have significant consequences for both short- and long-term earnings. Still, the ratings for this scenario suggest that declining the promotion is not a very good option. It risks coming across as selfish, or even petulant, at a time when the company is struggling. But worse, it takes all your other options off the table. If you accept the promotion, you can choose to negotiate for a raise or simply hope the company will keep its word to make it up to you. Without the promotion, there is no raise.
- Although your boss attempts to shut the door on salary talk, a significant minority of respondents nonetheless felt comfortable with some measure of negotiation, and their higher average ratings suggest many people find that approach reasonable.
- As our top response shows, it’s possible to acknowledge the company’s difficult position but still hope to extract concrete promises about the timing and magnitude of a future raise.
- Don’t forget that a promotion isn’t valuable solely for the raise that (usually) accompanies it. Your new position will enhance your value on the job market, so as you evaluate this offer, consider how it will affect your future opportunities. —CBR

Go to Review.ChicagoBooth.edu to see citations for research mentioned in this article.
Why Jeff Bezos should donate $100 billion to the humanities
A true legacy project would be to create an American Athens

Not long before the shroud of COVID-19 was drawn over our social calendars, I attended an annual conference that fancies itself an “ideas festival.” Like other events with similar pretensions, its organizational sensibility is inspired by the incompatible (and grammatically infelicitous) intuition, “It’s not what you know, but who.”

During a lunchtime event, I was part of a group of people who were to take turns offering an “Immodest Proposal.” The charge recalls the title of Jonathan Swift’s satirical pamphlet, A Modest Proposal, in which he suggests that the plight of the poor in 18th-century Ireland might be remedied by selling their children for food. (“A young healthy child well nursed, is, at a year old, a most delicious nourishing and wholesome food, whether stewed, roasted, baked, or boiled.”) The invitation to fine dining was ostensibly aimed at a selection of Swift’s readers, the members of the commercial and aristocratic elite who supported legislative schemes reflecting a callous disregard for the poor in general and a contempt for the Irish in particular.

While the organizers decided to forgo the ironic surprise of Swift’s essay by affirmatively announcing that our proposals would be “immodest,” I decided that I would pay tribute to the author’s mischievous spirit. As each of us were only allotted a few minutes for our proposals, I remember mine fairly well. “Jeff Bezos is now estimated to be worth more than $100 billion,” I began.

He recently said of his wealth, “The only way that I can see to deploy this much financial resource is by converting my Amazon winnings into space travel.” You may notice that “only” is doing a lot of work in that sentence. I can think of other ways Mr. Bezos might deploy his fortune, and I want to commend one to him. Rather than spend his $100 billion trying to establish the first Amazon warehouse on Mars, I think Mr. Bezos should spend it on the humanities. All of it. Every last penny.

I realize this is not a fashionable suggestion. In the past few decades, as our work lives have increasingly fallen under the sway of a cold, calculating logic and our free time overwhelmed by technological diversion, the luster of the humanities has comparatively dimmed. Now, of course I too enjoy many of the small miracles of our modern, mechanized world—I like microwavable popcorn as much as the next guy, in addition to movies on demand—but a market economy affords these things quite efficiently. What it doesn’t afford, or at least what it doesn’t particularly encourage, are the inquiries and careers that aren’t principally remunerative. You do not study Stoic philosophy or ancient Sanskrit—or take up contrabassoon, jazz choreography, or cabinetry—because it will make you rich. None of these pursuits will, but then again, that’s not the point. The point of such undertakings is not to fill one’s pockets but to explore some custom or complexity of the collective human experience, the very things that distinguish us as a species. If the aliens Mr. Bezos hopes to encounter should some day visit our planet, the revelation for them won’t be linear.
algebra or the chemical equation for water. It will be the splendid evidence of another intelligent being: the nocturnes of Chopin, Michelangelo’s David, the riddles of the Gita.

Sotheby’s might like us to think otherwise, but money is not a measure of artistic achievement. It can, however, create a generous space for such inquiries. So if Mr. Bezos should like to establish some legacy by his fortune, I think he should invest in the institutions, the projects, and above all the people who devote their lives to the humanities.

Finally—and this may be the element of my proposal that is most provocative—I think Mr. Bezos should not spread his largesse the world over. Instead, I think he should invest in the institutions, all $100 billion of it, in a single metropolitan area. Doing so would transform one city into an American Athens and a hub for the humanities. It would also represent a remarkable experiment in what it would mean for a large community of people in a capitalist society to pursue the creative arts and humanistic inquiry, liberated in large part from the distractions of the marketplace.

Now I would like to explain why Chicago is an obvious site for this enterprise, but in addition to my time having expired, I’d risk careening from strong prejudice to outright bigotry. So I will conclude by simply saying that it only seems fitting that a man who built an empire on books endow a second Renaissance. If anyone in this room agrees with me and happens to know Mr. Bezos, you can find me after lunch. I would be delighted for the chance to persuade him.

It probably won’t come as a surprise to hear that no one in the ballroom was inspired to pass along the phone number to hear that no one in the ballroom was inspired to pass along the phone number to hear that no one in the ballroom was inspired to pass along the phone number to hear that no one in the ballroom was inspired to pass along the phone number. Instead, I received polite applause and a reaction shared, by more than a few readers: this proposal isn’t immodest so shared, I suspect, by more than a few.

For those who feel this way, it is worth considering the source of the absurdity. Is it the sheer nerve of telling Jeff Bezos what he should do with his money? Is it that, much like space travel, the proposed outlay seems morally inferior, even frivolous? Or is it simply that no single person, however enlightened, should ever wield such power in a democratic society?

Meet the new boss
We sometimes forget that among the cultural consequences of the rise of capitalism, perhaps the most durable and conspicuous has been the elevation of a new class of individuals with extraordinary power: the commercial elite.

No one was more ambivalent about this development than Adam Smith, who memorably described “the disposition to admire, and almost to worship, the rich and powerful” as being “the great and most universal cause of the corruption of our moral sentiments.” Wealth has an overpowering effect on us, Smith knew. It doesn’t merely warp our opinions and make us especially liable to excuse bad behavior. In preposterously large sums, money has an almost occult power, capable of inverting our assessments and turning our moral sensibilities inside out.

“This much of this will make black white, foul fair, / Wrong right, base noble, old young, coward valiant,” Timon of Athens says of gold in the eponymous play by William Shakespeare. Smith was surely familiar with the work, whose publication nearly a century before he was born underscores the fact that the problem of protuberant wealth long predates any problems of capitalism. Smith also knew, however, that the economic insights of his own work would only exacerbate this problem by accelerating the rise of a new commercial class, a group of elites who would come to power by virtue of their money, in contrast with members of the aristocracy, who came to money by virtue of their power.

What Smith didn’t fully anticipate was that the rise of this new class of capitalists would help to dissolve the peerage or at least make them as a rival power in society so irrelevant as to seem slightly ridiculous. This was Karl Marx’s insight in The Communist Manifesto 50 years after Smith’s death. “All fixed, fast-frozen relations” of feudal society “with their train of ancient and venerable prejudices and opinions, are swept away” by capitalist advancement, Marx wrote. The bourgeoisie, “wherever it has got the upper hand, has put an end to all feudal, patriarchal, idyllic relations” and “pitilessly torn asunder the motley feudal ties that bound man to his ‘natural superiors.’”

Whatever you make of such displacement, Marx’s point was seriously disputed by almost no one. History was leaving the relevance of lords and ladies in the rearview mirror. As a factual matter they mostly remained, but increasingly they were regarded as the rusty remains of a bygone era rather than potent actors of the present day.

This was especially true in the United States, a nation not only unburdened by any feudal figures but whose self-conception embraced the disinheritance of such a legacy by force of arms. “The most democratic of them all,” as the economist Thorstein Veblen dubbed the American republic, a land where, unlike Europe, a commercial elite might rise unimpeded. “So the captain of industry came into the place of first consequence and took up the responsibilities of exemplar, philosopher and friend at large to civilized mankind,”
Veblen declared, surveying the cultural consequences of industrialization in 19th-century America. “The larger the proportion of the community’s wealth and income which he has taken over, the larger the deference and imputation of merit imputed to him.”

**High-class consciousness**

For the most part, Veblen was contemptuous of such developments. (“There is no branch or department of the humanities,” he said, “in which the substantial absentee owner is not competent to act as guide, philosopher and friend, whether in his own conceit or in the estimation of his underlying population.”) But at least one substantial absentee owner issued a call to his fellow captains of industry to embrace the grandest sense of civic responsibility.

That man was Andrew Carnegie, who published “The Gospel of Wealth” nearly 50 years after the appearance of The Communist Manifesto. The essay shared with Marx’s polemic the aim of raising class consciousness, except, in the steel magnate’s case, it wasn’t the proletarians he concerned himself with but the men who owned their factories.

After providing “moderately for the legitimate wants” of his family, Carnegie contended, “the duty of the man of Wealth” is “to consider all surplus revenues which come to him simply as trust funds, which he is called upon to administer” to “produce the most beneficial results for the community.” The rich man, in other words, is called upon to act as “the mere agent and trustee for his poorer brethren, bringing to their service his superior wisdom, experience and ability to administer, doing for them better than they would or could do for themselves.”

In Carnegie’s view, such an approach to wealth served to distinguish the self-made American man from the blue bloods he left behind in Europe. “In monarchical countries,” he wrote, “the estates and the greatest portion of the wealth are left to the first son, that the vanity of the parent may be gratified by the thought that his name and title are to descend to succeeding generations unimpaired.” Such legacies, Carnegie held, were not only disadvantageous to those who inherited them (“generally speaking, it is not well for the children that they should be so burdened”), but they were also at odds with what he saw as the meritocratic spirit of American society.

That spirit had welcomed Carnegie in his adolescence as a penniless immigrant from Scotland and provided him the tools and opportunities to become, for a time, the wealthiest man on the planet. “The best means of benefiting the community is to place within its reach the ladders upon which the aspiring can rise,” he maintained, a mandate that included investing in “public institutions of various kinds,” such as research hospitals, museums, and universities.

In word and deed, Andrew Carnegie lived by the courage of his charitable convictions, giving away during his lifetime nearly his entire fortune, more than $350 million. Among his many philanthropic investments—Carnegie Mellon University, Carnegie Hall, the Peace Palace at The Hague—the most astonishing was his commitment to public libraries. He endowed 2,509 of them abroad and 1,689 in his adopted home, a number representing nearly half of America’s public libraries at the time of his death in 1919.

More important than any of these gifts, however, Carnegie’s life and writing formed something of a philanthropic template. Though it was less successful in convincing the super wealthy to stiff their descendants and forgo establishing aristocracy by another name, “The Gospel of Wealth” broadened their dynastic ambitions to include philanthropic benefactions that have transformed the modern world and especially the US.

Such gifts are generally met with the same acclaim Carnegie once enjoyed, and understandably so. Exceptionally wealthy individuals so often squander their money on trinkets and baubles whose consumption serves no greater purpose than personal aggrandizement that the choice to give back is refreshing and welcome. No one but a surly misanthrope seriously doubts that enduring a cancer wing at a hospital is money better spent than buying a private jet or, in Jeff Bezos’s case, a tandem of yachts, one to trail the other, but that doesn’t resolve the separate question of whether the democratic spirit can be squared with any great dependency on philanthropic largesse.

In the West, the rise of democracy coincided with the rise of capitalism, and, in many ways, these developments have been mutually conducive, especially in respect to formalizing a substantial property-rights regime and the growth of a middle class. And yet the power of extremely wealthy individuals to shape society has always been a source of tension between them. Take the US, where the philanthropic activities of individuals such as Sheldon Adelson, Michael Bloomberg, the Koch brothers, Rebekah Mercer, and George Soros have included social, educational, and political initiatives whose primary aim is to enshrine a particular vision of a just society. Such individuals have used the power of their incredible fortunes to change our world, and whatever we make of their individual aims—which taken as a whole are mercifully incoherent—the fact remains that as a civic and social matter most of us are like fans sitting in the stands watching some match that affects our fate without having any real opportunity to participate beyond rooting for a winner.

I am one such fan, and given my life choices, I can’t imagine there will ever be room for me on the playing field, so I can only scream my suggestions at the top of my lungs or share them at fancy luncheons. Jeff Bezos has yet to respond to my proposal, but there is hope. His ex-wife, MacKenzie Scott, is apparently worth $60 billion, and given that she is also a novelist, she may be more receptive to my vision for a second Renaissance centered in Chicago. (Her first blush with philanthropic giving includes substantial gifts to the arts, which makes me think I might be in luck.) As such, I am putting the word out with this essay and will wait by my phone to see if she calls. In the meantime, I will see if I can resolve the conundrum that makes my own proposal most immodest: whether the democratic spirit can long abide any single individual having such astonishing power to publicly enact a private vision. —CBR

John Paul Rollert is adjunct assistant professor of behavioral science at Chicago Booth.
In a new report, researchers at Chicago Booth’s Rustandy Center for Social Sector Innovation examined companies’ corporate social responsibility (CSR) statements, providing a detailed look at 69 of the most commonly disclosed metrics across S&P 500 firms. To read the results, visit bit.ly/CSR Metrics. If you’re interested in research insights such as these, sign up to get the latest from the Rustandy Center, Booth’s hub for social impact.
WHAT ARE THE BIGGEST BARRIERS TO BEHAVIOR CHANGE?

Chicago Booth’s Ayelet Fishbach and Wharton’s Katy Milkman discuss how to find motivation and focus on achieving goals

Ayelet Fishbach
Jeffrey Breakenridge Keller Professor of Behavioral Science and Marketing and IBM Corporation Faculty Scholar at Chicago Booth

Katy Milkman
James G. Dinan Endowed Professor of Operations, Information and Decisions at the Wharton School

For people who are feeling overwhelmed, how should they get started on achieving a big goal?

Fishbach: In my book Get It Done, I suggest a framework that has four steps. First, what is it that you want to achieve? Where do you want to get? What’s the goal? And there are some techniques we can use to set goals that actually work. Next, have a plan: How are you going to get from here to there? How are you going to monitor your progress? How are you going to learn from feedback? Then think about everything else that is going on in your life. How are you going to pursue this goal given all the other goals that you want to achieve simultaneously? What supports it, what conflicts with it? The fourth component is social support. Who in your life is going to help you achieve this goal?

Milkman: Look for a moment that might feel like a fresh start. I’ve done a lot of research on the idea that there are some moments in our lives that stand out from others, that feel like new beginnings. They can be as small as the start of a new week, or more momentous, such as the celebration of a major birthday or the start of a new year. Those moments give us a sense that we have closed one chapter and can open another. They can help us take that deep breath we need when we’re feeling overwhelmed.

What if picking a future “fresh start” date just becomes another way to delay?

Milkman: Procrastination is a huge barrier to overcome in order to achieve your goals. One of the most useful tactics for overcoming procrastination is setting firm commitments and using a commitment device, a tool where you treat yourself the way a government or a manager would treat you. Give yourself deadlines, maybe with penalties associated with them for failing to achieve a goal. The firmer your commitment, the harder it is to back down and procrastinate.

As behavioral scientists, how do you approach the issue of motivation and behavior change?

Fishbach: Katy and I are like two painters who both tried to capture a scene and...
came up with quite different paintings. I have spent many years researching motivation—how do people motivate themselves? Where do they start? What happens next? I was trying to organize everything I know in a framework of phases or stages that makes sense for me and that is useful.

**Milkman:** The premise at the heart of my book, *How to Change*, is that it’s important to match the solution you’re using to try to achieve change to whatever the obstacle is that’s standing in your way. That means a lot of tailoring. It’s complementary to Ayelet’s staged approach, because what your current barrier is may be a function of where you are in the process. I break it down into a series of particularly common obstacles, such as impulsivity, inertia, and lack of confidence.

**How do we identify what’s stopping us from reaching our goals?**

**Fishbach:** Lots of self-reflection. Do you have social support? Do you have conflicting goals? Are you being too vague in how exactly you’re going to pursue your goals? Then you can make a plan that takes all that into account. For example, if you don’t have people who support your goal, you have to find some. It’s extremely hard to do anything by yourself without social support. And when it comes to the plan, experiment. Try out things. Be willing to fail.

**How do we go beyond simple behavioral changes that might not lead to permanent, deep change?**

**Milkman:** One of the biggest problems, according to the research we’ve done, is that the fresh-start effect doesn’t take you far. It gets you motivated to begin, but ultimately most people fail to achieve their goals. For example, most New Year’s resolutions fail fairly quickly. That’s why we need so much more scaffolding. If you take away whatever the tools and tactics are that are supporting change, most of the behavior extinguishes. I don’t think there is a silver bullet, a month of programming you could go through that will carry you forward forever. Instead, we need to build structures, plans, social support, networks, and feedback mechanisms that stay with us, so that we don’t treat change as a short-term problem, but rather something we need to consistently, as opposed to temporarily, work at, in order to enact a change that will then last.

**Fishbach:** Most people intuitively understand that there is no one thing that you can do to have a great relationship—you have to come up with new things every now and then. But people sometimes make the mistake of thinking that for other goals, such as healthy eating or exercising, there is just one thing that they can do and that will take them through the next 10 years, and it just doesn’t work like that.

**Should we behave differently at the beginning of trying to achieve a goal than in the middle?**

**Fishbach:** One thing we look at in our research is how people monitor their goals. For novices, it’s good to look backward at how much you’ve done. If you feel you are more of an expert, look at what’s missing. It’s similar with feedback. It’s hard to learn from negative feedback, and much easier to learn from positive feedback, but there is really good information in negative feedback, so we should be paying attention. When we are new to something, it’s even harder to learn from negative feedback. That’s why we give novices positive feedback. It’s the same for ourselves when we start on something. We should really focus on getting positive feedback. Encourage yourself with the successes, and later on open up to hear how you can still improve.

**Is one reason we struggle to achieve personal goals that they’re based on unrealistic expectations?**

**Fishbach:** A bit of optimism is actually pretty good. One of my goals is to exercise daily. I don’t quite reach it on most weeks, but that’s fine. It’s better to set goals that are a bit more optimistic than what is feasible than goals that are not optimistic.

“**It’s better to set goals that are a bit more optimistic than what is feasible than goals that are not optimistic.”**

— AYELET FISHBACH
Then if you reach 80 percent of that ambitious goal, that’s fine. We only set these targets to motivate ourselves, so we should not be too tied to them.

**Milkman:** The research is clear that we want to be setting the bar high for ourselves. The real challenge is that we aren’t going to reach the bar quite, and how do we deal with that? There’s the “what the hell” effect—you completely give up on your goals when you don’t quite hit them. My UPenn colleague Marissa Sharif came up with a clever solution: she labels and allocates herself two emergency reserves whenever she has a goal of doing something seven days a week. That turns out to be effective. Her research demonstrates that giving people emergency reserves rather than a range of goals or lower-tier goals is more motivating—even though it amounts to the same thing—because we don’t want to use them unless it’s truly an emergency, and it helps us recover if we do lapse to still feel that we’re on track.

**If you don’t feel intrinsically motivated to do something, can you develop that motivation?**

**Fishbach:** Intrinsic motivation is when you do something as its own end. You do it because you want to do it. We have both studied strategies to increase intrinsic motivation. We find that it’s helpful to focus on what you like about what you do, and on the immediate rewards you get from doing it. Often the trick is to find a way to do the same thing such that it feels more pleasant—eating the healthy foods that you enjoy, or finding the workout that you like doing.

**Milkman:** If the experience of goal pursuit isn’t enjoyable in the moment, we will quit. So we need to find a fun way to pursue our goals. I write about temptation bundling, or the Mary Poppins effect, relating to the insight that a spoonful of sugar makes the medicine go down. I realized if I could make a chore more pleasant by linking it with something I enjoyed, I would get the chore done more often. As a graduate student, I only let myself indulge in binge-watching TV or reading tempting novels while I was exercising at the gym. And suddenly, I found myself craving trips to the gym to get my entertainment fix in. The time would fly by while I was there, and I’d come home motivated and ready to do my work because there were no distractions—I had already gotten to do the thing that would normally be the temptation pulling me away. You might only let yourself listen to your favorite podcasts while you’re doing household chores, or only open your favorite bottle of wine while making a home-cooked meal, or only pick up a snack you most crave or the coffee you love when heading to hit the books at the library. It’s really important to try to engineer solutions that make it enjoyable to do whatever normally feels like a chore.

> “It’s really important to try to engineer solutions that make it enjoyable to do whatever normally feels like a chore.”
> —Katy Milkman

**How can advising or mentoring other people help motivate you?**

**Fishbach:** It turns out that when you give advice, you believe yourself more than anybody else will believe you. You are persuaded by your own advice. We have both done research that looks at this advising effect. We find that even people who feel that they don’t know something tend to be motivated by being asked to give advice. For example, we asked unemployed job seekers to give advice on how to get a job, and they found their own advice much more motivating for them than expert advice.

**Milkman:** Sometimes when someone is struggling, you can help them most by putting them in the position of mentor. Alcoholics Anonymous, which encourages its members to find a sponsor when they join its program, knows this. The sponsor not only offers social support to members, but also benefits by being a mentor. I have an advice club for my professional life—a group of women who are at a similar stage in their careers and who share similar career goals. It has two values: first, friendship and free consulting from brilliant people; and second, by giving advice to colleagues who are facing similar career goals, I’m preparing to face those myself. The advice I give influences my decisions and builds my confidence that I can figure out how to handle those challenges.

This a particularly useful tool when confidence is a barrier to change. When you’re asked for advice, it boosts your confidence, and research suggests that when people start introspecting, they find they do have that knowledge and those insights. They just might not be motivated enough to dredge them up unless they have to articulate them for someone else. There’s also the “saying is believing” effect—once you give advice to someone else, you’re more likely to believe it because it came out of your own mouth.
You don’t want to feel like a hypocrite and not take the advice.

**How can we scale up these techniques to motivate or change the behavior of teams and organizations?**

**Fishbach:** There are differences between motivating yourself and motivating others. Certain things, such as rewards, for example, work better for motivating others. But in general, the interventions are more similar than dissimilar. In a large organization, more work needs to be done because you have more people to reach. In a three-person startup, all three people are probably already intrinsically motivated and excited. It’s when you are in a group of 100 people that you see motivational deficits. You need more interventions, and you need to understand what different people need. We know that everybody needs to be intrinsically motivated, but what might be intrinsically motivating for you might be different than what is important for me. That makes things harder but even more important when the organization is larger.

**Milkman:** I want to mention the great work on social norms. Conveying that everyone else is doing X can be really informative and influential if you are trying to convince a few folks who aren’t toeing the line to change their behavior in that direction. For instance, telling hotel guests that most guests reuse their towels during their stay increases the likelihood they’ll reuse their towels too. There’s new research that suggests that you don’t even need to show that most people are doing something; even showing an increasing trend, an increasing social norm can propel people to change their behavior. In a large organization, peer pressure can be a powerful and useful tool, although of course it has to be used responsibly.

**What happens when goals appear to conflict, such as “mommy guilt” when working from home?**

**Fishbach:** People can see their goals as either conflicting with or complementing each other. I personally think that the best way to deal with guilt is to remind yourself that finding the right balance between your parenting goals, your professional goals, your social goals, your traveling goals, etc. makes you a better parent. These goals tend to complement each other. I am a better employee because I have a life outside of work, because I have perspective. I’m a better parent because I was able to raise my children to believe that a parent, and in particular a mom, can have a career and family—and hobbies, and a bunch of other things. My personal advice is to think about this more as complementary goals.

**Milkman:** One tactic that might help is a commitment device. It’s a little funny to think about imposing rules on ourselves, but structures that create boundaries can be really useful when you anticipate goal conflict or temptations getting in the way of doing something. When you’re in the heat of the moment, it’s harder to resist. I went on a short vacation with my spouse recently. I wanted to have my phone because my child wasn’t with us, but I moved my email off of it during that trip so I wouldn’t be tempted to look. You can be strategic about what you have access to when you know a temptation could be a problem.

Two other ideas: first, research suggests that commutes are useful because they’re a ritual that helps us transition from one stage to another. If you’re not commuting, you may want to insert other rituals into life to help make those transitions. Pacing around your office a few times or listening to some music to transition from one stage to another can be helpful in shutting down one part of life and going on to the other. Second, research demonstrates that if we think of the weekend like a vacation, that can help us do fun things and get more recharged during the time away, which we know is great for so many reasons.

**What advice do you give others that you find hard to take yourself?**

**Milkman:** Most of us underappreciate the importance of memory to achieving our goals. We often just forget to do things we intend to do. We undervalue having reminders and structure to make sure that we won’t slip up. I’m guilty of this. [It’s why] I’ve created more and more structure around recognizing that I can’t live without my calendar. If I’m not reminded to do something, it won’t get done.

**Fishbach:** Learn from failure and negative feedback. I know there is a ton of good information there, but every time a paper gets rejected, I just push it away, and take way too much time to recover and actually learn from the feedback. —CBR

“We know that everybody needs to be intrinsically motivated, but what might be intrinsically motivating for you might be different than what is important for me.”

— AYELET FISHBACH
WOULD A GLOBAL MINIMUM CORPORATE TAX RATE WORK?

Leaders of the advanced economies that make up the Group of Seven in June announced what they described as a “historic commitment” on the taxation of multinational corporations. US president Joe Biden and his counterparts in Canada, France, Germany, Italy, Japan, and the United Kingdom publicly endorsed a global minimum corporate tax rate of at least 15 percent, billed as a step toward ending the “race to the bottom” that occurs when companies strategically relocate in order to pay the lowest rates. But will the plan work? Chicago Booth’s Initiative on Global Markets asked members of its US and European Economic Experts Panels to express their views on some of the issues surrounding the global deal on corporate taxes, including whether it’s possible to achieve a stable international tax system with one minimum corporate rate. Seventy-five experts, split about evenly between the two panels, weighed in on statements regarding the feasibility and likely efficacy of a global minimum corporate tax rate.

About the IGM Economic Experts Panels
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 and Europe. The panel includes Nobel laureates and John Bates Clark medalists, among others. Polls 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.
Statement A: A global minimum corporate tax rate would limit the benefits to companies of shifting profits to low-tax jurisdictions without biasing where they invest.

Pol Antràs, Harvard
“It will certainly bias where they invest, but it still seems like a splendid policy. We live in a second-best world!”
Response: Disagree

Caroline Hoxby, Stanford
“Such a proposal is pleasant to consider but is unrealistic in practice. Pie in the sky.”
Response: No opinion

Jan Pieter Krahnen, Goethe University Frankfurt
“This is exactly the argument of the proponents—and I think it is correct as a first-order effect.”
Response: Agree

Antoinette Schoar, MIT
“The big if here is whether it will be possible to achieve uniform enforcement.”
Response: Strongly agree

Statement B: An international tax system in which the major advanced economies set a minimum rate on corporate income is achievable.

Franklin Allen, Imperial College London
“It may be achievable, but if there are countries outside of the agreement that can become tax havens, it may not work very well.”
Response: Agree

Steve Kaplan, Chicago Booth
“I suspect it would be very hard to get all relevant countries to agree/implement.”
Response: Disagree

Daniel Sturm, London School of Economics
“This is less a question about economics than political will or skill. Cooperation is the obvious best outcome for governments in this area.”
Response: Agree

Note: Percentages are weighted by confidence ratings that panelists assigned to their own responses. Charts do not include panelists who reported “no opinion” or did not respond to the poll.
A measure of executive teams’ political partisanship

When a US company’s highest-ranking executives come together for a meeting, what are the chances that any two executives in the room are both Democrats? Or both Republicans? That probability—a measure of partisanship—went up among top executives of US companies between 2008 and 2018, according to research by Boston College’s Vyacheslav Fos, Chicago Booth’s Elisabeth Kempf, and Cornell’s Margarita Tsoutsoura. Increasing partisanship has been largely driven by executives’ growing tendency to join companies that share their political ideology, the research finds, which can affect high-stakes corporate decisions. For example, compared with executive teams dominated by Democrats, Republican-led teams were more likely to increase capital spending when the presidency changed parties in 2016. To learn more about this research, turn to page 23.

\[
\text{Partisan}_{ft} = \text{Share Dem}_{ft}^2 + \text{Share Rep}_{ft}^2
\]

**Partisanship among top executives**

**Probability that two randomly selected executives are Democrats**

**Probability that two randomly selected executives are Republicans**

NOVEMBER 2016

Trump wins! Let's increase capital spending.

Yay, the economy is gonna take off.

Oh no, Trump won! Boo! The economy is gonna tank!

Let's sell our company stock.
See you soon

As the public-health situation evolves, Chicago Booth and the University of Chicago continue to sponsor many opportunities for inquiry and for participants to gain insights. Some events below will be held in person, and others will be held virtually. More information can be found at the sites listed.

**SEPTEMBER 20–24**
**EXECUTIVE FINANCE PROGRAM**
ChicagoBooth.edu/EFP
Deepen your skills and gain an understanding of current trends in capital markets and corporate finance to increase value and improve performance in your organization.

**SEPTEMBER 23**
**WORLDWIDE BOOTH NIGHT**
ChicagoBooth.edu/wbn
Continue the annual tradition of gathering with Booth alumni and students to celebrate a common connection and show Booth pride. Stay tuned for information on the virtual event and share your excitement using #BoothNight.

**OCTOBER 18–22**
**PRIVATE WEALTH MANAGEMENT**
ChicagoBooth.edu/PWM
Through an energizing mix of rigorous academic insight and practical experience, this program teaches wealth owners a comprehensive, integrated, and strategic approach to wealth management.

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