
WE ARE BEING TESTED.
AND WE WILL TEST BACK.
This virus is testing us—and testing people on the front lines most of all. Abbott is getting new tests into their hands to deliver the critical results they need. And until this fight is over, we will never quit. Because they never quit.
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Bloomberg
Businessweek
June 8, 2020


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Every day, countless businesses and consumers rely on boxes to do the heavy lifting. That's because the engineering of corrugated boxes provides protective cushioning and rigidity to resist pressure from all directions. When what's inside matters, choose paper packaging. Learn more at howlifeunfolds.com/packaging.
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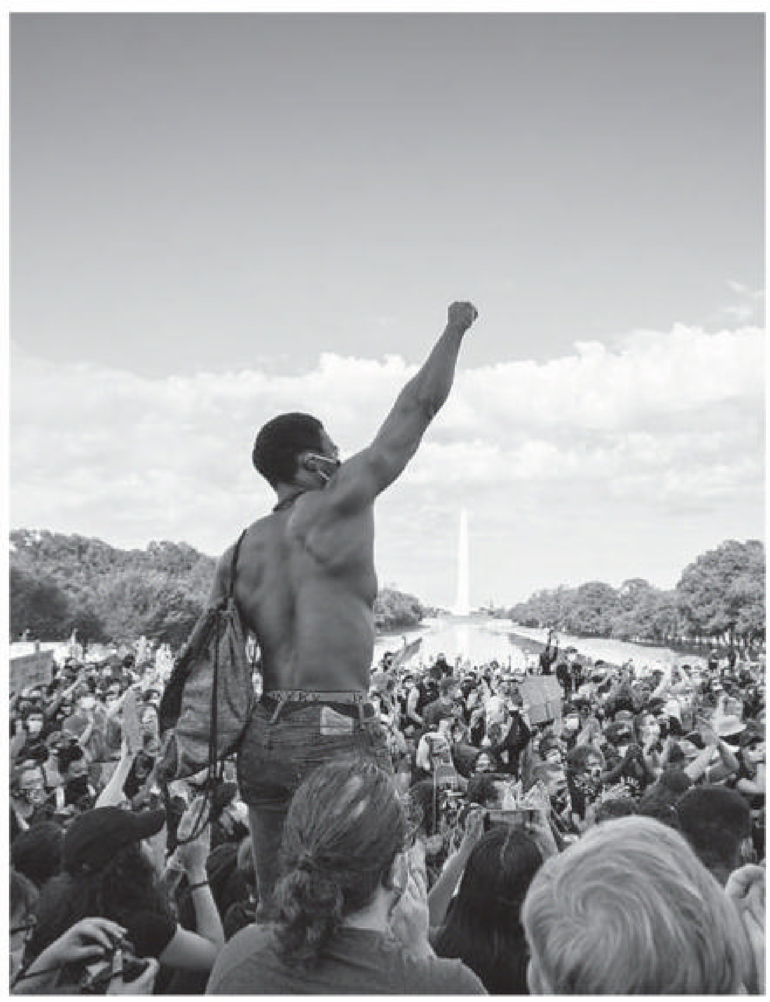
Bloomberg Businessweek
June 8, 2020



◀ People took to the streets in (clockwise from top right) Richmond, Washington, Seattle, and hundreds of other cities to protest the killing of George Floyd (pages 6, 34). His dying words were everywhere, including this graffiti in the nation's capital.

GRAFFITI: YOGI SHIELDS. RICHMOND: BRIAN PALMER. WASHINGTON: ANDRÉ CHUNG. SEATTLE: CHLOE COLLYER

FEATURES

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■ COVER TRAIL

How the cover gets made

"This week we're going to—"

"Respectfully, there's truly only one candidate for the cover right now: the protests."

"Glad you feel the same way, because that's what I was about to say. So what are we going to do?"

"Yesterday the photo editors asked more than 50 black photographers in 14 U.S. cities to document what they were witnessing, and one of them shot this."

"I think that image speaks for itself."

Cover: Photograph by Philip Keith

FAKE EGGS: PHOTOGRAPH BY HUGO YU FOR BLOOMBERG BUSINESSWEEK

IN BRIEF

By Benedikt Kammel

● China said it had tested

11m

people for the coronavirus in the space of two weeks. Authorities applied a batch testing method that enabled health workers to simultaneously assess as many as 10 samples.

● President Trump postponed the annual Group of Seven summit of world leaders to September.

He also suggested he might enlarge the gathering to include Australia, India, Russia, and South Korea, calling the current arrangement "very outdated." The U.K. and Canada indicated they'd block any attempt to readmit Russia, which was ejected from the group of advanced economies after it annexed Crimea.

● "The option to use active-duty forces in a law enforcement role should only be used as a matter of last resort."

Defense Secretary Mark Esper, disagreeing with President Trump's suggestion to deploy troops to confront protesters in U.S. cities. ▷ 34

● Pilgrim's Pride CEO Jayson Penn was charged with conspiring to fix prices by U.S. prosecutors as part of an antitrust investigation into chicken-processing companies.

Pilgrim's

● French carmaker Renault announced

14,600

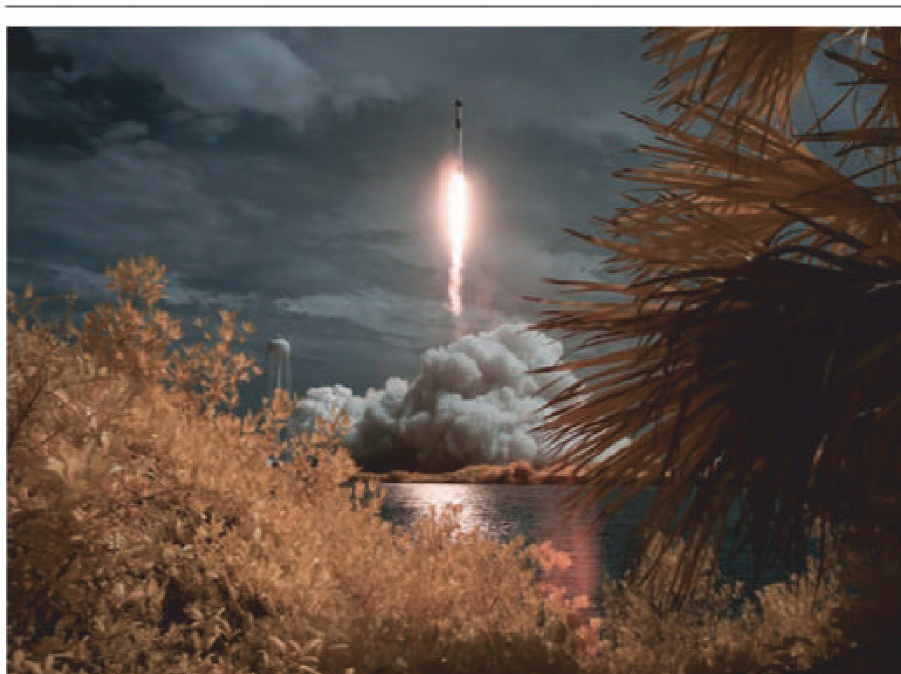
job cuts. It's the biggest reduction revealed so far in an industry plagued by imploding demand.

● Bulgarian-born conceptual artist Christo died at the age of 84. He and his life partner, Jeanne-Claude, who died in 2009, gained global fame with large-scale installations, from wrapping Berlin's Reichstag (above) to erecting orange-curtained gates throughout Central Park in New York. No cause of death was given.

● Zimbabwe's stock market more than doubled in May as investors searched for shelter from rampant inflation, which stood at

766%

in April. The Zimbabwe dollar has meanwhile lost as much as 68% of its value this year.



● In the first manned mission on a commercially developed spacecraft, a SpaceX Dragon—seen here launching on May 30 from Cape Canaveral—successfully carried two astronauts into orbit to dock with the International Space Station.

● JDE Peet's pulled off Europe's biggest IPO so far this year, raising

€2.3b

($2.6 billion). Investors are betting that the owner of Peet's Coffee is well-positioned to weather the pandemic and take on giants such as Starbucks. ▷ 10

● The U.S. Global Jets exchange-traded fund passed $1 billion in assets.

The ETF—which held just $33 million in early March—has seen 64 days of cash inflows. Much of the growth came from day traders looking to "catch the bottom" in airline stocks, says Frank Holmes, chief executive officer of U.S. Global Investors.

The U.S. Needs a Different China Policy

China's decision to impose new anti-subversion legislation on Hong Kong is a mistake—a blow to the city's autonomy that will undermine its economic success. And it's further proof, if any were required, that the U.S. needs a smarter, more effective strategy to deal with the People's Republic.

On May 29, President Trump promised targeted sanctions and trade restrictions in response to China's move and to a long list of existing grievances. Secretary of State Mike Pompeo had already declared Hong Kong no longer "sufficiently autonomous" under U.S. law to qualify for the special trade status it's enjoyed until now.

In deciding how to follow through, the administration should move carefully. It need not, and should not, plan to cancel all of Hong Kong's economic privileges, because that would hurt Hong Kongers without changing minds in Beijing. The U.S. also needs to apply short-term pressure in other ways—by leading international criticism of the Chinese initiative and working with U.S. businesses to highlight the potential economic consequences.

Mainland officials have reassured businesses that the new decree won't affect them, but critics are right to be concerned. There are doubts about whether Hong Kong's judicial independence can be sustained. The new rules will likely open the door to further interference, calling into question the freedoms that have helped Hong Kong prosper. This will help nobody—least of all China.

In less than 30 years, Hong Kong's "one country, two systems" guarantee expires. China has a legitimate interest in an orderly transition to what comes next but would be wise to heed global opinion on its actions. It need look no further than the Trump administration to see what a country loses when its government stops caring about how it's perceived.

Up to now, the White House's efforts to get tough on China have failed. Its tariffs have cost the U.S. billions of dollars without changing Beijing's approach. Telling allies to ditch Chinese technology hasn't worked. Mismanaged efforts to limit emerging-technology exports and root out Chinese spies in U.S. universities are undermining the innovation ecosystems they're meant to protect. The U.S. needs to be smarter—recognizing the issues but not exaggerating them, and marshaling the resources to address them at least cost.

For a start, the U.S. must rebuild its partnerships. If the U.S., Europe, and the democracies in Asia all spoke together, China would listen. Reuniting that alliance shouldn't be difficult, because China's recent propaganda efforts have fallen flat. Almost everywhere, the country's early management of the coronavirus outbreak has aroused protest. If the U.S. chose to revive cooperation rather than disdaining its friends and barking instructions, its efforts would be welcomed.

The U.S. should also reclaim its economic leadership by rebuilding its industrial strength. That means spending more on infrastructure, basic research on key technologies, and STEM education. It needs a liberal immigration policy that welcomes the world's best and brightest. It should champion new and better trade agreements—and then succeed in the global marketplace, not cower behind tariffs and other restrictions.

The U.S. must invest in advanced weapons systems to deter China and reassure its allies. But it shouldn't give up on cautious, productive cooperation with China on issues where their interests are aligned: on vaccines, debt relief for distressed economies, trade and travel, biosafety, and, above all, climate change. In these vital areas, limited cooperation is better than none. A new cold war would only make things worse. Ⓑ *For more commentary, go to bloomberg.com/opinion*

■ AGENDA

ILLUSTRATION BY JACK TAYLOR

► Picking Up the Pieces

The Federal Reserve meets on June 10 to set interest rates as the U.S. economy enters the worst recession since the Great Depression, with more than 40 million unemployed. Borrowing costs are already near zero.

► On June 9, EU trade ministers meet to consider a new head for the World Trade Organization. Spain's foreign minister, Arancha González, is seen as a favorite for the position.

► In a videoconference on June 9-10, EU finance ministers will discuss their joint approach to an economic recovery from the pandemic as lockdowns ease in member states.

► Pakistan unveils its annual budget on June 12. With Covid-19 cases spiking in the country, the focus will be on increased military spending and support for the economy.

► Billionaire money manager Jeffrey Gundlach speaks on June 9 on a webcast for his DoubleLine Total Return Bond Fund. Battered investors will be watching closely.

► By June 10, retired Judge John Gleeson must file his brief arguing that the government shouldn't have dismissed its criminal case against former national security adviser Michael Flynn.

► Goldman Sachs hosts its European Financials Conference on June 10-12 in Rome to weigh the challenges facing the region's banks and insurers.

▲ A protester in front of the White House, May 29, 2020

● Mainstream economics has many ideas about getting beyond racism. Which lessons apply in real life?

● By Peter Coy

The economics profession has had a hard time getting a fix on racial discrimination. Quite apart from its cruelty, it seems…illogical.

One of the first lessons in microeconomics is that workers are paid a sum equaling the marginal product of their labor—their value to the enterprise. Any employer who tried to pay them less would lose them to a competitor. Clearly that doesn't always happen in the real world. For more than half a century, some of the biggest names in economics have wrestled with why, including Nobel laureates Gary Becker, Edmund Phelps, Kenneth Arrow, Joseph Stiglitz, George Akerlof, and Michael Spence. All white men, by the way.

The question is urgent because racial discrimination is the fuel of the anger and discontent that have spilled onto the streets. The trigger was the asphyxiation death of George Floyd in Minneapolis under the knee of police officer Derek Chauvin, who's been fired and charged with third-degree murder. Can economists help us find a way out of the chaos?

In 1957, Becker published the first economic theory of racial discrimination, which until then had been the domain of sociologists and lawyers. He likened it to an employer's taste, like the preference for a certain food or beverage, except with evil consequences. "Becker's economic model reduced a charged social issue to an economic fundamental, supply and demand," his University of Chicago colleague Kevin Murphy recalled in a retrospective in 2015, the year after Becker died. "It is only through widening of the usual assumptions that it is possible to begin to understand the obstacles to advancement encountered by minorities," Becker said in his Nobel lecture in 1992. Becker believed that competition for talent among employers would reduce, but not completely end, discrimination.

Later scholars speculated that discrimination was perhaps not a taste but a statistical phenomenon—with employers basing hiring decisions on their (perhaps false) impressions of group rather than individual characteristics. They said employers' stereotypical thinking, otherwise known as prejudice, could become a self-fulfilling prophecy if it led minorities to lose hope and underinvest in schooling and work skills.

White scholars, however smart and well-intentioned, can never know how discrimination is experienced and understood by its victims. Some of their theories feel too slight to explain a society that's torn apart by race and remains damaged by the legacy of slavery, America's original sin. Any modern analysis of race relations has to be grounded in the fact that the U.S. was built on the backs of enslaved Africans—and that leading thinkers of the day defended slavery on economic grounds. If not slaves, who would harvest the cotton, rice, and tobacco?

Darrick Hamilton, a black economist at Ohio State University's John Glenn School of Public Affairs, is among the scholars elaborating the new field of "stratification economics," which places race at its center. He cites Stiglitz and others, but says his biggest inspiration is the late Nobelist Arthur Lewis, born in St. Lucia, then a British colony, who studied how developing countries get stuck in a "middle-income trap."

Hamilton, who advised the 2020 presidential campaign of Bernie Sanders, argues that racial discrimination is a feature of the white-dominated economic system, not a bug, or a taste, or a statistical error. In other words, stratification economics treats racism as rational, albeit reprehensible. That places it more in the mainstream of economic thought, oddly enough, than explanations that lean on emotions or mistakes. The irony isn't lost on Hamilton.

The reviewers who serve as gatekeepers for academic journals in economics seem to believe that the African-American experience is sui generis, "a special case from which we cannot generalize," says Lisa Cook, a black economist at Michigan State University. It took her 10 years to find a publisher for a paper showing that patenting by African Americans declined during historical periods of lynching and white race riots. Economists from other countries—including China, Israel, and Russia—immediately saw the wide applicability of the research, she says.

The Emancipation Proclamation ended slavery but not the maltreatment of blacks. To this day, testers have found that résumés with black-sounding names are less likely to earn interviews than ones with white-sounding names. Black Americans are steered into costlier home and auto loans. They get worse health care than whites and suffer worse outcomes, especially from Covid-19. They have chronically higher unemployment rates—although ironically the gap has narrowed during the pandemic because more black than white employees have kept working under risky conditions, because their jobs are deemed essential.

More than 60 years after the U.S. Supreme Court's *Brown v. Board of Education* desegregation decision, black students continue to attend inferior public schools on average and are less likely to attend college. Black college graduates have less wealth on average than white high school dropouts, calling into question the idea that they can pull themselves up by the bootstraps through more schooling.

Far more than other wealthy nations, the U.S. solves its social problems with prisons, and black people and other minorities are disproportionately affected. At the time of the last decennial census in 2010, census takers recorded that 44% of black men from the poorest families in the Watts neighborhood of Los Angeles were incarcerated.

The greatest frustration is that nothing ever seems to change. In 99% of counties, boys from black families will ▶

DEE DWYER

◀ earn less as adults than boys from white families who come from the same neighborhoods and have the same parental incomes, according to a 2018 study by Raj Chetty—then at Stanford—and Nathaniel Hendren of Harvard, and Maggie Jones and Sonya Porter of the U.S. Census Bureau.

The idea that racial discrimination is alive and well is hard to absorb for people in the majority—economists or otherwise—who prefer to think that society is meritocratic, says Julia Coronado, president and founder of the economic consulting firm Macropolicy Perspectives. The textbook principle that workers earn the marginal product of their labor tells them "they're there because they deserve it," Coronado says. "So of course they want to believe it."

The same goes for corporate America, which is as invested in the principles of the free market as the economics profession is. When stocks rose on June 1 after a weekend of historic turmoil, it seemed like some kind of secret had been inadvertently revealed—that the optimism reflected the color of the stakeholders. If the companies in the S&P 500 can be worth more at a time like this, what does that say about their connection to—or rather disconnection from—life in U.S. cities? The internet is thick with comments that corporations are the real looters. Davey D, a journalist and hip-hop historian, garnered almost half a million likes on Twitter for a tweet saying "corporations collected over 500 billion dollars in stimulus money while everyone else was left with a $1200 dollar check and having to decide if they pay for food or rent."

Nowhere is the corporate disconnect clearer than in Minneapolis, whose history of philanthropy by local businesses did precisely nothing to save the life of George Floyd. Minneapolis and its twin city, St. Paul, have a tradition of progressive policy and generous corporate giving from a dense regional concentration of corporate headquarters, including those of Best Buy, Cargill, Ecolab, General Mills, Land O'Lakes, Target, 3M, and U.S. Bancorp. When the philanthropist John D. Rockefeller III visited in the 1970s, he said he'd heard so much about local business giving "that I feel a bit like Dorothy in the Land of Oz. I had to come to the Emerald City myself to see if it really exists."

But while the companies were giving, 20th century segregationists were barring black residents from living in certain parts of town. When segregation became illegal, the zoning code took its place, restricting 70% of the city's residential land to single-family housing, which was unaffordable to many black families. In Minnesota as a whole, the difference in the poverty rate between white and black residents is the nation's third-widest, the *Star-Tribune* in Minneapolis reported last year.

The police department has been a special problem: Black people constitute 20% of the city's population but accounted for more than 60% of the victims of police shootings from late 2009 through May 2019. There were widespread protests two years ago when police killed Thurman Blevins, a black man who begged for his life. "A decade ago the narrative was, we got it all figured out. Now the issue is, a great city includes everyone, and we're not there yet," says R.T. Rybak, who was mayor from 2002 to 2014 and is now chief executive officer and president of the Minneapolis Foundation, which manages charitable funds for donors. "We solved so many issues together, but we haven't solved race—and certainly not with the police."

Before the killing of Floyd, Minneapolis was moving in the right direction. In 2018 it became the first big U.S. city to abolish single-family zoning, a step that should over time reduce segregation and the cost of housing for all by increasing the supply of living units. Under Mayor Jacob Frey and Police Chief Medaria Arradondo there have been steps to demilitarize policing. It clearly wasn't enough. Rybak, the former mayor, says the city has finally woken up to the problems in its midst: "Minneapolis has been smug for too long."

It's not just one city that's been smug. Many whites view the nation's race problem as more or less fixed—well, except at times like this—feeling absolved by the successes of black athletes and entertainers and their own cordial relations with people of other races. The problem is that racism is embedded in the structure of society, made more harmful by the fact that it doesn't require deliberate hostility to persist.

It should go without saying that none of this amounts to an excuse for rioting, looting, arson, and attacks on police officers. The crimes dishonor the memory of George Floyd and others who've died. Authorities are investigating clues that some of the attacks have been carried out or at least instigated by trained anarchists, whose goal is destruction. Owners of small businesses have lost their life savings. Cities already burdened by Covid-19 have an even tougher challenge; Detroit and Newark, N.J., never fully recovered from the riots of the summer of 1967. Even the triumphant launch of SpaceX's manned spacecraft on May 30 to resupply the International Space Station was tinged with sadness. To those with long memories, it recalled the 1960s, another time when American cities burned while astronauts flew in space. Has the U.S. made no progress in more than half a century?

Trump is seizing on the riots to cast himself as a law-and-order president, threatening to deploy active-duty troops in cities. "You have to dominate," he said on June 1 in a video conference with governors and law enforcement authorities. "If you don't dominate, you're wasting your time. They're going to run over you, you're going to look like a bunch of jerks." An hour earlier, Joe Biden, his presumptive Democratic challenger in the November election, was more sympathetic to the protesters in a meeting with big-city mayors, saying, "The fact is we need that anger, we need that to tell us to move forward."

If anger is what's needed, as Biden says, then the U.S. is well-supplied with raw material. There's anger on the left and the right, from protesters and police, from families of victims of police brutality and families whose businesses have burned to the ground. Whether all that anger will move America forward isn't so clear. What's clear is the need for the power structures of economics and business to grapple with life as it's lived, not as the textbooks specify. Ⓑ

A Buyout Firm's Four-Legged Future

● JAB made billions buying coffee brands. Now it wants to be the vet for the world's pets

Visitors walking into the Red Bank Veterinary Hospital in Tinton Falls, N.J., immediately know it's not your typical trip to the vet. The building—one of the largest private animal hospitals in the U.S.—is a stately labyrinth of care rooms circling a lobby with a sprawling fish tank column at its center. There are auditoriums where practitioners present research on advances in veterinary science. Even the clientele of the facility, one of 42 practices operated by Compassion-First Pet Hospitals, are top-shelf: Bruce Springsteen's dogs have been treated here.

"What I told everyone was that I wanted this group to become the Mayo Clinic of veterinary medicine," says John Payne, who founded the company in 2014 after previously running veterinary hospital operations at Mars Inc. and Bayer AG's animal health division. "It wasn't just the quality of the medicine, which everyone says they practice, it was advancing specialty and emergency medicine that mirrored human care."

Eager to expand his high-end care operation in the U.S. and globally, Payne knew he needed help from someone with deep pockets and an equally big appetite for growth. "I wanted," he says, "people who bought into the vision."

Edited by James E. Ellis

After talking to 33 potential investors, he found what he was looking for in an unlikely newcomer: JAB Holdings, the acquisitive Luxembourg-based investment company that likes to roll up businesses in highly fragmented industries in hopes of realizing efficiencies—and big investment gains—from their consolidation. JAB had spent the past seven years on a buying spree that turned it into the world's second-largest maker of coffee, with brands from Peet's and Douwe Egberts to Keurig, Green Mountain, and Stumptown. On May 29 it took its JDE Peet's coffee operations public in an initial offering that valued the company at more than €18 billion ($20 billion). Now JAB wants to apply the same playbook to the world of animal health care.

In February 2019 the company spent $1.2 billion to acquire Compassion-First. Four months later it bought National Veterinary Associates, with more than 700 animal hospitals and rehabilitation resorts in Australia, Canada, New Zealand, and the U.S. JAB, armed with the virtually unlimited budget of sovereign wealth fund investors, endowments, and Germany's billionaire Reimann family, is scouring the globe for more takeovers. "This is going to be a very big asset for us," says Olivier Goudet, chief executive officer of JAB Investors. "We are in the first 10 years of an industry that will keep growing for the next 50 years."

It's easy to see why JAB would be attracted to veterinary investments. Just as many coffee drinkers can't imagine starting each morning without their daily dose of caffeine, hundreds of millions more can't imagine living without their pets. In the U.S. about two-thirds of the country's households, or 85 million families, own a pet, according to the American Pet Products Association, compared with just more than half of households in the 1990s.

That's fueling increased spending on ever-more sophisticated treatments to keep all those Rovers and Fluffys healthy. At Red Bank Veterinary, the annual profit from procedures such as removing pets' brain tumors, open-heart surgery, repairing mitral valve disease, and even operating on goldfish runs into the tens of millions of dollars. In the U.S., which accounts for about half of the global pet-care industry's annual sales of $120 billion, the cost of veterinary treatment has risen by almost 40% over the past decade, according to the Nationwide Purdue Veterinary Price Index. Over the past 11 years, National Veterinary's pretax earnings have surged about fifteenfold, and Goudet says there's plenty of growth to come.

One reason: The scope of veterinary services is becoming increasingly analogous to human medicine, with millennials and Generation Z owners driving growth by spending vast sums on ambitious procedures. A dog's double hip replacement can cost more than $10,000, while treating a pooch for seizures can cost three times that amount.

The majority of pet hospitals and clinics in Australia, the U.K., and the U.S. are owned by independent veterinarians serving local areas. Goudet's strategy of combining large numbers of practices has benefits: reducing administrative overlaps, bulk discounts on medicine orders, and information-sharing across a large vet network.

JAB's venture into animal health could prove a decent hedge as its hospitality businesses, including Krispy Kreme doughnuts and Pret A Manger sandwich shops, bear the brunt of a global recession caused by Covid-19. Historically, spending on pet care has kept rising through periods of contraction: In the U.S., it was up 29% during the dot-com bust of the early 2000s and 17% during the financial crisis later that decade. Spending on veterinary services accounted for the lion's share of those increases, climbing from about $5 billion to $35 billion over the past three decades.

JAB won't be the only big corporate player in veterinary health. Mars, the maker of M&Ms and Snickers, is also the world's largest owner of veterinary hospitals and clinics, managing thousands through its Banfield, BluePearl, Linnaeus Group, VCA, and Village Vet subsidiaries. Investors including Goldman Sachs Group Inc.'s merchant banking division and private equity giant KKR & Co. have also profitably flipped small veterinary outfits. But none has built a presence from scratch as big as JAB's or as quickly. The combined revenue of Compassion-First and National Veterinary Associates will be $3 billion this year, placing it among the three largest players in the industry barely 12 months after the firm's first takeover.

JAB's frenetic dealmaking has drawn criticism that it's overspent, buying targets that advance its strategy even when others may think the price is too dear—as happened in 2015 when it agreed to buy coffee roaster and brewing systems company Keurig Green Mountain for $13.9 billion—a 78% premium. "I literally had so many calls saying, 'Are you out of your effing mind, 78% price premium?' but one year later, we had doubled our equity value," Goudet says. The deal ultimately paid off, as he's hoping it will in pet care. "I've heard that we always overpay," says Goudet, "but I'm telling you, the question is not the price you pay—it's the value you get." —*Thomas Buckley*

THE BOTTOM LINE Veterinary health is the fastest-growing part of the pet-care industry. As owners spend more, investment firm JAB is buying up vet practices and animal hospitals to ride the wave.

▼ Pet-care spending in the U.S.

■ Veterinary care

■ Supplies and over-the-counter medicine

■ Food

■ Other

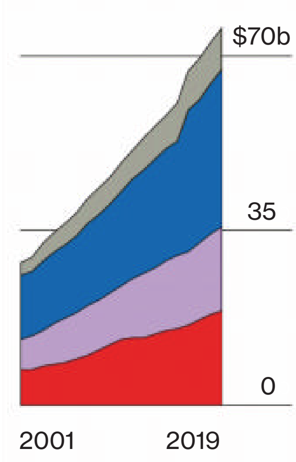


PHOTO ILLUSTRATION BY 731; PHOTOS: GETTY IMAGES (3); DATA: AMERICAN PET PRODUCTS ASSOCIATION

The Woman Who Can Sell Anything

● Is Chinese livestreamer Viya, who sold about $425 million of goods in a day, retailing's future?

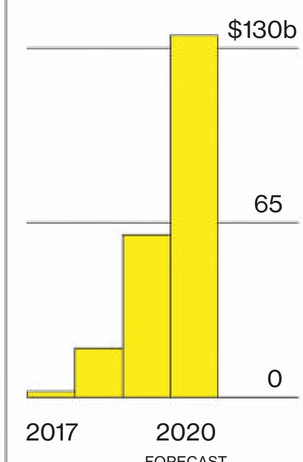
Forget Willy Loman or *The Music Man*'s Professor Harold Hill. Huang Wei, China's livestream shopping queen, really can sell anything. In April, for instance, Huang, known professionally as Viya, sold a rocket launch for around 40 million yuan ($5.6 million). That's nothing compared with her 2019 performance on Singles Day, China's biggest shopping event of the year, when she logged more than 3 billion yuan in sales. That's more than the annual gross domestic product of some nations, including Palau and São Tomé and Príncipe.

The live, online shopping extravaganza the 34-year-old hosts every night for her fans across China is part variety show, part infomercial, part group chat. Each evening, Viya's audience places orders worth millions of dollars—typically for cosmetics, appliances, prepared foods, or clothing, but she's also moved houses, cars, and that rocket launch. Last month her audience hit a record 37 million viewers—more than the *Game of Thrones* finale, the Oscars, or *Sunday Night Football*—after the spread of the coronavirus put most Chinese people under stay-at-home orders.

Viya's playbook is one vision of retailing's future. Livestream shopping is a natural confluence of several tech trends—streaming, influencers, social media, and e-commerce—and offers companies a new path to consumers' hearts and wallets. Tesla Inc., Procter & Gamble Co., and supermodel-turned-beauty-entrepreneur Miranda Kerr are among the players that have turned to Viya for an introduction to the Chinese market. As the queen of the nation's $60 billion ecosystem of live online shopping, she earned an estimated 30 million yuan in 2018, according to the most recent figures from Chinese e-commerce giant Alibaba Group Holding Ltd.

Brick-and-mortar retailing's dominance has for years been eroded by reduced foot traffic and sliding sales thanks to the internet. Now the coronavirus pandemic and the ensuing economic downturn have pushed physical store sales off a cliff. Offline,

▼ Value of China livestreaming transactions



◀ Viya in Wuhan in April

nongrocery retail is expected to drop 20% this year, according to Forrester Research Inc. And with no Covid-19 vaccine in sight, heading to a store to try on clothing or test a lipstick at a cosmetics counter could lose much of its pre-pandemic appeal.

That's where Viya comes in, as the affable, trusted shopping go-between for her fans across China. "I position myself as someone who helps the customer make a decision—I need to think about their needs," Viya says, following a late-night show last month. She wore casual black pants and a white T-shirt with a Yankees baseball cap and long silver earrings—all items that had been for sale during that evening's show. She dresses casually on purpose, she says, to create intimacy with viewers who are most likely in sweatpants or something equally informal. "Specifically, my ambition is to offer everything my fans might need," she says. "Doorbells, carpets, toothbrushes, furniture, mattresses, everything."

E-commerce livestreaming, as analysts call it, is the latest evolution in a direct-to-consumer marketing chain that's spanned from infomercial pioneer Ron Popeil and the Home Shopping Network to Oprah's Book Club and social media influencer Kim Kardashian. Amazon.com Inc. has been experimenting with the concept for more than a year, most recently teaming up with Heidi Klum and Tim Gunn, formerly of the fashion TV series *Project Runway*, for a knockoff, *Making the Cut*, and a retail tie-in that makes the new show's winning designs immediately available for purchase on its site. And Facebook Inc. in May announced a partnership with Shopify Inc. to help integrate buying on its flagship platform and on Instagram.

But nowhere is the potential of livestreaming more apparent than in China, where society's embrace of mobile payments and the widespread availability of ultrafast home delivery have made it a key tool for both consumers and retailers. Western technology isn't quite there yet, with its bramble of offline stores, online markets, social media recommendations, payment processors, and third-party portals. Alibaba's technology, on the other hand, allows audiences in China to watch a livestream, chat with other viewers, and select and pay for a product—all at the same time. There's no friction between entertainment and buying, which is the whole point.

"I can't miss Viya's shows," says Linda Qu, a 30-year-old tech worker in Hangzhou. After she puts her 4-year-old son to bed, Qu lets Viya's livestream run on her smartphone while she's doing yoga or watching TV on the couch. Nearly every show, she clicks to buy something. The FOMO keeps her coming back: "What if there's something nice and I didn't get it?" she asks. "What a loss."

That's the clincher for companies desperate to impress China's growing middle class. The country powered one-third of global consumption growth from 2010 to 2017, according to a McKinsey Global Institute report. And over the next 10 years, the growth in Chinese consumption is expected to equal that of the U.S. and Western Europe combined.

Customers used to move slowly down the path from awareness to interest to purchase to—ideally—loyalty, says Helen Lu, spokeswoman for the Greater China division of consumer-products giant Procter & Gamble, which is also the world's largest advertiser. "Working with the top livestreamers like Viya, the process gets much shorter," she says. "Driven by trust for these leading influencers, consumers could leap from knowing nothing about a brand to purchasing and even forming loyalty very rapidly, sometimes within a matter of days."

Most nights, Viya streams from a small studio in her headquarters, a 10-story warehouse in the Chinese tech hub of Hangzhou. The show represents only a sliver of her 500-person enterprise, called Qianxun Group; it includes talent management for dozens of other livestreamers, retail services, and supply chain management. Future plans include multimedia, consulting, and ad agency-type work for brands that want access to Viya's huge audience. The company aims to raise money from investors this month, take on a strategic partner by the end of the year, and go public by 2025.

"This year is the turning point for this industry—I said so even before the coronavirus pandemic," says Qianxun Chief Executive Officer Alves Huang, who's better known as Aoli. He's also Viya's stepbrother; her husband is the company chairman. "But the pandemic has pushed many offline retailers online, and with many well-known people getting into the game, there's huge attention from everywhere."

A blend of performance and sales, livestreaming suits Viya. When her show traveled to Wuhan this spring to promote products from the virus-torn city, she dug into local delicacies such as crayfish and duck neck with relish. She raved about the flavor while answering real-time viewer questions, like whether delivery is free to far-west cities or how spicy a given snack was.

And, of course, everything is available at a deep discount, as long as it lasts. The link to buy a product isn't released until after Viya's done pitching and counts down: "5, 4, 3, 2, 1." If a particularly popular deal runs out, she sometimes pleads with her off-camera producers on behalf ▶

▼ Items Viya has sold on livestreams

Kuaizhou-1A rocket launch

$5.6m

853 vouchers to buy Hangzhou apartments, each

$337k

1,750 Dongfeng SUVs presold within seven minutes, each

$14k

4,180 of SAIC Motor's Roewe RX5 Plus SUVs presold within 30 seconds, each

$17k

VIYA: QILAI SHEN/BLOOMBERG. ROCKET: STR/GETTY IMAGES. KEY: GETTY IMAGES. SAIC: COURTESY SAIC. DONGFENG: COURTESY DONGFENG. DATA: IIMEDIA RESEARCH

◀ of her audience to release more. It's an honest question—the team is keeping track of inventory and sales in real time—and a heck of a tactic.

"The perception of scarcity is a powerful psychological tool to get people to act fast, which leads to impulse buying," says Andy Yap, a social psychologist at Insead business school in Singapore. "In a livestream it's even more intense, because the time is shorter and there are a lot of other viewers who may be potential buyers. People feel more urgency."

Alibaba's technology, meanwhile, makes buying really easy. Viewers need a login to watch on Taobao, the company's online marketplace, which means their shipping address and payment information are already stored. Viya uses the platform's lottery feature for giveaways throughout the show, and that gets the audience engaged with their phone, primed to click. When a shopper chooses a product, the broadcast window gets smaller but never disappears. The transaction ends, and the window grows again. There's Viya, still talking, hyping the next deal.

Whether livestream shopping will catch on outside China could depend in part on the ability of Amazon, Facebook, and other companies to integrate their entertainment offerings with shopping and payments. Currently, you might learn about a product on Instagram, but you can't buy it there, says Benedict Evans, an independent technology analyst. Meanwhile, Amazon has the opposite problem: It's great at selling things, but only if you already know what you want.

In China, users spend a lot more time inside what are known as "superapps." Alibaba's infrastructure powers shopping sites Taobao and Tmall; the banking and credit affiliates Ant Financial, Alipay, and Sesame Credit; and the logistics arm Cainiao, which handles shipping and returns. So all aspects of shopping occur as a seamless experience. "You have to have an environment to cultivate a habit," Viya says.

Still, for product manufacturers, this mode of selling can have downsides. To bolster their own credibility, livestreamers demand deep discounts and generous add-ons from the brands they work with. And being featured by a livestreamer—even one as popular as Viya—is no guarantee a brand will capture consumers' hearts for the long term. Roger Huang, China CEO for Saville & Quinn, a U.K. skin-care company, says fewer than 10% of his customers who purchase products via livestreams become repeat buyers, compared with 40% of customers who come directly through Tmall's e-commerce site. "It's just one wave, and then it's over. They're Viya's fans, and they follow her call," he says, echoing an age-old concern of companies eager to leverage a star's power on their behalf—and a reason why some won't rely on them totally. "Livestreaming is very effective," Huang says, "but we can't get addicted." —*Jinshan Hong, Chunying Zhang, Allen Wan, and Janet Paskin*

THE BOTTOM LINE Chinese influencer Viya boasts as many as 37 million free-spending viewers for her livestream shopping show. Brands see her as a key way to reach middle-class consumers.

Covid-19 Chills the Allure of Expat Life

● Health fears and travel restrictions cause more globe-hopping workers to head home

Stuck in an apartment with a toddler and a newborn wasn't Australian Nikki Martin's dream of the exotic expat life. Like many in Singapore in late January, she was watching anxiously as daily coronavirus case numbers climbed. After seven years working in the city-state, and in the United Arab Emirates before that, there was a small window to leave, and she took it. "I packed a few suitcases, and that was it," says the 37-year-old marketing executive. "Within 36 hours we were on a plane."

Martin is one of a growing number of expats across Asia and beyond pulling up stakes and returning home. All too quickly, the coronavirus has taken the sheen off many elements of expat life. Gone are the weekend trips to Bali and carefree getaways to Phuket. Grandparents and parents suddenly seem very far away, and the fear of being confined in a country where the local language may be foreign and governments more prepared to help their own citizens than globe-hopping contract workers is real.

"Where people see stability is where they want to be based"

While figures are hard to come by, signs of an expat shift are starting to emerge. Of the 42,800 New Zealand citizens who returned from living abroad in the year ended on March 31, almost half arrived in the previous three months, according to the country's statistics agency.

Ella Sherman, an executive sales director at Knight Frank in Singapore who specializes in expat housing searches, says she's hearing of "two to three people a day" leaving. "A lot want to be closer to home, to parents and family, but also some are

ILLUSTRATION BY CAROLYN FIGEL

being retrenched," Sherman says, referring to the process of employers terminating staffers as they trim their operations in anticipation of a weakened business climate. "And if you're used to traveling every other weekend and now you can't, well, there are many who aren't handling this very well."

The pandemic, which has sickened more than 6.4 million people worldwide and brought global travel to a near-standstill, is adding to existing pressures that had already been chipping away at the expat lifestyle. There's been a shift in Gulf nations such as Oman and Saudi Arabia, as well as in some other Asian countries, toward hiring local personnel, which advances policies to provide more employment opportunities for nationals, who are often paid less. Working and living abroad is becoming less lucrative for citizens of nations such as Australia and the U.K., where some taxation policies aren't as favorable for those who live overseas.

Meanwhile, the optics of all-white-male leadership teams—a common sight for decades at the offices of some Western companies in Asia—have become less desirable, especially for businesses that have to deal with local governments or agencies. And headhunters say contracts that include hefty allowances for housing, cars, and international schools for an employee's children—once de rigueur for many international postings—are rarer than ever. With health fears now heightened, even countries where many companies offer extra hardship pay, such as India or China, aren't appealing.

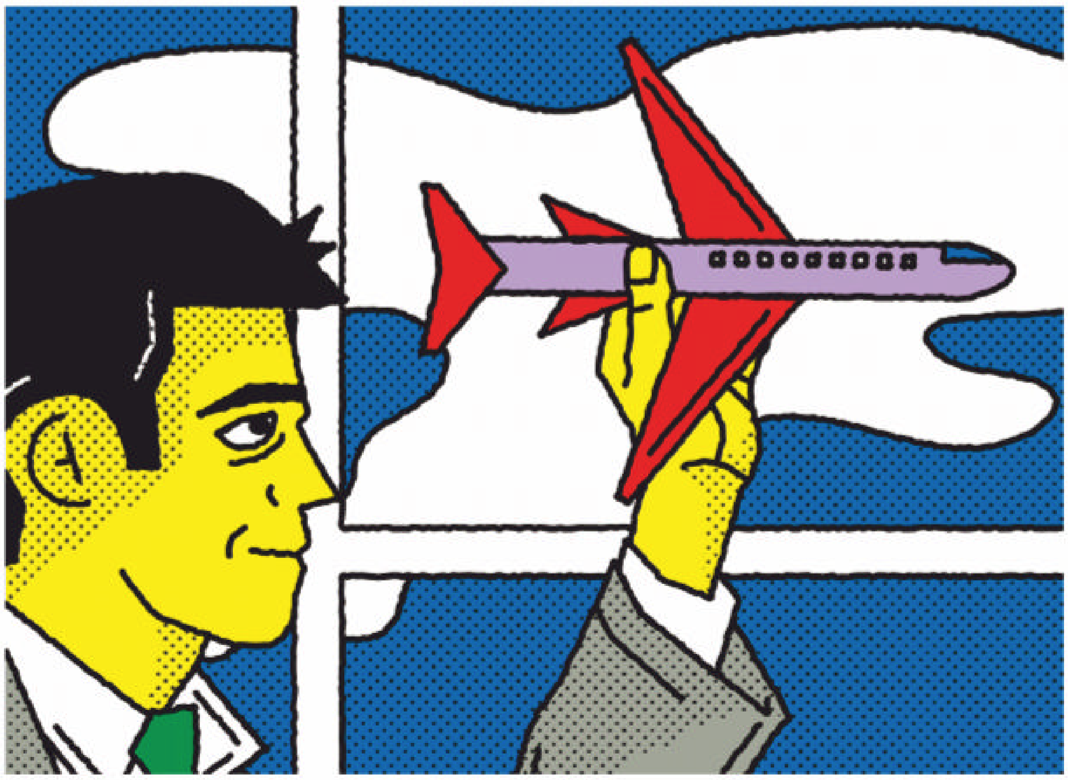
"You'll see an increased reluctance for people to go to locations where the medical infrastructure is inadequate," says Lee Quane, regional director for Asia at consulting firm ECA International. "So that's probably the more developing locations such as the Philippines, India, where the issue isn't just the risk of catching Covid-19, but also whether you'll have access to the same sort of quality treatment as back home."

Safety is coming through in a lot of conversations that Peter O'Brien, Asia-Pacific managing director at Russell Reynolds Associates, is having. The Sydney-based headhunter says inquiries have been rising over the past month from Australians considering returning from Hong Kong, the U.K., and the U.S. "There's more anxiousness and more nervousness in the voices of those reaching out to us than I've experienced before," he says. "The whole issue is around safety. Where people see stability is where they want to be based."

That's true now more than ever for Hong Kong. Even before the novel coronavirus hit, the Asian financial center had been rocked for months by often violent street clashes. Now fresh protests have erupted following China's move to crack down on dissent in the city.

When the pro-democracy protests first started last year, Karen Tang, who works in communications, began to worry about the economy and her job security. Covid-19 tipped the scales, and she's decided it's time to move back to London, where she was born. "When a global crisis happens, it makes you think more about family," the 33-year-old says. "It makes you reevaluate your priorities in life and what you really want out of it."

For international corporations, moving talent around the globe to transfer knowledge and experience will always exist to some degree. "Companies will continue to send what we refer to as critical



senior-level staff, essentially people in leadership positions," Quane says. "Sometimes companies need somebody they can trust in the host country who has a level of communication with senior management and senior leaders back in HQ."

Even so, the steady trickle of expats leaving as Covid-19 grinds on is noticeable to real estate agents in countries to which employees are interested in returning. Knight Frank's head of residential property in Australia, Shayne Harris, says that even if expats don't want to come back right away, they're showing more interest in acquiring a future residence back home. For one A$9 million ($6.2 million) home on his books in Lindfield, a leafy upper-class suburb in Sydney, about 25% of the buyers expressing interest were expats based in Singapore or Hong Kong, he says. —*Katrina Nicholas and Emily Cadman, with Shawna Kwan and Rachel Chang*

THE BOTTOM LINE Expat employees' fat benefits, including housing assistance and schooling allowances, had already been under assault. Now the coronavirus is adding another challenge.

2

Sooner Than You Think

TECHNOLOGY

Searching for In High-

Edited by Jeff Muskus

Secrets Altitude DNA

● A porter on the final stretch before the Mount Everest Basecamp

● Variant Bio is hunting for rare genes that its researchers hope to turn into drugs and therapies, including some Covid-relevant ones

The Sherpa people living at high altitudes in Nepal and the Himalayas have a genetic trait that puzzles and fascinates scientists. They're able to lead a healthy, active life with blood oxygen levels far below what most humans need to function properly. Whereas other people in high altitudes have adapted by boosting their oxygen to typical levels over time, the Sherpa have gene variants that let them live in what should be a hypoxic, or oxygen-starved, state. "They don't suffer any ill health effects," says geneticist Stephane Castel. "It's incredible."

Castel is a co-founder of Variant Bio, a startup that's spent the past couple of years scouring the planet for genetic outliers. His team is betting that by sequencing such people's DNA, Variant will be able to untangle the root causes of desirable traits—superior metabolism, eyesight, immune response—and synthesize drugs and other therapies that could pass some of these benefits on to the rest of us. If Variant's software and scientific analysis can pinpoint the right bits of genetic code, the company will begin the painstaking, multiyear process of trying to develop drugs and therapies based on that data.

The science behind therapies inspired by genetic studies is well understood: You find the DNA that turns on a particular trait, then create a drug that goes into the patient's cells and tweaks them to trigger a similar reaction. Some mainstream cholesterol-lowering drugs, for example, are based on studies of DNA from people of African descent with atypically low low-density lipoprotein, or "bad," cholesterol. In the case of something such as Covid-19, which attacks the respiratory system and can inflict serious damage on a patient's lungs, Variant's scientists say genetic traits such as those of the Sherpas ought to prove helpful. "You can end up dying from hypoxia with Covid-19," Castel says. "Perhaps there's a way to keep people healthy while they're still in that condition."

Isolated academic researchers have spent years studying people who've adapted to their environments in remarkable ways, but Variant appears to have undertaken the first serious effort to sequence the DNA of many thousands of people around the world with actionable lessons in mind. In New Zealand the company is looking for people ▶

◀ Wasik (center left) and Castel (far right) say that hundreds of populations could provide insights into the human body and that they're wrestling with the relevant moral and ethical questions

◀ of Polynesian descent who have high rates of obesity but also appear to have some protections against diabetes. In other places, Variant has discovered people who metabolize their high-fat diets more efficiently than others.

"There are also people who can hold their breath underwater for a long time or that need just an hour or two of sleep," says Josh Wolfe, a co-founder of Lux Capital, the venture firm that's provided most of the $16 million Variant has raised. "Wouldn't it be amazing if some secrets of human health were possessed by these small groups of people, and they could ultimately benefit the rest of the world?"

This idea may sound like a wild fantasy about sort-of-superpowers, but both Castel and his co-founder, Kaja Wasik, a molecular geneticist, cringe at any suggestion that they're hunting for X-Men. They say they take seriously the very real moral and ethical questions that exist around how people with special DNA are treated and compensated. "There is this really long, unfortunate history of people doing studies and research in a way that is not good," Castel says. "It has led to a lot of distrust."

Researchers have historically behaved in rather mercenary fashions as they've barged into a community, gathered up samples, and done little to account for the effects they might have had on people and their customs. With an eye on those issues, Variant's first hires included anthropologists and ethicists who mediate interactions with different cultures and figure out what compensation should look like. The company's model includes funding local health-care and education projects selected by or chosen in conversation with the given community. Variant executives say the communities that agree to provide DNA samples will also profit over the long term from data-sharing and drug revenue once the company has therapies on the market.

Variant's new chief executive officer, Andrew Farnum, has experience in negotiating communication with far-flung societies as well as with biotech research. He previously ran the $2 billion investment arm of the Bill & Melinda Gates Foundation and focused on global health and infectious diseases. "There are huge advantages here for drug discovery," Farnum says of Variant's research. "People will see how seriously we take this and how we conduct our projects, and other populations will want to work with us."

The startup's approach is the inverse of the household names in the DNA-testing business such as 23andMe and Ancestry, which rely on vast stores of DNA data from a customer base with a much more similar genetic makeup. Such companies also have little to show in terms of major health breakthroughs. Genetic marvels are a research area untapped by the current generation of DNA experts, says Jay Flatley, a Variant adviser who previously ran the sequencing company Illumina.

LEFT AND PREVIOUS SPREAD: TOM MARTIENSSEN/DUSTOFF FILMS

"Nobody has gone after this in a systemic way," he says. "I'm surprised that it's taken this long."

Along with conducting research in Nepal and New Zealand, Variant executives confirmed that they're studying DNA in the Faroe Islands and Pakistan, though they declined to elaborate. More broadly the co-founders predict that hundreds of populations could provide significant insights into how the human body works. "It's basically every group that lived in isolation or went through a genetic bottleneck," Wasik says. "The list is actually much longer than people expect."

Sonam Sherpa is an orthopedist who lives in Kathmandu and has volunteered to help Variant shape its research in Nepal and to facilitate conversations with local authorities. "In the past, researchers would come to our hospital, do their tests, and then, as soon as they go back, we never hear from them again," he says. By contrast, he says, Variant has met with village leaders and Nepal's research council and is negotiating deals with these parties to share whatever DNA data it gathers with local researchers. The company is also funding the English translation of a book about Sherpa culture and will back another project chosen by Sherpa leaders, possibly improvements to a local school.

Variant must compensate the sources of its potentially revolutionary data, says Keolu Fox, a genome scientist and an assistant professor at the University of California at San Diego, who's consulted for the company pro bono. Fox, a native of Hawaii, compares the unique DNA sequences Variant is searching for to oil and minerals. "If the people don't get a cut, this is colonial," he says. "It's extractive capitalism." People such as the Nepalese Sherpas should receive free or subsidized access to any drugs they help develop, he says, and perhaps a share of the profits derived from related intellectual property.

Fox acknowledges that Variant might prove capable of changing the world for the better. Still, he says, "My job is to make sure the communities get something out of this, and, if they don't, I'm out."

Variant's co-founders say they're excited at the prospect of proving to skeptics they can do this type of work in a fair, equitable way, including putting in the effort to build strong ties with the communities they're studying. "This is not a straightforward thing, forming this human network," Castel says. "It's something people have shied away from doing because it seems too difficult. Luckily we were either too passionate or naive." —*Ashlee Vance*

THE BOTTOM LINE There are a lot of steps between Variant Bio and a viable genetic therapy for much of anything, but the genomics startup may yet be able to reverse-engineer certain desirable traits.

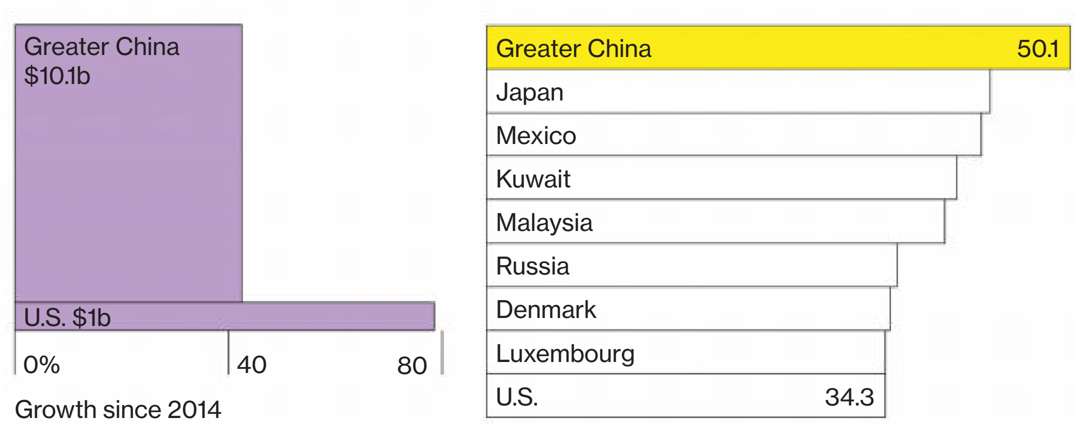
Is This the Fake Egg's Moment?

● Eat Just is building a small but early niche in China, a world away from its former name and vegan mayo scandals

On a recent Monday morning in a Shanghai conference room, four executives from a major Chinese food producer and distributor sat socially distanced from one another, pulled down their masks, and tried some fake eggs. In a makeshift basement office in San Francisco, 15 hours behind, Josh Tetrick, the chief executive officer of egg-substitute maker Eat Just Inc., watched via Zoom. His head chef in China presented the Shanghai execs with eight ways to serve the ersatz ovum, Just Egg, which is made primarily from mung beans. The hope was that one would be tasty enough for the Chinese company to sell online and at fast-food chains.

Reasons to Scramble for China

Meat substitute market in 2019 | Top consumers of eggs per capita in 2017, in pounds



DATA: EUROMONITOR INTERNATIONAL, FOOD AND AGRICULTURAL ORGANIZATION OF THE UNITED NATIONS

The eight options included Tetrick's two favorites. The Inside-Out Egg is a faux omelette stuffed with lettuce, a hash brown patty, and spicy mayo; the Pinwheel Egg is essentially a fake-egg burrito with rice, fried onions, and pickled radishes. Both bombed. Still, the pitchees picked a winner, and while Tetrick stresses that no deal has been signed–hence the anonymity–he says Eat Just, better known as Just, is moving on to the next round of talks.

Although the negotiations have taken more than three years, things sped up over the past several months, Tetrick says. "Because of what's happening around Covid," the CEO says with uncharacteristic understatement, "there's been a notable change ▶

◀ about how consumers are thinking about food."

Last year, Beyond Meat Inc.'s initial public offering and Impossible Foods Inc.'s bleeding beefless Whopper helped bring plant-based meat to 51% of American lips, according to research firm Piplsay. Before the pandemic, the emerging industry had set its 2020 sights on China, where plant protein has been a staple for a millennium but meat imitations are just getting started. Regional plant-protein makers have made inroads in Hong Kong, but most of China is largely unclaimed territory for mass-market fake meat. Just, however, is already there.

Tetrick's company says it's sold tens of thousands of bottles of its liquid formula in China over the past year, mostly via shopping sites owned by internet giants Alibaba Group and JD.com, as well as in a handful of retail stores, restaurants, and hotels. The numbers don't exactly herald a revolution—the company says a good day on the Alibaba and JD sites means 1,300 bottles sold—but the early move into China has positioned the American company well, says Sean O'Sullivan, managing partner at venture capital firm SOSV. (The firm invests in plant-based protein makers but hasn't invested in Just.) Tetrick's company, valued at $1.2 billion, has raised $300 million in venture funding and says it's sold the equivalent of about 40 million fake eggs, mostly in the U.S.

All this may surprise people familiar with the company under its original name, Hampton Creek. Founded in 2011, Hampton Creek established itself as a purveyor of vegan mayo, but became best known for its scandals, some of them first revealed by *Bloomberg Businessweek*. In 2016 the U.S. Securities and Exchange Commission and Department of Justice opened investigations into possible fraud and other securities violations after Bloomberg reported that Tetrick's team was buying up its own products, making investors and potential partners think the mayo was more popular than it really was.

The company denied wrongdoing, and shortly after Donald Trump became president, both agencies dropped their investigations without finding any violations, but by mid-2017, everyone on the board besides Tetrick had stepped down. Asked about that, Samir Kaul, a former director who says he remains on good terms with Tetrick, says, "I would rather just focus on the positive." Kaul, a founding partner at VC firm Khosla Ventures, says he doesn't regret his early half-million-dollar investment in Tetrick, even though it was based on a largely aspirational PowerPoint slideshow. "I think it's really important to have big setbacks, you become smarter and stronger," he says. "Now he's taking a much more humbled approach."

Tetrick says he takes responsibility for the buybacks, blaming his inexperience. (It wasn't exactly a case of youthful naivete; in 2016, he turned 36.) "I am definitely better than when I started—that wasn't a very high bar," he says. "I wish I was a lot better than I am right now."

Anyone who's seen a pile of Beyond Meat patties sitting in an otherwise empty freezer case during the pandemic has reason to doubt that the fake meat revolution is truly nigh. In a panic, people want staples and familiarity. Yet as prices on the substitutes get more competitive, real meat's advantages may

▲ Just Egg is made with protein extracted from mung beans

STILL LIFE BY HUGO YU FOR BLOOMBERG BUSINESSWEEK. JUST EGG: COURTESY JUST EGG

be narrowing, especially now that African swine fever has cut China's pork supply and some key U.S. slaughterhouses have sustained Covid-related closures. A shift toward "safer meat alternatives" is coming, says Alex Frederick, a senior analyst at market researcher PitchBook. Sales growth in the category has continued to rise during the pandemic.

For years, Tetrick and his company were willing to sort of make it up as they went along, and to exaggerate just how prepared they were to step up. Hampton Creek was founded on the promise of vegan egg substitutes. But in 2013 it retooled its operation to focus on vegan mayo, a product already familiar to plant-centric eaters, at the request of Whole Foods. (Whole Foods couldn't confirm the specifics of these negotiations but says the dates line up with when it began selling the mayo.) Tetrick now calls it a “very random, unintentional first product.” The mung eggs finally reached mouths at the end of 2017, after the mayo had become a punchline.

Before the pandemic hit, Just Egg was sold in about 10,000 U.S. supermarkets and 1,000 restaurants. It’s available either as a $5 to $8 liquid that can make about eight eggs’ worth of scramble poured into a frying pan, or as a roughly $7 set of four frozen, pre-folded servings that can be easily made into breakfast sandwiches. Both versions taste more like eggs than a Beyond Burger tastes like beef, which is to say, almost but not quite. While Just’s restaurant business has all but flatlined during the pandemic, Tetrick says about three-quarters of the company’s revenue came from retail grocers before the time of corona and that it sold 78% more bottles of Just Egg in May than in February.

Tetrick’s plan for international expansion depends on local partners, who will be expected to mix Just’s mung protein with oil, water, and other ingredients, then bottle and ship the products. The CEO cites Coca-Cola Co.’s syrup distribution network as an inspiration and says current board member Jacob Robbins, a former Coke supply chain executive, persuaded him to outsource distribution and the final stages of production.

As the pandemic spread in March, Just announced new partners, including Betagro Group, a major food company across Asia, and South Korean giant SPC Samlip, which franchises fast-food chains including Shake Shack, Dunkin’, and Paris Baguette. Covid permitting, they could start delivering Just Egg products to as many as 4,000 stores and restaurants later this year. Just is also working with Eurovo Group, a European egg producer, though regulators there have yet to approve the mung protein for consumption.

Like meat substitute makers, Just’s biggest challenge is price. In China, an egg typically costs about 14¢, lower by an order of magnitude than a comparable amount of Just Egg mixture costs. Markups on the Alibaba and JD sites often almost double the price of a bottle to about $14. Despite what a spokesperson for Alibaba’s site Tmall called strong interest, this makes the product, as JD said in an email, “prohibitively expensive for most consumers who are not white-collar workers in first-tier cities.” A Just spokesperson says that the company is trying to set up large-scale protein processing facilities in Asia to help bring prices down and that recent research and development efforts will help, too, by separating the key proteins from the mung beans more efficiently.

The degree to which Tetrick waves away some of these key issues, while stressing he’s working on them, raises the question of how much his over-promising has changed since the mayo. Just has said for several years running that it would bring its lab-grown chicken nugget to market in a matter of months, but regulators still have yet to sign off on the technology’s safety. Even if Covid were to change China’s animal protein consumption, something SARS, H1N1, and avian flu failed to do, mung bean-based eggs “wouldn’t take long to copy,” says Helen Hae-Ryoun Gi, a partner at Hae Creative, a consultancy in Seoul that advocates for new plant-based foods in Asia.

Still, Just is an early mover, and Tetrick says “there’s plenty of room” for competition. The more supply chains reorient around plant-based proteins, he says, the easier his expansion will be.

For now, he says, he’s focused on perfecting the third iteration of Just Egg, due out later this year. Fifteen of his 155 employees have been sheltering in place with a company-provided Thermomix, several versions of the mung protein, and various gels and spices to refine the formula from their homes. The new version, Tetrick says, will be creamier, with a richer mouthfeel and fewer notes of, well, mung bean. Samples weren’t forthcoming. *—Deena Shanker and Larissa Zimberoff*

THE BOTTOM LINE Josh Tetrick might still be thinking a few too many steps ahead of his company’s capacity to deliver, but its new slate of partners appears to have smoothed its expansion in Asia.

▲ Each bottle can make about eight fake eggs’ worth of scramble in a frying pan

Where the Tractors Do the Driving

● Automated farming tools are starting to look extra appealing during the pandemic. The U.K. is on it

Cereals, a giant trade fair for British crop farmers, is a bit of a social occasion for people whose line of work often leaves them isolated. At last year’s event—a mass of tents, booths, and refreshment stands in fields in the English county of Lincolnshire—many visitors wore neat tweed or wax jackets above their waterproof wellington boots, and some accessorized with neckties and flat caps. LG Seeds showed off varieties of winter barley not far from the enormous machines sold by New Holland and Horsch. In one of the fields, a more modest model, a small blue tractor manufactured by the Japanese company Iseki & Co. drove a figure eight in the wet grass of a fenced-in enclosure without anyone sitting in its seat. ▶

◀ As the Iseki tractor traced its path between spaced-out bales of straw, an orange inflatable tube with a white faux head and arms periodically unfurled near the point where the figure-eight tracks crossed. It was a scarecrow called the Scarey Man, manufactured by the British company Clarratts Ltd., which in this case played the role of a hypothetical pedestrian who might wander into the tractor's path. Each time the Scarey Man ballooned up in its way, the Iseki ground to a halt several feet back. A lidar scanner, a sensor that measures distances using laser light, detected the obstacle, and the tractor's software ordered it to stop.

"You can see that the tractor is driving in a lot more controlled manner than maybe our first-generation machine," said Kit Franklin, who was pacing the arena and narrating the tractor's moves via microphone. "We've got really nice straight runs in the middle and nice, uniform corners."

Franklin, 30, is a lecturer in agricultural engineering at Harper Adams University, a farming-focused school in the county of Shropshire. He also runs the Hands Free Farm initiative, a team that aims to ramp up agricultural automation and suddenly looks especially prescient. In 2016, working on a skeleton budget of £199,000 (about $246,000), Franklin and three colleagues set a goal of farming a single hectare (about 2½ acres) fenced off near a rugby pitch on the Harper Adams campus without any direct human assistance. The initial money came from Innovate UK, a British government research fund, and Precision Decisions, a company acquired in 2018 by agricultural researcher Map of Ag.

The team acquired machinery that it retrofitted with off-the-shelf drone electronics and actuators, including a small Iseki tractor and a quarter-century-old Sampo Rosenlew combine. The small machinery reflected Franklin's limited financing, but also a broader philosophy. In many parts of the world, the limiting factor in agriculture has been the cost of labor, hence a trend for ever-larger machines that can cover more ground in less time. However, larger machines tend to compact the soil, reducing crop yields. Franklin's team is trying to facilitate the proliferation of smaller, lighter farm equipment that can cover the same ground as the behemoth models while preserving soil quality.

Jonathan Gill, the team's robotics expert, shifted to agriculture after several years of running remotely operated underwater vehicles on oil rigs in the North Sea. For the farming prototypes, he devised an unconventional approach to retrieve crop samples without venturing into the field. "We just got a poop scoop, put some really sharp blades on the end of it, and then flew it underneath the drone," he says. "We grabbed and stripped the heads off [the crop] and brought it back and dropped it into a bucket. It was perfect."

The Harper Adams researchers harvested 4½ metric tons (about 5 U.S. tons) of spring barley their first year and 6½ metric tons of winter wheat in 2018. The first year they worked with a brewery and a distillery to make beer and flavored gin from the crop. The second year they milled the wheat and used it to make pizza at the side of the field, demonstrating a field-to-fork process.

Their success attracted another order of magnitude's worth of financial support, including an additional £1.6 million from the British government. The money enabled Franklin to team with the U.K. division of Farmscan AG, an Australian company that specializes in precision agriculture. The next goal is a full hands-free farm—moving from a single, simple fenced area to 35 hectares spread in the surrounding countryside. This larger project will involve fields with more varied terrain, multiple small vehicles working simultaneously in the same field, and eventually vehicles driving themselves to and from storage sheds and negotiating their own paths into and out of fields. (They'll go driverless on publicly accessible tracks, but not roads.)

"Ultimately, what we're talking about here is a complete ripping up of the current marketplace for agricultural machines"

Work on the three-year project began in 2019, but it's faced a number of setbacks. First came a torrentially wet autumn in Britain, with widespread flooding that prevented the Hands Free Farm team from planting any crops. "It's just been relentless," Franklin says. The ground had finally dried out by March, just in time for Britain's coronavirus lockdown to begin. Still, the team remains optimistic it will be able to harvest at least one field remotely this year. In a few days last month, after lockdown restrictions eased somewhat, researchers used the autonomous machines to plant what's known as a cover crop to protect the soil. Conventional, manned machines planted the field they intend to harvest autonomously. They've also been refining their hardware and software, as well as developing a trackside sensor system to help their machines steer clear of stray pedestrians or vehicles.

The Hands Free Farm sits at an odd angle to industry. High-end commercial tractors are already capable of a high degree of automation, including by using advanced real-time GPS software to drive superhumanly straight lines. In areas with large, flat fields, such as the U.S. Midwest, farmers can watch Netflix or answer email while the machines mostly operate themselves. Some feature onboard fridges and massage seats. Yet these tractors still legally require a human at the wheel to handle more complex maneuvers and for legal and regulatory cover. Major manufacturers are also loath to cannibalize their own business lines with fully autonomous models, Franklin says.

"Ultimately, what we're talking about here is a complete ripping up of the current marketplace for agricultural machines," he says. "It comes down to farmers demanding it."

There are some signs of that demand. Small Robot Co., a British startup, has raised more than £3 million worth of crowdfunding for a range of robots it says will be able to map and zap weeds. At the most recent Agritechnica, a trade show held near Hanover, Germany, John Deere showed off a concept electric cableless tractor, though it had to be plugged in.

At last year's Cereals show, some onlookers complained that Franklin's project also didn't look ready for prime time. "I wouldn't want a rat's nest in the back of it, I know that," remarked local agricultural contractor Mark Goatley, referring to the machine's mess of wires. Jim Godfrey, who farms in nearby North Lincolnshire, said he was interested in automating some of his farm's more tedious tasks; he noted that the ubiquitous combine harvester looked similarly far-out when it first appeared.

Greater automation will allow the same number of farmers to reduce their stress and focus on other, more productive goals during the many hours they might otherwise be parked atop a tractor, according to Gill, the robotics expert. Some of the Cereals onlookers remained skeptical. Robert Dunkley, another contractor, said that, at 68, he'd rather keep doing things the old-fashioned way, and not just because he enjoys some of his simpler duties. "If you have that," he said, indicating the driverless Iseki, "it does me out of a job." —*Simon Akam*

THE BOTTOM LINE Franklin's farming automation project has faced some very old-school obstacles (like rain) on its path to greater scale, but it's continued to refine its gear in isolation.

Scanning the Sewers

● Startup Biobot Analytics is testing swaths of Americans' waste on behalf of local governments

The Delaware county of New Castle is home to about 560,000 people, more than half the state's population, and like most American communities during the federal government's bungling of its initial pandemic response, it struggled with conflicting information and severe limitations on Covid-19 testing. Given the mess, County Executive Matt Meyer says, he was ready to consider any option that could provide better intel. So in April, New Castle began to gauge coronavirus infections using a data point collected from an unusual source: poop.

The county has been participating in a pro bono program run by Biobot Analytics, a startup in Cambridge, Mass., that analyzes the virus's concentration in sewage to estimate the number of people infected in a given area. The Biobot founders say that by gauging where infections are rising or falling over time, Meyer and other officials can make better decisions about public health. That could mean relaxing social distancing restrictions when conditions improve or preparing local hospitals for a surge of patients when coronavirus-in-sewage levels spike. "My job right now," Meyer ▶

▲ Biobot is analyzing Covid-19 concentration in sewage to estimate the number of infections in a given area

PHOTOGRAPHS BY M. SCOTT BRAUER FOR BLOOMBERG BUSINESSWEEK

◀ says, "is to get us out of this however we can."

Wastewater epidemiology, a branch of public-health research best known as a way to combat polio, is finding fresh converts in the age of Covid-19. About 400 U.S. wastewater-treatment facilities have joined Biobot's program, including plants in or near Denver, Honolulu, Indianapolis, Miami-Dade County, and the Portland, Ore., area. Workers on the ground collect samples in 50-milliliter vials provided by Biobot and FedEx them to the startup. Within a week of receiving the samples, Biobot estimates each area's Covid density by searching for traces of the virus's RNA in conjunction with the help of a microbiome lab at MIT. Chief Executive Officer Mariana Matus, who has a doctorate in computational biology, met her Biobot co-founder, President Newsha Ghaeli, on campus in 2014. They say their tests are meant to complement doctor-patient tests, not replace them. With an eye to privacy concerns, they emphasize that their work can't be used to identify individuals.

Most cities can't test every resident clinically, likely ever. But to answer questions about reopening businesses and sending kids back to school, "testing at scale is critical," Ghaeli says. "Compared to individual testing, it's very cheap for us." She says her team of eight full-timers and eight contractors is testing more than 10% of the U.S. population every week, a figure that dwarfs the nation's clinical testing to date. Its Covid projections also track much higher than the official tallies. On April 29, Biobot estimated 63,400 cases in New Castle County, whereas Delaware Health and Social Services tallied only 1,717 cumulative cases in the county. As of May 13, the most recent date for which Biobot data were available, the startup estimated 32,030 active cases in the county, while the state agency reported 2,496 cumulative cases.

▲ Co-founders Ghaeli (above) and Matus (left) met at MIT

A spokesperson for the Centers for Disease Control and Prevention said in an email that research suggests standard wastewater-treatment practices should render the coronavirus inactive and that the CDC is considering whether to incorporate wastewater testing into its public-health plans.

Before the pandemic hit, Matus and Ghaeli were focused on assessing opiate addiction in communities that don't usually benefit from big research dollars. "Every time we use the toilet, we're making our contribution to a larger dataset that can inform public-health action and public-health prioritization," says Matus, who's from Mexico City. "I grew up under hardship. I definitely lived first-hand through what it's like to be ignored by government priorities."

The pro bono work, however, has come to an end. As of June 1, Biobot began charging $1,200 a test, the co-founders say. The company has already faced backlogs when its workers, suspecting they'd contracted Covid-19, had to quarantine themselves. To avoid future delays and increase capacity, Matus and Ghaeli are using some of the $6.7 million in venture funding they've raised to more than double their staff by mid-June. "Our vision is for this to be deployed across the tens of thousands of wastewater facilities in the U.S.," Ghaeli says.

Meyer, who estimates Delaware is losing $80 million to $100 million in economic activity a day while social distancing, has already committed to paying. If Biobot's services help New Castle County reopen even a half-day earlier, he says, "it is the best investment I've ever made." —*Nick Leiber*

THE BOTTOM LINE Biobot Analytics says it's testing more than 10% of the U.S. population's waste, and its data inform local decisions about public health.

From Fracking Aids To Covid Cleanup

● In just about a month, Advanced BioCatalytics shifted production to cleaning solution

Advanced BioCatalytics Corp. is more vulnerable to energy price swings than your average startup-size company in Irvine, Calif. It's less fashionable, too, long specializing in the creation of protein-based fluids used in oil and gas fracking. But as Southern California began to shut down in March, Carl Podella, the co-founder who oversees its research and development efforts, told Chief Executive Officer Chris Harano he had a very different project in mind: coronavirus cleanup.

Podella wanted to shift the company's production facilities to make liquid disinfectant instead of fracking fluids. He'd been quietly working on the formulas anyway, so it wouldn't be a standing start. Advanced BioCatalytics already had a small sideline in anti-grime solvents, and with the right new ingredients, he argued, it could expand beyond the standards of an average cleaning product and meet the government's standard for disinfectants. Podella, who previously spent 27 years as a chemist at S.C. Johnson & Son Inc., says his experience with cleaning products there left him confident he could adapt quickly.

It was an unusual pitch for a company whose most prominent investor is BP Plc's venture capital arm. For days, Harano said no, thinking the crisis would end soon with minimal impact in the U.S., but he changed his mind as the virus's reach became clearer. The rest of the roughly 25-person staff had a different objection. The governor had just ordered them to shelter in place, which they couldn't exactly do if they were back in the lab. "They didn't need a new project," Harano says. Still, as a chemical company, Advanced BioCatalytics is considered an essential business, and Harano convinced his staff its future could depend on speedy entry into the crowded field of making stuff less gross.

Retooling was tougher than it may sound. The anti-grime solvents Podella knew well were just for cleaning, meaning lifting dirt from a surface, whereas disinfecting means killing the germs that might linger there. (Technically, a disinfectant is stronger than a sanitizer but falls short of a sterilizer.) Making a product better at disinfecting can make it less efficient at cleaning, and vice versa. Hydrogen peroxide, the key disinfectant, is tough on germs but not the best at cutting through grease.

● The rack price per 1-quart bottle of the hydrogen peroxide solution is

$8.60

By the end of April, the team had reformulated its processes, sourced the ingredients, and pitched the product, called Accell Clean With Hydrogen Peroxide, to its existing customer base. The company can't advertise it as a disinfectant, let alone a Covid fighter, until the Environmental Protection Agency approves it, a monthslong process that's far from guaranteed. Among the tests: how effective the product remains after spending months on the shelf.

Remie Ramos, the head of the economic development agency in Fort Stockton, Texas, heard about the product when he called to make sure Advanced BioCatalytics planned to keep renting the supply yard in town where it had stored tanks of fracking fluids. "I said, Whoa, wait, my people are asking for that," Ramos says. The company shipped him 100 cases of the hydrogen peroxide solution, about 300 gallons' worth, at an undisclosed discount. (The rack price is $8.60 per 1-quart bottle.)

The shipment arrived in mid-May, shortly before Ramos was set to distribute coronavirus relief checks to local businesses, so he gave each business a bottle or three when he dropped off their checks. He says many of the local outfits, including a hospital, are using it and in some cases begging for more, despite the rather strong odor. Harano says the company has tweaked the formula so that future shipments will smell more like linen and less like vinegar.

The CEO says he expects Accell Clean to make up the biggest piece of his company's sales this year. The team will sell more fracking fluid when it can, he says, but its work in the cleaning business will outlast the pandemic. —*Sarah McBride*

THE BOTTOM LINE Advanced BioCatalytics can't call its new hydrogen peroxide solution a disinfectant yet, but it has attracted customers with no use for the company's fracking fluids.

The Debt

● In an economy hobbled by the pandemic, you can go bankrupt or you can borrow—a lot

With the pandemic lockdowns starving many businesses of revenue, debt is becoming either the key to survival or a ticket to bankruptcy in corporate America. Companies strong enough to gain access to the bond markets have borrowed $1 trillion this year at the fastest pace on record. Then there are those that can't afford to carry the debt they have, leading to the most large bankruptcy filings in the first five months of the year since 2009, during the Great Recession.

One of the first things the Federal Reserve did in response to the pandemic was pledge to buy investment-grade corporate bonds. Later it even said it would buy some of the highest-rated junk bonds. The effect was dramatic, reassuring bond investors and driving down interest rates even before purchases began. Funds that invest in U.S. investment-grade bonds, junk bonds, and leveraged loans saw a combined inflow of $13.8 billion in the week ended May 27, the largest on record, according to data from Refinitiv Lipper. That abundance of buyers has helped issuers such as Boeing Co. and Marriott International Inc. raise money to ride out the crisis.

"The Fed took a market that had no certainty and put as much certainty into it as they could," says Elaine Stokes, a portfolio manager at Loomis Sayles & Co. "It almost becomes inevitable that there's this crazy amount of demand."

Fed Chair Jerome Powell has said the borrowing spree is a "really good thing," and the bond sales help avoid turning "liquidity problems into solvency problems." But the Fed's support is only temporary, and there's concern that more borrowers may find themselves in distress when that support inevitably stops. "The Fed is providing liquidity to the higher parts of the credit market, which has kept investors in buying mode," says Winifred Cisar, head of credit strategy at Wells Fargo & Co. "But on the other side, if you have a larger credit universe, your number of defaults will be higher. That's just the math."

The debt binge started out with some of the highest-quality borrowers, such as Exxon Mobil Corp. and Verizon Communications Inc. Some

Edited by Pat Regnier

Great Divide

top-notch borrowers have simply taken advantage of cheap funding costs. Amazon.com Inc., for example, set a new low for corporate interest rates on bonds it sold on June 1. For debt due in three years, investors agreed to receive a coupon of just 0.4%. It's also paying record-low rates on bonds due in 7, 10, and 40 years, according to data compiled by Bloomberg. Apple Inc. borrowed earlier in May to help buy back stock, while asset management giant BlackRock Inc. and drugmaker Pfizer Inc. may use recent bond proceeds to refinance debt.

But the borrowing has since expanded to riskier investment-grade companies such as the cruise line Carnival Corp. and into the depths of junk, including AMC Entertainment Holdings Inc., which runs movie theaters. Some of this could arguably be labeled rescue financing–without new borrowing, many companies could be in serious trouble.

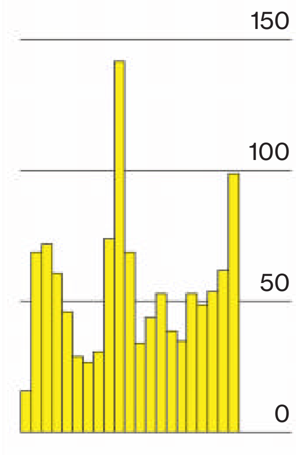
Companies in sectors hit hardest by the virus may be paying stiff prices for their borrowing. Many, including rental car company Avis Budget Group Inc. and Norwegian Cruise Line Holdings Ltd., are paying interest rates well above 10%. "We issued bonds to get through the tough times and we feel comfortable with the position we're in," says David Calabria, senior vice president of corporate finance at Avis Budget. Carnival, Norwegian, and AMC didn't respond to requests for comment.

At the same time, a buoyant bond market hasn't been enough to help all companies. In May alone, 28 companies with liabilities greater than $50 million filed for bankruptcy, compared with 29 in May 2009. For the year through May, the tally stands at 99 companies seeking court protection. In bankruptcy, companies are able to negotiate with their existing creditors to find a way forward.

Many of these businesses were already in crisis. Retailers J.C. Penney Co. and J. Crew Group Inc., which both sought Chapter 11 protection from creditors in May, were debt-choked and squeezed by online-only rivals. In the energy sector, Hornbeck Offshore Services Inc. and Ultra Petroleum Corp. had both noted the risk of bankruptcy even before energy prices went into a historic crash that briefly took crude prices into negative territory.

Now the wave is sweeping up companies that were in decent shape before Covid-19, only for the pandemic to swiftly upend their businesses. Car rental giant Hertz Global Holdings Inc. had access to the capital markets in November, and its bonds ▶

▼ U.S. corporate and nonprofit bankruptcy filings with more than $50 million of liabilities, January through May of each year



GETTY IMAGES (2). DATA: COMPILED BY BLOOMBERG

◀ due in 2028 traded above par as recently as late February, though it didn't take long for travel shutdowns to zap demand for rental cars and ultimately force it into bankruptcy. The pain extends beyond U.S.-based businesses. Latam Airlines Group SA, Latin America's largest air carrier, filed for Chapter 11 protection in New York on May 26 despite posting four consecutive years of profits before the crisis.

Neither company was perfect—each had junk-grade ratings—though they were hardly distressed. But experts say more bankruptcies are to come from ailing retailers that can only skip rent payments for so long—and airlines that aren't expected to see a substantial recovery in passenger demand until 2023, according to S&P Global Ratings.

The next concern on the horizon is that the borrowing of 2020 is creating a group of so-called zombie companies. These are businesses that can borrow their way through the next few months but may not be able to earn enough to cover interest payments. Although they may have been investment-grade before the pandemic, they might also be in businesses such as travel that will suffer its effects long after people are able to do basic things like get haircuts again. "If revenues don't turn around quickly for many companies, the lifeline created by accessing the credit markets may not be enough," Patrick Leary, chief market strategist at Incapital, wrote in a May 28 report. In that case, "the issue of insolvency just got a whole lot larger." —*Molly Smith and Jeremy Hill*

THE BOTTOM LINE The Federal Reserve's promise to buy corporate bonds has made investors very willing to extend credit to some companies. But there may be insolvencies down the road.

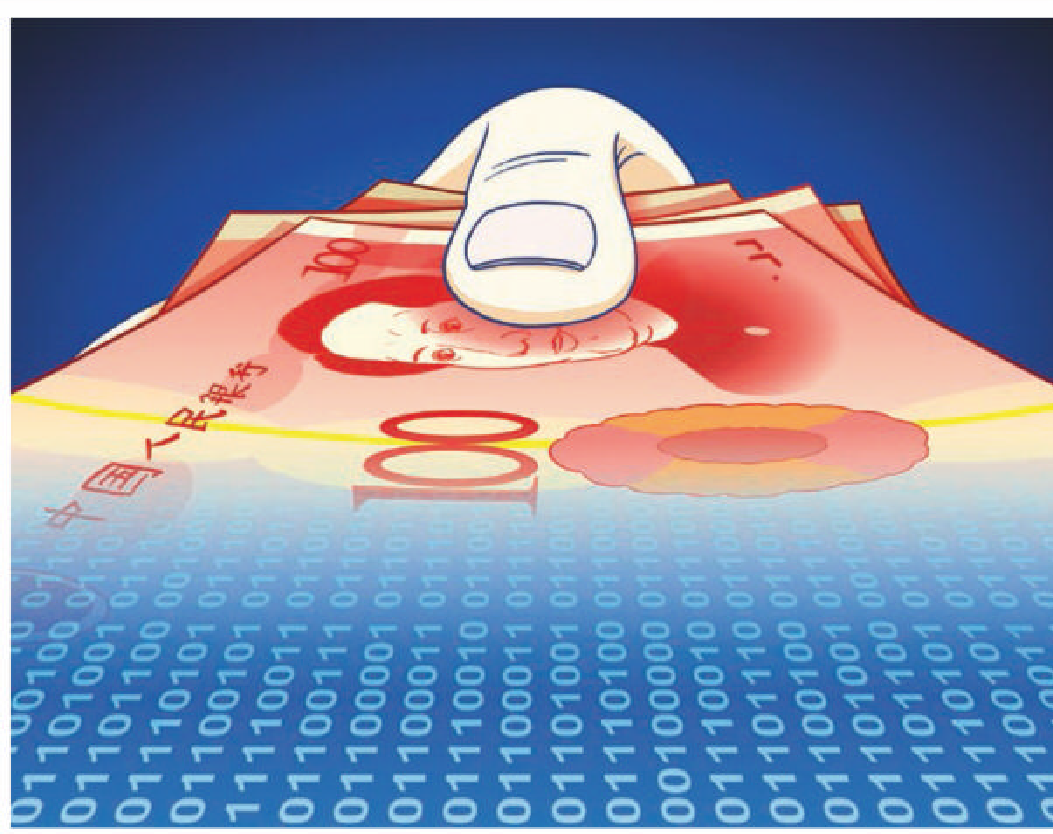
Who's Afraid of a Digital Yuan?

● An alternative to paper money could compete with Alipay, Bitcoin, and maybe even the U.S. dollar

People in China are no strangers to digital payments—if anything, it's easier to move around and shop in Shanghai or Beijing with an Alipay or WeChat Pay smartphone app than it is bearing a pocketbook filled with yuan notes. Now the Chinese government has begun a pilot program for an official digital version of its currency, with the likelihood of a bigger test at the Beijing Winter Olympics in 2022. Some observers think the virtual yuan could bolster the government's power over the country's financial system and one day maybe even shift the global balance of economic influence.

Most money that gets swapped around electronically is just credits and debits in accounts at different banks. China's digital cash is designed to be an electronic version of a bank note or a coin but one that happens to live in a digital wallet on a smartphone. But it would offer China's authorities a degree of control never possible with physical money.

The program started small in April, with a limited rollout in the cities of Shenzhen, Suzhou, Chengdu, and Xiong'an—a new "smart" city in the making, southwest of Beijing. One thing authorities have to be careful about is that digital currency doesn't crowd out other forms of money, such as bank deposits. Banks need deposits to extend as credit to borrowers.



The system would also potentially compete with two of China's most successful tech giants, Alibaba Group Holding Ltd. and Tencent Holdings Ltd., which back Alipay and WeChat, respectively. That might be part of the point. Policymakers have expressed some concern about too much of the country's financial plumbing being in the hands of a few companies. The rise of independent cryptocurrencies such as Bitcoin, meanwhile, has raised the threat of a huge swath of economic activity occurring out of the view of policymakers.

China started studying the issuance of its own digital unit as far back as 2014. "This has very strong political will behind it," says Andrew Polk, co-founder and head of economic research at Trivium China, a Beijing-based consultant.

While a digital currency is likely years away from a national launch, China's moves have triggered concern about a new threat to U.S. financial dominance. Aditi Kumar and Eric Rosenbach of the Harvard Kennedy School, writing in May for *Foreign Affairs*, argue that the digital version of the renminbi, as China's currency is officially known, could eventually allow Iran and others to more easily evade U.S. sanctions or move money without it being spotted by the U.S. government. Not everyone is so worried: Former Treasury Secretary Henry Paulson has written, also for *Foreign Affairs*, that despite China's plans, the threat to the dollar's status as the world's preferred currency is "not a serious concern."

It's unclear whether a digital currency would be allowed to move across borders. China will likely be wary of any circumvention of its capital controls, which aim to keep people from transferring significant amounts of wealth out of the country. Da Hongfei, founder of blockchain platform Neo, says the central bank could split part of the digital currency for use outside of China, much as it did with the offshore version of the yuan in currency trading.

When the new denomination is running, individuals will be able to exchange it using digital wallets. They won't need bank accounts. That could make it accessible to the 225 million people in China who have no access to the banking system. Some wonder whether payments could be linked to the emerging social-credit system, wherein some citizens are "whitelisted" for privileges, while those charged with crimes or other infractions are left out. "China's goal is not to make payments more convenient but to replace cash, so it can keep closer tabs on people than it already does," argues Aaron Brown, a crypto investor who writes for Bloomberg Opinion.

Things could move quickly after a national rollout. Chinese consumers are eager adopters of new financial tech. More than 80% of smartphone users in China regularly pay for transactions on their devices, the highest rate in the world, according to UBS Group AG. The test will be whether consumers trust a new form of cash–as well as the power behind it. —*Bloomberg News*

THE BOTTOM LINE China's move into digital currency is still tentative, but some think it has the potential to change how money moves both inside and outside the world's second-largest economy.

ILLUSTRATION BY KHYLIN WOODROW. KEANE: COURTESY SYNCHRONY FINANCIAL

BW Talks Margaret Keane

Despite the pandemic, many consumers are staying on top of their bills, says the CEO of Synchrony Financial, the lender behind many store-brand credit cards. And quite a few are going shopping.
—*Carol Massar and Jason Kelly*

● Began her finance career with a part-time job in college as a bill collector for Citibank ● Went on to lead the bank's U.S. retail operations ● Headed GE Capital's U.S. credit card business ● That unit was later spun off as Synchrony

What are you seeing in terms of delinquencies?

About 75% of the customers who initially put themselves into a deferred payment status have come out of that and are paying. Is it the stimulus? Is it the fact that people aren't spending money elsewhere? Probably all these things are helping. Another is that people aren't driving, and gas prices are down even if they are. So there are extra dollars there.

How is the consumer doing in general?

Certainly the consumer is back out and shopping. It isn't just in the states that I would say are completely open, it's across the board.

What kinds of purchases are making a comeback?

Things related to the home are very strong. People have given up vacations: They're fixing up their homes and doing activities around the house with their children and their families.

How big of a bounce back do you foresee?

There's still a lot of federal economic stimulus money out there, and that's something we have to pay attention to. We have to make it through this summer, see when the stimulus runs out, and then see where we stand.

Store cards can have rates of 20% or more. Because of the effects of the pandemic, have you rethought any of that strategy?

Part of this is the rewards people get on the cards and how you pay for those. When you look at most of our rewards, they're richer than a general purpose card. There's a misconception that private-label credit cards are mostly subprime. I'd say its mid-prime, the type of customers who do need these cards. We think we manage those cards well, and we treat our customers with great respect. When we get customers who are in trouble, we are trying to do the right thing to help them.

● Interviews are edited for clarity and length. Listen to *Bloomberg Businessweek With Carol Massar and Jason Kelly*, weekdays from 2 p.m. to 6 p.m. ET on Bloomberg Radio.

● Reckdenwald with her children

'It's Like This Pandemic Is Forcing Women 10 Steps Back'

● A decade's worth of job gains have evaporated overnight

Ashley Reckdenwald loves her job. But the reality of the pandemic is that someone has to stay home with the kids. A physician assistant in Princeton Junction, N.J., Reckdenwald is among the 23.5 million working moms with kids under 18 years old who make up almost a third of the female labor force in the U.S. After the outbreak shuttered schools and child-care facilities in March, she faced the painful decision of prioritizing her children over her career. "I knew I had to put my kids first and my career on hold, but it's like this pandemic is forcing women 10 steps back," says Reckdenwald, who was in the process of switching jobs when the crisis hit.

With child care expected to remain scarce, at least through the summer, Reckdenwald, 36, decided to stop interviewing for jobs to stay home with her three children, ages 5, 2, and 10 months. Her husband, an engineer, is the primary breadwinner, so the move made sense, but Reckdenwald fears that an additional break from the workforce could hurt her long-term earning potential, not to mention her peace of mind. "Working fulfills me, helping me keep perspective and prioritize," she says. "I like the example it sets for my children when I talk about my day and the people's lives I touched."

The pandemic has already ushered in the highest unemployment rate since the Great Depression. Last year women made up the majority of the U.S. workforce for the first time in almost a decade. In March and April, they accounted for 55% of the job losses and more than that in female-dominated sectors such as retail, travel, and hospitality, according to the Institute for Women's Policy Research, a Washington think tank.

Edited by Cristina Lindblad

Men haven't been spared the economic pain of the crisis, but preliminary research suggests women have been impacted disproportionately. They're losing jobs at higher rates than men, represent a greater proportion of hourly workers that don't have paid sick leave, and are shouldering most of the additional housework and child-care duties, according to an April survey of 3,000 people conducted by Lean In and SurveyMonkey.

Even as cities and states lift lockdowns, working moms say they have no choice without sufficient child-care options than to scale back their career ambitions, leave the workforce, or cut back on sleep to juggle work and full-time child care. Since women earn about 80% of what men do, they're often the ones who end up having to make career sacrifices among dual-income, heterosexual families. Economists and labor-rights advocates say those decisions could result in a catastrophic setback for women.

"Families make tough decisions when it comes to who's going to care and provide for the family in the pandemic—and in many cases, maximizing household income means the woman stays home," says C. Nicole Mason, chief executive officer of the Institute for Women's Policy Research. "Couple that with the disproportionate impact of job losses on women during this pandemic, and it could have a devastating economic impact on families, as well as women's long-term earnings and career advancement."

In the 2008 recession, the hardest-hit sectors were male-dominated industries such as construction and housing. During the recovery, says Mason, many working moms went back to school or trained in new fields to boost their earning power. That option isn't available to many women now that child care is curtailed.

Mason says U.S. policymakers and companies face a choice: Give up the hard-fought gains among working women, or use the novel coronavirus outbreak to formalize policies that could help engender an equal recovery, including paid sick leave, flexible working arrangements, and child-care support.

By March, 14% of American women who work full time and have children at home were already considering quitting their jobs to take care of their families. That compares with 11% of men surveyed by Syndio, a company that develops software for corporate human resources departments.

Social media feeds may be filled with smiling photos of working moms baking bread and crafting with their kids between Zoom meetings. But women are typically spending 20 more hours a week on housework and caregiving than men in the same situation, the Lean In survey found, noting that women of color and single mothers are putting in even more hours.

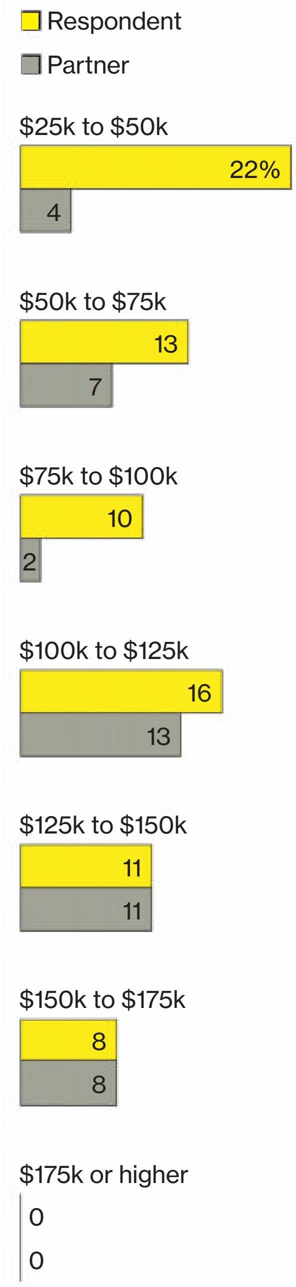
"The pandemic amplified an already untenable situation, where women are burning the candle at both ends as they drown in work and hack together child care," says Alexis Barad-Cutler, who runs an online women's community called Not Safe For Mom Group and has two sons, age 6 and 8. "Working moms are already earning less to the dollar than our male counterparts, and now, because we're not the higher wage earners, our careers are put to the side again," says Barad-Cutler, who took charge of home schooling because her husband, an attorney in New York, is the primary breadwinner. She now takes care of her kids during the day and works from 9 p.m. to 1 a.m. most nights.

Many women don't have an option to scale back. There are 15 million in the U.S. whose paychecks amount to at least 40% of their household income, according to the Institute for Women's Policy Research. That means half of all mothers in America with children under age 18—and 4 out of 5 black mothers—are breadwinners.

Kai White, a single mom in Long Beach, Calif., says school closures and the inflexibility of her job has left her in a suffocating spot: "Either neglect my kids and their schoolwork, or risk being fired."

White, 31, is a job recruiter at a staffing company with 200,000 employees. Considered an essential business, the company hasn't halted in-person recruiting events. After using her paid time off, she says she's had no other choice but to ask for an unpaid leave of absence. Because her employer allows only 30 days of personal leave, she had to return to her job on June 1. "I'm panicking," White says. "I need money for rent and food, but I also can't risk contracting ▶

▼ Share of women who said they or their partner are considering quitting their job to better manage family responsibilities during this pandemic, by household income



◀ Kai White

RECKDENWALD; PHOTOGRAPH BY HANNAH YOON FOR BLOOMBERG BUSINESSWEEK; WHITE: PHOTOGRAPH BY MAGGIE SHANNON FOR BLOOMBERG BUSINESSWEEK. DATA: SYNDIO

◀ the disease or leaving two toddlers at home with my 12-year-old."

In March, Congress passed legislation that affords 12 weeks of paid leave for parents whose school or child-care provider is closed in response to Covid-19. Companies with more than 500 employees are exempted. "These companies were given a loophole under the assumption they already had measures in place to deal with medical leave," says Daphne Delvaux, a senior trial attorney at Gruenberg Law in San Diego. "But it's not happening, because it's a leave for school closures, which doesn't exist in company policies. I'm hearing stories from women staying up all night working just to keep their jobs. One client was laid off at 39 weeks pregnant. Her company blamed it on the pandemic, but she was the only one laid off."

Employees can take 12 weeks of pandemic-related parental leave at Microsoft, 14 weeks at Alphabet's Google, 4 weeks at Facebook, and 10 days of caregiver leave at Goldman Sachs Group. But even though 2 in 5 families in the U.S. have children under the age of 18, almost 60% of workers say their employer hasn't changed policies to offer more flexibility, according to the Lean In survey.

"That's the starkly sexist part of this virus," says N. Leahy, a 31-year-old events planner who lives in Rhode Island and was the main breadwinner in her family. "It forces decisions about which part of your identity is going to win out, parent or employee." She'd planned to return to work in June after taking maternity leave for her second child's birth in February. Now her boss doesn't know if her job will exist. She also isn't sure she wants to go back, worrying that "workers with kids will be penalized if they don't want to take health risks like going into the office and sending their kids to day care."

As job losses mount around the country, Leahy says many of her friends fear losing their jobs if they admit to their employers that they're having a hard time. "I've been struck by the level of anxiety and desperation I'm seeing in the closed Facebook groups—and hushed conversations that I don't see on the *Today* show or Instagram posts advising yoga and productivity journals," she says.

For now, Leahy says her family will be able to survive off her husband's income "by the skin of our teeth," but that the long-term consequences could be devastating for women such as her. "We know the choice has to be our children, but that doesn't make it any easier or less painful for us individually, or for the economy and society as a whole." —*Shelly Banjo*

THE BOTTOM LINE Last year women made up the majority of the U.S. workforce for the first time in almost a decade. In March and April, they accounted for 55% of the job losses.

It's ***Bad***, But It's No Great Depression

● Despite an unemployment rate close to its 1930s peak, the U.S. economy is healthier than it looks

There's never been an economic downturn quite like the Covid-19 recession. One that sometimes comes up for comparison is the Great Depression, which was actually a pair of serious downturns in the 1930s punctuated by a short-lived recovery. A new round of articles mentioning the Depression seems likely because on June 5 the U.S. Bureau of Labor Statistics was scheduled to release the employment report for May, which could feature the worst jobless rate since 1938. But as bad as it is, the unemployment rate is a bit of an outlier. Other measures of the economy's health are considerably stronger than they were during the 1930s.

● UNEMPLOYMENT RATE

Today's jobless numbers aren't directly comparable with those from the 1930s because the government has changed how it collects the data. Still, scholars have made estimates. On its website, the statistics bureau cites 1970s research by John Dunlop of Harvard and Walter Galenson of Cornell calculating that the annual jobless rate peaked at 24.9% in 1933.

The National Industrial Conference Board (now the Conference Board) estimated at the time that the monthly unemployment rate topped 20% for most of 1932 and 1933, peaking at 25.6% in May 1933.

Kathryn Edwards, an associate economist at Rand Corp., a research organization, says it would be a mistake to put too much faith in those Depression-era estimates. What's safe to say, she says, is that "this is the worst we've ever had" since then.

● LENGTH OF UNEMPLOYMENT

The longer joblessness lasts, the more damage it does. This recession has been short so far: In April the number of people unemployed for more than half a year actually dropped to below 1 million, its lowest since 2001. And many economists expect the unemployment rate to fall quickly as the economy reopens. A Salary.com survey of almost 1,200 compensation managers in the U.S. and Canada found that 90% expected Covid-19-related layoffs to be temporary.

● PRICES AND WAGES

Consumer prices fell 32% from late 1929 to early 1933 because demand was so weak. Wages in several industries also tumbled: an estimated 34% in manufacturing and 17% in railroads, according to a 1933 study by the National Bureau of Economic Research. The upshot was that even many who still had jobs couldn't keep up with interest payments on mortgages and other debt. Things aren't likely to be as bad this time, although prices did fall in March and April and some companies have cut pay temporarily. The Federal Reserve said in April that most of the system's 12 regional banks reported "general wage softening and salary cuts except for high-demand sectors such as grocery stores that were awarding temporary 'hardship' or 'appreciation' pay increases."

● BANKRUPTCIES

Here the current recession is likely to appear worse than the Depression. Bankruptcy filings remained rare in the 1930s, in large part because the law was tilted against debtors and bankruptcy carried more of a stigma than it does now. Until the Chandler Act of 1938, companies filing usually had to liquidate their assets instead of getting a chance to negotiate a restructuring. In contrast, there's no doubt the pandemic recession will cause a surge in bankruptcies, although they're only starting to show in the data. Hertz Global, J.C. Penney, and Neiman Marcus were among the 28 companies that sought bankruptcy protection in May, bringing the total this year to 99 and putting 2020 on pace to top the 2008 level.

● GOVERNMENT AID

In the early years of the Depression, there was no government safety net—the needy relied on churches, charities, labor unions, and help from family members. The first state unemployment insurance system was legislated by Wisconsin in 1932. Social Security and the Works Progress Administration, two of the farthest-reaching New Deal programs, weren't signed into law until 1935. A measure of how little the federal government did is that it ran a budget surplus in 1930 and a deficit of only half a percent of gross domestic product in 1931. This time, Congress has acted more quickly and aggressively: As a result of large stimulus programs, in April the federal budget deficit almost doubled, to 9% of GDP. Government social benefits accounted for a third of personal income in April, up from 19% before the pandemic, according to the Bureau of Economic Analysis. "Those who lost their jobs and were able to file for unemployment are doing pretty well," says Susan Houseman, research director at the W.E. Upjohn Institute for Employment Research in Kalamazoo, Mich. "Over half are making more than when they were fully employed."

● INTEREST RATES

The Federal Reserve helped cause the stock market crash of October 1929, which triggered the Depression, by raising interest rates to stop speculation in stocks. In 1932 it raised rates again to defend the value of the dollar. At the same time, prices were falling, so real rates—that is, rates adjusted for inflation or deflation—reached a crippling high of almost 15%. This April, in contrast, the real interest rate was just 0.68%.

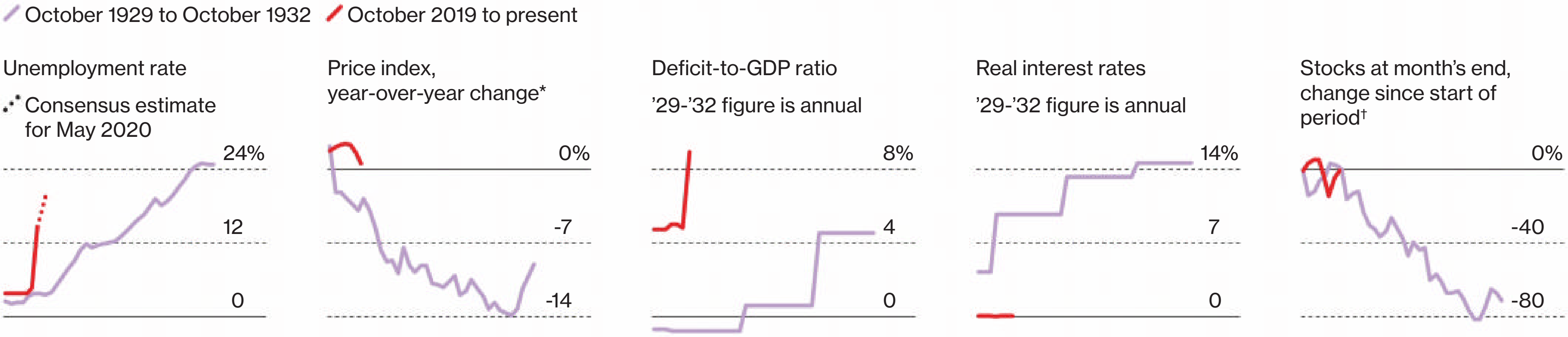
● STOCK MARKET

The S&P 500 index lost 34% in just over a month in February and March, even faster than stocks' decline in the 1930s. But it's recovered most of that. Higher share prices help growth by making consumers and businesses feel wealthier and more optimistic. In the Depression, the predecessor to the S&P 500 fell 86% from peak to trough. —*Peter Coy*

THE BOTTOM LINE Despite frequent comparisons to the Great Depression, the effects of the Covid-19 crisis have been less severe, thanks in large part to a speedy and robust policy response.

Two Crises in Contrast

Economic indicators from the runup to and start of the current recession charted against figures from the first three years of the Great Depression



*THE GENERAL PRICE INDEX FROM 1929 TO 1932 AND THE CONSUMER PRICE INDEX NOW. †AS MEASURED BY THE BENCHMARK S&P INDEX, WHICH HAD 90 STOCKS IN THE 1920S AND '30S AND HAS 500 NOW. DATA: NATIONAL INDUSTRIAL CONFERENCE BOARD, BUREAU OF LABOR STATISTICS, NATIONAL BUREAU OF ECONOMIC RESEARCH, OFFICE OF MANAGEMENT AND BUDGET, FEDERAL RESERVE BANK OF ST. LOUIS, CENSUS BUREAU, FEDERAL RESERVE, BLOOMBERG

Can Atlanta Keep The Dream Alive?

● Protests reveal cracks in the foundation of a bastion of black success

If any city in America could think it was inoculated against the protests that have swept across this country's urban landscape, it might have been the metropolis of Atlanta.

The onetime Confederate stronghold is not only the place that gave birth to Martin Luther King Jr. and many other notable African Americans, it is also a magnet for younger generations of black people—a land where black lives not only matter but flourish. In addition to hundreds of black-owned restaurants, salons, barbershops, and other small businesses, Atlanta is home to African-American entrepreneurs who are global giants in their industries. One of them, the actor and mogul Tyler Perry, opened a 330-acre studio in the city last year, employing hundreds of people on some days within one of the largest production facilities in the country.

Here, black descendants of slaves can realize the kind of wealth once reserved for the white aristocracy of the Deep South. And in neighborhoods such as Guilford Forest, young black families live in new subdivisions of sprawling mini-mansions, walking trails, and playgrounds, all within close proximity to the Midtown business district. In the historic arts district known as Castleberry Hill, young, urbane black professionals own lovingly renovated homes, sip cocktails at lounges owned by black celebrities, and stroll the art galleries and shops.

Landmark legislation introduced in the 1970s by the city's first black mayor, Maynard Jackson, opened the way for black-owned businesses to get municipal contracts, and in the ensuing years a cohort of millionaires of a different hue was born. So attractive was the economic opportunity that the city became known by black people across the country as "Hotlanta," an old Allman Brothers Band song title and a double entendre that not only underscored the city's sweltering summer temperatures but also designated the city as the place to be for ambitious black Americans. According to U.S. Census data, more than 2 million African Americans live in greater metro Atlanta, and there are more than 7,600 black-owned businesses. Only the New York City area has more black-owned businesses, but it also has twice as many African-American adult residents.

It's that sense of being special—that black economic prowess—that Atlanta Mayor Keisha Lance Bottoms invoked on the night of May 29 in response to protests over the killing of George Floyd, a black man in Minneapolis who died after a police officer pressed his knee on Floyd's neck for more than eight minutes.

The protests in Atlanta had just taken a violent turn, and Bottoms, a rising political star and Atlanta native, appealed to the residents of her city, reminding them of the multitude of black enterprises and the opportunities provided by the city's strong corporate community. "What I see happening on the streets of Atlanta is not Atlanta," Bottoms said. "We are better than this." Or, as Michael Santiago Render, an Atlanta-bred rapper known as Killer Mike who joined the mayor at the hastily arranged press conference, said: "Atlanta is not perfect, but we are a lot better than we ever were, and we're a lot better than other cities are."

Yet for all of the promise that's come to fruition in Atlanta, there are still many dreams deferred. Even with the city being the headquarters of Coca-Cola Co., United Parcel Service, and Home Depot and the home to several renowned medical institutions and top colleges and universities, there are long-festering problems. Stubborn unemployment, low wages, poor housing conditions, and inadequate health care continue to bedevil many African Americans in and around this city—and then the coronavirus pandemic came to town. "This southeastern part of the U.S. had some of the worst health outcomes in the nation even before the pandemic hit," says Dr. Sandra Ford, the district health director for the DeKalb County Board

Edited by
Amanda Kolson Hurley

of Health. (DeKalb County encompasses part of the city of Atlanta and the greater metro area.) The rate of Covid-19 infections in blacks vs. whites in the region, she says, has been almost 3 to 1.

As viral video spread of yet another black person killed by a white police officer, people who'd just lost their jobs, or were concerned for sick or dying relatives, or were waiting for unemployment payments to arrive—or all of the above—decided there was little left to lose if they took to the streets. Atlanta wasn't immune to unrest and destruction.

But the mayor, while sharing the protesters' pain and speaking of her personal concern for the safety of her own children, reminded them that their city had gained so much in recent years and did in fact have much to lose. Just minutes after riotous crowds had vandalized the CNN Center, a landmark downtown building that's served as home to one of the city's most prominent businesses, Bottoms reminded them that they were destroying a symbol of what Atlanta has achieved. "Ted Turner started CNN in Atlanta 40 years ago because he believed in who we are as a city," she implored the protesters. "They are telling our stories, and you are disgracing their building. Go home!"

On the next evening, as protests continued in the city's streets, Bottoms and her police chief acted swiftly to fire two of Atlanta's police officers and suspend four others after they pulled two black college students from a car and used taser guns on them. (Five of the six officers are black, one is white.) Two days later, the presumptive Democratic presidential nominee, Joe Biden, commended Bottoms in an online forum. "I've watched you like millions and millions of Americans have on television of late," he said. "Your passion, your composure, your balance has really been incredible."

The unrest will subside. Even the most roaring fires are eventually reduced to ashes. Atlanta isn't paradise, and it's learned that relative prosperity is no panacea for generations of old and deep social problems. In his days as mayor, Jackson liked to say Atlanta was "too busy to hate." But this is a city where there is capable leadership, strong opportunity, civic pride, and, most of all, hope. It's a city that, because of its past, offers a blueprint—a blackprint, if you will—of how economic opportunity and prosperity can become the province of all people. —*Brett Pulley*

THE BOTTOM LINE While Atlanta has fostered prosperity for a large African-American population, it isn't immune to America's long-standing racial injustice.

● Across the U.S., protesters have taken to city streets over the recent killings of black Americans by those sworn to protect them

Atlanta, May 29
Photo by Lynsey Weatherspoon

▲ People march through downtown toward the Georgia state capitol

Brooklyn, May 30
Photo by Dominick C. Lewis

▲ A protester atop a Speedway gas station in New York's Flatbush neighborhood

New Orleans, June 1
Photo by Abdul Aziz

▲ Marching along Canal Street in the Big Easy's Central Business District

Brooklyn, May 30
Photo by Henry Danner

▲ NYPD officers near an entrance to the Manhattan Bridge

Baltimore, June 1
Photo by Michael A. McCoy

▲ Signs read "We Are the Movement!" and "Stop Killing Black People"

Miami, May 31
Photo by Johanne Rahaman

▲ A protester raises her fist at the Federal Detention Center

The City That Remade Its PD

● Camden, N.J.'s sweeping police reforms are a model but not a panacea

Across the U.S., protesters have taken to the streets to express rage after the killing of George Floyd by a Minneapolis police officer, Derek Chauvin. The demonstrations themselves have led to more police shows of force. In Brooklyn, two cops rammed their New York City Police Department SUVs into a crowd of protesters. In Philadelphia, officers sprayed tear gas at demonstrators who were penned in between a highway and a fence.

But across the Delaware River from Philadelphia in Camden, N.J. (population 74,000), officers left the riot gear at home and brought an ice cream truck to a march on May 30. The police department's chief, Joseph Wysocki, who is white, brandished a "Standing in Solidarity" poster alongside residents holding "Black Lives Matter" signs.

That Camden was able to demonstrate peacefully without escalation looked like a sign of progress in a city that's one of the country's poorest and was once considered its most dangerous. "What we're experiencing today in Camden is the result of many years of deposits in the relationship bank account," says Scott Thomson, Camden's chief of police until 2019. He led the city's high-profile pivot to community policing from 2013 until last year and oversaw what turned out to be a steep decline in crime. Homicides in Camden reached 67 in 2012; the figure for 2019 was 25. Over the past seven years, the department has undertaken some of the most far-reaching police reforms in the country, and its approach has been praised by former President Barack Obama.

The transformation began after the 2012 homicide spike. The department wanted to put more officers on patrol but couldn't afford to hire more, partly because of generous union contracts. So in 2013, the mayor and city council dissolved the local PD and signed an agreement for the county to provide shared services. The new county force is double the size of the old one, and officers almost exclusively patrol the city. (They were initially nonunion but have since unionized.) Increasing the head count was a trust-building tactic, says Thomson, who served as chief throughout the transition: Daily, noncrisis interactions between residents and cops went up. Police also got de-escalation training and body cameras, and more cameras and devices to detect gunfire were installed around the city.

While many departments define "reasonable" force in the line of duty vaguely, Camden's definition is much clearer. The department adopted an 18-page use-of-force policy in 2019, developed with New York University's Policing Project. The rules emphasize that de-escalation has to come first. Deadly force—such as a chokehold or firing a gun—can only be used in certain situations, once every other tactic has been exhausted. "It requires that force is not only reasonable and necessary, but that it's proportionate," says Farhang Heydari, executive director of the Policing Project. Most important, "they're requirements. They're not suggestions."

An officer who sees a colleague violating the edict must intervene; the department can fire any officer it finds acted out of line. By the department's account, reports of excessive force complaints in Camden have dropped 95% since 2014.

Like most matters of policing, however, Camden's success story isn't that simple. Members of the police force are now more likely to live in the suburbs than in the city of Camden, according to the local NAACP chapter. "Ninety percent of Camden's population is minority—we have a lot of young individuals who don't look like us that are getting these jobs," says Kevin Barfield, the chapter president.

The higher number of officers on the streets was uncomfortable at first, says Nyeema Watson, Rutgers University at Camden's associate chancellor for civic engagement, who helped connect the new department to local youth in its early days. "You felt that this eye was on you. It took me some time to adjust to having [police] cars stationed on major thoroughfares," she says. "That still raises the hair on my neck sometimes, but I know their approach is an attempt to say 'We're here, we're visible.' "

In a 2015 report, the American Civil Liberties Union praised Camden for its reforms but noted a "significant increase in low-level arrests and summonses." The department says it's mindful of overpursuing petty offenses. "We know when we police a city that has 30% of the residents under the poverty line, a $400 speeding ticket or ticket in general would be absolutely devastating financially," says Dan Keashen, a spokesman for the Camden County Police Department.

Community organizer Ayinde Merrill and other ▶

◀ activists are pushing to create a civilian review board for cases in which force is used. Merrill says the May 30 march felt co-opted by police and city leaders: “We didn’t feel as though the police were truly standing with us. If you’re truly standing with us, come and march with us in plain clothes.”

As some activists call for cities to defund the police, Camden’s reforms are more incremental in nature. “I think the challenge is that you have 18,000 police departments” in the U.S., says Thomson. “It’s an industry that generally is averse to any type of change. The only time change comes is when it’s compelled.” —*Sarah Holder*

THE BOTTOM LINE After rebuilding its police force, Camden drove down homicides and reined in use of excessive force. Local activists say police-community relations could still be better.

The Wrong Reach Of the Law

● The police are a problem but so are many rules they enforce. For that, you can blame lawmakers

● By Stephen L. Carter

In the wake of the horrifying death of George Floyd at the hands of a police officer in Minneapolis, observers across the political spectrum have found their answer: Prune back the doctrine of qualified immunity, which in most cases shields law enforcement officers from suits for the way they enforce the law. The *New York Times* editorial board is on the bandwagon. So is *National Review*. Representative Justin Amash, an independent from Michigan, has introduced a bill called the Ending Qualified Immunity Act.

Well, good. I don’t much care for the doctrine either, and I’d be appalled to see it applied to shield the officer who killed Floyd from civil liability (although it might be). But when we decry only the behavior of the police, we’re overlooking a related issue, one that we might label the burden of law—an issue that’s specially worrisome during the coronavirus pandemic.

Let’s start at the top. Most law enforcement officers are serious people who perform a thankless and often dangerous job in an exemplary manner. But incentives matter. The less likely it is that I’m going to be called to account for my actions, the less care I’m likely to take. Police, no matter how well trained, also respond to incentives.

Thus the clamor for change makes sense. The doctrine of qualified immunity was created by the U.S. Supreme Court to limit lawsuits under the Civil Rights Act of 1871, so the justices are free to limit or abolish it. Small wonder that some believe the answer is for the justices to grant certiorari in the several pending cases that would overturn or limit the doctrine.

Don’t hold your breath.

Just last month, the justices declined to review a decision by a federal appellate court holding that because of qualified immunity, officers who stole private property during a raid couldn’t be sued by the owner. The officers, it seems, knew that stealing was wrong but weren’t on notice that doing so violated the constitutional rights of the people they stole from.

The court also decided last month not to hear the appeal of a decision holding that qualified immunity protects a deputy accused of throwing a woman in a bathing suit to the ground hard enough to knock her unconscious and fracture her collarbone. The incident arose after a friend tried to push the woman into a swimming pool. A bystander called the police after guessing, wrongly, that the woman was being assaulted. In other words, the woman the deputy knocked unconscious was the alleged victim of a crime that had not been committed.

The examples go on and on. There’s every reason for fury, but we mustn’t miss the larger issue. The death of Floyd naturally brings police behavior front and center. This makes sense because police officers are the visible implements of government power, the sharp end of the spear. They do not, however, make the laws they enforce.

We all ride our own hobbyhorses into every controversy, and here’s mine: We have too many laws—well over 3,000 federal crimes and countless more state offenses. As I’ve long argued, if we want less violence from the enforcers, we should give them less to enforce. The fewer the laws, the fewer the interactions between citizen and enforcer; and the fewer the interactions between citizen and enforcer, the fewer the occasions for the interaction to turn violent.

Remember Eric Garner, killed by New York City cops in 2014? It’s easy to forget that the crime for which they were trying to arrest him was selling untaxed cigarettes. The legislature wrote the law outlawing the sale. Local political leaders commanded a crackdown. If it never occurred to any of these higher-ups that enforcement of the statute could turn violent, they were fools. Even with the

The fewer the laws, the fewer the interactions between citizen and enforcer; and the fewer the interactions between citizen and enforcer, the fewer the occasions for the interaction to turn violent

best will in the world, there's always a nontrivial chance that at the critical moment things will go awry. As long as that chance exists, the people who pass laws bear a part of the blame.

Consider the case of Breonna Taylor, shot eight times by police executing a no-knock warrant at her Louisville apartment this past March. Argue if you like for the liability of the officers who killed her. But let's remember that there was also a judge who signed the warrant allowing entry without warning, and most likely a district attorney who approved, and a municipality that decided that no-knock warrants are a good idea.

There's only so much reform that can be done around the edges. In the end, we have to alter the incentives not only of those who at times do terrible things to enforce the law but also of those who enact the laws that the police at times do terrible things to enforce.

This is a particular problem during the current emergency, because state governors, ruling by decree during the pandemic, have created a lot of laws. You might consider your own state's emergency decrees vitally important; you might think they're nutty. Either way, they have the force of law, and if you break them, you can be arrested by big men with guns.

Among those taken into custody during the pandemic have been a man riding a paddleboard in California and a father playing catch with his daughter in Colorado. Neither arrest was violent, but that doesn't mean things couldn't have turned ugly. Let's not forget that officers enforcing emergency decrees have also been accused of unnecessary violence or that some observers charge that the decrees are being enforced in a racially discriminatory manner.

Hmmm. Unnecessary violence, racial discrimination. Should ring a faint bell. Believe or disbelieve particular claims as you like, but the longer the emergency decrees stay in place, the greater the likelihood that someone will wind up dead for disobeying them. The chances are good that the someone in question will be a person of color. We should all hope and pray that nothing like that happens, but if it does, let's make sure to include as targets of our fury the people who handed down the decrees in the first place.

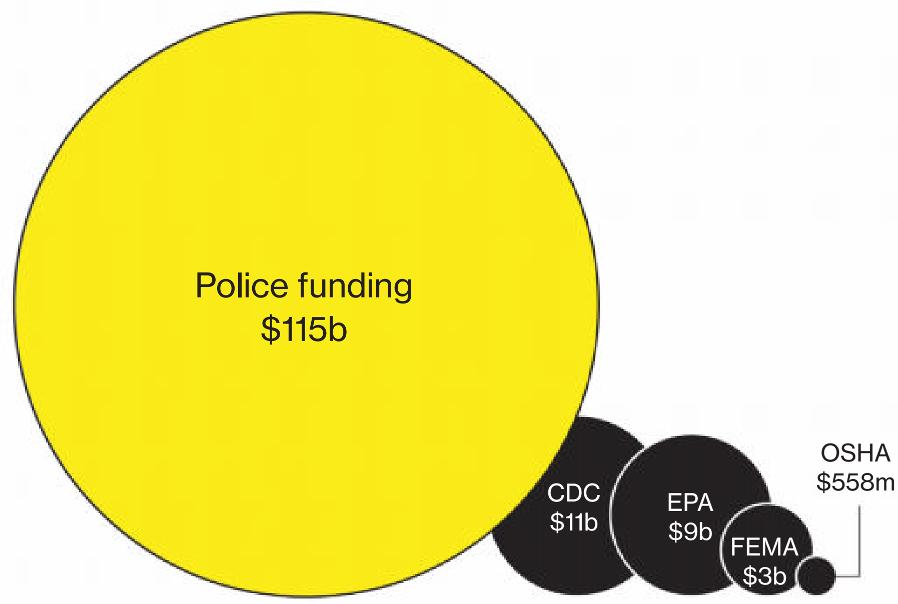
I'm not anti-government or anti-law, and I'm offering no excuses for the official violence we too often see. But if we're serious about reducing the violence, we have to think beyond how to control police officers and ask ourselves how to control those who tell them what to do.

Carter, a law professor at Yale, is a Bloomberg Opinion contributor.

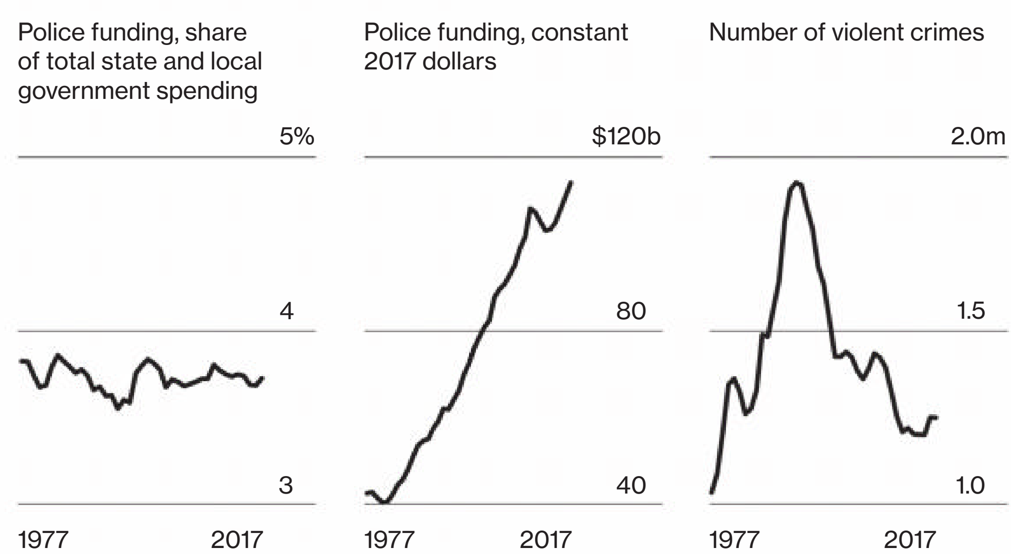
Budgets What Cops Cost

Over the past four decades, the cost of policing in the U.S. has almost tripled, from $42.3 billion in 1977 to $114.5 billion in 2017, according to an analysis of U.S. Census Bureau data conducted by the Urban Institute on behalf of *Bloomberg Businessweek*.

Expenditures on policing compared to the budgets of select federal agencies (most recent year available)



Despite the rising dollar amounts, policing has consistently made up about 3.7% of state and local budgets since the 1970s. However, crime has been trending downward for years: Violent crime and property crime have fallen significantly since the early 1990s, according to U.S. Bureau of Justice Statistics data.



The disconnect between police funding and crime rates is a sign of the need to reform the system, advocates say. "It doesn't make sense that the NYPD budget increases year over year," says Jennvine Wong, staff attorney at the Legal Aid Society's Cop Accountability Project in New York City.

In a Yahoo News/YouGov poll conducted on May 29 and 30, as protests over George Floyd's death were spreading, the vast majority of respondents supported police reforms such as de-escalation training. But 65% said they oppose reducing police budgets. —*Polly Mosendz and Jameelah Robinson*

DATA: U.S. CENSUS REPORTS COMPILED BY THE URBAN INSTITUTE, FBI, GOVERNMENT REPORTS


FALLOUT

The pandemic has sent American workers plummeting into a safety net that wasn't prepared to catch them

By Claire Suddath

Illustration by Jonathan Djob Nkondo

Chrissy Ormond De Swardt was having a cookout when she learned she'd lost her job. She and her husband, Bennie De Swardt, had spent the first week of March in Indian Wells, Calif., setting up for the BNP Paribas Open, a two-week tennis tournament expected to draw half a million spectators. Chrissy works in event production, overseeing players' walk-out routines, award presentations, and other minutiae. Bennie, a camera operator and supervisor, makes sure the matches look good on TV.

On March 8, the night before the qualifying rounds were set to start, the couple invited some colleagues over to the house where they were staying for a barbecue. Bennie grilled salmon and steak as people debated whether Rafael Nadal or Novak Djokovic would beat the defending champion, Dominic Thiem. Chrissy was inside getting napkins when her phone buzzed with a text from a friend: "BNP IS CANCELED?! What does that mean for you and Bennie?!" Confused, Chrissy checked the event's website. A banner appeared, announcing that because of confirmed cases of Covid-19 in Coachella Valley, the tournament wouldn't be held. It was the first professional sports event to be canceled in the U.S.

"We were so naive about what would happen," Chrissy recalls. "We thought we'd still be able to work." At the time, there were only 550 confirmed cases in the U.S. There were no stay-at-home orders yet, no shuttered businesses. The couple assumed they'd just move on to their next job, a golf tournament. For years they'd traveled the world, helping produce everything from the World Cup to the Olympics. Like almost everyone they worked with, they were freelancers, with no paid vacation time, no sick leave, no employer-backed health insurance. Their only job security was that a sport was always in season somewhere.

Over the next 10 days, all their gigs through August were canceled. "It just kept coming and coming and coming, event after event," Chrissy says. "It was brutal." On the flight home to Chicago, the couple listed their monthly expenses on a cocktail napkin. Property taxes and utilities were non-negotiable, but they could cancel cable. The $1,000 monthly premium they paid for health insurance through the Affordable Care Act marketplace? A pandemic wasn't the time to drop that. To keep some money coming in, Chrissy would fall back on her side job as a substitute teacher. "No sooner do we land in Chicago than I see that schools are shutting down, too," she says. Freelancers didn't yet qualify for unemployment. They were out of options and staring down six months with no income. They only had enough savings for two.

As Bennie and Chrissy tallied their finances, Andrea Lockhart was working out how to pay rent on her house in Taos, N.M. She'd lost her job as admissions director of a local school in December after a toxic-mold discovery closed the building indefinitely. As a single mother with three children under age 7, she'd taken the first two gigs, both part-time, that had come her way, selling women's clothing at one store and Southwestern jewelry and gifts to tourists at another. The $15 an hour she made, plus $676 in food stamps each month, kept her afloat. Or not afloat, exactly—she also owed $1.5 million in medical bills from the birth of her youngest child, 2-year-old Abby, who'd arrived prematurely and spent a month in a neonatal intensive care unit. Lockhart let those bills go to collections. "Things were tight. It was paycheck to paycheck, but I'm superdiligent about my budget," she says.

On March 15, both stores closed. Lockhart could have filed for unemployment, but the owner of the store she worked at most discouraged her from doing so. "She said if I did that it would financially ruin her," Lockhart says. "I don't know how unemployment works, so I didn't." With no money coming ▶

◀ in, she stopped paying bills and cut back on groceries. “The little ones used to go through about a gallon of milk a day. Now they’re only getting one cup at naptime and some at dinner, and that’s it,” she says. “There’s a lot of crying.”

In the almost three months since isolation measures were put in place to slow the spread of the coronavirus in the U.S., the economy has all but collapsed, and the damage has been swift. A quarter of small businesses and two-fifths of restaurants have closed at least temporarily. By June an estimated 1 in 4 American workers was out of a job; 40 million people have filed for unemployment so far, more than the population of California.

And while the virus has devastated almost every economy it’s touched, Americans entered the crisis in an especially vulnerable position. The world’s wealthiest country, home to more than two-fifths of all millionaires, also has one of the highest poverty rates and widest wealth gaps of any developed nation. Despite the booming stock market and robust job growth of recent years, more than 38 million Americans live in poverty. In January the Federal Reserve reported that almost 40% of U.S. adults would struggle to come up with $400 in an emergency.

Things were especially bleak for minority groups when the shutdown began. Black Americans have less than 3% of the country’s wealth despite making up at least 13% of the population. They’re more likely to lack access to health care and nutrition, which left them more exposed to the virus. And the jobs they and Latino workers tend to hold were more susceptible to layoffs than ones held by white workers; these jobs are also disproportionately consumer-facing, putting minority workers at greater risk if the country reopens too quickly and infections spike again.

Even the country’s middle class, presumably the bedrock of the economy, was in a weakened position. According to the Fed, middle-class families have the smallest share of U.S. wealth—just 25%—since tracking of this measure began in 1989. (The top 20% of income earners, meanwhile, have amassed 73%.) Adjusted

Chrissy and Bennie De Swardt spent a week trying to get Illinois’ unemployment website to work. “I finally got up early one morning,” Bennie says. “I clicked and clicked, and at about 8 a.m. I got through.”

for inflation, median household income is about the same as it was 20 years ago, even as the costs of housing, health care, child care, and college tuition have skyrocketed. “In the 1980s, middle-class families used to have enough financial reserves to support about two or three months of normal consumption,” says Edward Wolff, a New York University economist who studies wealth disparity. “Now it’s about one week.”

The U.S. also has a relatively weak social safety net, the product of decades of political inertia, a widespread belief that government is the cause of society’s problems rather than a vehicle to solve them, and politicians who’ve railed against expanded benefits using racist stereotypes of minorities seeking handouts. (Think Ronald Reagan’s invocation of “welfare queens.”) Some European countries, by contrast, were able to rely on existing social programs to ease the pain of their shutdowns—for example, by subsidizing businesses so workers could keep receiving a paycheck while sheltering at home. In the U.S., employers rapidly shed tens of millions of people from payrolls, forcing them to apply for financial assistance with no guarantee of regaining their jobs. In May the Fed reported that almost 40% of people who earned $40,000 or less a year—the group least likely to have health insurance or enough savings to get through the crisis—had been laid off or furloughed. “This is not something you can address by just fixing the markets or pushing a big influx of money,” says Sandra Black, a Columbia University economist. “There is something fundamental going on here. The U.S. is really behind.”

The virus has posed an essential question for Americans: How will we take care of each other, now and in the future? The early stages of the crisis saw broad, bipartisan support for federal intervention, including the $2.2 trillion provided by the Coronavirus Aid, Relief, and Economic Security (Cares) Act. It was a staggering amount of money, equivalent to about a tenth of the U.S.’s annual gross domestic product, but much of the aid was designed to be temporary, even though the needs it addressed were new only in their scale. Because they’d ignored these problems in healthier times, legislators were forced to create entire programs on the fly. They’d essentially watched the country fall out of an airplane and only later decided to look for a parachute.

The result was a shifting, friction-laden response that sometimes created more problems than it solved. As it unfolded, I talked to more than two dozen workers and small-business owners about how they were managing. Only two of them—a cybersecurity expert in North Carolina who was confident he could find another

DE SWARDTS: PHOTOGRAPH BY KEVIN SERNA FOR BLOOMBERG BUSINESSWEEK. BERNSTEIN: PHOTOGRAPH BY HOUSTON COFIELD FOR BLOOMBERG BUSINESSWEEK job and a retired General Motors Co. engineer who owned a rental property in Detroit—thought they'd emerge from the pandemic relatively unscathed. Everyone else spoke of overriding feelings of confusion and uncertainty. Nobody knew what was going on. And so I tracked the chaos.

On March 16, Bob Bernstein called his managers in for an emergency meeting. For 27 years he'd owned Bongo Java, a collection of six coffee shops and casual restaurants in Nashville. Bernstein's sweet potato biscuits and pork belly scrambles had inspired a devoted following, and he'd built robust wholesale bakery and coffee-bean businesses, too. His 150 employees could get health insurance, and his managers got as much as three weeks of paid vacation every year. Aside from one outlet that was destroyed by a tornado earlier this year, he'd never closed a store, not even after the 2007-08 financial crisis. "People still drink coffee in a recession," he says.

The day Bernstein called the meeting, though, there were 4,500 confirmed cases of coronavirus in the U.S., 25 of them in Nashville. The city was still a week away from closing its shops and restaurants, but he was concerned for his workers' safety. "Do we try to employ people, or do we shut down to not spread a virus?" he recalls thinking.

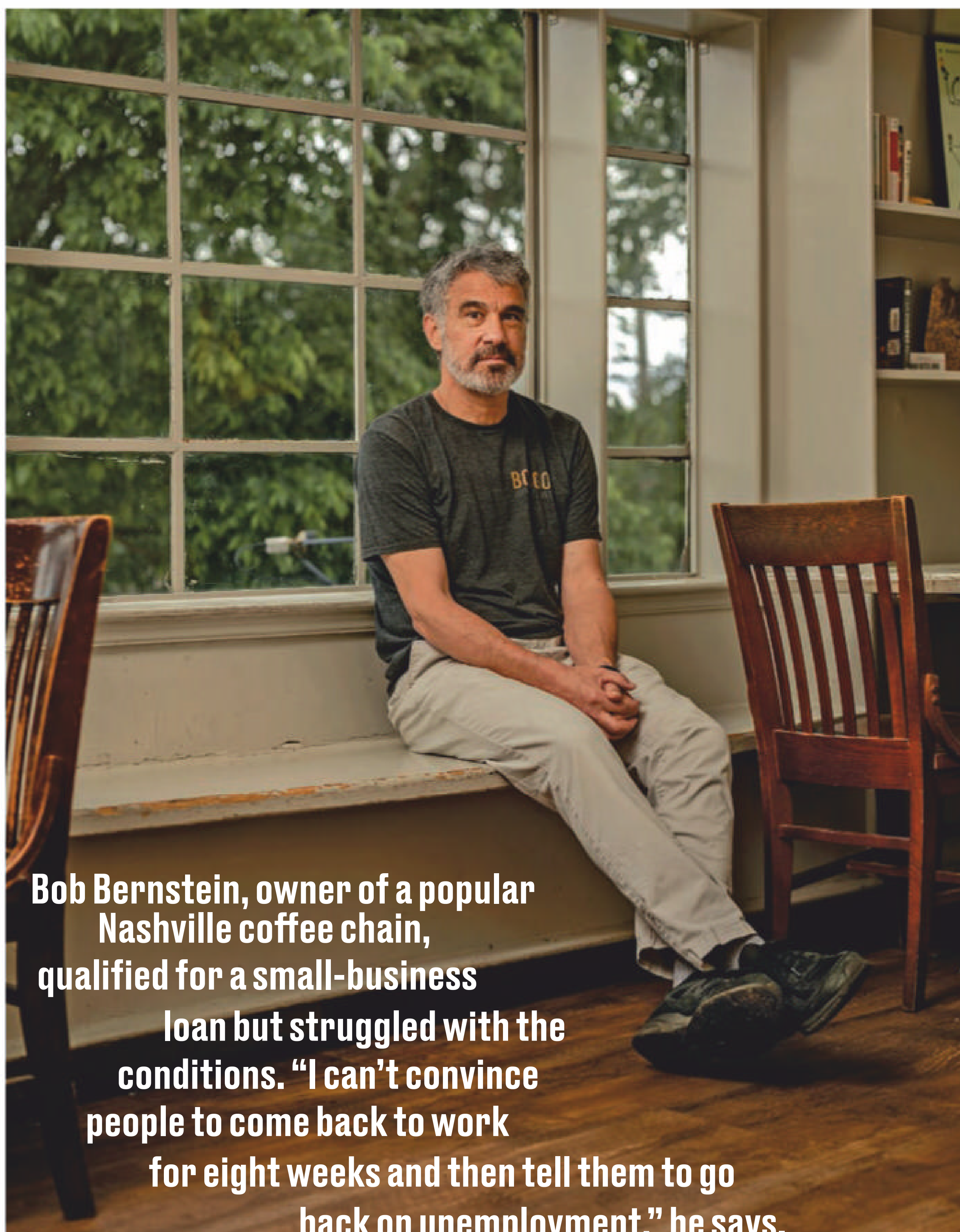
At first his managers agreed to stay open. Then San Francisco announced a shelter-in-place order, and the White House recommended that people stay home for 15 days. "That was it," Bernstein says. "We had to close." Bongo Java's chefs cooked all the perishable food and packed it up for their co-workers.

Bernstein wanted to keep everyone on his payroll so they wouldn't lose their health insurance, but his policy stipulated that covered employees had to work at least 30 hours a week. He contacted his insurer to see if the rule would be suspended, then tried calculating Bongo Java's share of the premiums. He soon realized that the company couldn't afford to cover everyone even if his insurer waived the 30-hour rule, and that he definitely couldn't keep paying their salaries. He had to lay off all but four of his employees. "I couldn't even do it in person," Bernstein says. "I would have. But we weren't supposed to meet in large groups." His managers spoke with staff who were in that day. Everyone else got an email. "I told them they have to go on this Cobra thing, which I don't totally understand," he says.

He was referring to the federal program that allows the newly unemployed to temporarily extend their health coverage by paying the full premium, plus a 2% administrative charge. Only one of the many workers I spoke to considered Cobra a viable option. The rest said it was too expensive. In the early days of the pandemic, several House Democrats proposed subsidizing Cobra premiums, as Congress did in 2009, but the proposal didn't make it through the House.

The government did little to address that millions of Americans were losing their health insurance. A study published in the *Annals of Internal Medicine* on April 7, just two weeks after the law passed, put the number of Americans who'd lost employer-provided coverage at 7 million. The for-profit hospital system Health Management Associates estimated that the number could top 35 million by the time the pandemic has run its course.

Even a reduction in hours was enough to make people lose coverage. Jessica Hodge, a behavior specialist who works with autistic children in Virginia, had this happen to her. She's pregnant, ▶



Bob Bernstein, owner of a popular Nashville coffee chain, qualified for a small-business loan but struggled with the conditions. "I can't convince people to come back to work for eight weeks and then tell them to go back on unemployment," he says.

◀ and when she told her employer she was uncomfortable making house calls without protective gear (the company said it couldn't provide any), she was given the choice of quitting or dropping to part time and losing her insurance. She chose the latter. "It's scary," Hodge says. "Who wants to lose their insurance when they're pregnant?"

Those who lost their jobs didn't find the exchanges created under the Affordable Care Act to be much help, either. "The plans I found came out to about $1,000 a month. Who has an extra $1,000 a month right now?" asks Marie AuBuchon, who was laid off from her job hauling sand for a Texas fracking company. AuBuchon has lupus and Ehlers-Danlos syndrome, both of which cause severe joint pain. "I'm just taking Tylenol and trying to muddle through."

As Bernstein was closing down Bongo Java, Briggs Anderson was having a different problem in Montana. Three of his employees had gotten sick, two of them with symptoms consistent with Covid-19. Anderson owns seven Jiffy Lubes that collectively employ about 48 people. He wouldn't have to close up—automotive repair shops had been declared essential businesses—but people weren't bringing in their car unless they absolutely had to. In the first week of Montana's shutdown, his sales dropped 30%.

Anderson isn't sure if his workers actually had the virus. "No one's getting tested out here," he says. He offers health insurance, but given that his employees make $25,000 to $40,000 a year and premiums are expensive, only about a fifth of them opt for coverage. The rest either qualify for Medicaid or go without. As a result, just one of Anderson's sick employees sought medical attention, a telehealth visit with a nurse who told him he couldn't get tested but to go ahead and self-quarantine for two weeks.

Twelve U.S. states have paid sick leave laws, but Montana isn't one of them. Anderson knew what a burden it would be for his workers to stay home. "I told them I'd make sure they were OK," he says. He wound up paying about $4,000 so they could take 25 days off, combined. "How many people can I realistically do that for?" he asks. "The lack of testing exacerbates the problem. You stay home for two weeks, and I pay you for two weeks, but I don't even know if you have it? That's an expensive way to do things. There has to be a better way. Workers can't just rely on getting paid out of the goodness of my heart."

The goodness-of-an-owner's-heart approach doesn't scale well, either. For years the Cheesecake Factory gave its restaurant workers the option to have money set aside from their paycheck for a "HELP Fund" that would provide as much as $1,000 to cover "shelter, food, utilities and/or childcare" in the event of an emergency. On March 19 the company furloughed 41,000 workers, which left it facing tens of millions of dollars in potential payouts. The same day the chain sent an email telling employees that "loss of income due to the pandemic does not meet HELP Fund grant requirements." Instead it was establishing a $2.5 million Covid-19 Assistance Fund, which would pay up to $500 to those "most impacted."

So many people applied for the assistance fund that the company had to "temporarily pause" the application process after four days. It was briefly restarted, then shut down again. "I'd been paying into the HELP Fund for seven years. I couldn't even tell you how much I've contributed," says Kade Stone, a server at a Cheesecake Factory outside Dallas. "What was the point?" A spokesperson for the company said it had distributed almost $2.5 million but otherwise declined to comment.

Other countries have been managing to keep people at home without mass unemployment and all the problems that come with it. Denmark, for example, poured the equivalent of an eighth of its GDP into a program that guarantees 75% of workers' salaries for at least 13 weeks. Germany relied on a similar, century-old program that pays the majority of salaries when there's a temporary shortage of work. When the pandemic hit, the program was already so well-funded that officials didn't need to do much beyond relaxing the rules for applying.

One advantage of this approach is that when the economy restarts, workers and employers don't have to scramble to find or fill new jobs. It also reduces paperwork; in March, Germany had to process only the 470,000 applications filed by companies, rather than 9 million unemployment claims from their employees. That helped money get out faster. "I haven't had to do anything," says Lilia Prelević, who manages a clothing store in Denmark. "I didn't miss a paycheck. In general, I've felt quite calm about the whole situation."

The Cares Act did include temporary provisions meant to keep Americans employed, notably a Paycheck Protection Program that offered $349 billion in potentially forgivable loans. But it implemented all sorts of restrictions—companies had to hire back 90% of their workforces and use the money within eight weeks, for example—and was designed to end on June 30. The rest of the Cares Act focused on what to do once millions of people were already out of work, adding $600 to states' weekly unemployment payouts and creating the Pandemic Unemployment Assistance (PUA) program, which allowed 57 million self-employed, freelance, and contract workers to qualify for unemployment insurance for the first time. It also sent a one-time $1,200 check to adults whose income was below a certain threshold last year, plus $500 per child.

There was a big difference, though, between what the Cares Act offered and what many people experienced. Take unemployment insurance. It's a complex partnership whereby states administer the payouts while the federal government covers some of the administrative costs, such as payroll and tech support. In recent years, many states have cut unemployment insurance funding dramatically, while federal contributions have been funded through a payroll tax stuck at the same level—6% of a worker's first $7,000 in salary—since 1983.

"During the 2008 recession we had 2,200 employees. Right now we're at about 1,000," says Kersha Cartwright, director of communications at Georgia's Department of Labor. "We're hiring folks,

PHOTOGRAPH BY TALIA HERMAN FOR BLOOMBERG BUSINESSWEEK

"You're going to have all these tech workers and other salaried people needing help right as this runs out," Tiffany Black says of the Cares Act's expiring provisions. Her severance from Airbnb in California ends on July 6.

but we don't have time to train them. All of us are helping customers." In one month, the state processed 1 million unemployment claims, which worked out to about 1 in 7 working-age Georgians. But there was a backlog of many more.

Across the country, decrepit state websites crashed. People spent hours filling out forms, only to lose their work. At one point, Florida's online and phone systems were so overwhelmed, the state asked people to mail paper applications instead. In Illinois, the De Swardts spent a week trying to get the unemployment website to work. "We tried for a couple days," Bennie says. "I finally got up early one morning—"

"Six o'clock," Chrissy interjects.

"I clicked and clicked, and at about 8 a.m. I got through."

The PUA fund they and other freelancers have been applying for is designed to expire on Dec. 31. Some states, such as California and New York, incorporated it into their existing unemployment application process. Others asked people to first apply for regular unemployment, get formally denied, and then reapply for the new fund, delaying payments and causing widespread confusion.

Three weeks after the De Swardts applied, Chrissy was notified that she'd qualified for $741 a week (including the $600 from the Cares Act), before taxes. She didn't understand why it was so low. "There's no explanation, just a deposit in the bank account," she says. Bennie didn't hear anything at all.

The 40 million people who've filed for unemployment so far are just a portion of those out of work. Tiffany Black isn't counted in that figure, even though she was among 1,900 employees laid off by Airbnb Inc. on May 5. Black, who'd been a senior marketing manager at the company's headquarters in San Francisco, hasn't applied for unemployment because Airbnb is paying her severance until July 6. Once it runs out and she has to rely on the state program, she'll be in trouble. California's average unemployment payment is $338 a week—not enough to live on in the Bay Area—and the $600 Cares Act bonus ends right around the time she'd likely start receiving payments. "You're going to have all these tech workers and other salaried people needing help right as this runs out," she says. "I don't think anyone realizes that yet."

Last year, Black gave up a more expensive apartment closer to her former office, but even the cheaper one she found outside the city costs $2,000 a month. She's also $45,000 in debt from a failed attempt to start her own business last year. She plans to look for a new job, but if that doesn't work out, "I'm going to have to pack it up and move home to New Jersey and live with my mom," she says. "I'm 40 years old."

Also uncounted in unemployment statistics are those who've found the system too daunting. "I looked into unemployment insurance, but I can't tell if it applies to me," says Tabitha Driver, a 21-year-old housekeeper and hairstylist in New Ulm, Minn. When the freelancer tried to apply for unemployment in early April, the website said the state was waiting for guidance on PUA from the federal government. Because her parents claimed her as a dependent on last year's tax returns, she wouldn't be getting a $1,200 stimulus check, either. (Her ▶

◀ parents got the $500 bonus for her, but her mom is also out of work now; she told her parents to keep the money.)

Driver is among the estimated 28% of Americans without savings. “I have zero income. None,” she says. “I have rent due. Bills. I can’t pay any of it. I’m running low on dog food.” She started a GoFundMe page to cover her April rent, but no one donated. Then she started tweeting at celebrities. She asked YouTube stars for money. She replied to random Twitter accounts that claimed to be giving away cash to anyone who followed them. When the pop culture writer Shea Serrano offered $100 to anyone who could tell him the score of the shooting contest in the movie *White Men Can’t Jump*, she dug up the answer and sent along her Cash App handle. (She didn’t win.) She tweeted dozens of times a day for weeks.

One of her favorite accounts to solicit was that of Detroit real estate heir Bill Pulte, who last year started distributing money to needy people online, a movement he dubbed Twitter Philanthropy. He persuaded some wealthy friends to do so, too. “We’re like this shadow group of philanthropists who’ve stepped up to help people in the absence of functional government,” he says.

Before Covid-19, Pulte mostly pulled one-off stunts, like the time he offered to donate $30,000 to a random military veteran if the president retweeted him. (Trump did, and Pulte kept his promise.) When the coronavirus started pushing people out of work, though, Pulte began receiving thousands of desperate pleas, a new one about every 10 seconds. So far he’s given out about $81,000, he says, mostly in small payments to help people buy groceries or, in at least one case, order a pizza for dinner. (“Take a picture of you with the box!” he tweeted.) Driver never could get his attention, but someone else saw one of her tweets and sent her $450. Other strangers chipped in with an additional $100. So far, that’s all the assistance she’s received.

In Montana, Anderson found himself lost in a bureaucratic maze. Sales at his Jiffy Lubes were still down 30%, and he’d had to reduce his workers’ pay. In the early days of the shutdown he’d applied for an Economic Injury Disaster Loan, a program originally created to help companies affected by natural disasters. Three weeks later, he received an email instructing him to reapply. He called the U.S. Small Business Administration, which administers the program, and was told that he’d have to reapply because the Cares Act had changed the rules—and also that he shouldn’t bother, because the fund was out of money and the SBA had stopped accepting applications. After the program was refunded and restarted, Anderson called the SBA and was told he was still in the queue. In mid-May, almost two months after he applied, he received $10,000.

He had better luck with the Paycheck Protection Program. He applied on the program’s first day, and three weeks later he received $250,000, enough to bump his staff back up to full time. “I was lucky,” Anderson says. “It ran out of money literally the next day.”

In Nashville, Bernstein applied for a PPP loan, too. Rising wholesale orders from grocers for Bongo Java’s coffee beans hadn’t made up for declining ones from local restaurants or for the lost income at his cafes. He’d deferred some of his April rent payments and was in talks with the local YMCA to provide lunches for kids during the summer. The deal hadn’t gone through yet, and he was fast running out of money. He and his wife tore down their garage, built an apartment, and rented it out. They stopped contributing to their retirement funds.

His PPP money still hadn’t come in when the fund dried up. After the program restarted with an additional $310 billion, his bank told him he’d been approved. In early May, Bernstein received $930,000, but when he learned what he’d have to do to ensure the loan was forgivable—rehire his employees and use it all within eight weeks—he concluded it was useless. “I can’t convince people to come back to work for eight weeks and then tell them to go back on unemployment. They don’t want to go through that process all over

Briggs Anderson gave three sick employees at his Montana Jiffy Lubes paid time off. “There has to be a better way,” he says. “Workers can’t just rely on getting paid out of the goodness of my heart.”

ANDERSON: PHOTOGRAPH BY LOUISE JOHNS FOR BLOOMBERG BUSINESSWEEK. LOCKHART: PHOTOGRAPH BY CHELSEA DARTER FOR BLOOMBERG BUSINESSWEEK

When a New Mexico store where she was working closed, Andrea Lockhart was initially discouraged by her boss from filing for unemployment insurance. "I don't know how unemployment works, so I didn't," she says.

again," he says. "I'm going to have to give the money back."

Given how long the pandemic could last and how quickly the first rounds of stimulus ran dry, the $3 trillion the U.S. government has spent so far likely won't be close to enough. Congress is working to extend the PPP loan restrictions beyond eight weeks and to soften some of the conditions on how the money is spent. House Democrats, meanwhile, have proposed an additional $3 trillion in relief that would, among other measures, extend the $600 boost in unemployment benefits through January, but Senate Majority Leader Mitch McConnell has balked at the idea, arguing that providing more assistance would "make it more lucrative to not work." Moves to reopen the economy won't necessarily help right away, either, because while you can send people back to work, you can't force consumers to use their services. And that's to say nothing of the potential for new outbreaks.

"Do I even want the kind of customers who're willing to come to a restaurant right now?" Bernstein asks. In May, Tennessee allowed restaurants to reopen if they operate at less than 75% capacity, but Bongo Java wouldn't be profitable under those circumstances, and besides, Bernstein wouldn't feel safe. "It's not just safety from Covid at this point. The political divide has also created a security risk," he says. He mentions the men who carried guns and a rocket launcher into a Subway franchise in North Carolina to protest the state's stay-at-home measures, and the Family Dollar customers in Michigan who killed a security guard who'd asked one of them to wear a mask. "This whole situation is bringing all these issues to the forefront that no one wants to talk about. Education. Politics. The economic divide in this country, no one can say that doesn't exist. Do we just keep going as is, or do we as a society do something about it?"

He doesn't know the answer yet. Like everyone, he's still in the thick of the story. The panic of March has given way to the resigned acceptance of June. People wake up unsure what day it is, make coffee, eat cereal, and spend hours on hold with government agencies. Some days they feel optimistic. "I was in the Marine Corps," Anderson, in Montana, tells me. "I have a very pro-America mindset. I really do believe we're more resilient." Other days, it feels as though the fallout from Covid-19 has pushed the country to its breaking point. "This is going to exacerbate inequality," he says a few days later. "The group of losers in this will be large and left behind in some way. That sucks."

In New Mexico, Lockhart says her savings have run dry. She's given up her house, and she and her three daughters have moved in with her parents, but six people in a two-bedroom house isn't sustainable. She did finally apply for unemployment and has looked into low-income housing. She's also been dating a childhood friend, who offered to let her family move in with him. The hitch is that he lives in Chicago. "He owns his own house. It has extra bedrooms," Lockhart says. "But according to my divorce agreement, I'm not supposed to take the kids out of state." She hasn't decided what to do.

The De Swardts have been out of work for more than three months—longer than they'd estimated their savings would last. Qualifying for unemployment kept the couple from having to tap them. In May, Bennie was finally approved for $440 a week. He also got some money from the Golf Channel, which paid its freelance camera crews through the end of May. Now, though, the De Swardts' fall events are starting to be canceled. Bennie has considered stocking shelves in an Amazon warehouse, but Chrissy doesn't want him to—she's worried he'll contract the virus. B

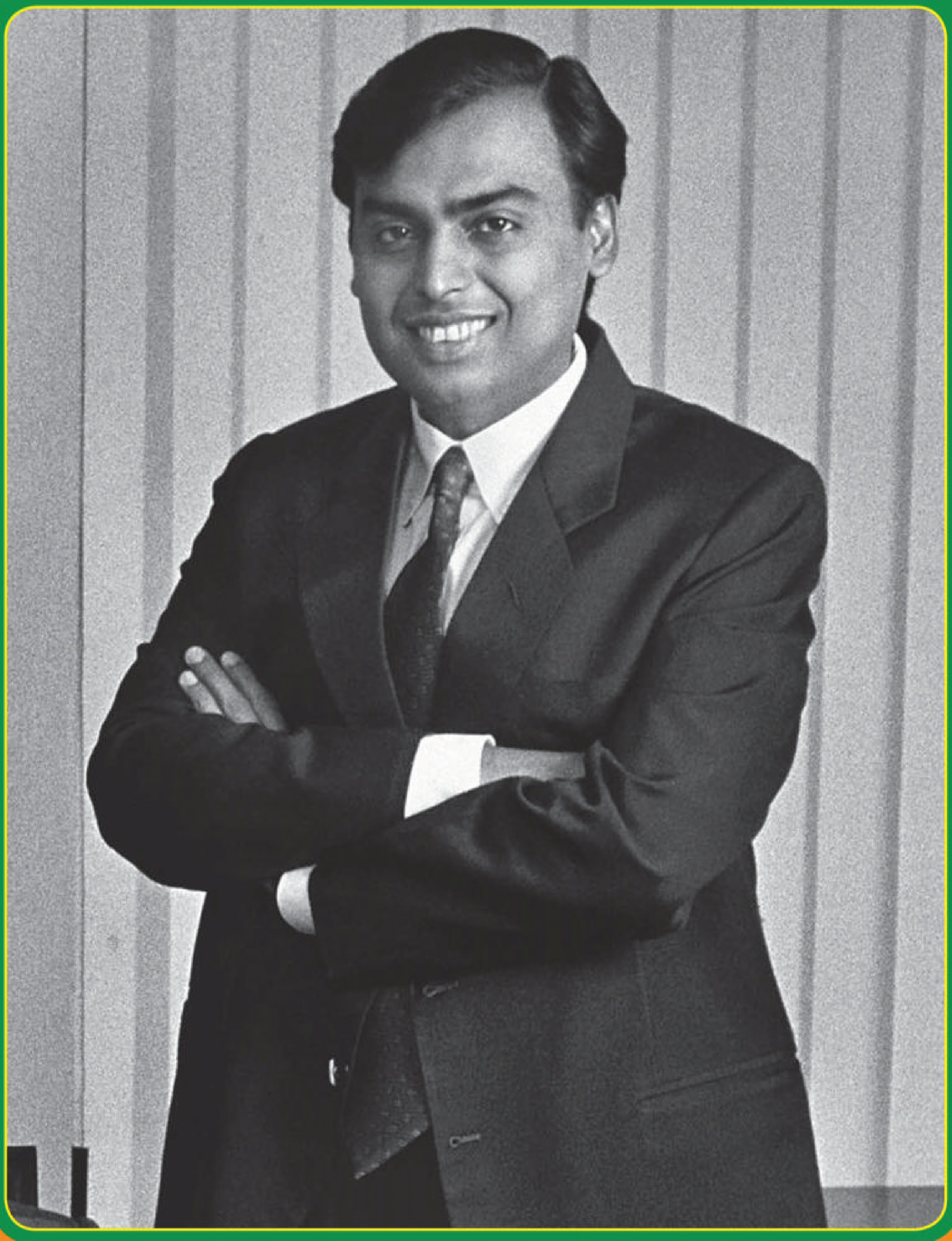
BATTLING

OF

Inside the world's most expensive sibling rivalry

By Ari Altstedter and PR Sanjai

BROTHERS



Anil (left) and Mukesh Ambani in 1986

RAGHU RAI/MAGNUM PHOTOS/TRUNK ARCHIVE

BOMBAY

Even by the sky-high standards of Indian nuptials, the wedding of Akash Ambani and Shloka Mehta in March of last year was ambitious. The festivities began in the Swiss Alps, with inner-circle guests flown by private jet to St. Moritz, where the diversions included a winter carnival and a performance by Coldplay's Chris Martin. Then it was back to Mumbai for three days of events, culminating in a grand reception that took over a brand-new convention center. It had been transformed for the occasion into a fantasia of undulating columns, fountains, and screens composed from vivid sheets of live flowers. In one spot, an ingeniously designed peacock sculpture fanned out its floral plumage for the amusement of passersby. The centerpiece was a giant statue of the Hindu god Krishna, made entirely of plants.

The cost was easily in the tens of millions of dollars, but for Akash's father, Mukesh, it was pocket change. Mukesh is the chairman of Reliance Industries Ltd., which owns oil refineries, chemical plants, supermarkets, and India's largest mobile network. With a personal net worth of about $53 billion, according to the Bloomberg Billionaires Index, Mukesh is the richest person in Asia and, apart from Prime Minister Narendra Modi, probably India's most powerful citizen. The economic centrality of Reliance, which accounts for almost 10% of India's total exports, is difficult to overstate. In American terms, it's as though Dow Chemical, AT&T, Exxon Mobil, and Amazon were a single conglomerate. Even the coronavirus pandemic has barely slowed it down. While the collapse in oil prices battered Reliance stock, it's recouped almost all the losses, thanks in part to a $5.7 billion deal to sell a stake in its digital arm to Facebook Inc.

As the wedding began, Mukesh's brother, Anil Ambani, who's also a prominent businessman, lingered near the entrance to greet guests. He performed his familial duties with aplomb, making sure everyone was suitably refreshed and properly oriented through the plant life and advising Akash on how to make a grand entrance.

The outward harmony, though, papered over a tense situation. At the time of the wedding, Anil was 10 days away from a court-imposed deadline to repay $80 million in debt, with failure potentially punishable by imprisonment—the most extreme example of a legal crackdown on large-scale borrowing by Indian businesspeople. For weeks he and Mukesh had been locked in negotiations over a bailout, mediated in part by their mother, who urged them to find a solution that would protect Anil and keep the Ambani name from being associated with financial ruin. But Mukesh wasn't going to help his brother avoid debtor's prison for nothing, and Anil had yet to offer collateral he was willing to accept.

The last-minute talks were the low point of a domestic breakdown that's captivated the Indian business world. The Ambani brothers began their careers as intimate collaborators, with Anil once describing their approach as "two bodies, one mind." But after the death of their father, Dhirubhai, who founded Reliance almost five decades ago, they grew increasingly estranged, first splitting his empire and then becoming direct competitors. Their sibling rivalry since then has become an object lesson in the promise and perils of India's economy under Modi. Since the Hindu nationalist leader came to office in 2014, tycoons who can help deliver on his agenda of Indian self-sufficiency—above all, Mukesh—have seen their fortunes and influence swell, while others—Anil included—have found their margin for error drastically reduced. Neither Mukesh, Anil, nor their companies replied to repeated requests for comment on this story and its contents. Bloomberg News is currently defending against litigation brought by Anil in connection with previous reporting.

The negotiations between the brothers continued nearly to the deadline. Although the Ambani clan publicly characterized them as amicable, two people familiar with the talks, who asked to remain anonymous discussing a family matter, used a different descriptor. Mukesh, both said, made Anil "beg."

The Ambanis' story has the ring of an entrepreneurial fairy tale. A former gas station attendant from a remote town in the western state of Gujarat, Dhirubhai spotted a gap in the consumer market in the early 1970s: supplying nylon, polyester, and other synthetic materials, which were still novelties in India. He founded Reliance in 1973 as a trading house, then gradually turned it into a vertically integrated operation, first by manufacturing the fibers, then producing the chemical precursors they needed, then refining the oil used to make those, too. By the late 1980s the company was the dominant, and in some cases exclusive, domestic manufacturer of a range of key petrochemicals.

In the business world, Dhirubhai—his real name was Dhirajlal, but he was almost always called by the nickname, which incorporates the Hindi word for "brother"—was known as more than a skilled factory operator. Until the 1990s the biggest headache for India's companies was the so-called License Raj, an ever-shifting system of import quotas, permit requirements, and price controls that governed most of the economy. Dhirubhai seemed always to be one step ahead of its strictures. According to Reliance veterans, he maintained an office building on the outskirts of Delhi, stuffed with retired bureaucrats assigned to keep tabs on their former colleagues. Among other tasks, they tracked the ages of senior officials' children so they could be offered Reliance-funded scholarships to study abroad when they reached university age. During Diwali, the former employees said, Reliance would send mailroom assistants at important ministries boxes of candy, each with a small piece of gold or silver hidden inside—a common practice, but also a reminder to keep the company informed of what their superiors were working on.

Dhirubhai took a similarly deliberate approach to raising Mukesh and Anil, who were born in 1957 and 1959, respectively. On weekends, Anil has said, their father would lead them on "incentive-oriented outings"—for instance, a 10-kilometer hike through the rain, with a box of mangoes as a reward. Mukesh recounted that, to punish the boys for acting out while guests were visiting, Dhirubhai once confined them for "two days in the garage on water and roti." There was never any doubt that both would join the family business, and by their mid-20s they'd assumed prominent roles: Mukesh as a hands-on manager of facilities, including Reliance's first domestic polyester plant, and Anil as an executive dealing with government officials, investors, and the press.

Their roles suited their personalities. Mukesh wore little that was fancier than an untucked short-sleeve shirt, married a woman chosen for him by his parents at 27, and spent most evenings watching old movies at home. Anil, who slicked back his hair and dressed in sharp suits, was part of Mumbai's fast crowd, friendly with socialites and Bollywood stars, whom he sometimes took on getaways in a corporate jet. He married at 31, late in India, and his parents made no secret of their disapproval of his choice of spouse, the actress Tina Munim. While Mukesh was rarely seen in public, on many evenings reporters could find Anil outside Reliance's headquarters, sitting on the hood of a Cadillac and munching on street food while talking up the company's prospects to anyone who'd listen.

Dhirubhai Ambani at Reliance Industries in 1986

DILIP MEHTA/CONTACT PRESS IMAGES

There was plenty to brag about. By 2001, Reliance was India's most important corporation by virtually every measure, with big plans for expansion in financial services, electricity generation, and telecommunications, plus an oil refining operation on its way to being so large that the national trade deficit rises substantially when it closes for maintenance. Any tensions between the Ambani sons were kept hidden while their father was alive. But in 2002, Dhirubhai died suddenly from a stroke. He was only 69 and hadn't left a formal succession plan. With no indication of how he wished his heirs to divide power, they sorted themselves by age, Mukesh becoming Reliance's chairman and Anil vice chairman.

Their relationship soon grew strained, according to people close to them at the time. Each believed the other was making decisions without enough consultation: Mukesh was annoyed when Anil announced a power-generation project without discussing it, and Anil was infuriated when Mukesh restructured the entities that managed the family's Reliance shares without his input. Underlying it all was a dispute about the basic nature of the relationship. Mukesh saw himself as the undisputed boss, whereas Anil considered himself an equal partner.

The brothers' discord burst out into the open two years after Dhirubhai's death, when Reliance's board passed a motion indicating that Anil would henceforth be "under the overall authority of the chairman." He viewed it as a humiliation, according to a person knowledgeable about his thinking. A sort of Ambani civil war ensued. Anil refused to sign off on Reliance's financial statements, citing what he said were inadequate disclosures, and directors at a subsidiary he ran resigned to show their loyalty. At one point, India's finance minister pleaded with the brothers to repair their relationship. After a year the family matriarch, Kokilaben Ambani, decided she'd had enough. In June 2005 she declared in a statement that she'd "amicably resolved the issues of my two sons" with an arrangement that would "resolutely uphold the values of their father and work towards protecting and enhancing value."

Her solution was a split. Mukesh would take the profitable but slow-growing refinery and petrochemicals businesses, while Anil would get the operations that seemed to have more long-term potential: financial services, power generation, and telecommunications. It was a remarkable move, divvying up a substantial portion of India's economy as though it were a set of heirloom china. It also seemed, at least for a while, like a reasonably equitable deal. In 2007, according to estimates by *Forbes India*, Anil's net worth tripled, to $45 billion, making him the country's third-richest citizen. His brother was a mere $4 billion ahead. With plenty of cash to play with, Anil adopted billionaire hobbies such as film production, becoming one of the main backers of Steven Spielberg's DreamWorks Pictures. Sometimes he invited members of Mumbai's elite to screenings of upcoming releases at his home. Mukesh wasn't seen among the guests.

The truce between the brothers included an unusual proviso: a fraternal noncompete clause that forbade each from entering the other's industries for a period of 10 years. Eventually, though, Anil's businesses began to struggle. Power projects failed as state authorities mandated lower electricity rates; he had to rebuild a national mobile network from scratch when it became clear its technology would soon be obsolete. Mukesh, whose company was raking in more than $40 billion a year, saw an opportunity. As part of a 2010 deal to supply natural gas that Anil needed to make failing power plants viable, people close to the younger Ambani said, Mukesh insisted that the noncompete deal be annulled.

The business he was eyeing was telecommunications. At the time only about half of India's population had a mobile phone, which meant there was a massive pool of potential customers. In 2016, Reliance unveiled Jio, a mobile operator that promised much cheaper rates than competitors. "Mobile internet will be the single most defining technology of this century for human development," Mukesh said in an interview promoting the launch. "We feel fortunate to be the ones to bring the mobile broadband revolution to 1.2 billion Indians."

The circumstances of Jio's creation reminded some ▶

◀ Ambani watchers of Dhirubhai's early success navigating the Indian regulatory state. Jio's wireless spectrum had been originally purchased not by Reliance but by a little-known company called Infotel Broadband Services Ltd., which Reliance acquired just hours afterward. A little under three years later, the national communications regulator changed the rules to allow that spectrum to be used for voice calls as well as data. Had that been the case at the time of the auction, public auditors estimated, the sale price of roughly $2.7 billion would have been about $533 million higher. An earlier draft of the auditors' report, leaked to Indian media outlets, put the difference at $3.6 billion. (Reliance has said the acquisition of Jio's spectrum complied with all relevant rules.)

With Jio, Mukesh aspired not just to enter but to dominate India's ultracompetitive wireless market, which at times has had as many as a dozen operators. He believed he could do so by turning those hundreds of millions of largely poor people without mobile service, let alone a smartphone, into online consumers. With vast cash reserves, Reliance could lose money on cut-rate packages for years if necessary while it built a large, loyal customer base that could eventually turn profitable.

At first, Jio's service was practically free, offered as an extended beta test to what competitors claimed were as many as 3 million customers. When it went national, its data rates were far cheaper than anyone else's—sometimes just 7.5 rupees (about 10¢) per gigabyte, with no charges for voice calls. Rivals accused Jio of predatory behavior—a suggestion it rejected—and a price war followed, hitting Anil's already shaky cellular business, Reliance Communications, particularly hard. According to a person familiar with Mukesh's strategy, he saw the likelihood that Jio would crush his brother's company as neither incentive nor deterrent. Rather, the person said, he saw Anil as simply another competitor, deserving of no special consideration as he moved into an industry he viewed as the future.

Whatever Mukesh's motives, Jio sealed Anil's fate. In 2019, Reliance Communications filed for bankruptcy.

For three days in early 2019, Room 6 in New Delhi's stately Supreme Court building was packed. The crowd was there to gawk at something remarkable: Anil, no longer a billionaire, had been summoned to answer a criminal contempt charge. It stemmed from an ill-advised decision to personally guarantee an $80 million debt Reliance Communications owed a creditor, Swedish gearmaker Ericsson AB. Despite promising the court he would pay, Anil hadn't.

The indignities began on the first day. Anil arrived early but for some reason didn't have a seat, and he spent hours standing against a back wall. With the court enforcing a policy against using air conditioning in winter, and the bodies in the room driving the temperature to sweltering heights, he grew wan and disheveled, first removing the jacket of his excellently tailored suit and then his tie.

The two judges listened impassively as Anil's lawyers argued that his promise Ericsson would be paid was contingent on an asset sale that had never been concluded. After they finished, he left without saying a word to the reporters shouting questions.

Anil returned a month later for the ruling, this time occupying a seat. The two judges entered, and Justice Rohinton Fali Nariman read the verdict: guilty. For a moment it seemed that guards might take Anil directly to jail from the courtroom. But then Nariman reached the final point of the decision. "We are of the view," he said, "that the contempt of this court needs to be purged by payment." Anil, he continued, would be given a month to nullify the case by handing over the cash. The ruling shocked Anil, according to a person with knowledge of his reaction. He was so accustomed to getting his way, the person said, that he'd never expected the court to rule against him.

After round-the-clock negotiations that continued until days before Anil was to be taken into custody, he and Mukesh reached a deal. In a press release announcing the breakthrough, Anil was quoted thanking his brother for "staying true to our strong family values." In exchange for Mukesh's cash, people with knowledge of the agreement said, he surrendered a pair of 99-year leases on office buildings in Mumbai. Although the statement included several quotations from Anil, it had been drafted by Mukesh's side, according to one of the people. The person said it wasn't shown to Anil before it was published.

Anil probably shouldn't have been so surprised by his loss in court. Since Modi was elected on a platform of economic reform, India's government and courts have taken a much harder line with billionaires in financial trouble. The cheap loans from state-linked banks and fortuitously timed government contracts that many used to receive have disappeared, and in 2016 Modi's party passed a bankruptcy law that made it harder to shield assets from angry creditors. The courts and law enforcement have also become much more severe with delinquent borrowers, even pursuing criminal charges when a default is suspected to have been intentional. Vijay Mallya, a fallen beer baron who once styled himself as India's "King of Good Times," is fighting extradition from the U.K. over such a case; two other industrialists, brothers Shashi and Ravi Ruia, recently lost control of a bankrupt steel mill after the Supreme Court ruled against them.

The Modi era has been far kinder to Mukesh, whose success flatters the vision of an investment-friendly, modernizing India the prime minister has sought to promote. Mukesh began developing a relationship with Modi in the 1990s, when the latter was an obscure party functionary. According to Ambani family aides, Mukesh rarely has to request a meeting with Modi; instead, he's invited for regular consultations at the prime minister's residence.

This favor may stem, too, from Mukesh's habit of aligning Reliance explicitly with government goals. After Modi made the controversial decision last year to revoke the special constitutional status of Muslim-majority Kashmir, Reliance swiftly sent a team of 25 executives to the territory to explore potential investments. And Mukesh has pitched initiatives that

Mukesh's mounting success has inspired both awe and a certain amount of fear

complement Modi's nationalist policies, such as a plan to keep Indian user information onshore to avoid what he calls "data colonization" by Westerners. Modi's office didn't respond to requests for comment.

Mukesh has also capitalized on some crucial regulatory decisions. In 2016, Amazon.com Inc. announced plans to pour an additional $3 billion into India, betting it could consolidate a fragmented retail landscape. Two years later, Walmart Inc. spent $16 billion to buy Flipkart, India's largest homegrown e-commerce player. But just after Walmart announced its deal, the government unveiled stringent new rules on online retail, forbidding foreign companies from selling their own inventory. Instead, they'd be allowed to operate only as EBay-style platforms for others' goods. Both Amazon and Walmart had to pull thousands of items from their virtual Indian shelves.

A few weeks later, Mukesh made his move. Appearing alongside Modi at an event in Gujarat, he announced that Reliance would enter the online shopping business, combining its vast retail network—it operates almost 11,000 convenience stores, clothing outlets, jewelers, and supermarkets—with a comprehensive e-commerce offering. The idea is for these locations, plus thousands of small shops Mukesh said the company would "empower and enrich" by signing them up as fulfillment centers, to comprise a physical footprint Amazon and Walmart can't replicate. And as a domestic player, Reliance isn't bound by the same restrictions on online inventory. Over the past two years, the company's shares have climbed 60%, driving its market value to $124 billion. Reliance is now India's most valuable corporation by a comfortable margin.

Most recently, Mukesh's digital strategy has found a fan in Mark Zuckerberg. Facebook's deal in late April to buy about 10% of Jio Platforms, a division that includes Reliance's mobile and e-commerce operations, was the U.S. company's biggest acquisition since it bought WhatsApp in 2014. Working with Jio, Facebook executives said at the time of the announcement, could help turn WhatsApp, which is wildly popular in India and other emerging markets, into a retail platform as well. Other Silicon Valley players want a piece of the action: In the weeks since, several top-drawer U.S. investors, including KKR & Co. and Silver Lake Partners, have also bought stakes in Jio.

In business circles, Mukesh's mounting success has inspired both awe and a certain amount of fear. During a recent meeting, an accomplished Mumbai lawyer flat-out refused to discuss any subject relating to India's richest citizen, even with total anonymity. "The walls have ears," the lawyer said.

Buoyed by his good fortune, Mukesh has come out of his shell, acquaintances say. For much of his career he avoided photographers and submitted to media interviews only grudgingly, fidgeting awkwardly on camera. Now he stays masterfully on message in interviews promoting Jio, and he's a regular panelist at events such as the World Economic Forum and the Future Investment Initiative, Saudi Arabia's "Davos in the Desert." He and his wife, Nita, are increasingly the social anchors of high-society Mumbai. Before the pandemic struck, hardly a week went by without a major event at Antilia, their 27-story mansion in one of the city's toniest districts. According to an acquaintance, Nita keeps an interior designer on the premises full time.

Anil, by contrast, has dropped almost entirely from view. Long a fitness buff, he's in even better shape than usual, starting some mornings with a punishing 10-mile run. People who know him say he's become more religious, praying at Hindu shrines with his mother and telling friends he now finds material success hollow compared with spiritual fulfillment. He's still trying to turn things around, working as many as 14 hours a day to rescue his companies and protect his remaining assets. According to a person with knowledge of his situation, Anil has been advised to declare bankruptcy and start over. But he's refused, the person says, believing that giving up could mean missing some unforeseen chance at a comeback.

In the meantime, the problems keep piling up. Another of Anil's companies, a defense contractor he hoped would lead a turnaround, has entered bankruptcy. At a September shareholder meeting, a lawyer who said he'd lost most of the money he put into Anil's businesses berated him with angry criticism and said he would try to put together a class-action investor lawsuit, though none has yet materialized. Anyone looking for a piece of Anil's diminished fortune will have to get in line. He's being pursued by more than a dozen creditors. Among them is a group of three state-controlled Chinese banks that loaned $925 million to Reliance Communications to build its new network in 2012 and recently sued him in London, claiming he personally guaranteed the debt.

In a February hearing, Anil argued he never provided a personal guarantee and had nothing to give the banks anyway. He said his current personal assets amounted to $9 million, set against liabilities of more than $300 million. Judge David Waksman, however, expressed doubt that Anil's financial situation was really so dire. Given his access to a private jet, a yacht, and an 11-car motor pool, "there is good reason to suppose he is not being frank," Waksman said. Besides, the judge continued, there was always the possibility of more assistance from Mukesh; any suggestion Anil's brother couldn't afford to help would be "absurd."

In a statement read to the court, Anil disagreed. The fraternal bailout, he argued, was an event that wouldn't be repeated. "I confirm I have made inquiries," he said, "but I am unable to raise any finance from external sources."
—With Upmanyu Trivedi, Ravil Shirodkar, Jonathan Browning, Bhuma Shrivastava, and Archana Chaudhary

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HONG KONG WAS SUPPOSED TO GOVERN ITSELF. SO MUCH FOR THAT

BY IAIN MARLOW

PHOTOGRAPHS BY BILLY H.C. KWOK

One afternoon in early April, with the novel coronavirus racing around the world and China still more than a month away from imposing sweeping new security legislation on Hong Kong, Winnie Yu climbed into the cab of a battered white moving truck in Mong Kok, a working-class neighborhood in Kowloon. Wearing a khaki jacket over black pants and running shoes, she grabbed a seat crammed behind a rack that held a ladder, a toolbox, and several umbrellas. A 32-year-old nurse and labor activist, Yu was overseeing the relocation of the Hospital Authority Employees Alliance, a new union of 20,000 medical workers, and I got in next to her for the ride. As the truck sped through one of the densest parts of one of the densest cities on Earth, it passed dilapidated apartment blocks, sidewalk fruit vendors, fluorescent-lit noodle shops, luxury watch stores, and HSBC branches. When it came to a stop beside a tower named, optimistically, Perfect Commercial Building, Yu and two friends jumped down and started unloading secondhand office furniture, maneuvering it into the tiny elevator.

Yu, who lives in a 300-square-foot apartment with her husband and three cats, founded the union during last year's protests, one of a number of civil society groups that popped up, mushroomlike, after the pro-Beijing government that rules Hong Kong tried to pass a bill that would allow extradition to China. At the time she didn't have many long-term plans for the organization. It seemed ambitious enough to give her fellow doctors and nurses a platform for opposing the extradition bill and for urging the city's chief executive, Carrie Lam, to yield to calls for greater freedoms. But the arrival of Covid-19 put Yu in the middle of another once-in-a-lifetime event, and she helped organize a strike by healthcare workers to demand the closure of the border. Now she was moving the union into permanent offices—and preparing for a long fight against Hong Kong's government and its mainland backers. "We're not just going to do the strike and that's all," Yu told me. "The extradition bill was just the triggering point for all of the issues over the years, a triggering point for all of the anger."

In the weeks since, the rage felt by much of Hong Kong has only intensified. In late May, with the U.S. and other Western powers distracted by the pandemic, President Xi Jinping's government announced planned legislation to prevent "separatism, subversion of state power, or organizing or carrying out terrorist activities" in the territory—terms that will be defined, of course, by the Communist Party. The measure, which was quickly passed by China's rubber-stamp parliament, followed a series of gradual but consistent moves to stamp out opposition in Hong Kong. While full details haven't been released, it will likely allow China's ferocious internal security agencies to operate openly in the city for the first time. It may also undermine the ability of Hong Kong's judges, who preside over a court system treasured by local and foreign companies, to act independently of Beijing.

The reaction has been furious. Pro-democracy leader Joshua Wong called the plans "the final nail in the coffin for Hong Kong's autonomy" and the de facto end of "one country, two systems," the compromise arrangement that's supposed to prevail until 2047. After heeding official instructions to stay indoors while the virus was spreading, activists have returned to the streets, met by police firing tear gas. Business groups have warned China that limiting Hong Kong's freedoms could destroy its appeal as a financial hub. And in Washington, President Trump has said he will move to revoke the city's special trading status, opening the door to options that could devastate its economy.

Xi's move marks the end of a brief respite during which Hong Kong felt, improbably enough, like one of the most stable places in the world. After protesters prodded Lam to restrict inbound travel, the city's response to Covid-19 was exemplary, with aggressive testing, contact tracing, and isolation of suspected cases keeping its total infections at little more than 1,000. (Singapore, the slightly smaller archrival to which Hong Kong is often compared, has more than 30 times the number of confirmed cases.) Just four people have died. Restaurants and stores never closed, and by late May most workplaces were back to normal—only to send new warnings to staff that, given transportation disruptions and the risk of being tear-gassed, it might be better not to come in.

The obituary of Hong Kong's status as a global city has been written before, not least when the U.K. agreed in the 1980s to cede it to a Chinese government that could hardly have been more at odds with capitalist values. It emerged from the handover stronger, as it did after the Umbrella Movement unrest of 2014, which disrupted a large swath of the financial district for months. But there's a strong case to be made that something more final is under way this time. Many of Hong Kong's citizens, already ground down by extreme inequality and one of the world's highest costs of living, fear the battle has been decided.

"Most of us think that 'one country, two systems' is dead," Yu said, taking a break in a cafe near her union's new office. "Young people can't see a future in Hong Kong."

Hong Kong has never been a democracy. Under the British it was governed by appointees sent from London, with only lip service paid to local opinion. Postwar plans to move toward self-government were never implemented, and in 1967 the police put down pro-Communist protests with tear gas and, in some cases, live ammunition. Yet by the end of colonial rule 30 years later, the city had developed a successful hybrid model. While electoral participation was narrow, citizens had broad rights to free speech and free assembly, as well as access to a British-style legal framework. For the billionaire entrepreneurs and foreign banks that dominated the business landscape, the legal element was crucial, particularly as they sought to tap the explosive growth of China's economy without exposing themselves to party-controlled courts. This, roughly, was what "one country, two systems" was supposed to preserve: a status quo that was hardly democratic by Western standards, but closer to that ideal than anything over the ▶

border. It also contained an implicit promise that Hong Kong would exist outside politics, its residents free to keep making money unmolested by Beijing or anyone else.

China didn't commit to keeping everything as it was. The Basic Law, the constitutionlike document that came into force in 1997, promised an eventual enactment of universal suffrage but set up an electoral system that gave an outsize voice to stability-minded business interests. A committee of 1,200 local notables, stacked heavily with Beijing loyalists, was set up to elect the chief executive, while half the seats in the new Legislative Council were allotted to industry groups. Another element of the Basic Law stipulated that Hong Kong "shall enact laws on its own to prohibit any act of treason, secession, sedition, [or] subversion against the Central People's Government" and "prohibit foreign political organizations or bodies from conducting political activities." Stopping Article 23, as the relevant passage is known, quickly became a rallying cry for activists. After huge street protests in 2003, the government abandoned plans to pass a corresponding law and never seriously tried again. While mainland officials occasionally called for its revival and grumbled about opposition in Hong Kong, they didn't do much about it either. The risks of destabilizing a city that provided deep capital markets for Chinese companies, not to mention high-end real estate and ironclad property rights for the families of senior politicians, were simply too great.

After Xi became China's leader in 2012, things began to change. The Communist Party reversed a pledge to move toward free elections in the territory, touching off the Umbrella Movement. Meanwhile, Xi was spearheading the widest crackdown on dissent since Mao Zedong, jailing thousands of critics. While those actions didn't extend directly to Hong Kong, Beijing's power increasingly did. In 2015, and again in 2017, Chinese agents carried out apparent abductions on Hong Kong soil, grabbing a seller of books critical of China in the first case and a billionaire who the *South China Morning Post* reported had been accused of financial improprieties in the second. Activists feared that the extradition proposal, which Lam introduced a little more than a year ago, would open the door to many more removals, with pro-democracy politicians and writers, and even businesspeople who crossed the wrong Chinese counterparty, potentially facing mainland trials. After protests brought the city to a near-halt, she pulled the bill.

While China's foreign minister, Wang Yi, said the new security legislation will have "no impact" on "the rights and freedoms of Hong Kong residents," it appears to be far wider than any previous measure. During last year's protests, Beijing officials repeatedly likened activists' actions to terrorism and claimed, without evidence, that foreign powers were behind the pro-democracy movement. To critics, that language suggests opposition could soon be criminalized.

Lam and her allies say there's no choice but to impose tougher control. Over coffee at the Mandarin Oriental hotel in the heart of the financial district, conservative lawmaker Regina Ip argued that the protesters, not China, are to

blame for destabilizing Hong Kong. With images of street battles deterring investment and scaring tourists, the government "must deal with the political turbulence before we can relaunch" the economy, Ip told me. It was mid-April, and the hotel's cafe was busy, albeit with health questionnaires at the entrance and masks required until orders arrived. She complained that opposition politicians had made it impossible to pass economically crucial bills by filibustering the legislature—though her opponents say they're trying to stall more controversial acts, such as a proposal to make it a crime to "insult" the Chinese national anthem. "Frankly, it's hard to pursue reconciliation when you have hardcore protesters who are basically anti-China," Ip said. "They only want two systems. They don't want one country. That's the essence. And that's something unacceptable to Beijing."

Late on the night of July 1, 2019, after protesters opposed to the extradition bill ransacked the Legislative Council, James—a well-off financial professional in his 30s, who asked that only his first name be used because of fear of reprisal—saw messages online asking for drivers to pick up activists before they were arrested. He jumped into his Mercedes SUV and sped downtown, where he stopped to help three teenage girls who'd been demonstrating outside the council building. As he drove them back to the suburbs, one began coughing uncontrollably from all the tear gas she'd inhaled. They called the girl's parents, asking them to meet James's car as he pulled up. "One of the parents told me, 'Thank you for bringing my daughter back. I appreciate it so much,'" James recalled. "At that moment, I burst into tears. I said, 'A thank-you is the last thing I deserve. It ought to be me thanking your daughter.'"

Ever since, James says he's found it impossible to stay on the sidelines. He makes a point of attending every protest he can, and I first met him at a lunch-hour rally that gathered bankers and lawyers in the financial district late last year. As fight-the-power moments go, it was an odd sight. James, like many of the men present, was wearing a nicely tailored suit, while some female participants had arrived in towering heels to shout and wave signs. One elderly woman had a bag from Harrods in one hand; she held the other high overhead, fingers outstretched—a gesture indicating support for the movement's five official demands, which include amnesty for arrested activists and the introduction of universal suffrage. Most of the demonstrators wore masks, fearful that being identified by the police could get them fired or arrested.

Later, over tea at a nearby luxury mall, James predicted a bleak future for his hometown: a more or less permanent state of turmoil, with neither side willing to back down except for temporary truces. "There will always be people on the streets," he said, along with "more tears and blood and death." He continued: "It will be a chaotic place. We'll proceed similarly to Thailand 10 or 20 years ago"—when supporters of dueling political parties paralyzed much of Bangkok, at one point shutting down the airport. Add the impact of the security legislation, and "I can fully understand if companies decide to leave Hong Kong," James said.

While James's interactions with the unrest may be unusually intimate for a financier, he's an example of an important reality: that no one in Hong Kong's business world can afford to ignore it. For one thing, consider the protests' physical location. Activists have focused their attention on the Legislative Council building, which is a short walk from towers housing Goldman Sachs, HSBC, and other financial giants. Clashes have occurred directly outside their doors, and on some days last year just making it to the subway meant risking exposure to tear gas. Then there are the impacts on investor confidence. The MSCI Hong Kong Index, which tracks the largest companies based in the city, plunged almost 7% the day after Xi's plans were unveiled. In late April, Fitch Ratings Inc. downgraded its assessment of the local government's creditworthiness for the second time in less than a year.

More troubling still for executives would be the loss of Hong Kong's status as a place both deeply connected to and distinct from the People's Republic. Currently, Hong Kong has a unique position in U.S. law, based on a requirement that it remains an autonomous territory, which exempts it from tariffs, visa requirements, and export restrictions applied to the mainland. Curtailing those privileges, as Trump says he intends to, could significantly undermine its appeal as a hub for global companies.

Chinese officials have tried to reassure businesses that they intend to target only genuine security threats and that their new legal powers won't affect "the legitimate rights and interests of foreign investors," as Wang, the foreign minister, put it. But given the opacity of the mainland legal system, the vast power of state companies, and the Communist Party's expansive view of what constitutes a security risk, the reassurances aren't terribly convincing. "This doesn't challenge Hong Kong directly as a business hub, except if it becomes that you can't speak out about problems in the Chinese economy," says David Zweig, a professor emeritus at the Hong Kong University of Science and Technology. "Or if there are companies trying to float an IPO and you say the company's not good, and they say you're engaging in treasonous activity."

There was a lot of blood on the ground by the time district councilor Andrew Chiu arrived at Cityplaza, a shopping mall in the east of Hong Kong island, last November. The anti-extradition protests were at their most intense, and Chiu's assistant had alerted him to a fight at the mall. He'd rushed over to see if he could help mediate. The instigator of the confrontation, a man who spoke with a pronounced mainland accent, recognized Chiu and charged. "I was prepared that he might punch me, but I was never prepared for him to hold my head like a bowling ball and use his mouth to bite my ear," Chiu told me afterward. The man ripped off most of Chiu's left ear, leaving only a small flap of skin behind. His doctors tried, and failed, to reattach the rest. Video of the attack went viral, seized upon by activists as more evidence of the pro-government side's brutality. But it also spoke to something more fundamental: the dramatic polarization of a city where, until recently, people seemed to more or less get along. "There will be more confrontations," Chiu warned. The government "is trying to frighten democracy supporters in Hong Kong, that if you don't support the Chinese Communist Party, more violence is coming."

Xi's government and its local backers are doing their best to heighten the contradictions, as a Marxist might put it. While the pandemic kept protesters off the streets, Beijing replaced the directors of the two central government agencies that oversee the city with party hardliners. One of them, Xia Baolong, is best known for a campaign to pull the crosses off Chinese churches. Earlier this year, Hong Kong police arrested Jimmy Lai, the owner of the pro-democracy *Apple Daily* newspaper, accusing him of participating in an "unauthorized assembly." More recently they rounded up a large group of pro-democracy veterans, including an 81-year-old lawyer, Martin Lee, who helped write the Basic Law. In March, China's government expelled reporters from the *New York Times* and other U.S. outlets, declaring they wouldn't be allowed to work in Hong Kong either—an unprecedented restriction and an apparent violation of the city's authority over immigration.

Rather than existing apart from political debates, much of life in Hong Kong is now suffused by them. I spoke to a 21-year-old law school graduate who's finding this out firsthand. She asked to be identified only as Elaine. Like most of her peers, Elaine participated in the 2019 protests. But as she and her friends apply for jobs, they've found interviewers as interested in their politics as their qualifications, with some asking unsubtle questions about controversial court cases. She's been trying to give blandly competent answers to conceal her support for the pro-democracy movement and even deleted two internships from her CV—one with a prominent politician, the other with a human-rights group.

This balancing act would be hard enough in normal times, but Elaine is graduating into the worst global recession in memory. She shares a 500-square-foot apartment with her parents and older sister, and her father, a construction worker, hasn't had a job since the coronavirus took hold. Even if she manages to land a legal position, she doesn't think she could ever afford a place of her own in the world's most expensive housing market. "That's impossible," she says.

She's experiencing none of the emotions that an educated young woman starting her professional life in a vibrant city ought to be feeling. "I'm really pessimistic," Elaine says. "The tensions between the police, the protesters, and the government are actually getting worse. Citizens feel helpless." Ⓑ —*With Josie Wong*

Finally!

Lockdowns are lifting, and parks are reopening. Taking yourself and your family on a classic American day trip can do wonders for everyone's mental health

By Hannah Elliott
Photograph by Rozette Rago

The author cruises through Malibu in a BMW 850i Coupe

June 8, 2020

Edited by Chris Rovzar

Businessweek.com

Bear Mountain is only an hour north of New York City but feels a world away

Summer, invariably, sends the mind wandering to the open road. Call it cabin fever or wanderlust—after months of Covid-19 travel restrictions, those feelings are likely more acute than ever.

The good news is it doesn't take much to satiate the appetite for movement. A simple day trip will clear the head and lift the soul. Even better: Most states are loosening stay-at-home orders, allowing nonessential drives to beaches, trails, and national parks. With that in mind, we have compiled a list of 10 easy drives plotted from cities across the U.S.

These excursions require little to no advance booking; you can start them simply by backing out of your garage. Some destinations, such as Joshua Tree National Park and Bear Mountain, you already know and love. Others, like the Little Czech Bakery in West, Texas, might be new. We've deliberately listed these day trips as rough suggestions and with the mileages calculated one way, so you can find your own particular path along the route—or make it longer if you like.

Just gas up the car and go.

Nashville to Chattanooga, Tenn.

The old Civil War stronghold sits at the base of the Appalachian Mountains, which are especially stunning in the early morning and at dusk

Route: U.S. Route 70 East
Distance: 150 miles
Explore: Moccasin Bend National Archeological District features artifacts from 12,000 years of human population, including Paleo-Indian-era hunting tools and evidence of the Spanish arrival with Hernando de Soto in 1540.
Eat: Try the oysters and get a unique cocktail at Stir, a local favorite in the historic Chattanooga Choo Choo complex.
If you keep going: Although the campgrounds remain closed, the Chattahoochee National Forest, which crosses into neighboring Georgia, has thousands of miles of rushing streams and rivers and 850 miles of recreation trails.

Denver to Pikes Peak

Change your perspective by getting up above 14,000 feet

Route: Interstate 25 South
Distance: 97 miles
Stop and see: Set at the base of the mountain, Manitou Springs is an historic town known for its healing mineral springs.
Picnic here: Garden of the Gods, a still-open national natural landmark, offers extensive places for rock climbing, hiking, and bike riding. Pack some sandwiches and lemonade, then find a spot by one of the towering red-rock pillars to enjoy the fresh air.
Want a longer trip? Great Sand Dunes National Park, where you can go sand

NEW YORK: HEMIS/ALAMY. NEW MEXICO: EIRIK GUMENY/EYEEM/GETTY IMAGES sledding, swimming, hiking, and horseback riding, reopened on June 3. Off-road driving and nighttime adventuring are also allowed.

Dallas to Lake Whitney

Cool off from that Texas heat in the invigorating waters of and shady groves around the lake

Route: Interstate 35 East
Distance: 90 miles
Eat: Take a detour to the Little Czech Bakery in the town of West. It's famous for its homemade kolaches (puff pastries filled with jelly), which it's still serving 24/7 on a takeaway basis.
Want a longer trip? Open year-round, the municipal rose garden in Tyler is 98 miles east of Dallas. It boasts 14 acres and 35,000 bushes full of fragrant flowers.

Atlanta to Asheville, N.C.

Fall into the warm, wealthy embrace of Vanderbilt-style Southern charm

Route: U.S. Route 23 North
Distance: 197 miles
Stop and see: Spend your time strolling the extensive gardens of Biltmore House, which reopened to the public in May. Built as a 178,926-square-foot summer home for George Washington Vanderbilt II from 1889 to 1895, Biltmore is the largest privately owned house in the U.S.
Eat: Chef Katie Button made a name for herself in Asheville with her Spanish-leaning Cúrate, and she's now tackled sandwiches at Button & Co. Bagels. Both are worth the stop and are open for takeaway orders.
Get gardening inspiration: The old glass Biltmore Conservatory ▶

Tips for a Healthy Journey

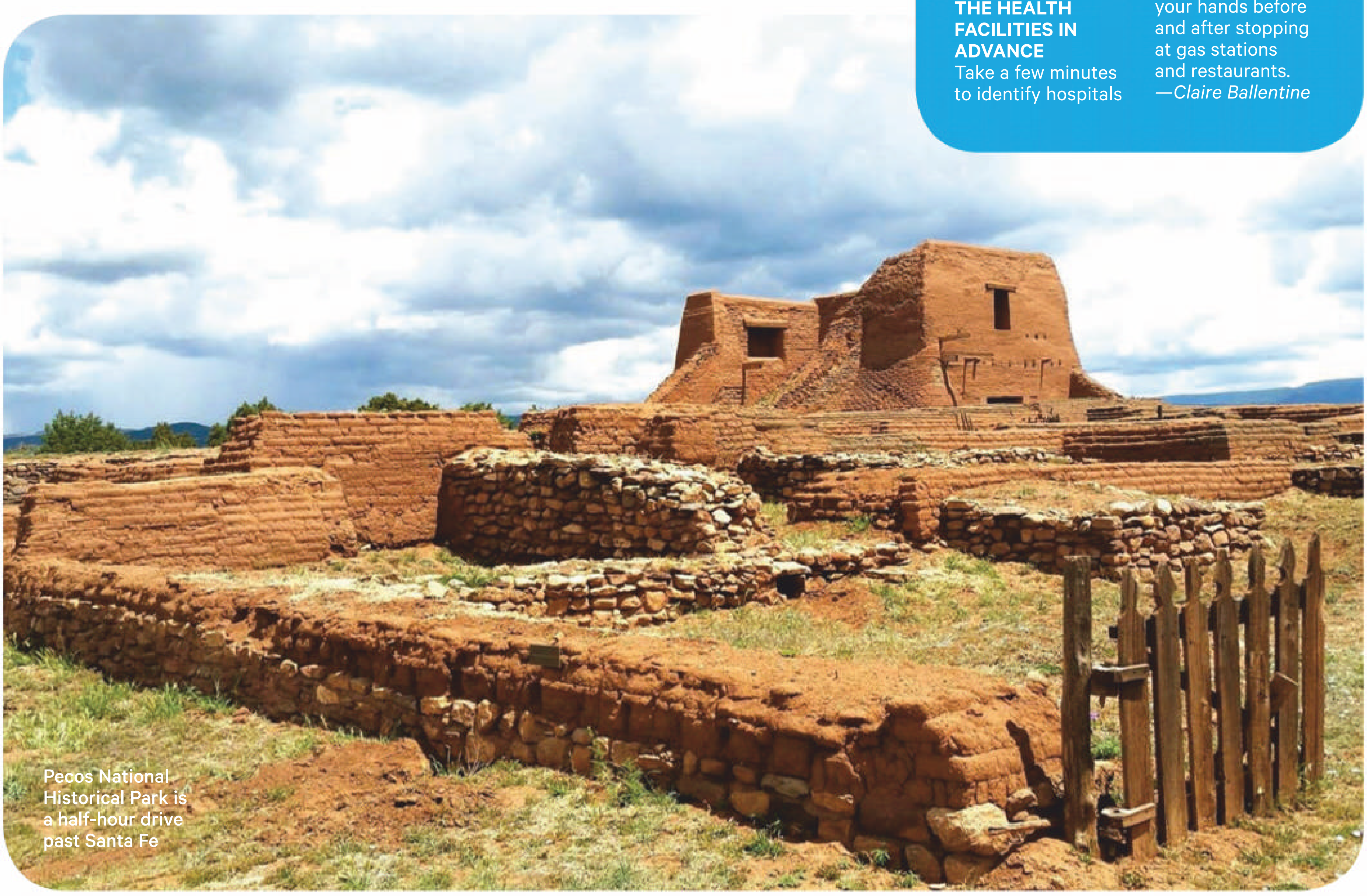
● BRING YOUR OWN SUPPLIES
To limit stops, pack a stash of snacks, drinks, or prepared meals; they can help reduce interactions with other travelers. Think about items that may be hard to purchase if stores are crowded or still closed, such as lunch utensils, picnic blankets, sunblock, bug spray, and camp chairs.

● RESEARCH THE DESTINATION
It may be tempting to revisit a favorite vacation spot, but make sure to look up the local community's virus situation before embarking—especially public parks, historical sites, and playgrounds. Remember that many bathrooms will be closed, even in gas stations, so plot out breaks. Bring masks.

● LOCATE THE HEALTH FACILITIES IN ADVANCE
Take a few minutes to identify hospitals or clinics along the way and at your destination, in case a member of your party falls ill and needs medical attention.

● IF YOU'RE SPENDING THE NIGHT, CONSIDER A RENTAL
Many vacationers this summer may prefer an Airbnb or a VRBO home rather than a hotel room, as it can provide more space and separation from others.

● BE PREPARED TO CLEAN
No matter where you stop along the journey, you'll likely want to sanitize the area before settling in. The CDC recommends wearing gloves while disinfecting high-touch surfaces: tables, doorknobs, light switches, and countertops. Use alcohol-based hand sanitizer or wash your hands before and after stopping at gas stations and restaurants. *—Claire Ballentine*



Pecos National Historical Park is a half-hour drive past Santa Fe

◀ houses many exotic tropical plants and orchids in full bloom; don't miss the on-site exhibition about *Downton Abbey*, which has been extended through Sept. 7.

Portland to Sisters, Ore.

Escape Portland's rainy days for the sunny side of the mountains

Route: U.S. Route 26
Distance: 160 miles
Stop and see: Multnomah Falls, less than an hour outside the city, is 20 miles out of the way but worth the detour. The short hike to the top of the 611-foot waterfall will revitalize your senses with its lush, green views. Arrive early to avoid the crowds.
Eat: Central Oregon pretty much started the craft beer craze more than 30 years ago with Deschutes Brewery, and there are many similar and wonderful outposts. Three Creeks Brewing Co. offers dozens of rotating options on tap and hearty pub grub.
Stay for the sunshine: With 300 days of sunshine a year and mountain views that rival anything in Colorado, Central Oregon is a jewel among jewels. Sisters, set up like an old Western town, is still quiet and slower than the surrounding communities.

Boise to Sun Valley, Idaho

The Sawtooth National Forest area is like an epic landscape painting come to life

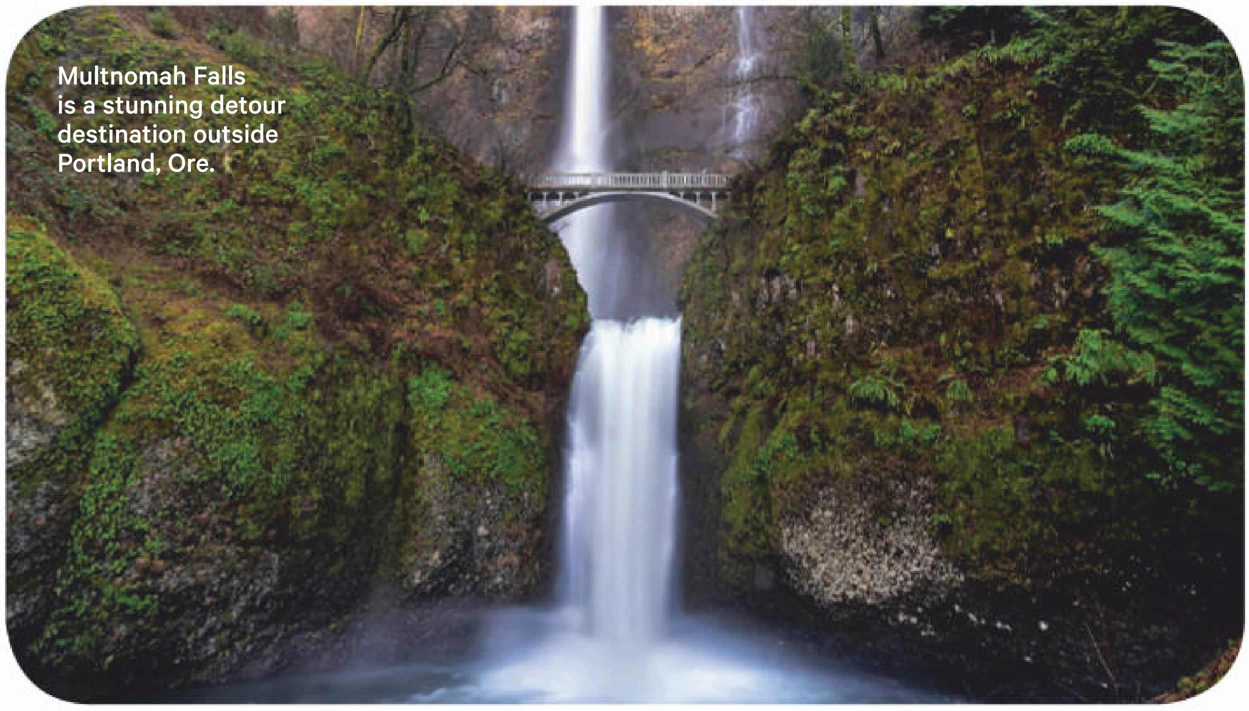
Route: Interstate 84 East to U.S. Route 20 East to state Route 75 North
Distance: 155 miles
Stop and see: The natural and therapeutic hot springs of the region include Goldbug Hot Springs, Frenchman's Bend, Boat Box, Lava Hot Springs, Sunbeam. Dozens of springs lie off the

Goldbug Hot Springs is the gold standard of Idaho's hot springs network

The municipal rose garden in Tyler, Texas, blooms all summer

IDAHO: JOYCE LEE. TEXAS: AMY ASHCRAFT. OREGON: DAVID GN/GETTY IMAGES

highways—down dusty hiking paths, nestled in canyons, or built into hotels.
Eat: Wiseguy Pizza Pie is still serving piping hot pies for curbside pickup and takeout. Try the Sad Guy, with Gorgonzola, bacon, meatballs, and red onions.
If you keep going: The main road of Craters of the Moon National Monument & Preserve loops around massive lava flows and remains open.



Multnomah Falls is a stunning detour destination outside Portland, Ore.

Malibu to Santa Barbara, Calif.

The salt air will do you good

Route: U.S. Route 101 North
Distance: 67 miles
Eat: Along the way, Neptune's Net, that famous seafood shack by the water, is open for takeout. Get the fish and chips.
What to do at the end: Old Mission Santa Barbara is closed for entry—but its verdant lawns are open, as is the park across the street. Once you arrive, lounge and inhale the jacaranda blooms and polish off the rest of those fries.
If you keep going: The orange blossoms and hippie coffee shops in Ojai are a fragrantly delightful diversion.

Albuquerque to Santa Fe, N.M.

Take in pueblo-style architecture, historic sites such as Pecos National Historical Park, and indigenous artwork

Route: Interstate 25 North
Distance: 65 miles
Eat: Choose any of the many authentic New Mexican spots open for takeout: The Pink Adobe, Paloma, and La Choza will all do the trick.
What to do at the end: Like famed resident Georgia O'Keeffe, make your own art. Pottery instructor Heidi Loewen will teach you how to throw your own pot, and she'll even glaze your masterworks and send them home after you. Masks are provided for her outdoor classes.

New York City to Peekskill, N.Y.

Peekskill is set on the serene Hudson River; it will feel like a balm after the city's close quarters

Route: U.S. Route 202 North through Bear Mountain State Park
Distance: 57 miles
Stop and see: The view from Bear Mountain. The road goes to the top, which affords views of the entire forested and lake-dotted region.
Eat: Head on through Peekskill and take state Route 116 East toward North Salem, where Purdy's Farmer & the Fish serves delicious local food and is open for takeout and delivery. Try the lobster roll and fries.
Want a longer trip? About 170 miles farther north sits picturesque Lake George, where the Fort William Henry Museum & Restoration is a British redoubt originally built in 1755. The lake is also host to Adirondack Winery, nearby waterfalls, and many hiking and biking trails. If you feel comfortable renting a house for a day or two, there are Airbnbs available for a family stay.

Los Angeles to Palm Springs, Calif.

There's nothing like the desert to help clear your mind and stretch your legs

Route: Try starting out north, through Pasadena on Route 2 to Wrightwood; turn onto state Route 138, then Interstates 15 and 215 down to the 10. After that simply head east through the desert.
Distance: 200 miles
Stop and see: The famously odd trees and stark red rocks of Joshua Tree National Park evoke another planet—just a little over two and a half hours outside Los Angeles. Hiking trails and Instagram opportunities await.
Eat: Pappy + Harriet's Pioneertown Palace is a great bar full of barn wood and cowboy knickknacks. It's now doing takeout—don't miss the nachos.
If you keep going: For the more adventurous driver, continue the loop around Salton Sea State Recreation Area, an abandoned holiday destination favorite of Old Hollywood, which adds about 100 miles. The park is closed, but keep an eye out for the locals, many of whom produce psychedelic art installations. B

Please check all restaurant and national park recommendations ahead of booking to confirm their status regarding the Covid-19 pandemic.

Since the beginning of April, Bloomberg Pursuits has been running a series of online stories by our contributors describing the places, activities, and experiences they've been daydreaming about. We've featured essays about searching for birds of paradise in Indonesia, playing the links with Dad on England's "Golf Coast," and drinking at every good cocktail bar in New York City. We've also asked our readers to let us know what hopes and plans are keeping their spirits aloft during the era of social distancing. Here's a sampling of the numerous enthusiastic responses.

I want to see the Northern Lights. I don't know what I'll think after watching them. That's the blind spot of my mind.
—*@_tecnaa on Instagram*

Our Daydreams Will Save Us

Mental health experts agree: In times of stress, flights of fancy improve mood and offer solace. *By Mark Ellwood*

For me, I'm dreaming about seeing my kids hug their friends again.
—*Helkin Berg on Facebook*

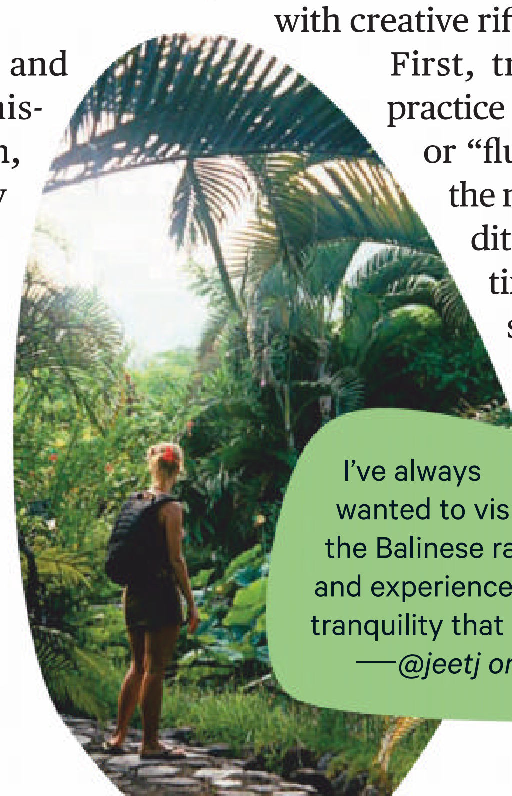
I live in Rhode Island after a lifetime in New York. For the past three years, one of my guilty pleasures has been booking a Manhattan hotel room so I can meet with friends and business associates at favorite restaurants and bars. In between, I'd veer toward only-in-New York type attractions, including Lincoln Center, Calatrava's Oculus, and the Noguchi Museum. That would be bookended by visits with family and gourmet foraging stops at Zabar's and Fairway in Manhattan, and in Astoria or the Bronx's Little Italy for some rare Old World provisions.
—*Tom Pica via email*

Like much of life, daydreams are all in the timing. Often arising at inconvenient moments, they're seen as spam sent to our brain, clogging it up with unwanted, spare thoughts. Even the word "daydream" is highly charged, commonly used in a reprimand hurled by an irritated teacher or an impatient spouse.

But that perception of frivolity and uselessness is fundamentally misguided, says Dr. Richard Davidson, founder of the Center for Healthy Minds at the University of Wisconsin at Madison. "If you can choose to daydream, and fully be present with it, it can be wonderful, creative, and active," he says. Now more than ever, of course, we have both time—and the need—to daydream. In uncertain conditions such as these, we can benefit immensely from blocking out unwanted or undesirable thoughts with creative riffing.

First, try calling the practice "mind-wandering," or "fluid association," to dispel the negative connotations of daydreaming—and ditch the idea that it's related to our nighttime brain activity. Actual dreams are like sci-fi movies, often illogical and fantastic, and occur when all motor activity is suspended, preventing our body from acting them out. A daydream or fluid association, on the other hand, is like a soap opera. It's a viable, if at times far-fetched, story that stars you.

I wanna go back to the gym. 🙏
—*@alpha_beta1920 on Instagram*



I've always wanted to visit the Balinese rainforest and experience the tranquility that it may offer.
—*@jeetj on Instagram*

And it can be a useful tool. Research has shown the concrete benefits of story-lining our futures. In one study, 100 students were asked to visualize a current goal, like making new friends or finding a significant other. A portion of them were then tasked with daydreaming about achieving it for one hour; the rest were not. A month later, when all were surveyed about their progress, the daydreamers reported coming much closer to their goal or achieving success. In another study of the relationship between mind-wandering and problem-solving, researchers found that those who were instructed to daydream before tackling a challenge offered more solutions than those who'd focused on it solely and immediately. Like a warmed-up athlete, limbering the brain with a little daydreaming primes it to perform.

Dr. Darby Fox, a therapist in New Canaan, Conn., emphasizes the creative value of this exercise. Fluid association gives adults permission to think with the far-reaching flexibility of a child or teen. "The rational part of the brain can hold us back, but daydreaming is where we develop new ideas, get courage, and are willing to take a risk," she says. "It gives us something positive to look forward to right now, helping us to consider new options and reevaluate priorities." During the pandemic, Fox adds, our days are less regimented, making it easier to surrender to such fancies; compare that with a normal day, usually overstuffed and scheduled. "That's when we're stuck in our routines, and we don't take the time to dream about what might make us happier." Mind-wandering keeps our mood buoyant.

Jonny Smallwood, a psychology professor at the University of York in England, has spent his career studying daydreams. Most people are puzzled or surprised by these fantasies and dismiss them easily. Smallwood says that's a mistake—daydreams should be cherished. Most thoughts are sparked by external stimuli, he explains: See cheese in the fridge, and it might prompt you to consider making a sandwich. Daydreams, though, can occur unprompted by external stimuli, and as such might be the most authentic ideas we have around potential futures. "Forward modeling is cleanest when we daydream," he says. "So they instead could be our most intentional thoughts." Think of daydreams as gut instincts we can see: If you're always musing about a desert island, it's time to check the prices of a beach hut you could visit.

Regimented meditation has been marketed as a brain-booster in recent years, but why not swap it for a few sessions of structured daydreaming instead? Set aside a half-hour to explore a real-life goal: Picture it, then walk through each step that leads you to accomplishing it, however outlandish. Problem-solve as creatively as you can—the key is to imagine yourself succeeding and progressing. It's a practice that Davidson at the Center for Healthy Minds prescribes for his graduate students. He tasks them to dedicate an hour each week to daydreaming: Sit alone, without stimuli, he says, and look inward. "I tell them to inspect their minds, which is something we don't do in this culture. There is so much to be gleaned from that," Davidson says. "Rather than impeding our performance, intentional daydreams can harness the full power of the human mind."

That's the case for one of Fox's patients, a world-famous musician. The performer has spent the lockdown period working through severe emotional trauma and imagining what she wants to do once it's over; as a result, she's readying a new album and a major tour. That musician is likely not alone, Fox says. "There are going to be lots of people who've daydreamed well right now and who'll look back at this and say, 'That was a great time.' " Ⓑ

I'm daydreaming about sipping a perfectly chilled glass of prosecco in the Piazza San Marco while an orchestra plays at the Caffé Lavena. Pigeons are attacking the table beside mine, where the patrons were foolish enough to order food. I'm having a gelato, as well, because I'm a tourist, and I can. —*Donna Eget via email*

My quarantine daydream was to start IVF, because all fertility treatments were put on hold while hospitals handled the Covid surge. After losing a baby after 21 weeks, month after month each negative pregnancy test caused the grief to cascade over us. My new doctor got me started the minute doors opened. Three dozen shots later and appointments just about every day, we have one "normal," good-looking embryo to transfer. The waiting was well worth it. —*Dorothy Cascerceri Simone on Facebook*

Road trip is the only option on my mind, and it's gonna fulfill everything. —*@guarangpadhi on Instagram*

1. End being single. 2. Go on as many trips as I can. 3. Immigrate to a better country. 4. Start a lunch business. —*@ali_tk02 on Instagram*

I just want to drive a Lamborghini for ten minutes. —*@tired_and_exhausted_resident on Instagram*

GETTY IMAGES

Don't Kiss the Handshake Goodbye

Historically, intimate greetings that are gestures of trust have rebounded after pandemics

By Devon Pendleton

Ever since the novel coronavirus upended the world, people have rushed to predict which norms are gone forever. Chief among them: the handshake, with all its symbolism of sealed deals and sportsmanship. Yet history suggests such physical pleasantries aren't so easily eradicated.

Consider the kiss. As a greeting, the European double-cheek smooch and its cousin, the air kiss, are the handshakes of high society and excellent contenders for the banished list. (This is possibly a welcome development for the legions of Americans who've ever bungled the ritual abroad.)

The kiss has "had its moments of crisis," says Herman Roodenburg, a cultural historian at the Meertens Institute in Amsterdam. England's King Henry VI banned the act in 1439 to combat an epidemic of bubonic plague that had ravaged Europe over the previous century. Kissing wasn't common among peasants, but it was how knights paid homage to the king, and he sure didn't want to catch the plague.

Still, its symbolic importance in religious ritual—"the kiss of peace" among Christian congregants, for example—kept it in social consciousness. Indeed, by 1499, Dutch philosopher Erasmus described in a letter witnessing "kissing in abundance" in his travels to England: "Whatever way you turn, you are never without it."

Kissing again lost favor about 160 years later, during the Great Plague of London. It was replaced with curtsying and waves, according to *The Science of Kissing* by Sheril Kirshenbaum. Until somewhat recently, the spreading of disease through germs wasn't well understood, so spurning the smooch was likely based on instinct, not science.

That may explain why, even after millions died, the hiatus from kissing once again failed to endure. Charles Dickens's Victorian-era characters frequently exchanged pecks. Some anthropologists credit European explorers with spreading the tradition of kissing throughout the world.

The handshake had already been around for generations as a tradition elsewhere in the world. It's believed to have been popularized by Roman warriors as a sign of peace. (It's hard to shake hands and brandish a sword, after all.) Subsequent cultures adopted it as a more egalitarian greeting, an understated alternative to bowing or that obsequious hand kiss.

Above all, it was a symbol of trust. An extended hand shows that not only is a stranger worth greeting, he's also worth swapping germs with, according to a 2013 theory outlined by London School of Hygiene behavioral scientist Val Curtis.

In light of today's pandemic, the notion of touching skin with strangers seems quaint, almost absurd, though experts say physical contact with other humans is so ingrained it will be hard to ditch. "Touching is one way to judge another person, to make that physical connection—which can work for or against you," says Diane Gottsman, an etiquette expert and founder of the Protocol School of Texas.

As a reporter who studies billionaires, I've always found shaking hands a useful tool in assessing those who otherwise seldom touch the hoi polloi. No matter how many handlers flank a subject, or how many questions get dodged and answers struck, the handshake is customary and telling. I'll never forget the billionaire who clasped my hand like a long-lost grandchild's, or the one whose grip was limp and cold as a cadaver's. The former struck me as warm but also lonely despite his staggering success. The latter appeared not so keen to meet me (and possibly starved).

The people we used to call germophobes—now I suppose we have to call them sensible—may be breathing a sigh of relief, but I'll miss the physicality, even though my hands are always regrettably chilly. Everyone, famous or not, will have an extra air of mystery.

For now, anyway. Marcel Danesi, an anthropology professor at the University of Toronto and author of *The History of the Kiss!*, predicts both the handshake and the kiss will disappear as daily rituals for a spell. But when the pandemic finally goes away, expect a resurgence.

"Touch is critical in human interaction," he says. "In one way or another, it will make a comeback." B

ILLUSTRATION BY SANY

Ankles Aweigh!

John Lobb's Isle boat shoes will fete your feet, whether on the water or off

Photograph by Stephen Lewis

Originally designed by Seaman First Class Paul Sperry in 1935, the nautical slip-on has risen from practical solution to ubiquitous preppy affectation. John Lobb's $1,420 Isle version faithfully maintains useful features such as white soles (to keep decks scuff-free) and an interlaced collar (to ensure a tighter fit), while adding the kind of refinement that comes from more than 150 years in the bootmaking business. The shoe is newly outfitted this year with a fully lined apron on the toe and is now available in suede.

THE COMPETITION

• Brown rubber soles signal that Brunello Cucinelli's $745 boat shoe is not really intended for maritime situations. But on dry land, its leather-lined suede construction and traditional lacing plot a direct course toward understated opulence.

• Blue bloods may want to stick to tried-and-true Sperry. The $160 Camden from its Gold Cup line features full-grain leather, hand sewing, lambskin lining, and white soles. Contrasting colors in dark and light blue are a break from the typical brown color palette.

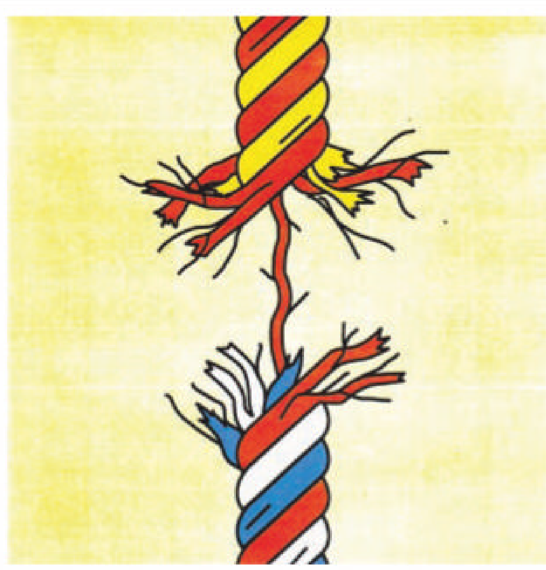
• For a fashion-forward take on the boat shoe, Gucci designer Alessandro Michele brings his flair for modern bohemian pastiche to a $750 leather model. With thick rubber soles in red, it's part sneaker, part orthopedic.

THE CASE

Built by hand using a 190-step process in John Lobb's workshop in Northampton, England, the Isle bears all the pragmatic trademarks that made boat shoes a seafaring staple—down to a diamond pattern that provides a no-slip grip on its Goodyear-welted soles. Yet with a taller silhouette, elegantly thin laces, immaculate contrast stitching, and an elongated toe, it wears more like a loafer. Consider it polished protection from slippery surfaces no matter what safe harbor you call home. *$1,420; johnlobb.com*

In a Trade War, Not All Tactics Make Sense

By Shuli Ren



The deterioration of U.S.-China relations continues apace. In the last month, the U.S. tightened rules to crack down on Huawei Technologies Co.'s semiconductor supply chain and added 33 Chinese companies to the U.S. Department of Commerce's Entity List, which restricts access to U.S. technology.

President Trump doesn't want to give China Inc. access to U.S. money, either. The Senate passed a bill that could block Chinese companies from listing on U.S. stock exchanges, while the president demanded that the main federal government's pension fund not invest in Chinese stocks.

While the trade restrictions make sense, the investment moves don't.

China didn't retaliate for the trade restrictions immediately, for one reason: It has no bargaining power. It still relies heavily on chip imports, with only about 20% of the chips it uses made domestically. Last year, the country's trade deficit on integrated circuits topped $200 billion, more than double the level of a decade earlier.

The new rules could hobble Beijing's tech ambitions, which include spending about $1.4 trillion over the next six years rolling out everything from 5G to artificial intelligence. For instance, FiberHome Technologies Group, put on the Entity List on May 22, is a key fifth-generation network equipment provider in China. It's already won 31% of 5G infrastructure contracts from China Mobile Ltd., China's largest mobile carrier, data from brokerage CLSA Ltd. show. An additional 56% of China Mobile's contracts have gone to Huawei. The new rules require any foreign chipmaker that uses U.S. technology to get a license before it can sell to Huawei. Taiwan Semiconductor Manufacturing Co., which makes chips for Huawei, reportedly has already halted new orders from Huawei, which now has to turn to less advanced manufacturers or even rival mobile chip designers at home.

On the other hand, forcing China Inc. to delist from U.S. exchanges is ineffective. At issue is China's reluctance to allow the U.S. Public Company Accounting Oversight Board—an auditor of auditors set up after the Enron scandal—to inspect the accounts of its U.S.-listed companies. China has already put its refusal into law: Item 177 of its securities law, which took effect in March, says that overseas regulators can't directly inspect companies or collect evidence on Chinese soil.

Beijing is desperate to lure its best tech companies home. As in the U.S., quality assets offering decent returns are becoming hard to find after years of low interest rates. Alibaba Group Holding Ltd.'s 1.3 trillion yuan ($182 billion) YuE Bao money market fund, for instance, offers only 1.55% yield, vs. 2.3% a year ago. Last month the government drastically loosened the bar for secondary listings, welcoming U.S.-listed midcaps that have a technological edge with open arms. Sending more quality companies back to China is a trap the U.S. shouldn't fall into. B

—Ren is a columnist for Bloomberg Opinion

ILLUSTRATION BY GEORGE WYLESOL

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