Bloomberg Businessweek
August 2, 2021

MOVE FAST AND

OBEY THE PARTY ★

Bloomberg Businessweek

August 2, 2021

◀ In the Brazilian province of Rondônia, 14 million cows graze on land that was once jungle

FEATURES

PHOTOGRAPH BY LARISSA ZAIDAN FOR BLOOMBERG BUSINESSWEEK

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■ COVER TRAIL

How the cover gets made

❶

"This week we're talking about China's tech crackdown."

"So—asking for a friend here—is this going to mess up one's investments in DiDi, Tencent, and so on?"

"My opinion? Your friend should definitely be worried now that Xi seems to be involved."

"Can't blame him. I mean, who wouldn't want to get into the tech industry?"

"Uh."

❷

"This brings me a strange joy, but China is really saying, 'No more of this Silicon Valley model. We want a 'China Model'—now."

"Ahhh! So less tech bro, more autocrat."

"Exactly."

"Too bad. Xi looked better than I expected in a hoodie."

"Agreed."

ECONOMICS: PHOTOGRAPH BY SANGHYUK YOON FOR BLOOMBERG BUSINESSWEEK. XI: PHOTO ILLUSTRATION BY 731; PHOTOS: GETTY IMAGES (2)

IN BRIEF

By Benedikt Kammel

● Coronavirus cases are approaching 196 million worldwide, and almost

4.2m

people have died. Globally, more than 3.9 billion vaccine doses have been given. The more infectious delta variant continues to spread; it now accounts for more than 80% of new cases in the U.S. ▷ 34

● China cracked down on property, private education, technology, and other sectors of the economy.

That's spooked investors, who sold off related stocks, concerned that authorities in Beijing will tighten regulation on some of the country's most vibrant industries. ▷ 17, 68

● The leaders of North and South Korea, Kim Jong Un and Moon Jae-in, agreed in letters to restore communications between the two countries. Relations soured last year after the north accused Seoul of spreading anti-Pyongyang messages.

● Freezing weather in Brazil has damaged plantations, pushing futures for a pound of arabica coffee to

$2.15

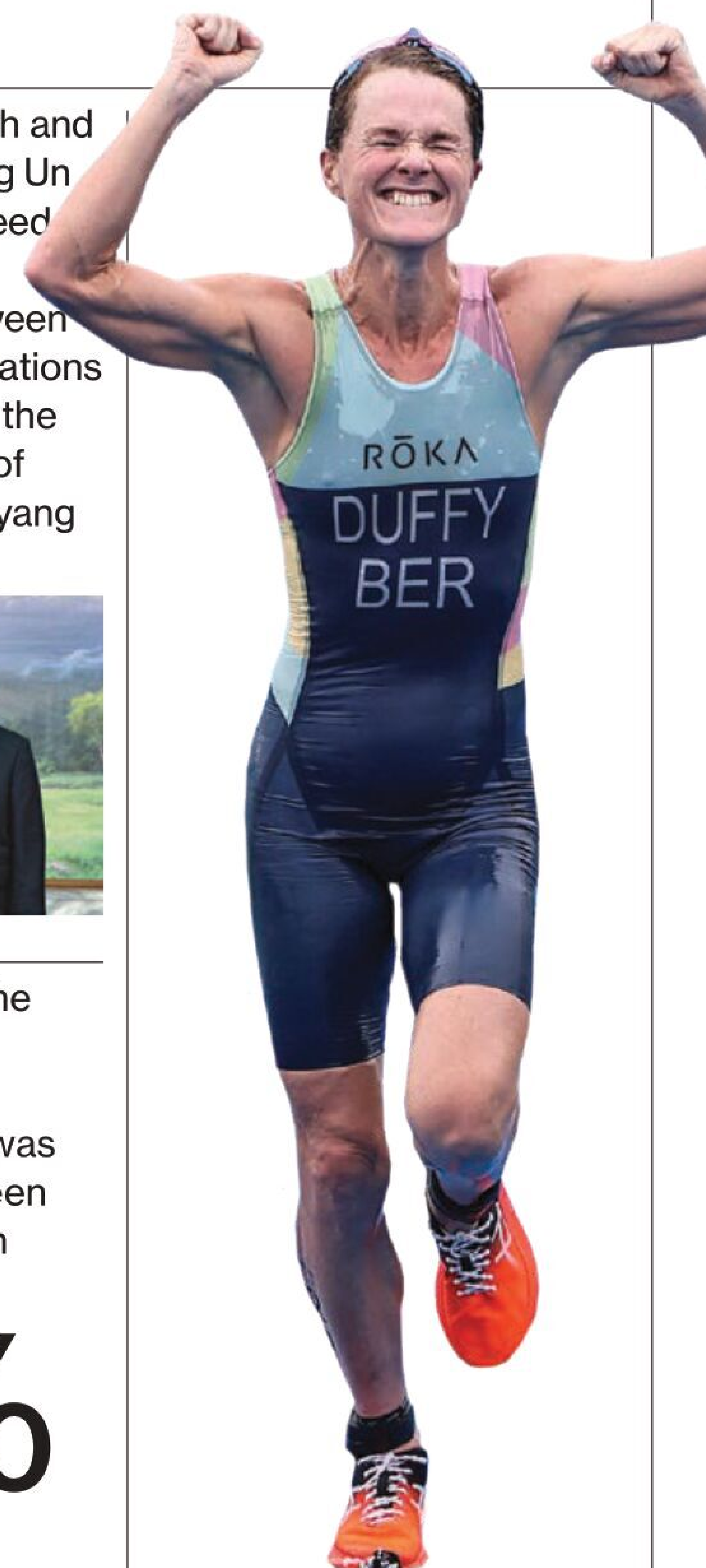
It's the highest price for the premium-quality bean, favored by the likes of Starbucks, since October 2014.

● Aon abandoned its $30 billion purchase of Willis Towers Watson after opposition from U.S. authorities.

The plan ran into trouble in June when the U.S. Department of Justice sued to block the deal, which would have created the world's biggest insurance brokerage.

● The pass rate for the Chartered Financial Analyst Level I exam administered in May was the lowest it's ever been since testing began in 1963, at just

25%



● Triathlete Flora Duffy won a gold medal—the first for Bermuda—at the Tokyo Olympic Games on July 26. The island state is now the smallest country ever to capture the top prize at the sporting event.

● "What we were subjected to that day was like something from a medieval battle. We fought hand to hand, inch by inch, to prevent an invasion."

During the first day of a U.S. House committee hearing on the Jan. 6 Capitol riot, Sergeant Aquilino Gonell gave a firsthand account of how the violent mob overran law enforcement officers.

● Kais Saied, Tunisia's president, fired Prime Minister Hichem Mechichi and suspended parliament on July 25. The move raised fears that turmoil might undermine the fragile democracy in the cradle of the Arab Spring.

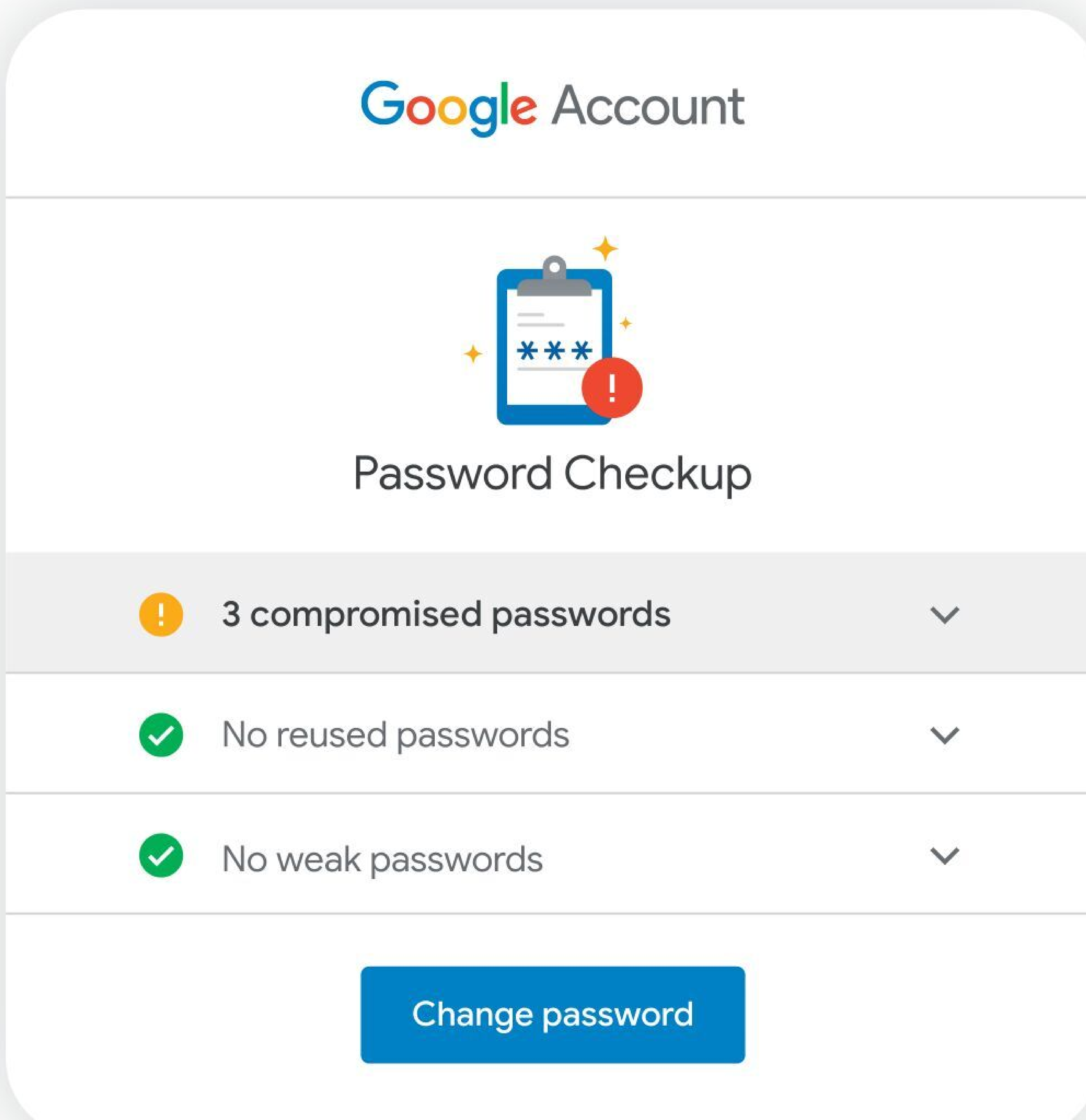
● The U.S. government has sold the only copy of the Wu-Tang Clan's *Once Upon a Time in Shaolin*. Convicted former pharma executive Martin Shkreli, who's serving a seven-year prison sentence, paid $2 million for the album in 2015. The price and identity of the buyer is being kept secret.

WU-TANG

KOREA: SOUTH KOREAN PRESIDENTIAL BLUE HOUSE/GETTY IMAGES. DUFFY: LI MING/GETTY IMAGES. STARBUCKS: GETTY IMAGES

Google

Every day Google checks the security of 1 billion passwords,



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U.S. Action Against Cybercriminals Is More Useful Than 'Red Lines'

After months of big talk and little action, President Joe Biden's administration has finally taken a useful step in addressing cyberattacks—one that could avoid a looming crisis while also holding bad actors to account.

On July 19 the U.S. and its allies exposed what they called a yearslong campaign of cyber intrusions backed by the Chinese government. A statement from the White House outlined charges of espionage, data theft, hacking (including the recent compromise of Microsoft Exchange), and ransomware attacks. The Department of Justice also unveiled an indictment against four Chinese security officials for a global campaign of intellectual-property theft.

It's the kind of response that's been missing for some time. As the U.S. has suffered from a growing array of such attacks—and not just from China—Biden has responded mostly with rhetoric and publicity stunts, including presenting Vladimir Putin with a list of "red lines" that the Russian president seems to have summarily ignored. This latest action is far more likely to help.

For one thing, it demonstrated a united front with American allies, in Europe and elsewhere. The range of nations voicing support for the U.S. action was unprecedented and included countries such as Japan that have traditionally been leery of criticizing China. Speaking with one voice, they'll make it harder to dismiss the charges as a witch hunt, helping draw a line between responsible and rogue actors in cyberspace. When confronted with such widespread external criticism in the past, China has often quietly moderated its policies.

In addition, a by-the-book legal approach affirms a commitment to the rule of law and should make it possible to avoid further escalation—a course that would almost certainly end up hurting rather than helping the U.S. It's true that the indicted officials may never see the inside of an American courtroom, but the charges will nonetheless impose a real cost and likely cause other hackers to think twice. After a similar round of threats and indictments starting in 2014, Chinese cyberattacks declined markedly.

The announcement could also help establish the kind of global norms that have been lacking in cyberspace. The longer-term goal should be agreements akin to disarmament treaties, through which governments recognize their collective interest in curbing pointless, mutually harmful activity. Some of the intrusions detailed in the new charges, such as ransomware attacks against U.S. civilian targets, amount to pure criminality; they have no plausible national security rationale or strategic objective. In the meantime, naming and shaming countries that permit such attacks—combined with a systematic effort by the Justice Department to target the criminals behind them—would be real progress.

Finally, greater openness on the government's part is welcome in its own right. U.S. intelligence agencies were admirably transparent in detailing more than 50 specific tactics used by the attackers and providing technical advice for businesses responding to them. This should make it clear that cybersecurity is something all Americans must take more seriously and that better defenses are everyone's responsibility.

Such measures won't stop cyberattacks on their own, of course. And skeptics will find this judicious approach less satisfying than more aggressive forms of retaliation. But these steps are prudent, principled, and—most important—far more likely to succeed. Ⓑ *For more commentary, go to bloomberg.com/opinion*

■ AGENDA

ILLUSTRATION BY AISHA FRANZ

► Clipping Growth

Alibaba unveils earnings for its fiscal first quarter on Aug. 3. Jack Ma's flagship e-commerce company is trying to revive its growth prospects amid Chinese antitrust probes that triggered its first loss in nine years in May.

► BP reports earnings on Aug. 3. They were likely bolstered by extensive spending cuts across the industry, as well as a lack of new major projects and rising oil and gas prices.

► Australia's central bank sets borrowing costs on Aug. 3. Recent coronavirus outbreaks and lockdowns have dimmed economic prospects, keeping higher rates a ways off.

► HSBC releases its earnings on Aug. 2. An economic rebound in the U.K. and a strategic overhaul in Asia have helped spur profits at Europe's largest bank.

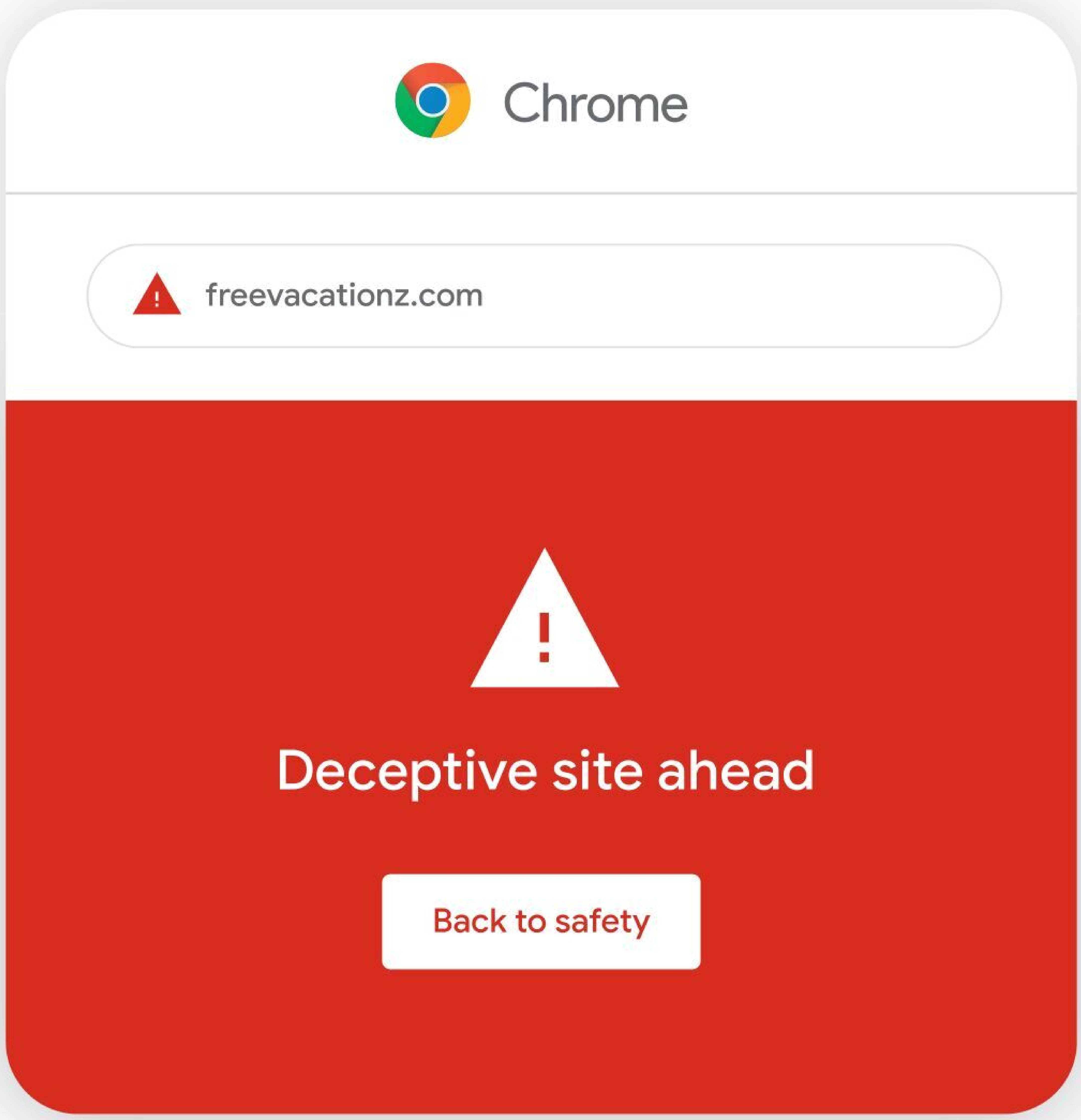
► On Aug. 1, Mexico holds a referendum—called for by President Andrés Manuel López Obrador—to determine if his predecessors can be prosecuted for corruption.

► An investment ban by President Biden on 59 companies with ties to China's military or surveillance industry takes effect on Aug. 2. Investors have one year to fully divest holdings.

► Huawei Chief Financial Officer Meng Wanzhou's U.S. extradition hearings resume in Canada on Aug. 3 after the end of a three-month delay she requested.

Google

Every day Google protects 4 billion devices from risky sites,



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We keep more people safe online than anyone else with products that are secure by default, private by design, and put you in control.

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g.co/safety

What Happens After Peak Everything?

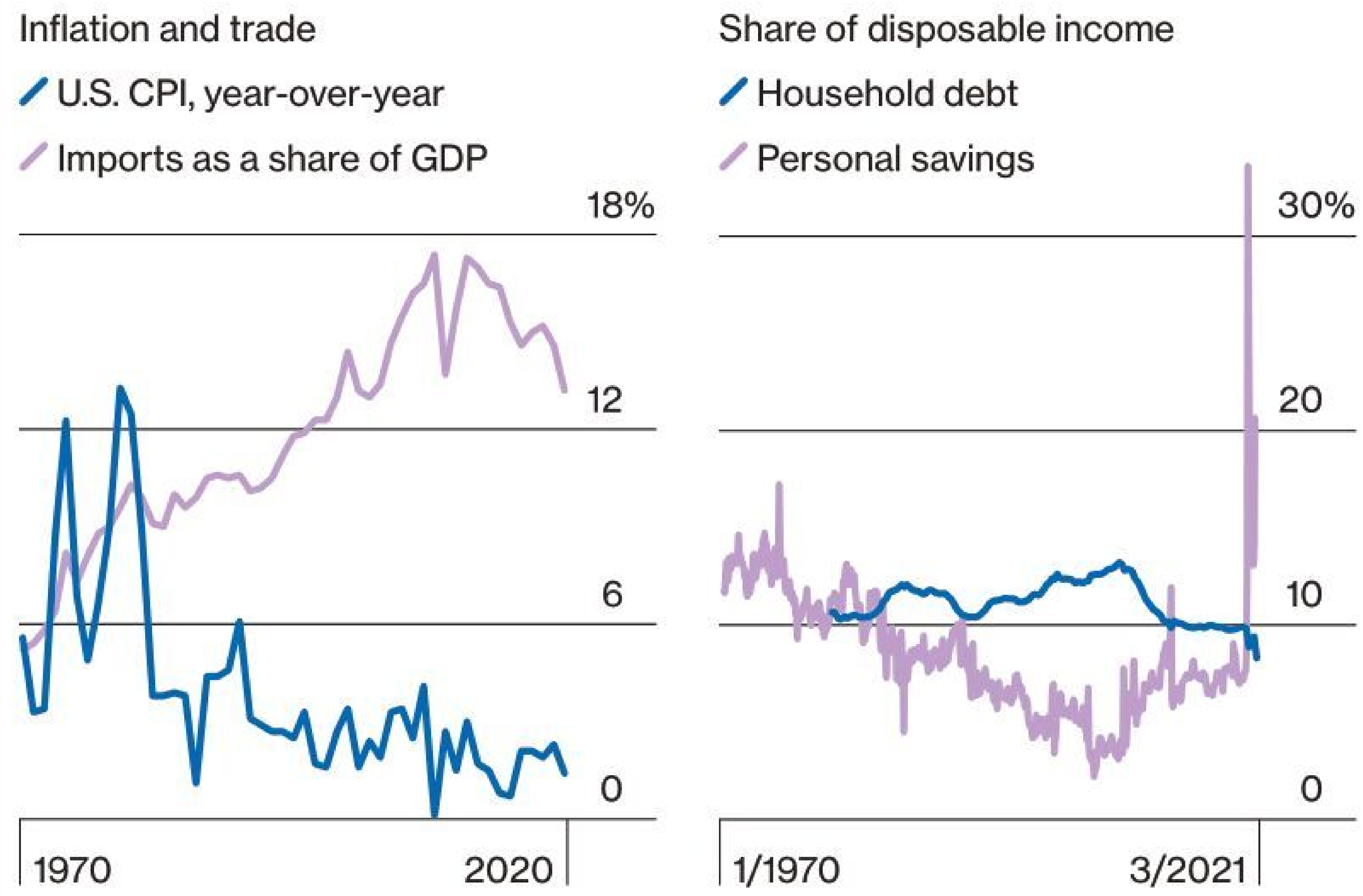
● The old normal is not the new normal—and believe it or not, that's good news

● By Gina Martin Adams

Everywhere you look, there are peaks. Economic indicators, corporate earnings, commodity prices, even global monetary policy support—all appear to have reached a natural limit and have nowhere to go but down. A loss of momentum after "peak everything" will inevitably trouble investors already worried about the U.S. economy's staying power and the prospect of higher inflation.

PHOTO ILLUSTRATION BY 731; PHOTOS: GETTY IMAGES (5)

A Tale of the Benjamins



DATA: COMPILED BY BLOOMBERG

Yet a slowdown is likely to take us to a level that will still be well above the sluggish pace of the pre-pandemic years. Does that mean living with higher inflation? Yes. But it also means a stronger economy.

The extraordinary responses to the pandemic by the Federal Reserve and Congress helped blunt the economic blow of lockdowns and set the stage for a powerful recovery. The effects of those efforts aren't going away anytime soon, and as chief equity strategist of Bloomberg Intelligence, I anticipate consumer demand staying strong for longer than many expect.

The sheer size of federal outlays since the onset of the pandemic is stunning—the spending included in the U.S. fiscal packages was equal to about a quarter of 2020 gross domestic product, resulting in the largest deficit in U.S. history. Theory has it that the primary risk of unconstrained government spending is inflation once the economy reaches full employment. With the unemployment rate already back to a level it took five years to reach following the financial crisis, and the Biden administration pushing for more spending, we're about to test that theory.

The Fed's willingness to maintain its easy monetary policy, combined with a greater tolerance for inflation, has also supported growth, and adds to the case that inflation may settle in at a higher average level in the years ahead. The U.S. central bank is still following a crisis-era playbook—buying bonds and keeping interest rates low—and seems committed to staying the course. More evidence: Almost a year ago, the Fed signaled a change in inflation tolerance for the 2020s recovery. In an effort to pursue maximum employment that is broad-based and inclusive, the Fed adopted an average inflation target, communicating that it's likely to allow inflation to exceed 2% and provide more accommodative monetary policy well into economic expansion, as a way to boost employment among workers in low- and moderate-income communities.

The result of the combined monetary and fiscal policy bonanza of 2020-21 is that household and company coffers are stuffed with cash waiting to be deployed. Corporate capital spending as a share of S&P 500 company sales is still near an all-time low, creating a coiled spring for the cycle ahead. Likewise, the ratio of personal savings to disposable income is near levels last recorded more than four decades ago. One reason for that is households' debt service burden sits at a record low thanks to extremely low interest rates, which many consumers locked in as part of a giant mortgage refinancing rush.

Most current views of inflation suggest "transitory" price pressures brought on by pandemic-induced bottlenecks will ultimately fade. Economies will reopen and supplies of everything from workers to commodities will normalize, paving the path for lower inflation and a return to the 2010s. However, this thesis fails to acknowledge changes to the international trade landscape that occurred in recent years. Clearing some supply chain bottlenecks is indeed likely to ease inflation pressure in coming months. But corporations aren't going to halt their efforts to shorten, diversify, and deglobalize supply chains as insurance against future shutdowns. The longer the pandemic extends, the more likely companies will respond.

Their top concern remains the supply chain, mentions of which shot up in conference calls during U.S. earnings season. "Supply chain" was mentioned 1,272 times in transcripts—matching records when tariff announcements first surprised financial markets in 2018, and suggesting a high amount of anxiety over product sourcing.

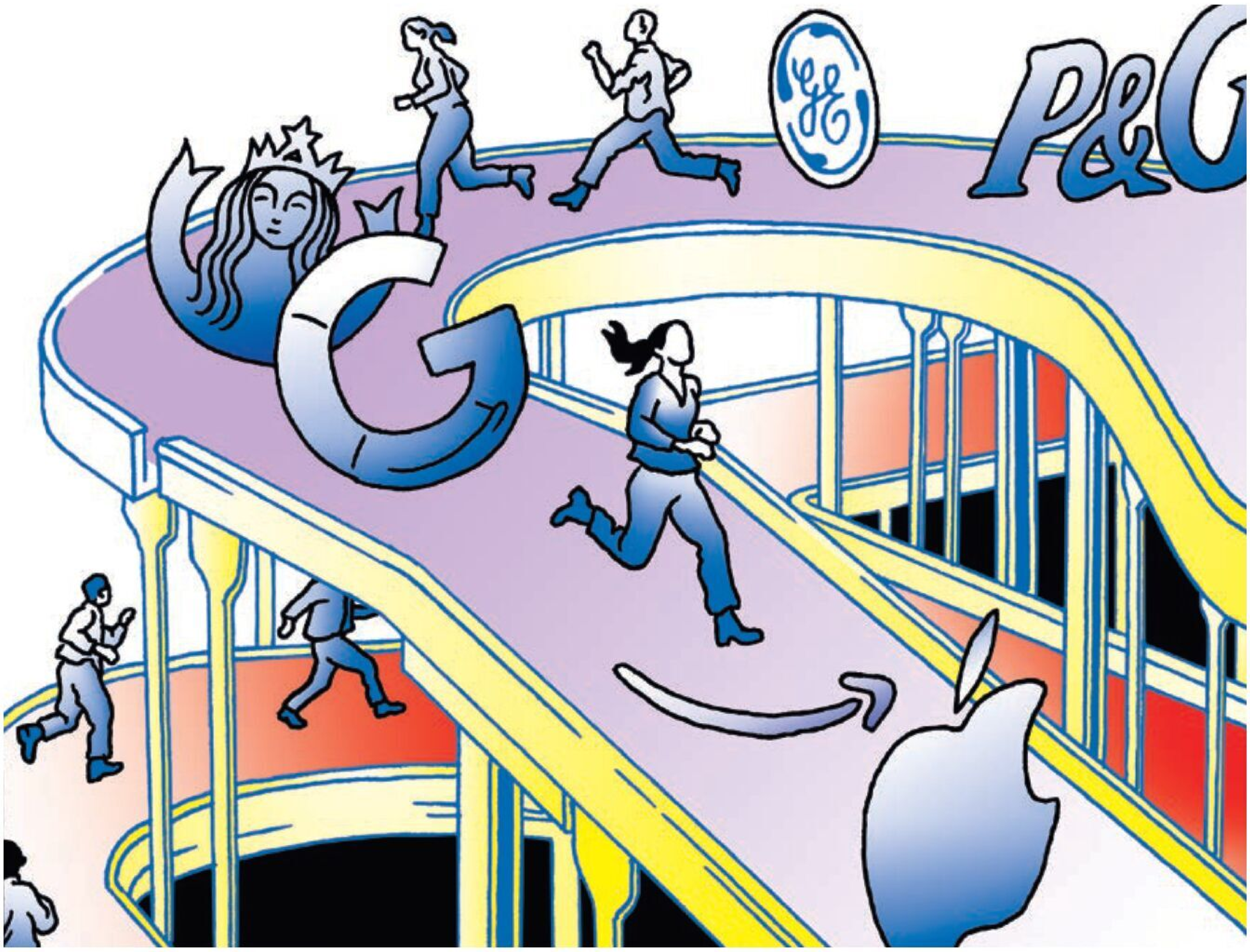
Technology, the center of the nationalistic rift between the U.S. and China, is a key part of supply chain concerns, and the sector's innovation and use of low-cost global suppliers was a significant source of price deflation over the past two decades. That trend may now be under threat as policymakers erect further barriers to trade.

Higher costs are the natural result of both corporations' effort to prevent future disruption and policymakers' desire to gain control of their supply chains, and both will likely enlarge a wave of deglobalization that's been taking shape for the better part of a decade. Indeed, it's now looking like the multidecade era of trade expansion actually peaked in 2008 (which happened to coincide with inflation's record low in the U.S.). If expansion of global trade is increasingly hobbled, higher inflation seems likely.

Even so, the U.S. is in no way headed back to the Great Inflation of the 1970s. Wages no longer rise rapidly in response to lower unemployment as they did then, when unions were stronger, economies less interconnected, and automation not as much of a force. Today's policymakers also have the '70s experience to draw upon and are less likely to repeat their predecessors' mistakes.

Growth is also extremely unlikely to revert back to the disappointingly slow pace of the 2010s, given vast changes in the economic and policy landscape in recent years. Hints of a new paradigm were emerging leading into the pandemic, and the crisis response ensured that the 2020s will write a new growth and inflation story.

In other words, and quite contrary to current popular sentiment, there are good reasons to be optimistic about the economic outlook. Ⓑ



The New Talent Pool

Before the digital age, the corporate talent factories were almost exclusively large companies, such as General Electric and Procter & Gamble, that devoted significant resources to develop managers. Today, corporate America is increasingly looking for flexibility, entrepreneurship, and innovation in future leaders. That's shifting the advantage to companies like Starbucks that have built agility into their culture (page 11) and even pushing insular ones like GE to widen their recruiting (page 12). While classic managers are still very much in style in China (page 14), demand for new-age positions like diversity manager, chief medical officer, or even vice president of remote experience (page 13) is proliferating. "There's a whole new level of assessment that has come into play post-Covid," says Gretchen Crist, a recruiter at RSR Partners. "Is the executive you are considering crisis-tested? Do they have the ability to lead in a virtual world? Can they reinvent in real time? Are they a flexible thinker? It's a whole other element of evaluating talent." —*Jeff Green*

Edited by James E. Ellis and Anne Riley Moffat

ILLUSTRATIONS BY DAPHNE GEISLER; *FIRST 10 MONTHS OF THE YEAR; FIGURES BASED ON AN ANALYSIS OF LINKEDIN PROFILES. DATA: LINKEDIN ECONOMIC GRAPH RESEARCH

Caffeinated Corporate Climbers

● Starbucks is training corporate America's next crop of leaders, and it's fine with that

When Starbucks Corp. announced the abrupt departure of its second-in-command in January, Wall Street was unsettled by the news. Chief Operating Officer Rosalind Brewer, frequently cited as one of the most powerful women in business because of the company's rapid digital expansion under her watch, would be leaving to lead pharmacy chain Walgreens Boots Alliance Inc. It was the second big shake-up that month: The chain's finance chief had just announced his retirement, together prompting a test of Starbucks's management bench that Gordon Haskett analysts initially called "disconcerting."

But losing Brewer wasn't the seismic shock Wall Street had feared. In fact, it's the kind of event Starbucks has come to expect. Corporate recruiters have increasingly descended on the company and its deep bench of diverse entrepreneurial talent when looking to build out America's evolving C-suites. And Starbucks knows it.

"We are growing and developing leaders for the world," says Angela Lis, Starbucks's chief partner officer, who's responsible for developing and advancing careers. "That is actually a goal for us."

Culturally, the company has a lot of strengths that modern employers want to emulate, and poaching its talent is one of the fastest ways to do that. Starbucks began having difficult conversations about discrimination in the workplace years before rivals' recent racial reckonings, shutting thousands of U.S. stores for an afternoon of anti-bias training in 2018. It also moves executives around, so spending time in finance, operations, and international jobs isn't unusual for an alum, says Adam Parker, a recruiter at Stanton Chase who's helped place Starbucks employees in other roles. The culture also means nixing ideas that might be profitable but would have a negative impact on workers or customers, Lis says: "We often say no, and it's very hard."

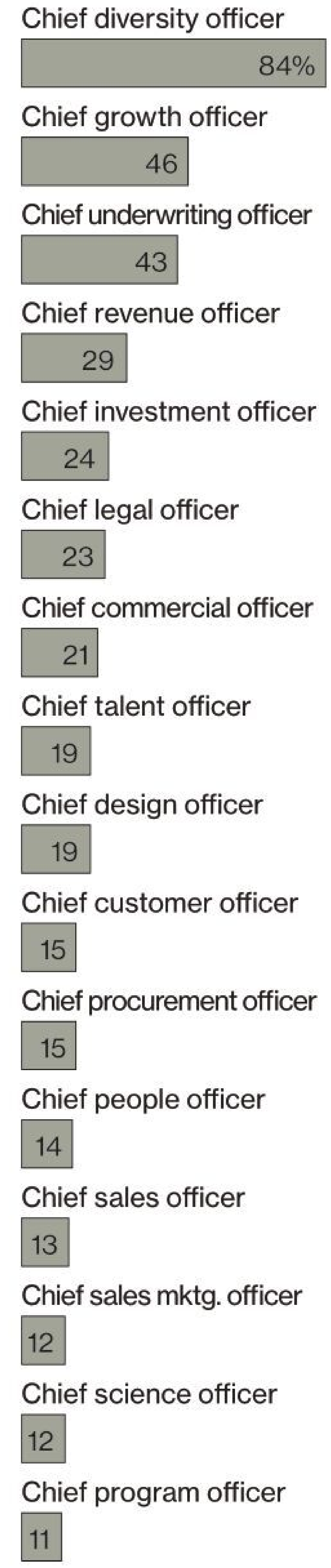
A lot of companies talk about culture, but not like Starbucks, according to former workers. The company keeps two empty chairs at every meeting or conference, one for the customer and one for the employee. They're meant as a constant reminder not to give shareholders outsize consideration, says Vivek Varma, who'd been at Starbucks for 12 years before leaving in 2020 to run philanthropic initiative Emes Project LLC, where he's still working daily with longtime Starbucks leader Howard Schultz.

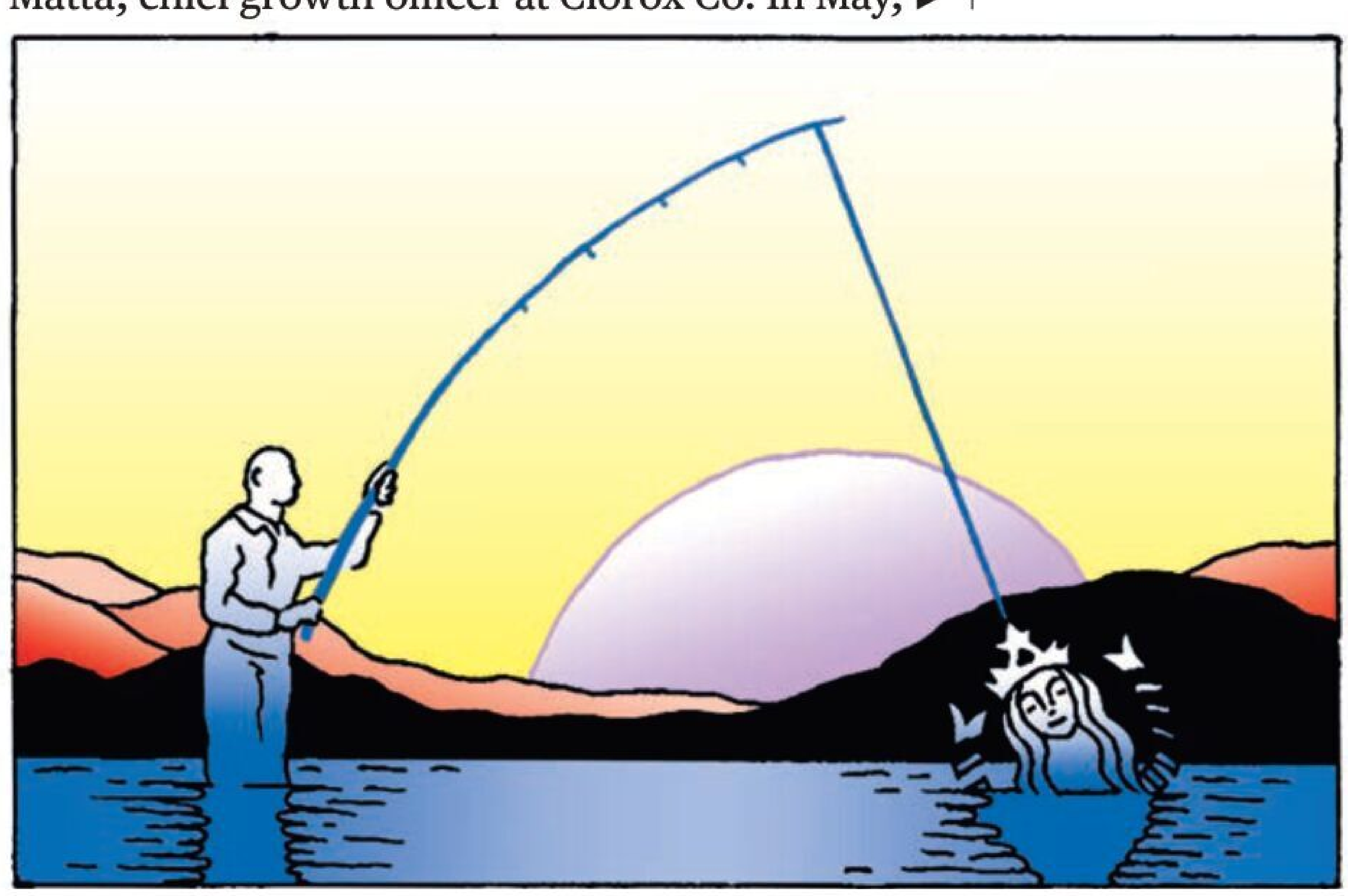
It's also about how you treat vendors and not "bigfooting" into other countries, Starbucks Chair Mellody Hobson said at a virtual event this spring. "All of that is factored into how we run the business, and at the end of the day, we think all of those considerations enhance shareholder value," she said. "We do not believe in any way we're making trade-offs or we are putting one in front of the other—all of it matters."

If there's a "secret sauce" to Starbucks's in-house management training, it's that employees are expected to think beyond the bottom line, Lis says. If that's not a fit, she says, new employees usually don't last long. "We were taught to integrate and balance results with not just what you did, but how you did it," says former Starbucks executive Adam Brotman. Now chief executive officer of restaurant technology company Brightloom, in which Starbucks has invested, Brotman left the coffee chain in 2018 to become co-CEO of clothing retailer J.Crew Group Inc. "It's all about trying to change the nature of the role of a public company."

That deeply embedded ethos has made Starbucks headquarters ripe for recruiters. Chipotle Mexican Grill Inc. has two former Starbucks executives in its nine-person C-suite. Other notable alumni include Leanne Fremar, chief brand officer at JPMorgan Chase & Co., and Tony Matta, chief growth officer at Clorox Co. In May, ▶

▼ Change in job's share of C-suite positions in the U.S. from 2019 to 2020*





◀ Pinterest Inc. hired Christine Deputy as its new chief people officer, and though her most recent employer was Nordstrom Inc., she spent more than a decade rising through the ranks at Starbucks first.

"Experience in a company that does seem to get the culture piece right more often perhaps than others historically is something that other companies are keen to learn from," recruiter Parker says.

If it looks like Starbucks punches above its weight when it comes to training the next generation of American corporate leadership, that's because it does. According to a Bloomberg analysis of career histories among active employees on management teams, the coffee chain had produced just as many executives as significantly larger companies, including Amazon.com Inc. and Walmart Inc., who've gone on to staff the top ranks at other S&P 500 companies. Besides Walgreens's Brewer, several former Starbucks executives have made it all the way to the corner office elsewhere. Annie Young-Scrivner left in 2017 after more than seven years to become head of Godiva Chocolatier and has since been named CEO of beauty company Wella Co. And Kohl's Corp.'s top executive, Michelle Gass, spent more than 16 years at the coffee giant.

Failure was an important part of being a leader at Starbucks during her tenure there, Gass says. She joined the company in 1996, when it had about 1,000 stores. By the time she left, in 2013, it was up to about 20,000. "Through that whole time, I always felt like I could make a difference, to have that entrepreneurial mindset," says Gass, whose legacy at Starbucks included the addition of whipped cream and caramel drizzle to the Frappuccino frozen coffee drink. Still, "not everything worked, and that was OK," she says. "It was OK to fail. It was encouraged."

Of course, plenty of talent stays inside Starbucks, Lis says. And sometimes people come back, as was the case with current Chief Financial Officer Rachel Ruggeri, who left her finance role in 2018 to become CFO at pancake-mix maker Continental Mills Inc. She then returned to Starbucks in the midst of the pandemic lockdowns last year and was named as the outgoing finance chief's successor when he announced his retirement in January.

"We never lost touch with Rachel," Lis says. "That's also a 'secret sauce' thing. She came back to us." *—Jeff Green and Leslie Patton, with Edward Ludlow and Lauren Pizzimenti*

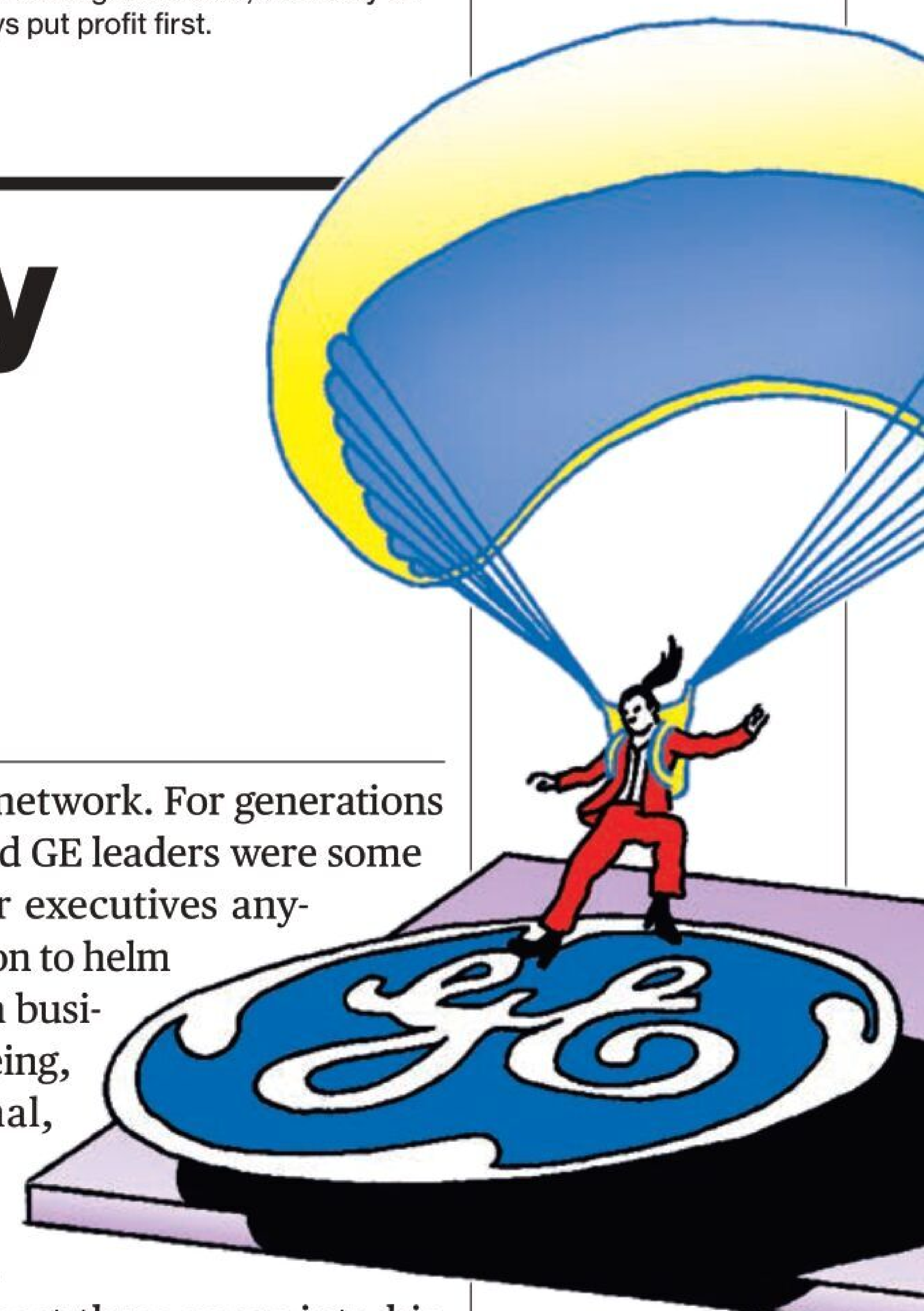
THE BOTTOM LINE Starbucks has become corporate America's preferred scouting ground for new managerial talent, fueled by an unusual culture that doesn't always put profit first.

● Gass

● Brewer

GE's People Factory Imports Talent

● Crotonville makes leaders, but it can't instill fresh blood



General Electric Co. for decades was known as much for producing elite managers as it was for the lightbulbs, power equipment, and home appliances that wore its logo over the years. When leaders departed—often for the top job at other large companies—GE could tap its deep bench of executives honed at its famed management training institute, which former Chief Executive Officer Jack Welch once called the "greatest people factory in the world."

The company's jargon-filled training program, taught at its Crotonville, N.Y., campus on the Hudson River, was even parodied in the NBC sitcom *30 Rock* by Tina Fey and Alec Baldwin, back when GE controlled the network. For generations of recruiters, experienced GE leaders were some of the most sought-after executives anywhere, with alums going on to helm a who's who of American businesses including 3M, Boeing, Honeywell International, and Home Depot.

But that "Made at GE" management ethos has started to shift. Almost three years into his push to revive the iconic manufacturer, CEO Larry Culp has turned to external hires for some of the most critical leadership roles. They include the first finance chief from outside GE since at least 1979, as well as the first imported bosses of its jet-engine and health-care divisions in more than three decades. Culp's own role, in fact, breaks the mold. Pushing GE to instill the so-called lean-production principles pioneered by Toyota Motor Corp. that he embraced as CEO at Danaher Corp., he's the first outsider to run the company in its 129-year history. "To drive the kind of cultural change that's required by lean manufacturing, it does oftentimes require a change in blood," says Melius Research analyst Scott Davis.

Of GE's roughly 20 top executives, 15 are new to their roles since Culp was named chief executive in 2018. At least five of those, including one who'll start in January, were external hires. The high-level appointees—especially those from outside—reflect how Culp is going about not only fixing GE's operations and finances but also overhauling its culture.

"This is part of the new lease on life he's trying to instill in the organization," says William Blair analyst Nick Heymann. "Larry is trying to help everybody understand: This is a new company, not a new 'version' of GE."

CEOs with a turnaround mandate often bring in new people, so an influx of fresh talent is in part to be expected. And for its part, GE acknowledges that the external hires, along with the internal management shifts, are part of its push to change its centralized and hierarchical culture. "Our goal is to have exceptional leadership talent with deep operational focus and industry expertise in our most critical roles," Kevin Cox, GE's chief human resources officer, said in an email. "We achieve this by developing talent within the company and attracting external leaders, as we believe both are important to driving GE's cultural transformation." Cox himself was one of Culp's earliest external hires, joining GE in 2019 after 14 years as the top HR executive at American Express Co.

GE has spent much of the past 20 years lurching from one crisis to another, shedding assets and employees as it shrank to its industrial core. Worth more than a half-trillion dollars in its heyday, the company has a stock market value of about $115 billion today. Its global head count was 174,000 at the end of 2020, down from more than 300,000 at its peak.

Jeffrey Immelt's appointment to succeed Welch in 2001 triggered an exodus of top leaders who'd also been vying for the CEO job, culling several highly regarded industry experts from GE's ranks. A similar outflow followed Immelt's succession by John Flannery in 2017. Other executives who'd come up through the ranks became prime candidates to be plucked by competitors as veterans soured on the company's fading fortunes.

Jeanne Branthover, a managing partner at executive search firm DHR International Inc., who's worked with GE since the Welch era, says it still has plenty of internal talent, though it's no longer the font of CEO candidates it once was. "Executive recruiters as a whole, we're not looking at GE as the place to recruit like we used to," she says. But that could change. "There's no doubt in my mind that GE is going to come back with great internal people because they're making a real effort to change with the top people they're putting in."

GE, which halted in-person programs at Crotonville during the pandemic, says it still puts a big emphasis on leadership development. Even before the virus, though, more of that training has ▶

Wanted: Remote-Working Czar

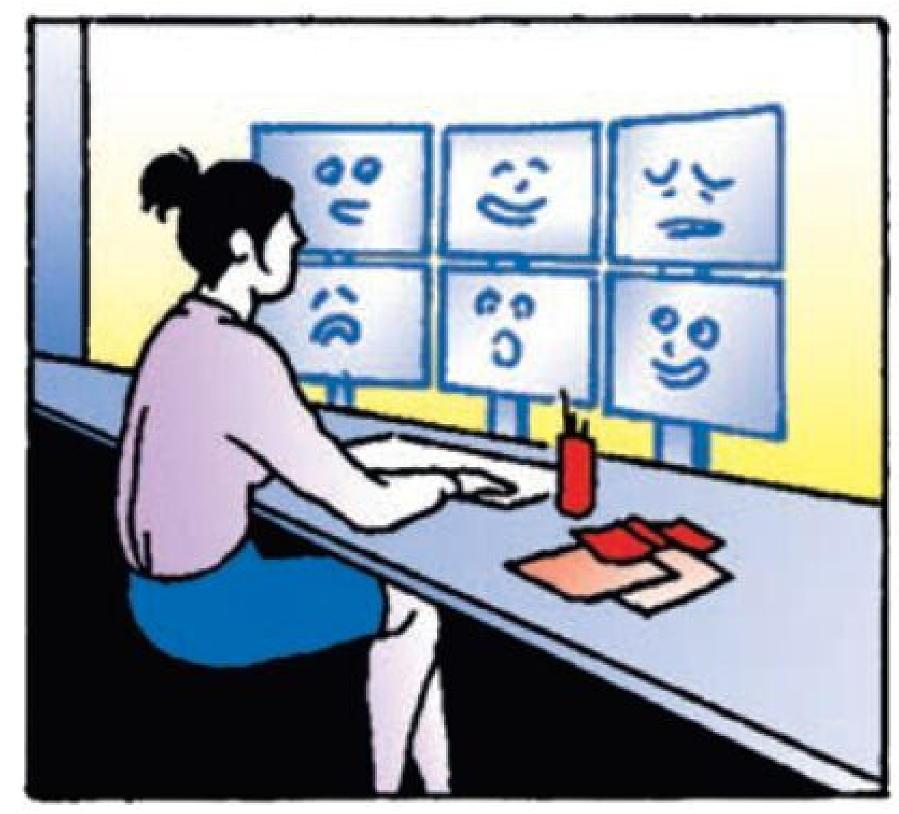
Must have experience leading large, far-flung teams through uncharted waters. Human resources veterans need not apply

Ask a college senior, and "vice president of productivity and remote experience" probably isn't on her list of dream jobs. Yet this fast-growing pandemic-era position has emerged as a previously unimaginable path to the C-suite—or at least to a virtual desk nearby.

The role, named by executive search firm Cowen Partners as one of the 10 most sought-after management jobs right now, entails keeping staff engaged and connected while working from home. Even before the pandemic, 11% of the global workforce was remote, and 20% will still primarily work from home in three years, according to consultant Willis Towers Watson. Research has shown that working remotely can enhance productivity, but it can hinder career advancement and prompt burnout, especially for working parents. So for large companies with sprawling global white-collar workforces, hiring a point person can be critical.

"There are so many things to consider with remote work: measuring performance, rewards, onboarding, plus tax and compensation implications," says Elise Freedman, workforce transformation practice leader at consultant Korn Ferry. "You need to make sure remote people don't get left behind."

While it sounds like something an existing HR department would naturally handle, the job is bigger than that, says Cowen Partners President Shawn Cole. Ideal candidates might have sales, operations, or even customer service backgrounds, with impeccable leadership and communication skills.



"It's not the responsibility of HR," Cole says. "They don't necessarily understand the job functions that are required."

If done well, the job can boost employee morale and retention and keep mass defections at bay. But it's often not done well: Research from executive search firm Spencer Stuart found that more than 25% of virtual teams aren't performing optimally, and one-third say their virtual bosses aren't effective.

Although this role may seem tied to today's uncertain environment and not a permanent gig, Cole argues that it isn't ephemeral, because companies are constantly tweaking their remote-work arrangements. Discussions around the "mobile and flexible office" have been ongoing since the early 1970s, when the term "telecommuting" was coined by a NASA worker.

Remote-work policies can shift almost overnight: Yahoo abruptly ended its long-standing telecommuting policy in 2013. In late July, Apple Inc. decided to push back its office reopening by at least a month, to October at the earliest, and other companies may follow suit. Big banks, meanwhile, might need to become more lenient if their strict in-office policies affect recruitment.

Still, there's one possible catch. If you run things so well there appears to be no friction, says Brad Bell, director of the Center for Advanced Human Resource Studies at Cornell, "you work yourself out of a job."
—*Matthew Boyle*

ILLUSTRATIONS BY DAPHEN GEISLER. PHOTOS: GASS: COURTESY KOHL'S. BREWER: JASON REDMOND/GETTY IMAGES

◀ started happening on job sites and factory floors to be closer to where GE's actual work is done, a tenet of Culp's lean-manufacturing philosophy.

"There's a lot that we're doing internally to make sure that we are developing the talent that GE needs going forward," Culp says.

He has also retained several veterans as he's reshuffled his team. Former GE Power Portfolio CEO Russell Stokes, for example, last year was named chief executive of GE Aviation Services, where he oversees the company's critical jet-engine service operations that generate much of the division's profit. And its incoming health-care CEO, while an external hire, cut his teeth at GE in the 1990s, signaling the exodus of recent years may be reversing course.

With the core team now assembled, GE can begin planning for who will succeed Culp once his chief executive contract expires in 2024. "In terms of succession, I've made it a habit ever since I've been a CEO to make sure the board is having that conversation, even if they think I might serve indefinitely," Culp says.

A refilled talent bench gives GE options for when that day comes, says William Blair's Heymann. "He's trying to make sure that after he's left that there's no chance for the ghosts of the past to reemerge." —*Ryan Beene*

THE BOTTOM LINE GE, once lauded for its storied management training programs, has scouted outside for several big hires as CEO Culp looks for fresh blood.

Where China Recruits

● Consultants are churning out professional managers to lead in a nascent talent market

Alfred Sloan's data-driven makeover of General Motors in the first half of the 20th century ushered in the age of the professional manager. Since then, many large businesses around the globe have embraced the belief that an academically trained executive—often with an MBA but little direct

experience in the discipline they're being hired to oversee—can land at a company, diagnose its challenges, and chart a new course to reinvigorate even a convoluted enterprise. But Chinese companies in search of top-level executives typically haven't turned to outsiders. Big state-owned enterprises, which still dominate much of the economy, tend to fill C-suites with in-house managers who can pass muster with government officials and the Communist Party cadres who often call the shots. And while there are plenty of successful private-sector companies, many are run by people close to the founders, including next-generation family members.

As a result, far fewer experienced managers have emerged in China from the kinds of corporate training grounds popular in the West, such as PepsiCo Inc. and Mars Inc. China may be the world's second-largest economy, but its talent market for professional managers is still in its infancy.

"China has been great at building entrepreneurial talent, people able to build companies from the ground up," says Joe Ngai, Hong Kong-based managing partner for McKinsey Greater China. "It is tougher to find the talent that is transformational in nature, to take a business that is already built and take that to the next level."

That's where consulting firms have stepped in. McKinsey & Co. is an especially fertile ground for companies looking for outside talent in China, sometimes for the first time. For instance, internet giant Tencent Holdings Ltd.'s president, Martin Lau, spent time at McKinsey. So did Davis Lin, the company's senior vice president overseeing strategic development.

McKinsey alums hold top positions at multinationals such as Walmart China, including Chief Executive Officer Christina Zhu and Sam's Club Chief Merchandising Officer for China Tina Zhang. Other notable managers schooled at McKinsey include online jobs platform Zhaopin's CEO Evan Guo, Ping

▼ McKinsey alumni are popping up all over

● YAN LI

CEO of Niu Technologies

● ANNA YIP

CEO of Singtel's Singapore consumer business

● DOMINIC BARTON

Canada's ambassador to China

● GORDON ORR

Non-executive board member of Lenovo and others

● GREG GIBB

Co-CEO of fintech Lufax

ILLUSTRATIONS BY DAPHEN GEISLER. PHOTOS: LI: NIU TECHNOLOGIES. YIP: SINGTEL. BARTON: DAVE KOTINSKY/GETTY IMAGES. ORR: MCKINSEY & CO. GIBB: BRENT LEWIN/BLOOMBERG. DATA: MCKINSEY; INTERNATIONAL SOS FOUNDATION

An Insurance (Group) Co. of China's co-CEO Jessica Tan, and Yum China Holdings CEO Joey Wat. And the list goes on.

Rival consulting firms have also churned out talent that's gone on to run Chinese companies as they grow and evolve. Stephen Zhu, an alumnus of Boston Consulting Group, is responsible for strategy, capital markets, and international business at DiDi Global Inc., the ride-hailing company at the center of a government crackdown following new rules regarding the handling of data. And Chinese human resources services company 51Job Inc. agreed to a buyout in June by an investor group that included CEO—and Bain & Co. alum—Rick Yan.

As more Chinese companies mature, there may be increased demand for executives with consulting experience, according to Linda Zhang, a Shanghai-based partner with global executive recruiting firm Heidrick & Struggles. "When local companies grow to a certain scale, they need to lift their organization capabilities to be able to jump to the next level of growth," creating an opening for people who've worked with the consulting firms, she says.

Recruiters and their clients also like that managers with a background in consulting are good at thinking strategically and managing high-growth companies once they start maturing, a big concern for many Chinese businesses that have rapidly moved beyond their startup days. At that point, "you can't just rely on working hard and being relentless," says Olivia Liang, executive director at leadership advisory and search firm Russell Reynolds Associates in Shanghai. "That's where the framework type of thinking at McKinsey and the like becomes very useful."

But while professional managers are increasingly hot in China, their appeal has somewhat waned in the U.S., as companies increasingly seek the entrepreneurial ethos more likely to be forged in Silicon Valley than inside a corporate training scheme. And Chinese recruiters scouting for promising executives may not be far behind. Many non-tech companies in China are starting to look for executives with experience in e-commerce and social media, says Neil Morrison, Hong Kong-based managing partner for executive search firm Boyden, especially as the pandemic has forced so many businesses to do more digitalization.

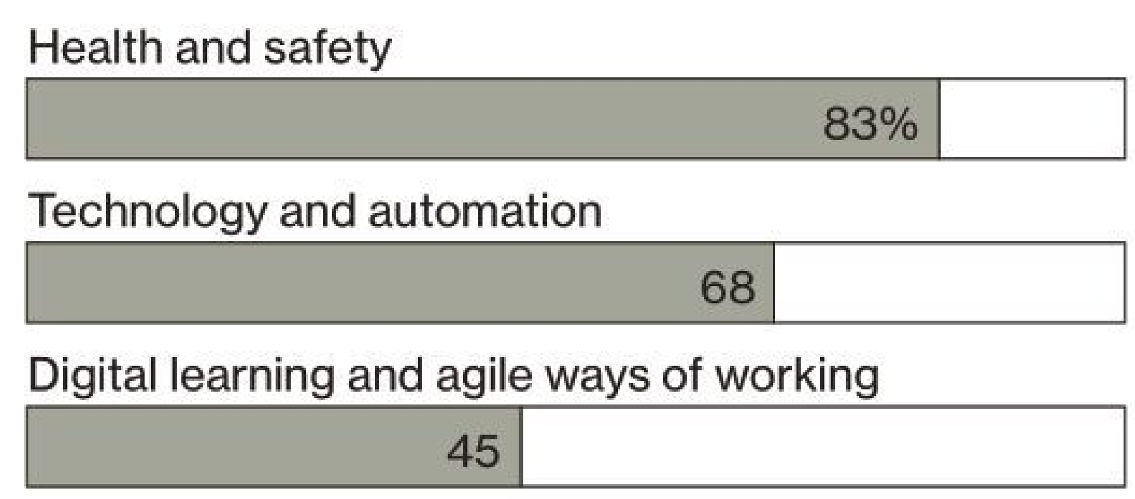
"Alibaba, JD, Tencent, those types of companies are becoming more relevant," he says. "They have a great talent pool." —*Bruce Einhorn*

THE BOTTOM LINE Recruiters and their Chinese clients often seek consultant-trained professional managers, though tech companies are also emerging as fertile ground for rising talent.

New Job The Doctor Is In

The role of chief medical officer was—until recently—mostly limited to hospitals and health-care companies, with a fairly narrow focus on medical operations. The spread of Covid-19 has made it a C-suite must-have for companies as varied as PepsiCo Inc. and Tyson Foods Inc., which added the newest kind of "CMO" to their ranks in the past year. Although the scope of the job varies, most corporations recognize they now have to think differently about the well-being of their employees and customers, compliance with changing public-health regulations, and even future business lines.

Share of executives expecting to increase hiring in the following roles because of the Covid-19 crisis



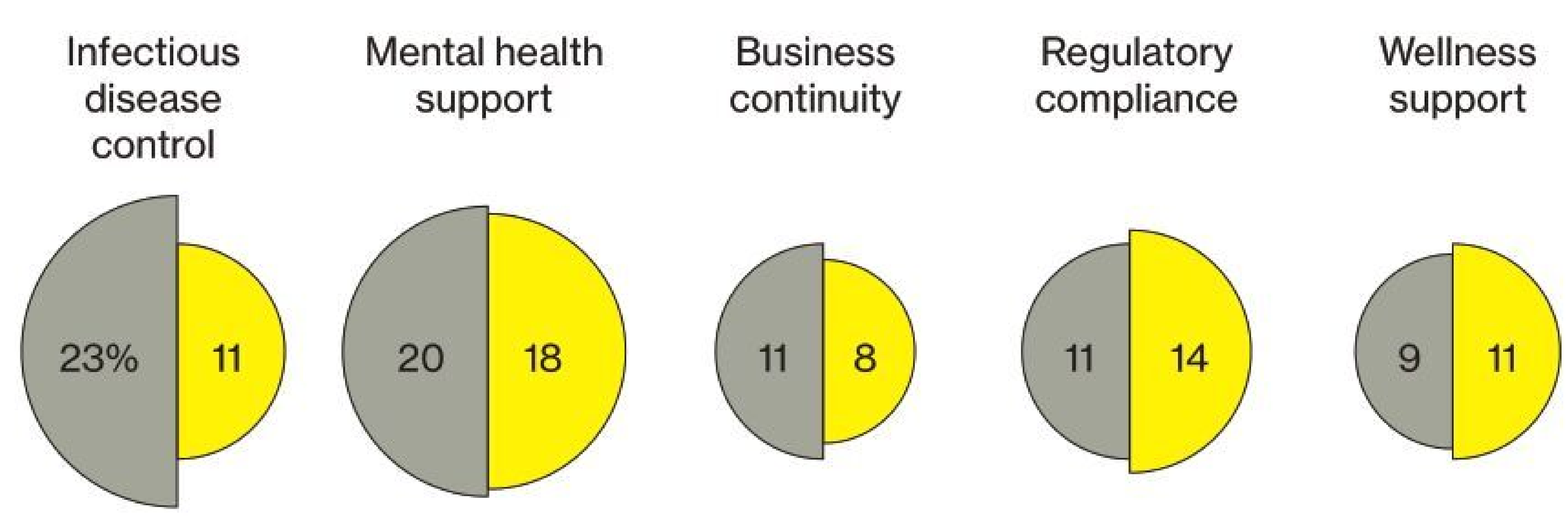
Who else has recently hired a chief health or medical officer:

1. Delta Air Lines
2. Constellation Brands
3. Stanley Black & Decker
4. Royal Caribbean Cruises

"We're living in a world where health has to cross lines with business, and we have to figure things out to keep our people safe." —*Tsedal Neeley, professor at Harvard Business School*

The health requirement that is increasing the most in complexity, according to a late 2020 survey of employee health professionals

■ Over the last 12 months ■ Expected in the next 10 years



Why It's Hot Now

Covid made companies realize that employee health is much broader than just preventing disease. They also have to focus on different work setups—things like carpal tunnel crop up more when "people are working on a box on top of their washing machine," says Gilbert Carrara, a health-care recruiter at search firm Boyden. —*Jeff Green, with Lauren Pizzimenti*

BEIJING'S TECH CRACKDOWN

● After spending years emulating Silicon Valley, China is charting its own course

On the fourth floor of a harborside mall on Grand Cayman, not far from touristy scuba-diving outlets and a jerk-chicken shack, is the offshored home of ride-hailing company DiDi Global Inc., one of China's biggest technology firms. A few doors down are the internet companies Baidu Inc. and Meituan; Alibaba Group Holding Ltd. is registered at a P.O. box up the street, right across from Singh's Roti Shop & Bar.

The Caribbean footholds, essentially leased mailing addresses, have no operational value but have made it easier for Chinese unicorns to attract European and American investors. They've been a bridge between East and West, a sunny symbol of the freewheeling capitalism tolerated by the Chinese Communist Party (CCP) as the cost of allowing its homegrown juggernauts to compete with their U.S. counterparts. DiDi's presence there was needed for it to go public on the New York Stock Exchange on June 30. Chinese companies saw multiple benefits to gaining access to the U.S. When DiDi opened ▶

PHOTO ILLUSTRATION BY 731; PHOTO: BLOOMBERG

◀ a research campus in California in 2017, founder and Chief Executive Officer Cheng Wei gushed about the company's "new home ... alongside the greatest technology companies in the world." Together, they were embarking on a "great journey."

But this journey started veering off course in October when Alibaba co-founder Jack Ma, one of the country's most visible billionaires, blasted Chinese regulators for stifling innovation. President Xi Jinping's government responded by squashing Ma's plan to take Alibaba's fintech offshoot, Ant Group Co., public and initiating an antitrust case against Alibaba. Ma disappeared from public view, his fortune dwindled, and murmurs began about a broader realignment in the relationship between China's government and its biggest companies.

DiDi's turn came on July 2, just days after its $4.4 billion initial public offering in the U.S. Regulators ordered a security review, then demanded mobile stores remove DiDi's apps. "Just because you are a highly successful tech company does not mean you are above the CCP," says Michael Witt, a senior affiliate professor of strategy and international business at Insead in Singapore. "Ant Group and Jack Ma found that out for themselves last year, and it is surprising DiDi did not get the message."

Later in the month, the Chinese government announced a sweeping new regulatory framework for the online education industry, which it said had been "hijacked by capital," then said online food platforms must ensure workers make at least the local minimum income. This gutted share prices of delivery giant Meituan, which was already facing an investigation into alleged monopolistic behavior.

The government's clampdown signals a new era of harsher oversight that companies won't be able to avoid by registering in the Caymans or hiring in California. The world's two largest economies seem headed down different paths as they grapple with the sprawling power that private tech companies have amassed. The authoritarian tinge is a risky pivot to some in and around the Chinese tech industry—and others see a chance for the country to gain an edge against its main geopolitical rival. "China is actually taking the lead in setting some boundaries around the power of Big Tech," says Thomas Tsao, co-founder of Gobi Partners, a venture capital firm based in Shanghai. "People are missing the bigger picture. They're trying a new model."

Since the late 1990s, China has emulated Silicon Valley's approach to innovation. Aided by Western capital and a generation of Elon Musk-like entrepreneurs—many educated overseas—the country saw Chinese versions of EBay and Amazon (Alibaba), AOL and Facebook (Tencent), and Google (Baidu) rocket to success while the government took a permissive approach to their behavior and largely protected them from U.S. competitors. At first, Chinese companies replicated services that were unavailable in or not tailored to the country, but they've long ceased to be mere copycats of Valley rivals and now frequently outmaneuver the global competition. So-called super apps, including Tencent Holdings Ltd.'s WeChat and Alibaba's Alipay, also created by Ma and team, handle everything from on-demand transportation to food delivery to paying utility bills—there's nothing comparable in the U.S. These days, Apple, Facebook, and Snapchat are racing to mimic features of these and other Chinese apps, instead of the other way around.

Just as in the U.S., unfettered growth led to increasingly powerful tech companies and CEOs who, operating with surprising independence, weren't afraid to flex their power. China's biggest tech companies periodically forced smaller competitors to integrate with their platforms or pressured them to sell out. Ma and other titans became cultural rock stars. He even started dressing like a rock star at raucous Alibaba events, complete with a mohawk wig and leather jacket and guitar, and became vocal about societal issues.

Some see the crackdown on Alibaba and DiDi—along with actions against dozens of other tech companies—as long overdue. Andy Tian, who led Google China's mobile strategy in the 2000s and is now CEO at Beijing social media startup Asian Innovations Group, says it will be "positive for innovation" and "competition in China will be fiercer than in the U.S.," because smaller companies will benefit from policies that rein in the largest competitors.

Angela Zhang, director of Hong Kong University's Centre for Chinese Law and the author of *Chinese Antitrust Exceptionalism*, says the intervention will reshape the tech industry in China faster than it could happen elsewhere. "The case against Alibaba took the Chinese antitrust authority only four months to complete, whereas it will take years for U.S. and EU regulators to go after tech firms such as Facebook, Google, and Amazon, who are ready to fight tooth and nail," she says.

Lillian Li, founder of the newsletter *Chinese Characteristics*, deems the disruption "a rebalancing of the dynamics, redrawing the boundaries. I don't think the Chinese government is out there to destroy tech giants." After decades of an anything-goes ethos, she says, China wanted to remind its tech industry "what they can do and can't do."

If China is abandoning the Silicon Valley model, what will it replace it with? Insiders suggest it will be less founder-driven and more China-centric.

● What global tech executives exposed to U.S.-China trade predict the technology industry will look like in 10 years

42%
Say it will be a global duopoly, with strong participants from both the U.S. and China that compete only in other countries

25%
Expect that U.S. and Chinese companies will operate in distinct geographic regions

25%
Envision that the U.S. will for the most part dominate globally, with a small number of leading Chinese and other rivals competing in specific sectors

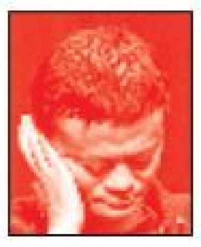
8%
Anticipate it will be a free-for-all, with Chinese and U.S. companies competing everywhere

PHOTO ILLUSTRATIONS BY 731; PHOTOS: AP PHOTO (1); BLOOMBERG (3); GETTY IMAGES (1); REUTERS (1). DATA: BROOKINGS POLL OF 158 EXECUTIVES, PUBLISHED FEBRUARY 2021

China's Embattled Billionaires

● **Jack Ma**

Co-founder, Alibaba and Ant Group



Net worth: $46.5 billion

Last year the government forced Ma, China's highest-profile entrepreneur, to call off the initial public offering for Ant Group, his finance startup. An antitrust investigation into Alibaba followed, and Ma has largely retreated from public view.

● **Pony Ma**

Co-founder and CEO, Tencent

Net worth: $45.8 billion

The social media and gaming powerhouse Tencent, now China's most valuable company, is under antitrust scrutiny. In April, Ma pledged to dedicate $7.7 billion of the company's money to curing societal ills and addressing rural poverty.

● **Zhang Yiming**

Co-founder and chairman, ByteDance

Net worth: $44.5 billion

Zhang has built a series of successful apps—including the short-video sensation TikTok, whose parent company, ByteDance, drew antitrust scrutiny this spring. He gave up his chief executive officer role in May and donated about $77 million to an education fund in his hometown.

● **Colin Huang**

Co-founder, Pinduoduo

Net worth: $28 billion

The ex-Google engineer, who started the e-commerce company Pinduoduo, stepped down from his CEO role last year and announced his intention to leave the board in March. Huang and the company's founding team have given more than $2 billion to charity.

● **Wang Xing**

Co-founder and chairman, Meituan

Net worth: $14.6 billion

Wang, renowned for building Meituan into the world's largest delivery service, ran into trouble this year for posting an 1,100-year-old poem that was viewed as implicit criticism of the government. He quickly retracted the post, apologized, and donated more than $2 billion to charity.

● **Cheng Wei**

Co-founder and CEO, DiDi

Net worth: $2.5 billion

The government targeted Cheng's ride-hailing company almost immediately after it raised $4.4 billion in an IPO in June. First, Beijing announced a cybersecurity review, then told app stores to block DiDi, cutting off its ability to attract new customers.

NET WORTH FIGURES AS OF JULY 28. DATA: COMPILED BY BLOOMBERG

U.S. antitrust action often focuses on strengthening consumer protections, but China's crackdown is ultimately geared toward protecting government policy. Alicia García-Herrero, a top economist in Hong Kong at investment bank Natixis, notes that neither Huawei nor ZTE, which together have a lock on the Chinese telecom networking market, have been targeted so far, likely because they maintain closer ties to government officials. "Full alignment with China's leadership is a must to operate in China," she says.

President Xi's government has outlined sectors it wants to prioritize, including semiconductors and artificial intelligence. Xi has called the data its tech industry collects "an essential and strategic resource" and has been pushing to tap into it for years. Following a 2015 mandate, cities from Guiyang to Shanghai have set up data exchanges that facilitate the transfer of anonymized information between corporations. This could lead to a nationalized data-sharing system that serves as a kind of digital public infrastructure, putting a massive trove of data into the central government's hands.

The danger with this approach is that it could have a chilling effect on innovation. As one Chinese unicorn founder puts it, this new China tech model would "help hold back some overcreative ideas." Although this was meant as approval, it also can be read as a scarily restrictive view of innovation. The war for control over data could also threaten the Cayman Islands' status as a bridge between the superpowers. William Kirby, a Harvard professor who specializes in Chinese business studies, notes that Washington has passed legislation that threatens to delist the stocks of Chinese companies that don't submit documentation for audits, potentially exposing the data China wants to keep for itself. China has already signaled it will make it harder for Chinese companies to list on U.S. stock markets, limiting their ability to grow and raise capital outside Asia. "All this is a lose-lose proposition," Kirby says.

If the crackdown makes it more difficult for China's largest companies to expand, the beneficiaries could be American tech giants. The prospects for regulation in the U.S. remain uncertain, and Silicon Valley's dominant players could keep buying up future rivals, winning at a global scale. Of course, if they do so by smothering startups that could develop into rivals, it could end up depriving the U.S. of useful innovations just because Google or Facebook Inc. find them threatening.

The cost of China's turn on tech is also being borne by its future business leaders, who, after years of looking up to the founders of DiDi and Alibaba, now have to figure out how to think differently. One China-based startup founder, who requested anonymity to speak openly about a politically fraught subject, says tech companies will likely be more cautious in rolling out riskier products, act with more reverence for CCP policy, and may try to avoid growing too huge, lest they draw unwanted government attention.

Yet another entrepreneur who's operated for years in China scoffs at this notion. "No one is going to say, 'Oh, maybe I shouldn't get too big, because then I run the risk of being shut down by the government,'" says this person, who also requested anonymity. "If I get to that point, where I'm so big that I'm getting shut down by the government, that's amazing. That means I won. That means I'm the next Jack Ma." —*Austin Carr and Coco Liu, with Peter Elstrom, Selina Xu, and Zheping Huang*

THE BOTTOM LINE China and the U.S. are both grappling with the immense power of technology companies, but the Chinese government is prepared to play a far more active role.

CHINA RUSHES TO CATCH UP ON CHIPS

● Attempts to steer the country's semiconductor industry into relevance are languishing

China's aspiration to become a true technological rival to the U.S. faces a foundational challenge: The country doesn't control the semiconductors that are the building blocks for everything from smartphones to automated cars. In 2020 the Chinese economy spent $350 billion buying chips based largely on Western technology—more than it spent on oil.

For decades the government in Beijing has tried, and mostly failed, to create a national operation for designing and manufacturing cutting-edge chips on its own. The country does have a local chip industry, but the most advanced products remain the domain of such companies as Intel, Samsung, and TSMC.

China's worries grew during the Trump administration, when the U.S. effectively destroyed Huawei Technologies Co.'s global smartphone business by forcing chip suppliers to cut it off, undermining the company's ability to make devices. U.S.-aligned companies dominate the industry that makes the machinery needed to make chips, further complicating Chinese ambitions for self-sufficiency. Meanwhile, the semiconductor shortage, the result of Covid-era spikes in demand combined with longer-term trends, has shown how supply disruptions can wreak havoc on the global economy. Chinese officials know the country is vulnerable. "For our country, technology innovation is not just for growth," Vice Premier Liu He told the country's top scientists in May. "It's a matter of survival."

President Xi Jinping has charged Liu, a childhood confidant and close political ally, with turning things around. Liu has laid out plans to implement what he's called the "whole nation system." This harks back to China's development of the atomic bomb during the rule of Mao Zedong, when the government mobilized scientists, factories, and the military to make weapons aimed to offset U.S. nuclear supremacy. Although China has largely transformed into a market economy, the chip effort illustrates the extent to which the country retains aspects of its tradition of central planning.

Liu's strategy relies mainly on chips known as compound semiconductors, or third-generation chips, which are built out of new materials such as silicon carbide and gallium nitride, through which electrons can move more quickly, theoretically increasing processing speed. Compound semiconductors present a novel approach, offering China the chance to take the lead in a field where it isn't as far behind as it is in conventional chipmaking.

It's far from a sure bet—the U.S. and others also see the potential in compound chips and are racing to develop them. Still, Citigroup Inc. economist Li-Gang Liu sees the opportunity for China to spark rapid technological progress by going its own way instead of trying to piggyback on foreign companies. "Decoupling could be China's 'Sputnik Moment,' an external trigger for an era of fast-track technological progress," he wrote in a research note in June.

One advantage China has is its huge domestic market. The country plans to spend $1.4 trillion on advanced technologies through 2025. Those technologies could drive demand for third-generation chips, and Chinese chipmakers have already spent about $10.8 billion to expand their ability to build such semiconductors, according to the China Advanced Semiconductor Industry Innovation Alliance. Since 2014, the government has also invested about $53 billion into two separate national funds to help its domestic businesses.

But China's history with chipmaking shows that money can't solve all problems. Its chip effort, which started more than 20 years ago, has been marked by unfulfilled promises, stillborn projects, and government waste. And though government initiatives have helped create some large

PHOTO ILLUSTRATION BY 731; PHOTO: GETTY IMAGES companies, including Huahong Group in Shanghai and Semiconductor Manufacturing International Corp. (SMIC), China hasn't produced a single chipmaker on the world-beating scale of the major rivals outside its borders. In an industry in which essentially all the economic gains in any category go to the top one or two companies, only the biggest ones can stay relevant.

As a result, China has failed to keep pace. Chips are generally evaluated in nanometers, traditionally the measure of the width of the gates in a chip's transistors; smaller gates enable faster operations that use less energy. SMIC says it can make 14nm chips, though its main business currently consists of producing 28nm chips and other mature technologies. By comparison, Taiwan Semiconductor Manufacturing Co. aims to ramp up mass production of 3nm chips in 2022, putting SMIC five to six years behind–assuming it can master the processes that would get it there.

Even with China's enormous population, looking inward may not be enough to make up ground. The non-Chinese market is still larger than the domestic market, and the few chipmakers that dominate globally are set to make more money than Chinese companies operating primarily at home, says Christopher Thomas, a nonresident senior fellow at the Brookings Institution. Meanwhile, the barriers Chinese chip companies face outside the country could well increase if geopolitical tensions continue to rise. All of this gives incumbents the resources to develop advanced technologies faster, compounding their advantages. "The economics of an 'only in China for China' supply chain do not work," Thomas wrote on the Brookings website in January.

What's more, the amount of money the Chinese government pours into chipmaking efforts has distorted its market in ways that may be making it less competitive. Powerful local interests have chased the government's money by championing unrealistic projects in hopes of securing subsidies and, at times, political prestige. About 15,700 new semiconductor companies registered from January to May, three times the number from the same period the previous year, according to an analysis by the *South China Morning Post*.

Some of the resulting failures have been spectacular. Take Hongxin Semiconductor Manufacturing Co., a $20 billion chip project in central China's Wuhan, which the government backed. It promised to make 30,000 wafers monthly for 7nm chips, then collapsed in late 2020 before it had produced a single one. State media blamed the failure of a private investor to provide the capital it had promised, and the government took over.

More government control won't necessarily improve some of the counterproductive dynamics of the central command model. This approach hasn't worked so far, and Roger Sheng, a chip analyst in Shanghai for research company Gartner Inc., says there's reason to be skeptical that will change. "The semiconductor industry is very market-oriented," he says. "It isn't like launching a space station, something you can do by putting together the best technologies. In the chip industry there's a lot more to consider, from cost to efficiency. These factors are difficult to put in government policies."
—Bloomberg News, with Edwin Chan and Yuan Gao

THE BOTTOM LINE China's strategy on semiconductors shows how it retains aspects of its centralized planning, and the results illustrate the difficulties inherent in that model.

MAKE THAT MONEY

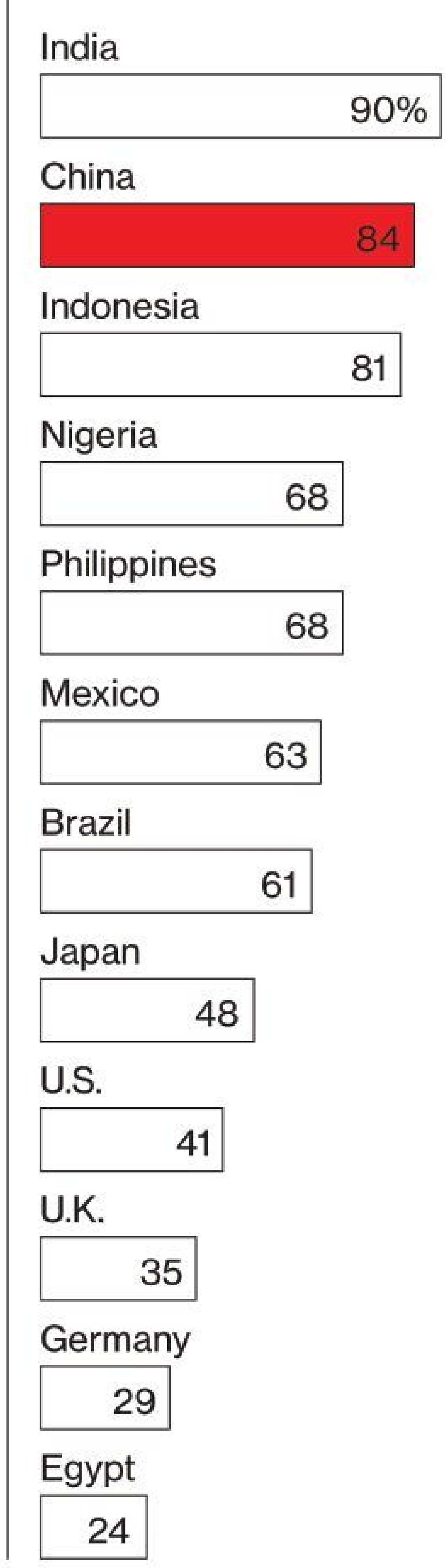
● China is reining in private innovation in payments and pushing its own digital currency

For the past decade, private companies in China have led the way in the digitization of money, with Tencent Holdings Ltd. and Ant Group Co. setting up enormous private payment networks and cryptocurrency-mining operations providing the fuel for the global Bitcoin boom. Their emergence was a break from Chinese financial history, which has been marked by aggressive centralized control. Things may now be reverting to the norm.

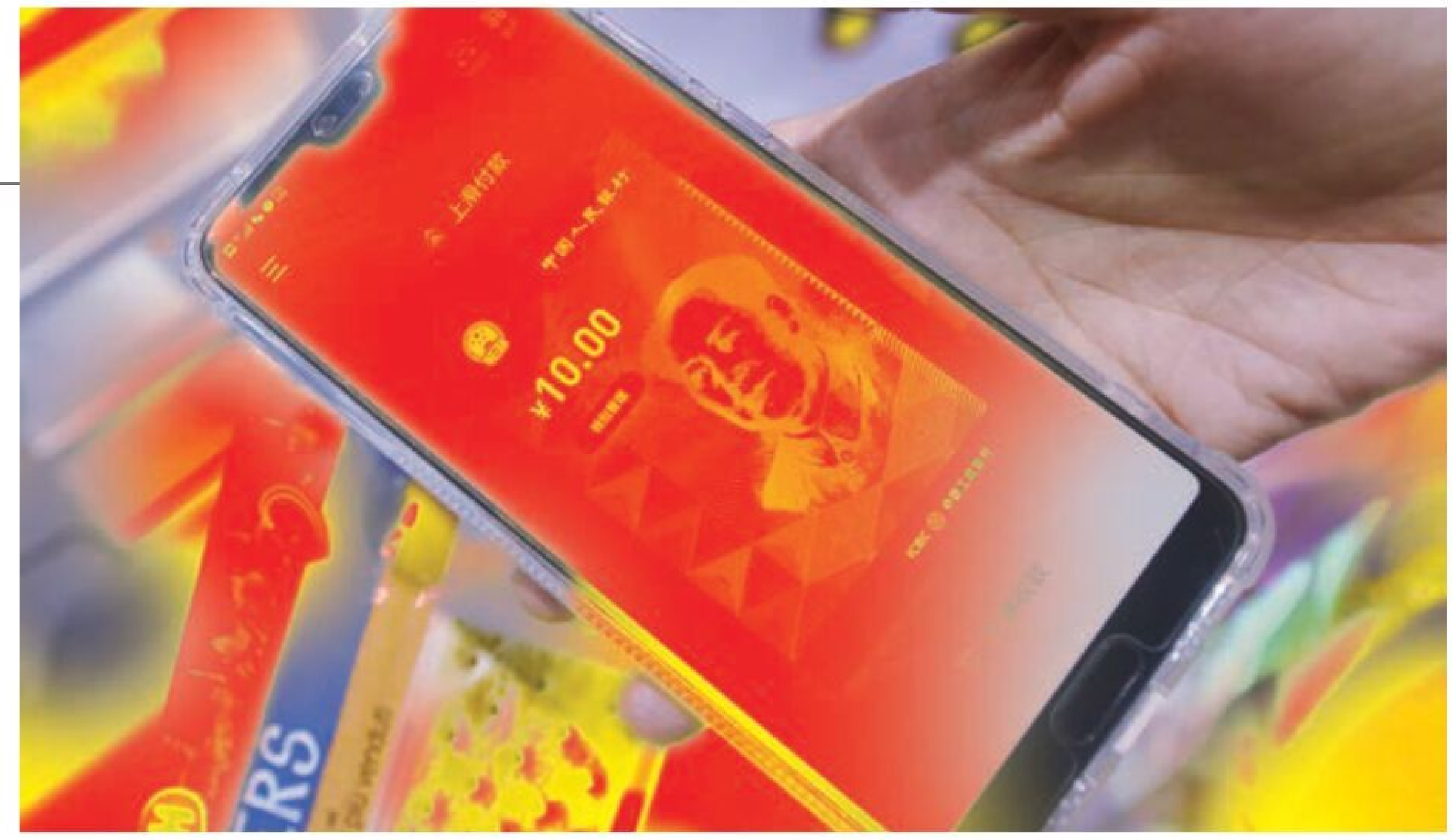
"Over the last few years of this internet-technology boom, private companies have swallowed up the markets where regulators fall behind," says He Yifan, the founder and chief executive officer of blockchain startup Red Date Technology Co., which works closely with China's top economic planning agency. "But at the end of day, the Chinese government will step up and rein it in regardless."

This spring, Chinese regulators took their strongest actions yet to cut down on cryptocurrency mining, the bookkeeping system that's the foundation of Bitcoin and other blockchain-based currencies, sending some of the biggest players fleeing to Canada, Russia, and other countries. In April 2020, China also began testing its own electronic currency–the e-CNY, or digital yuan–a project that could put the government in more direct competition both with cryptocurrencies and with corporate payments systems. ▶

▼ Share of adults who have a mobile wallet and have used it in the past year



DATA: ACI WORLDWIDE



◀ The rollout of the digital currency corresponds with a broader push to exert control over tech companies by, for instance, forcing payment businesses to submit to traditional banking regulations. The e-CNY can provide a backup to the inherently unpredictable private systems, Mu Changchun, head of the digital currency research wing of the People's Bank of China, said at an event in March. "If something bad happens to them, financially or technically, that could bring a negative impact on the financial system's stability in China," he said.

If the e-CNY does catch on, the central bank could suck deposits out of Ant's and Tencent's networks, crippling their lucrative businesses of lending and wealth management. But the two companies may have no choice but to cooperate. Both have said they're working with the government on the e-CNY, without sharing details. Mu says digital yuan won't replace WeChat Pay or Alipay, which make up about 90% of China's $35 trillion mobile payment market, according to Bloomberg Intelligence. Bloomberg estimates the e-CNY could capture about 9% of China's market by 2025.

The digital currency could also afford the government a level of surveillance that isn't possible with cash or independent digital currencies. This could be useful for combating money laundering, tax evasion, illegal gambling, and other illicit activities. It also raises concerns about the potential of the currency as a tool for political repression. Yao Qian, former director of the digital currency institute at the People's Bank of China, said in May that it wasn't the bank's intention to observe all transactions in real time.

So far, China has tried to persuade people to adopt the digital currency rather than force them. It's given away millions of dollars' worth of free money, which people can spend in stores, including the China-based locations of American companies including Walmart Inc. and McDonald's Corp. Internet companies such as e-commerce site JD.com Inc. and travel-booking site Trip.com Group Ltd. are also testing digital yuan as a payment method inside their apps. And the local government in Xiong'an, a government-planned urban area and innovation hub being built near Beijing, has paid some workers in digital currency. A bigger rollout is planned for the 2022 Winter Olympics.

By the end of June 2021 more than 24 million individual and enterprise users have created e-CNY wallets, funneling transactions worth about 34.5 billion yuan ($5.3 billion) to pay for things such as utilities, restaurants, and transport, according to the central bank. But many customers are satisfied with the existing payment products and see little advantage to switching to a government-run replica. In April half a million people in Shenzhen became eligible to take part in China's largest trial of digital yuan so far, but there were few signs of widespread interest. "I'm not at all excited," says Patricia Chen, a 36-year-old telecommunications worker. "You need to offer really good preferential terms to draw people in."

China will probably have an even harder time persuading the rest of the world to use the e-CNY, if it even wants that. The country is testing cross-border e-CNY payments with Hong Kong, Thailand, and the United Arab Emirates. These efforts have drawn criticism from the Biden administration, which suspects digital yuan could kick off a long-term bid to undermine the dollar as the global reserve currency.

The Chinese government dismisses such concerns. It has traditionally limited the flow of capital out of the country; this is one reason it's given for restricting businesses allowing Chinese citizens to convert yuan into Bitcoin. The government has also been uninterested in running the budget deficits necessary to be the world's dominant currency, says Wolfgang Koester, a currency-market expert with treasury management software provider Kyriba Corp.

But state-backed research groups have also proposed issuing digital yuan for countries engaged in China's "Belt and Road" initiative, through which the country is expanding its global influence by building infrastructure abroad. Wilson Chow, global technology, media, and telecommunications leader at consultants PwC, says the cross-border use of the e-CNY could be attractive for mundane practical reasons. Such benefits could prompt more countries to accelerate efforts to mint their own digital currencies, according to Chow. "The U.S. won't be left behind," he says. "There will be a race." *—Bloomberg News, with Zheping Huang, Amanda Wang, and Yujing Liu*

THE BOTTOM LINE Chinese companies have been at the forefront of digital payments and Bitcoin, but the government is reasserting control over financial innovation.

PHOTO ILLUSTRATION BY 731; PHOTO: GETTY IMAGES

The World Robinhood Made

The smartphone-based broker makes its debut on a stock market that it's already changed

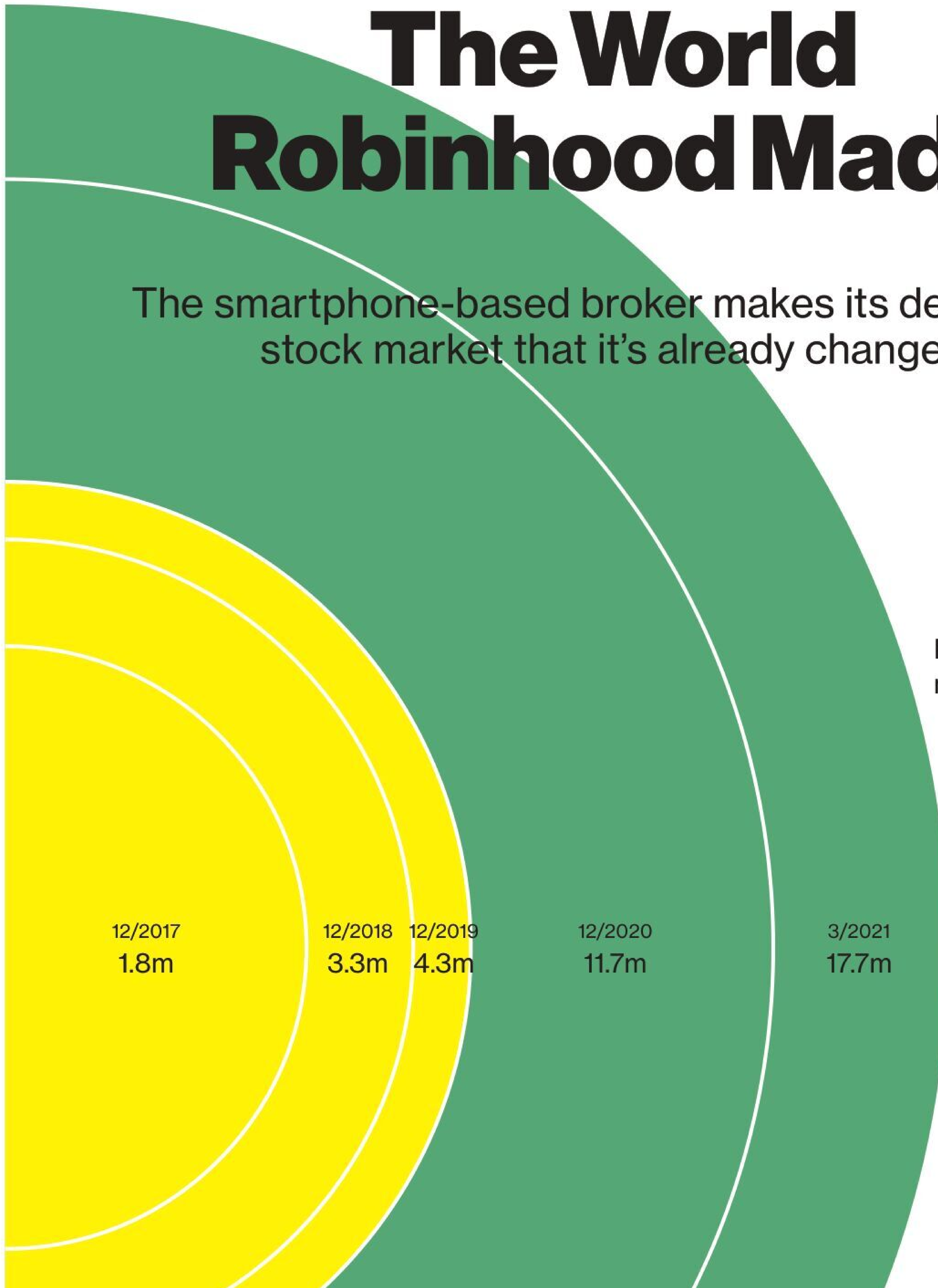


PHOTO: DAMIEN MALONEY. DATA: ROBINHOOD IPO FILING; BLOOMBERG INTELLIGENCE

Not so long ago, before the pandemic took hold in the U.S., it seemed like standalone retail trading firms were a thing of the past. E*Trade, the brokerage that gained notoriety in the dot-com boom, sold itself off to Morgan Stanley. Charles Schwab Corp. and TD Ameritrade, two of the largest brokers, inked a deal to combine in November 2019, forming a single supermarket for everything from financial planning to exchange-traded funds.

But a new brokerage boom was just about to begin. Robinhood Markets Inc., the company that championed commission-free trading, made its stock market debut on July 29. The initial public offering puts an exclamation point on more than a year of flourishing retail trading action, which featured a series of unexpected antics: Ordinary investors charged in to buy shares of bankrupt companies such as Hertz Global Holdings Inc., banded together online to bid up the price of such "meme stocks" as GameStop Corp. and AMC Entertainment Holdings Inc., and piled into cryptocurrencies and options. Robinhood was far from the only forum for this kind of trading, but its colorful, easy-to-use mobile app, its success at drawing in young people, and its breakneck growth made it part of the lockdown-era zeitgeist.

To its critics, Robinhood helped make investing seem like a game, pushing novices to take risks. The company says it's made investing available to more people and less forbidding, and that hyperactive traders are a small slice of its customer base.

Robinhood's IPO brings its story full circle. It had an estimated 22.5 million funded accounts at the end of June, more than double the level of a year earlier.

Edited by
Pat Regnier

For the IPO it set aside up to 35% of its shares for its own users, in an effort to convince customers of Robinhood, the app, that they can also share in the fortunes of Robinhood, the company. Whatever comes next for the stock, Robinhood has made an indelible print on its industry and on investors:

● INVESTING BECAME FREE…

To be clear, Robinhood wasn't the first company to abandon commissions. Bygone broker Zecco.com offered customers 40 free stock trades per month when it was starting out in 2006, but it scaled that promise back the following year. Robinhood's timing, in contrast, couldn't have been better.

When Robinhood launched trading in 2015, other brokerages charged $5 to $10 for a single transaction. It charged nothing and carried no account minimums. Other Robinhood features, such as giving customers a free stock and showing them what their peers were buying, gave newbies an entry point. The popularity of Robinhood's app helped push rivals to go to zero. At this point, retail investors don't pay to place stock trades on any major platform.

Brokerages can still make money on free trades: Behind the scenes, they route orders to be executed by trading firms that earn money on tiny differences in market prices. These firms pay brokers for sending orders their way. Robinhood earned three-quarters of its revenue through such transaction-dependent payments in 2020.

●…AND, MORE IMPORTANTLY, BITE-SIZED.

Robinhood also popularized, but didn't invent, the idea of fractional shares, which allow investors to buy just a piece of a stock with as little as $1, instead of having to shell out, say, increments of $3,626 for each share of Amazon.com Inc. Established brokers increasingly recognize the value of catering to traders without much to spend. Fidelity Investments Inc., for example, unveiled a program that allows teenagers to trade fractional shares.

Along the way, the industry has gone from being a battle between high-cost and low-cost providers to a duel between two kinds of low-cost models. Before the no-fee brokerage era, investing was already getting cheaper and easier. The Vanguard Group made a mission of lowering costs on its index-tracking funds, making it possible for anyone to buy the entire S&P 500 while paying a fraction of the fees money managers and old-fashioned stockbrokers used to charge. Robinhood's low-cost model is something different. It doesn't require diversification or indexing. It lets small, self-guided investors buy and sell single stocks all day.

● IT HELPED MAKE RISKY TRADING MAINSTREAM.

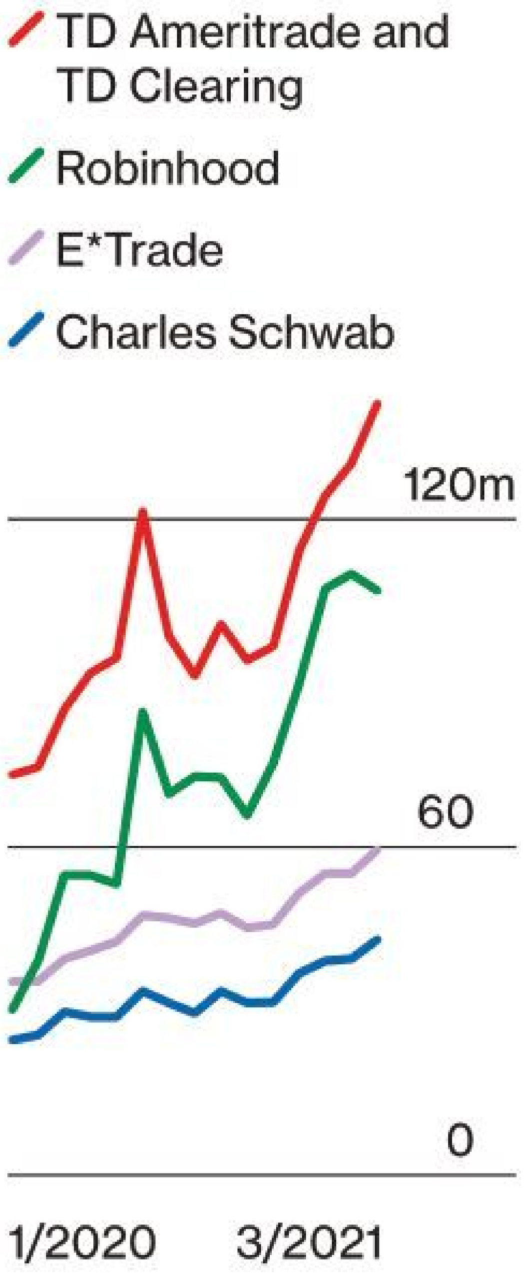
Robinhood doesn't sell financial planning or retirement accounts or mutual funds, though it does offer the exchange-traded funds available at any broker. In an interview last year with *Bloomberg Businessweek*, Chief Executive Officer Vlad Tenev said that he sees plenty of Robinhood customers using fractional stock shares to make recurring investments in the market. Still, it's an app built mainly for trading: stocks, cryptocurrencies, and options.

That last one is notable. Options are essentially a way to bet on a stock with leverage, amplifying both potential gains and losses. Again, almost every brokerage offers options—and the top options platform is TD Ameritrade. But Robinhood's app helped make them more accessible. And the broker's growth coincided with the boom in raucous online forums such as WallStreetBets, where users talked up their options strategies for GameStop and the like.

Josh White, an assistant professor of finance at Vanderbilt University, recalls what setting up options capabilities at some brokers was like before Robinhood existed. After you applied, a representative might call on the phone to follow up. Today, a few taps can lead to options trading approval on Robinhood. "That's my biggest concern," White says. "They certainly made it easy to become qualified."

Regulators deemed it too easy at times. Robinhood agreed to pay a regulatory penalty of almost $70 million for a range of alleged infractions including lax oversight of options trading permissions, which were filtered through an automated system, according to the Financial Industry ▶

▼ Options retail trading volume, by contracts executed



◀ Co-founders Baiju Bhatt and Vlad Tenev

◀ Regulatory Authority. A Robinhood spokeswoman said at the time the firm had invested in building its customer support and compliance teams. Separately, the company is still grappling with the fallout from the death by suicide of a customer who may have misunderstood what he owed in an options transaction. Tenev apologized to the man's family and Robinhood made changes to its options platform, including introducing phone-based support for those products.

● IT BROUGHT SILICON VALLEY TO WALL STREET.

Robinhood showed that with a well-designed app, you could sell investment products to the same young, not-necessarily-rich consumers tech companies have specialized in reaching. Other startups including brokerages EToro and Webull Financial LLC now have their sights set on a similar market. The median Robinhood investor is 31, and about 70% of the company's assets under custody come from customers aged 18 to 40. Now Robinhood's backers are counting on its ability to turn those customers into long-term investors.

Tenev said in the company's roadshow that Robinhood is open to the idea of providing retirement accounts, for example. Whether investors want such products from their trading app is another question. "Robinhood created access to the category for a tremendous number of people," says Hugh Tallents, senior partner at consultancy CG42. "But there's a moment when you graduate from access to a true financial partner." —*Annie Massa*

THE BOTTOM LINE Robinhood changed the brokerage industry and made it easier than ever to get into the market, with all the risks that come with that.

Buy Now, Pay Later Bursts Through

● Fintech companies have brought back the installment plan, and even Apple's getting in

You're shopping online, about to hit the checkout button, when something catches your eye. It's an intriguing offer. Instead of buying your item the old-fashioned way with your credit or debit card, you can pay for it in an even more old-fashioned way, familiar to anyone who shopped at department stores before plastic became ubiquitous: on an installment plan.

"Buy now, pay later" programs are growing fast, both on e-commerce sites and at physical retail checkout counters in the U.S. Stores generally offer the programs through third-party financial technology companies including Affirm, Afterpay, and Klarna. Unlike credit cards, on which a borrower paying a minimum could carry a balance indefinitely, these loans are designed to be paid off in a set number of payments—often four. And they're linked to a specific purchase rather than being a general line of credit.

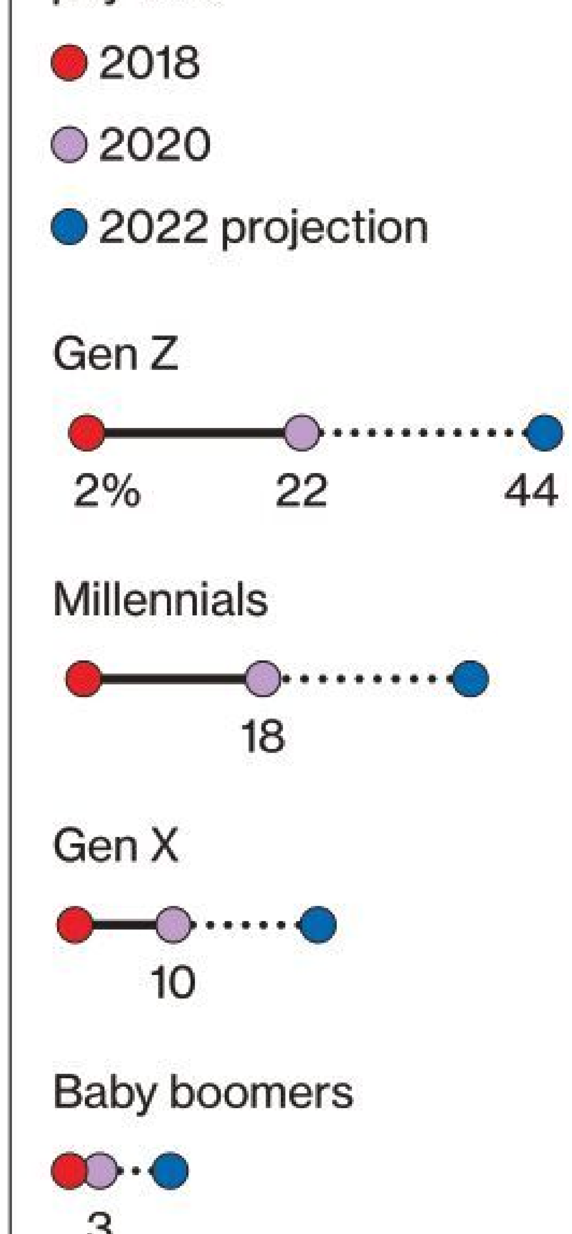
In general, these programs make the lion's share of their money on fees from retailers, rather than from interest paid by consumers. Stores are willing to pay because the programs make it easier for customers to say yes to items with price tags that might otherwise make them queasy. "We are in the business of turning browsers into buyers, which is fundamentally a merchant service," Affirm Holdings Inc. Chief Executive Officer Max Levchin told Bloomberg TV in July. His company gets a bit under half its revenue from merchant network fees, with a smaller chunk coming from interest income.

Americans spent an estimated $20 billion to $25 billion using deferred payments in 2020, according to a March report by analytics firm CB Insights. Worldwide, that same report projects that transactions through such plans could grow 10 to 15 times by 2025, topping $1 trillion.

Silicon Valley giants are trying to muscle in on the business pioneered by the fintechs. PayPal Holdings Inc. rolled out its own buy now, pay later feature, Pay in 4, last year. Now Apple Inc. is looking to offer its own spin, with plans to build the functionality into its Apple Pay platform, Bloomberg News reported. Banking giant Goldman Sachs Group Inc. will be the behind-the-scenes lender for the new Apple Pay product. "Apple and PayPal getting into this is an indicator that this kind of flexibility—this kind of 'fintech-ification' of our everyday commerce experiences—isn't going to go away anytime soon," says Lily Varon, a senior analyst at Forrester Research Inc. "This isn't a blip."

The pandemic lockdown fueled an e-commerce spending spree that seems to have accelerated the adoption of buy now, pay later. But the programs may also appeal to younger consumers who are wary of credit cards. Although buying on installment is very much a form of borrowing, it's set up to feel easier to swallow. Many plans charge no interest. Afterpay Ltd. has no credit check, while some other programs do only "soft" checks that don't affect a consumer's credit score. Having a ▶

▼ Share of U.S. internet users who use buy now, pay later



DATA: EMARKETER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◀ set period to pay back may also feel more manageable. The big opportunity for growth in the business is “either people that don’t really have credit or people that don’t really like using credit cards,” says Dan Dolev, an analyst with Mizuho Securities USA.

Installment companies say they’re more transparent and simpler than credit cards, and take steps to protect vulnerable borrowers. Afterpay, for example, cuts off further purchases as soon as a payment is missed. “Creating opportunities for consumers to buy that make them feel safe and smart and responsible is a good thing,” Affirm’s Levchin told Bloomberg TV. Taken as a whole, though, the explosion of new programs means consumers have a lot more ways to put off payments and get into debt—and a lot more complexity to navigate.

Each program has its own set of rules on fees, rates, and credit reporting. Afterpay charges late fees of up to $8. Affirm has no late fees, but unlike Afterpay it may charge interest on some purchases, depending on the retailer. Afterpay’s installment plans are designed to be paid off in four chunks over six weeks, while Affirm offers different schedules that may stretch out as long as 12 months. It’s expected that Apple Pay will offer both a short-term pay-in-four plan and longer-term options. “It’s not clear to me that consumers can easily delineate between the different products that are out there,” says Chuck Bell, programs director in Consumer Reports’ advocacy division. “There will likely be more oversight at some point, because I think the problems are not going to go away.”

In July, the U.S. Consumer Financial Protection Bureau, the watchdog overseeing consumer lending practices, published a blog post about buy now, pay later programs. While it didn’t criticize the practice, it advised consumers to look out for late fees and noted that since some programs are linked to a consumer’s debit card, there’s a risk of automatic installment payments triggering bank overdraft fees if the money’s not there.

Installment pay companies have come in for more scrutiny in other countries where they’ve gained a foothold. Sweden recently passed a law requiring that non-debt payment options, when there are any, be presented first online. The U.K.’s financial regulator published a report that said the industry “poses potential harms to consumers and needs to be brought within regulation.” One risk it highlighted: Consumers could have multiple outstanding transactions across several platforms, adding up to high levels of indebtedness.

Forrester’s Varon says consolidation in the industry is inevitable, given the sheer number of players worldwide and the hunger for expansion. Affirm earlier this year completed the acquisition of Canada’s PayBright. And Apple and PayPal have paved the way for more traditional financial firms to enter the fray. “They’ll probably see more banks moving into the buy now, pay later space,” says Anisha Kothapa, a senior analyst at CB Insights. She points to Goldman Sachs’s MarcusPay offering and installment options being developed by Visa Inc.

As companies in the sector get more experience with their customers, they’ll develop an ability to better underwrite credit risk, says Zachary Aron, principal in the payments and banking consulting practice at Deloitte. That will enable them to offer more tailored loans. “Those are ways we really think financial institutions can be on the side of the customer,” Aron says. “Being able to use that information as education, coaching, guidance, support.” Not to mention making it even easier to click “buy.” —*Max Reyes*

THE BOTTOM LINE Installment payment plans are springing up everywhere, leaving consumers to sort through a host of new payment options.

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Making Black History Come Alive
Kevin D. Patrick
CFO & Treasurer
Colonial Williamsburg
Colonial Williamsburg is the nation's largest living history museum. Its recent discovery of the oldest building in America where Black students — enslaved and free — were educated will help it tell a more complete story of race in Colonial America. "They're preserving the American story," says Patrick Russell, Managing Director of Wells Fargo Corporate & Investment Banking.
Wells Fargo helps Colonial Williamsburg fund programs like that, refinancing the organization's loans to save $2.2 million annually. "Having that financial flexibility allows them to fulfill their mission," says Pasant M. Abbas, Senior Vice President of Wells Fargo Commercial Banking.
bloomberg.com/questforbetter
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Biden's

The president has a shot at reshaping the central bank, which has an open board seat and three looming vacancies

Joe Biden will soon get a chance to shape the Federal Reserve into an instrument better able to deliver on his vision of a more inclusive American capitalism. The seven-member Fed board will soon have four vacancies, including the chair occupied by Jerome "Jay" Powell, who is said to have broad support among Biden aides but is not assured of a second term. A decision isn't expected before September at the earliest.

There's a lot that Democrats want from these appointments, from tougher regulation on banks to more attention to climate change. What matters most to the president's goals of spreading the economy's benefits more widely, however, is ensuring a vigorous recovery. Black people and other minorities were late to reap the fruits of the record-long expansion that followed the last crisis, in terms of employment and wage gains. Biden and his economic advisers want to make sure they're not left behind once again.

The central bank, though independent, is subject to congressional oversight, and the president's nominations require Senate confirmation. Powell, who was put at the helm in 2017 by then-President Donald Trump, oversaw an overhaul of the central bank's strategy and won bipartisan praise for his rapid and sweeping response to the Covid recession. But some powerful progressives in Congress don't like his track record on regulation and could swing their support to the one Democrat on the board who's opposed Powell on matters of big bank oversight—Lael Brainard. Alternatively, they might settle for pairing Powell with a more aggressive vice chair for supervision when Randal Quarles's term in the role expires in October.

Vice Chair Richard Clarida's time is up in January, a few days before Powell's own tenure as chair ends in early February. Both slots, plus

PHOTO ILLUSTRATION BY 731; PHOTO: GETTY IMAGES

Edited by Cristina Lindblad

an open board seat, are opportunities to appoint Democrats who reflect Biden's priorities while also advancing his goal of achieving greater diversity at the central bank.

One consideration for Biden is the precarious state of markets and the economy right now. Low interest rates have reignited Congress's appetite for spending, raising government debt by about $5 trillion since the start of 2020. And risk-taking has spiked, with money pouring into meme stocks and Bitcoin, while a hot housing market fans fears of another bubble.

Inflation is running higher than it has in more than a decade, but worries about Covid's delta variant are pushing investors into bonds out of concern the recovery could falter. Unemployment remains lofty, yet companies complain of labor shortages. The Fed is also midstream in a strategy change instigated by Powell to deliver the benefits of a strong job market more broadly, which chimes with Biden's goals. With all these crosscurrents, there's no shortage of economists, traders, and members of Congress who say: Just reappoint Jay already. "Continuity is very important," says Laurence Meyer, a former Fed governor. "He has been an extraordinarily good chair, transformational in many ways, and he has the trust of the policy committee and the trust of the markets."

Sarah Binder, a political scientist at the Brookings Institution, sees the calculation by the White House differently. A robust economy is part of what's necessary to extend the governing party's control, she says. "These appointments are not rewards for past performance," she says. "Presidents in their first term want to get reelected. They are thinking prospectively: Who is going to put the economy and my electoral prospects and my policy goals on the best foundation for success?"

A Washingtonian by birth and an astute observer of national politics, the 68-year-old Powell has won allies on both sides of the aisle on Capitol Hill with his relentless outreach to lawmakers. As a result, his rapport with progressive Democrats such as California Representative Maxine Waters, chair of a committee that oversees the Fed, is as natural as it is with traditional Republicans such as North Carolina's Patrick McHenry, the ranking member on the House Financial Services Committee.

One reason Powell has been so effective at the Fed and on Capitol Hill is that he doesn't fit neatly into Washington's power pigeonholes. He's a wealthy former private equity executive at Carlyle Group Inc. but doesn't act like one. He's personally canvassed small business owners, labor organizers, and community leaders to find out what they think about the central bank's dual mandate of stable prices and maximum employment. And earlier this year, he said he planned to visit the tent cities that have sprung up near the Fed's headquarters in D.C. Explaining why he's interested in talking to the homeless, he said: "What you find out is, they're you. They're just us."

While Powell enjoys broad support among top White House advisers, officials are keeping an open mind about how the administration can put its stamp on the central bank, people familiar with the matter told Bloomberg. Yet there are prominent Democrats who don't think centrism at the Fed is what's needed now, particularly in regulatory policy. Powell has overseen multiple changes in the name of efficiency that have riled Senators Sherrod Brown (Ohio) and Elizabeth Warren (Mass.), who, as members of the Banking, Housing, and Urban Affairs Committee, both have a vote on whomever is nominated as the next Fed chair. "I see one move after another to weaken regulation over Wall Street banks, and that worries me," Warren told Powell at a July 15 hearing.

"These appointments are not rewards for past performance"

Powell's votes contrast with those of Brainard, the only non-Trump appointee on the board. She's issued pointed dissents on numerous occasions, including in May when she opposed a bank merger, saying "commonsense safeguards have been weakened." Brainard's competence in economics is unquestionable, and she would appear to be the candidate who most satisfies Brown and Warren on regulatory matters. Moreover, she's found a path to address climate change through the Fed's financial stability mission, and has advocated for rules and guidelines that would make the financial system more inclusive. "Given the central bank's significant regulatory and supervisory powers, left-leaning voices in the administration likely will not want a Republican like Powell to remain chair," Michael Feroli, chief U.S. economist at J.P. Morgan, wrote in a July 21 note to clients. "We see a significant chance that Powell is not nominated," and if so, "Fed governor Brainard is the most likely replacement."

One question hanging over Fed succession is whether Biden cares about broad bipartisan support for the nominee. Brainard could attract a lot of Republican opposition compared with Powell in a Senate in which Democrats hold only 50 of 100 seats.

Although Powell is the first Fed chair in decades who wasn't formally trained in economics, some see that as one of his strengths. Claudia Sahm, a former Fed economist who used to brief Powell, says that because he wasn't a Ph.D. he didn't "have to unlearn" economics, which made it easier ▶

◀ for him to challenge the discipline. At his first speech as chair in 2018 from the high pulpit of central banking—the Fed's annual policy retreat in Wyoming's Jackson Hole—he took aim at some of the bedrock assumptions in economics that were failing to deliver on the Fed's mandates.

Under his predecessor Janet Yellen, an economics Ph.D. who's now Treasury Secretary, the Fed raised interest rates from zero in 2015 in a bet that a gradual increase in borrowing costs would land the economy at the Fed's 2% inflation target within three years, without sacrificing full employment. Instead, inflation remained stubbornly below target even as unemployment dipped to 3.9% at the end of 2018, suggesting the Fed's rate-setters could've allowed the economy to run hotter and pulled even more Americans into jobs without sparking price pressures.

The forecast misses created a wave of introspection among the staff, says Sahm, giving Powell an opportunity to shake things up. Under a revamped policy framework unveiled in August 2020, Fed officials said they would let inflation run over the 2% target for an indeterminate time to make up for periods in which it tracked below that. They also committed not to prejudge the level of maximum employment using a standard measure, relying instead on a more comprehensive array of indicators. "The shift from forecast-based monetary policy decisions to outcome-based monetary policy decisions is a radical shift," says Sahm, now a senior fellow at the Jain Family Institute.

So radical, in fact, that the Fed's monetary policy committee has divided over the matter as inflation risks have mounted. Thirteen officials wanted the central bank to raise interest rates by the end of 2023, according to forecasts it published in June. Just five officials projected they should stay on hold near zero through 2023. The forecasts are anonymous, but Powell has been clear that he's in no hurry to raise rates, saying in June that even discussing lifting rates from near zero "would be highly premature."

The chair's job is to forge a consensus, but that gets harder when officials are split on the way forward. "This will be the first time in years when the Fed chair is up for renomination when policy is not on a very clear trajectory," says Roberto Perli, head of global policy research at Cornerstone Macro LLC. "Just for that, it is risky not to renominate him." —*Craig Torres and Rich Miller, with Saleha Mohsin, Nancy Cook, and Jennifer Jacobs*

THE BOTTOM LINE Upcoming vacancies on the Fed's board of governors will allow Biden to put his stamp on an institution that could play an important role in advancing his agenda.

Korea's 'Overnight Beggars'

● Skyrocketing real estate prices could cost the Democratic Party the presidency in next year's elections

Grasping her mobile phone, Jang Mi-kyung flicks past South Korea's latest news on Covid-19 infections and social distancing restrictions and begins anxiously scrolling through the real estate listings. The 48-year-old private tutor has spent the past few years hunting for an apartment in Seoul so she, her architect husband, and their two teenage daughters can move out of their cramped rental. Her frustration at being priced out of one of the world's frothiest real estate markets has crystallized into seething anger directed at the president she helped vote into office four years ago. "I'm nothing but the butt of a joke for believing in him and his government's promise to cool home prices," she says. "It feels like being stabbed in the back."

Jang's sentiments are shared by millions of middle-class Koreans. In a Gallup Korea survey released on July 23, President Moon Jae-in's real estate policies were cited as a top irritant among the 51% of respondents who disapproved of him. His failure to tame the forces that have bid up the average price of an apartment in Seoul by 90% since he took office in May 2017 played a role in the drubbing his Democratic Party suffered in mayoral elections in Seoul and Busan this spring.

Those upsets bode ill for the party's hopes of holding on to the presidency in elections scheduled for next March, even though Moon's administration has engineered one of the world's fastest economic recoveries from the Covid recession. Among

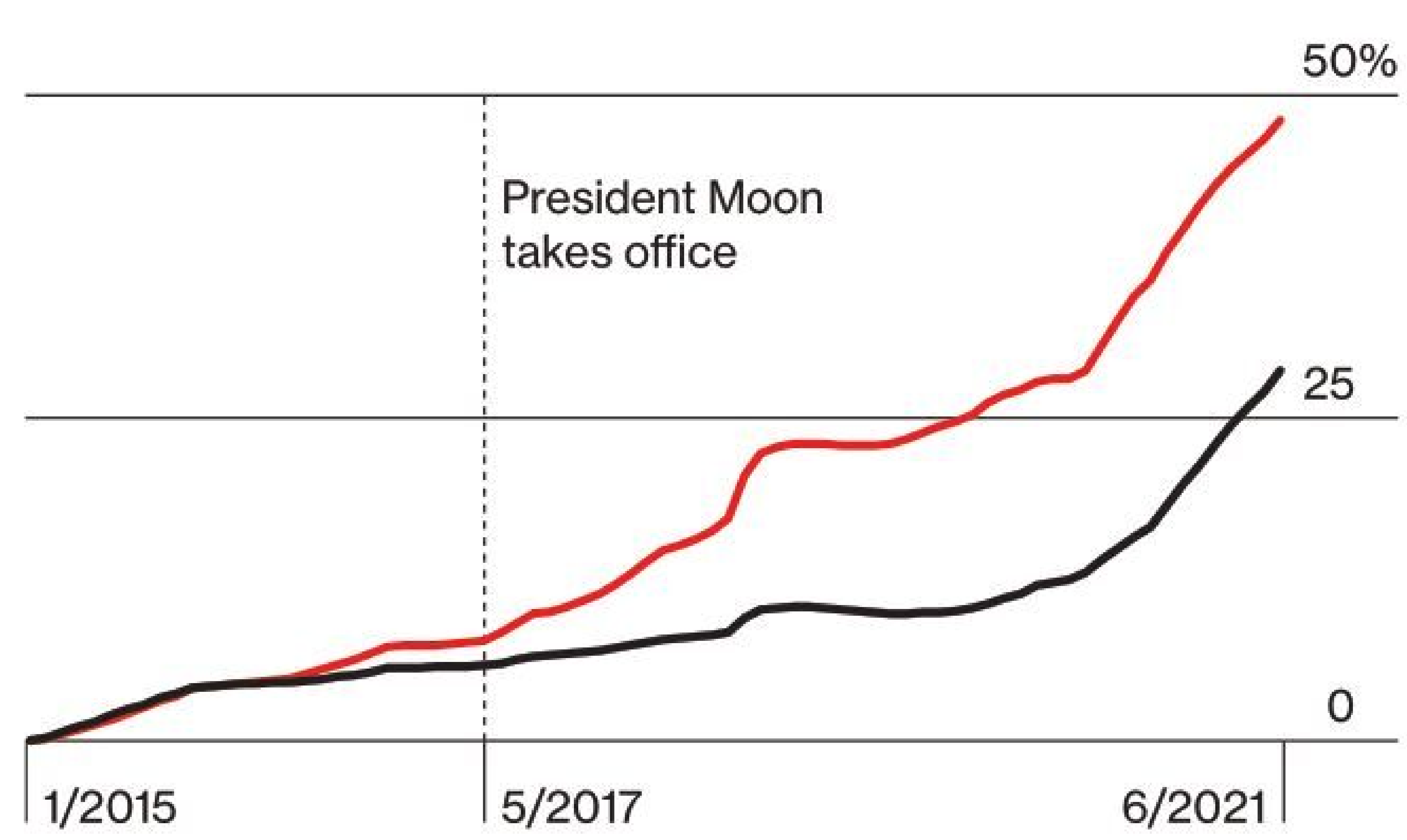
● Share of respondents in a July survey who disapproved of Moon

51%

In Bubble Territory

Change in housing price index since January 2015

South Korea / Seoul



DATA: KOOKMIN BANK

PHOTOGRAPHS BY SANGHYUK YOON FOR BLOOMBERG BUSINESSWEEK

◀ Home prices in Seoul have soared since Moon took office

the front-runners in the race is Yoon Seok-youl, a former chief prosecutor who's accused the government of inflicting pain on people with housing policies that defy market dynamics.

Moon campaigned on a progressive platform, pledging to attack the root causes of the country's growing economic inequality. Real estate has become one of the most obvious markers of the chasm separating Korea's haves and have-nots, as vividly rendered in the Oscar-winning film *Parasite*. In the movie, one family inhabits an ultramodern home situated in a hillside enclave, while the other is squeezed into a sub-street-level apartment that floods when it rains.

In the Seoul metropolitan area, which is home to almost half of the country's population, the average price of an apartment has doubled in the past five years, reaching 1.1 billion won ($953,000) in July, while that for the entire country increased 60% over the same period, according to Kookmin Bank. By the bank's calculations, a home in the capital now costs the equivalent of 17 years of median annual household income, roughly double the ratio in 2012. The central bank has cited that figure as evidence that homes are overpriced and is poised to raise the benchmark interest rate, partly in an attempt to cool the market.

Moon's well-intentioned policies have only aggravated the situation. To tamp down real estate speculation, his government has hiked property and capital-gains taxes on owners of multiple homes and introduced loan restrictions. But the net effect has been to discourage sales, thereby squeezing supply and pushing prices higher. A drive to close elite private schools that have sprung up across the country has further stoked demand for housing in city districts with well-regarded public schools. "Policymakers waged a whack-a-mole battle to curb prices with a series of taxes and policies that just did not make sense when put together," says Ahn Dong-hyun, a professor of economics at Seoul National University. "It was ideology that led policymaking, not sound economics. And now no one is happy, whether you have a home or not, with the feeling of deprivation especially stronger among the middle class."

One peculiarity of Korea's property market left untouched by the government's actions is the well-established practice of landlords requiring prospective tenants to advance them a lump sum worth roughly 60% of the property's price, instead of paying rent. It's not uncommon for families to take out bank loans to finance a large chunk of the deposit, called a *jeonse*.

Back in the 1970s, the arrangement helped provide a pool of funds that builders could tap to finance the construction of new homes. But nowadays landlords are increasingly using the jeonse money to engage in property speculation.

Renters such as Jang who've been left behind by the price surge of the past few years are part of a group of Koreans who call themselves "overnight beggars," because they feel as if they're downwardly mobile. Jung Jin-young is another middle-class Korean who's grown disenchanted with Moon.

▲ Jung

Since getting married 18 years ago, Jung, who owns a store in Seoul that sells camping gear, and his wife, a schoolteacher, have scrimped and saved to buy an apartment. But they've been repeatedly outbid—even on the kinds of units they once passed on. "I don't think I have a future now and even feel sometimes I don't want to carry on anymore," he says, letting out a long sigh. "Seriously, I wish my children could just grow up and live in another country." —*Sam Kim, with Jiyeun Lee*

THE BOTTOM LINE Policies adopted by the Moon administration have constricted the supply of existing homes available for sale while boosting demand in sought-after districts.

The New Kid In Class: Delta

● Rising virus cases and a hodgepodge of state mask rules promise a rocky start to the U.S. school year

The beginning of the year is imminent, and superintendents around the country aren't sweating bus schedules and bell times but Covid-19 vaccination rates and mask rules, as the pandemic threatens to disrupt K-12 education for the third school year running.

School leaders face complex pressures with millions of students preparing to return. The spreading delta strain of the coronavirus is highly contagious, though it still appears that children typically fare better with the virus than their elders do. But they may bring deadly infections home.

Parents are eager for their children to be back learning in-person so they can return to the workplace. But public-health guidance has been inconsistent: The U.S. Centers for Disease Control and Prevention said less than three weeks ago that only unvaccinated children need masks at school, while the American Academy of Pediatrics says everyone over 2 years old should wear one.

In the face of delta, the CDC changed its guidance on July 27, advising that everyone should wear a mask in schools. CDC Director Rochelle Walensky said the change was warranted by "worrisome" science showing that some vaccinated people infected with the delta variant can spread it. She acknowledged that the shift in guidance, which also calls for vaccinated people in high-risk areas to wear masks indoors, is not welcome news. "This is not a decision that we or CDC have made lightly," she said. "This weighs heavily on me."

Seven states, including Arizona and Arkansas, have banned local school districts from requiring pupils to wear masks. At the opposite end of the spectrum are California, Washington, and a few other states, which require them in public schools, but with some flexibility for school districts. Other states have sought a middle ground, allowing districts to set their own policies but recommending that they require masks.

The patchwork of policies means the least protected districts risk being the first to close again. Given the widespread vulnerability, Dan Domenech, executive director of the School Superintendents Association, calls bans on mask mandates in schools irresponsible. "It's going to be tough going, because I think we're going to see more quarantining, and closings are going to have to take place again," he says. "We want the kids in school in person, but you're not going to allow us to do all the things that will mitigate the spread of disease."

Texas is among the states that have banned school mask mandates. Governor Greg Abbott said on a Houston TV channel on July 21 that "kids will not be forced by government or by schools to wear a mask in school." After the CDC announcement on July 27, he doubled down, tweeting: "The time for government mask mandates is over–now is the time for personal responsibility."

"We're going to make do with the best we can," says Christina Martinez, president of the San Antonio Independent School District board. "It's concerning that local governing bodies don't have the autonomy

Edited by Amanda Kolson Hurley

ILLUSTRATION BY MARTIN GROCH. *EXCLUDES NEW YORK STATE OUTSIDE OF NEW YORK CITY. INCLUDES U.S. TERRITORIES. AGE RANGES REPORTED FOR CHILDREN VARY BY HEALTH DEPARTMENT. SUBJECT TO DATA AVAILABILITY. DATA: COMPILED BY THE AMERICAN ACADEMY OF PEDIATRICS FROM AVAILABLE LOCAL HEALTH DEPARTMENT REPORTS they need to make the decisions that are right for their communities." Vaccination data broken down by ZIP code shows the rates for people 12 and older who are fully vaccinated in San Antonio range from 25% in the least-vaccinated places to a high of 53%.

U.S. Covid cases had hit a seven-day average of more than 56,000 as of July 26, up from almost 14,000 at the beginning of July, and they're expected to rise further. Hospitalizations and deaths have climbed ominously as well. Nationwide, only 26% of children ages 12 to 15 and 38% of 16- and 17-year-olds are fully vaccinated, according to CDC data. Vaccines aren't yet authorized for children younger than 12.

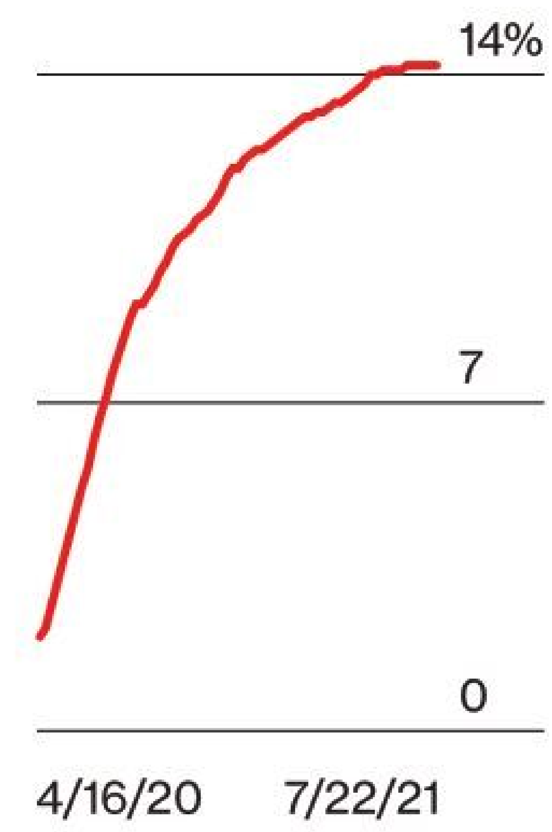
Some public-health experts blame the CDC's relatively lenient May guidelines—which said vaccinated people generally no longer needed masks—for leading governors to drop mandates even as the pace of vaccination slowed. "The CDC made a grave error, and the Biden administration made probably the most serious blunder of the pandemic to accept the CDC guidance," says Leana Wen, an emergency physician and professor at George Washington University who previously served as Baltimore's health commissioner.

Nick Polyak is superintendent of the Leyden High School District outside Chicago, which will require masks across the board. "If our priority is getting our kids in front of our teachers and keeping them in front of our teachers, starting with masks was the best way to do that," he says.

Polyak announced the decision to his 3,400 students and their families on July 23 and made a five-minute video explaining it for teachers and staff. "We are not going to create a situation where kids use different-colored lanyards or IDs based on their vaccination status," he said in the video. "We're also not going to create classroom lists for teachers of vaccinated vs. unvaccinated students. We want our faculty and staff focused on teaching and learning and not spending their time determining who needs to be in a mask and who doesn't."

Even though only about a third of the district's staff said in a survey that they preferred masks for everyone, Polyak says the response to his announcement hasn't been heated. That acceptance might reflect that Covid infections in children have been on the rise nationally. ▶

▼ Share of U.S. Covid-19 cases that are in children, cumulative since April 16, 2020*



◀ Districts have left themselves fewer options than last year, when classes went virtual in a matter of weeks. This year, at least 73 school districts out of the largest 200 won't offer a virtual option, according to school tracking website Burbio.

Randi Weingarten, president of the American Federation of Teachers, says the country's second-largest teachers' union is "fully embracing" the CDC's new guidance. "We don't really know what's going to happen. This is a big curveball and we're going to have to navigate this the best we can," she says, adding that the goal "is a welcoming and safe environment for our students and for our members."

In San Antonio, leaders are using the lack of a virtual option to encourage mask-wearing even if they can't require it. Parents will have to grant permission for children to go barefaced. "What we want families to acknowledge is, if you don't wear a mask and there is an exposure in the classroom and you get sent home, then we're going to have to figure out ways to make up those absences," Martinez says.

Clare Weil, board president for Montgomery Public Schools in Alabama, where districts can set their own policies, tries to focus on the positive: Music and art programs will be back for the first time since she can remember, thanks to federal relief funds. The delta variant, she says, is "the big looming cloud." Alabama is at the bottom of states when it comes to vaccination rates: Only 34% of its population is fully protected, according to Bloomberg's Vaccine Tracker.

"I just wish people would take it seriously, get their vaccinations, continue to socially distance, wash hands, and wear masks when they need to," Weil says. "Alabama is suffering from a lot of this variant." Covid cases in Alabama rose to 1,681 per day as of July 25, from 195 at the beginning of July, according to Johns Hopkins University statistics.

Even where inoculation rates are relatively high and cases have climbed more slowly, delta has spooked parents. New York City Mayor Bill de Blasio has said public schools there will require masks. Shannon Waite, a member of the city's Panel for Education Policy, says she's grateful her second-grader will be attending where masks are required.

"I don't think I'd live in Texas," she says. "I'm not sending my kid to school without a mask. I'm not volunteering my kid to be in a tribunal. This is not *The Hunger Games*." *—Anna Edney, with Nic Querolo*

THE BOTTOM LINE The delta variant has dispelled any notion that school will be back to normal. State bans on district mask mandates are a particular worry for educators and health experts.

U.S. Mask Makers Send An SOS

● Manufacturers can't sell their products, a sign of vulnerability in the PPE supply chain

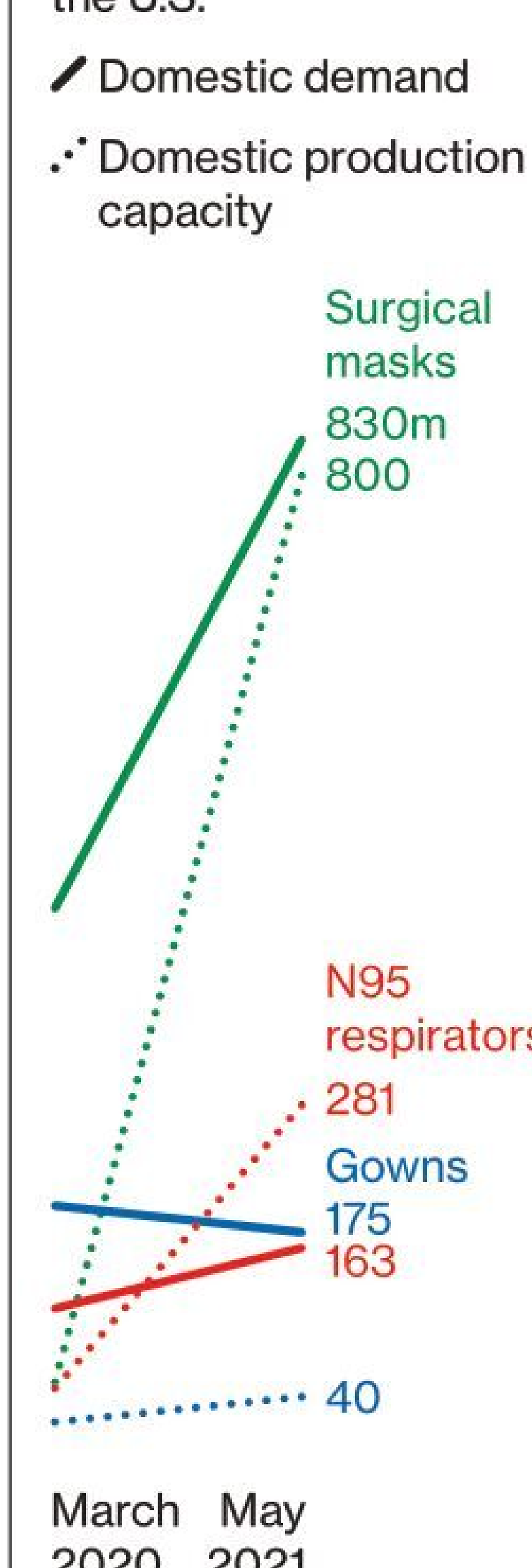
Even as the delta variant fuels a new wave of the Covid-19 pandemic in the U.S., some domestic manufacturers of N95s and surgical masks are struggling to stay in business. Several companies have stopped production of masks because of declining sales as people got vaccinated, state mask mandates ended, and the flow of cheaper foreign-made masks resumed. The American Mask Manufacturers Association (AMMA), a trade group that represents more than 20 smaller manufacturers, estimates that 5,000 workers have been laid off across its member companies. DemeTech Corp., based in Miami Lakes, Fla., has alone laid off about 1,500 people, according to Luis Arguello Jr., the company's vice president.

The mask makers' plight is part of a larger problem that the U.S. government faces: ensuring a reliable domestic supply of protective gear for the next crisis. At the beginning of the pandemic, imports of personal protective equipment from overseas—which made up almost all of the PPE supply in the U.S.—were disrupted, and doctors and nurses often had to wear the same masks for weeks and plastic bags for protective gowns because of shortages.

Now the U.S. is "one problem away from being back where we were last spring," says Megan Ranney, co-founder of Get Us PPE, an organization that provides PPE to communities in need at no cost. It is "incredibly shortsighted to have items of national security importance produced predominantly overseas."

So far, production capacity is keeping up with domestic demand for masks, though not for nitrile gloves or surgical gowns. The U.S. Government Accountability Office estimates that in May, U.S. manufacturers produced N95s in excess of

▼ Estimated PPE supply and demand in the U.S.



CHANDAN KHANNA/AFP/GETTY IMAGES. DATA: U.S. GOVERNMENT ACCOUNTABILITY OFFICE demand and almost met the need for surgical masks. But factory closures could tip the scales back to shortages.

There are significant reserves of PPE in the Strategic National Stockpile, and the federal government, states, and hospitals have other reserves to supplement it. However, those supplies will expire, and if manufacturers in the U.S. close up shop, the main sources will be abroad once again. Larger manufacturers such as 3M Co. and Honeywell International Inc. could retool their production lines quickly to make masks if needed. But smaller companies produce more U.S.-made masks, according to the AMMA, which is sitting on a pile of 300 million surgical masks and 20 million N95s that it can't sell.

PPE manufacturers need committed purchasing from both the federal government and health systems to "create a sustainable supply chain for the future," says Soumi Saha, vice president for advocacy at hospital supply purchasing group Premier Inc. Premier and 15 health systems have invested in one Texas-based manufacturer, Prestige Ameritech, agreeing to buy 20% of the company's mask inventory over the next five years. Such contracts could be what keeps U.S. mask production going.

Hospitals have been reluctant to switch from mask suppliers overseas primarily because of the higher price of domestically made masks—they typically cost about 30% more, Saha says.

The federal government may need to push hospitals to get them on board, some experts say. That could mean a requirement that hospitals buy a certain percentage of their PPE from U.S. companies, or that Medicare and Medicaid give health facilities bonus payments if they make domestic purchases. Another option would be tax incentives for domestic manufacturing.

On his first full day in office, President Joe Biden issued an executive order instructing federal agencies to take an inventory of critical health supplies and plan for a resilient supply chain. He also invoked the Defense Production Act to increase PPE production. The administration has invested about $424 million into domestic companies making nitrile gloves, which are in acutely short supply, and has $10 billion from the American Rescue Plan to spend on other domestic manufacturing expansions for pandemic-related supplies. The U.S. Department of Health and Human Services has awarded 12 contracts for N95 respirators made in the U.S., producing a stockpile of 800 million, according to a spokesperson.

In June the Senate passed the U.S. Innovation and Competition Act, which folds in a requirement that the departments of Health and Human Services, Veterans Affairs, and Homeland Security issue longer-term contracts for PPE made in the U.S. if it is available, with limited exceptions. "Our nation's dependence on foreign manufacturers for PPE, such as masks, gloves, and respirators, is a serious national security risk," Democratic Senator Gary Peters of Michigan, who co-sponsored the measure when it was the bipartisan Make PPE in America Act, said in a statement.

▲ Making masks at DemeTech, which has laid off 1,500 people

Texas Health Resources, a nonprofit hospital system, began buying some of its N95s from Prestige Ameritech prior to the Covid-19 pandemic. It costs a little more, but having the manufacturer in their backyard is "an insurance policy," says Shaun Clinton, senior vice president for supply chain management. What we've gone through during the pandemic should make people "realize that the insurance policy is worth the money," he says. *—Shira Stein is a reporter for Bloomberg Law*

THE BOTTOM LINE U.S. production of PPE is widely seen as a matter of national security, but a domestic supply chain that's sustainable over the long term is still a work in progress.

RETURN TO OFFICE, OR NOT

● Employers will have to retool policies for post-pandemic hybrid, remote, and in-office work

Sixteen months after the novel coronavirus upended white-collar work, corporate America is moving toward a shift that's shaping up to be uncertain at best, or chaotic at worst. Vaccination campaigns are approaching their limits, and it appears Covid-19 will become endemic. That's led major U.S. companies to coalesce around September to put their new in-office, hybrid, or remote working plans in action, even as the fast-spreading delta variant adds to the complexities. Beyond deciding where employees should be located, there are the thorny issues of maintaining culture, allowing flexibility, and updating policies so those already hit hardest by the pandemic—women and minorities—aren't left behind. "Policies have absolutely not caught up with reality, and we don't yet know what the reality is going to be," says Laurie Bienstock, a director at consultant Willis Towers Watson.

Although dozens of large corporations have started outlining their expectations, they're taking a cautious approach on timing. Many won't start their return-to-office plans until after the U.S. Labor Day holiday, and some haven't set a date. Concerns about variants and rising infection rates in some areas could push back schedules. Apple Inc. said on July 19 that it would delay the return to the office to October at the earliest because of the global resurgence.

Plans vary, with companies such as Ford and Salesforce.com embracing flexible arrangements, and banks including Bank of America, Goldman Sachs, and JPMorgan Chase standing firm on workers being at the office five days a week. The hybrid model, with workers coming in at least part of the week, appears to be the most popular. In a survey by consultant Grant Thornton LLP of more than 1,500 U.S. workers, 79% said they wanted flexibility and 40% said they would look for another job

Edited by Rebecca Penty

ILLUSTRATION BY MICHELLE KWON. DATA: HOMEDIT if they were forced to be at their desks full time, according to Tim Glowa, Grant Thornton's principal for human capital services. A third of those workers said they were already actively seeking another job.

In a separate Grant Thornton survey of chief financial officers, more than a third said they expected their company to return to a standard, five-day workweek, revealing a gap with their workers' expectations. "There's going to be some tension there," says Glowa. "It's important to realize that it's more than just figuring out what hybrid is and which employees go into the office on a Tuesday vs. a Friday."

A hybrid workforce introduces challenges that didn't exist when most people worked in the same space all the time. Managers will need to ensure that teammates maintain communication and are able to have the right amount of face-to-face time. They'll have to shift away from the butts-in-seats style measures of performance. Leaders will also have to consider how to ensure that members of underrepresented groups aren't falling behind if they're meeting remotely.

The uncertainty means many companies will use the remainder of this year to test their ideas and may not complete a full-scale rollout of the return to the office until into 2022, says Willis Towers Watson's Bienstock. Companies need to understand what their employees want, assess what work can truly be done remotely, and also determine if managers are prepared for the shift, she says. More than three-quarters of employers surveyed by Willis Towers Watson in March and April said a flexible work environment will be important, yet a little over half hadn't yet developed such a plan for their workforce, she says.

It may end up being expensive for companies that want to go back to the pre-pandemic office model, says Bill Ziebell, chief executive officer of the benefits and human resources consulting division at Arthur J. Gallagher & Co. Employers requiring a five-day in-office policy will need to add perks such as bonuses to get workers to stay and cover the costs of replacing those who leave. Already, banks are raising pay for junior bankers and giving thousands of dollars in perks, such as the Peloton bikes and Apple products offered by Jefferies Financial Group Inc. Even companies that embrace flexibility may have to shift their benefit resources to different areas, such as mental health treatment, financial well-being, and retirement.

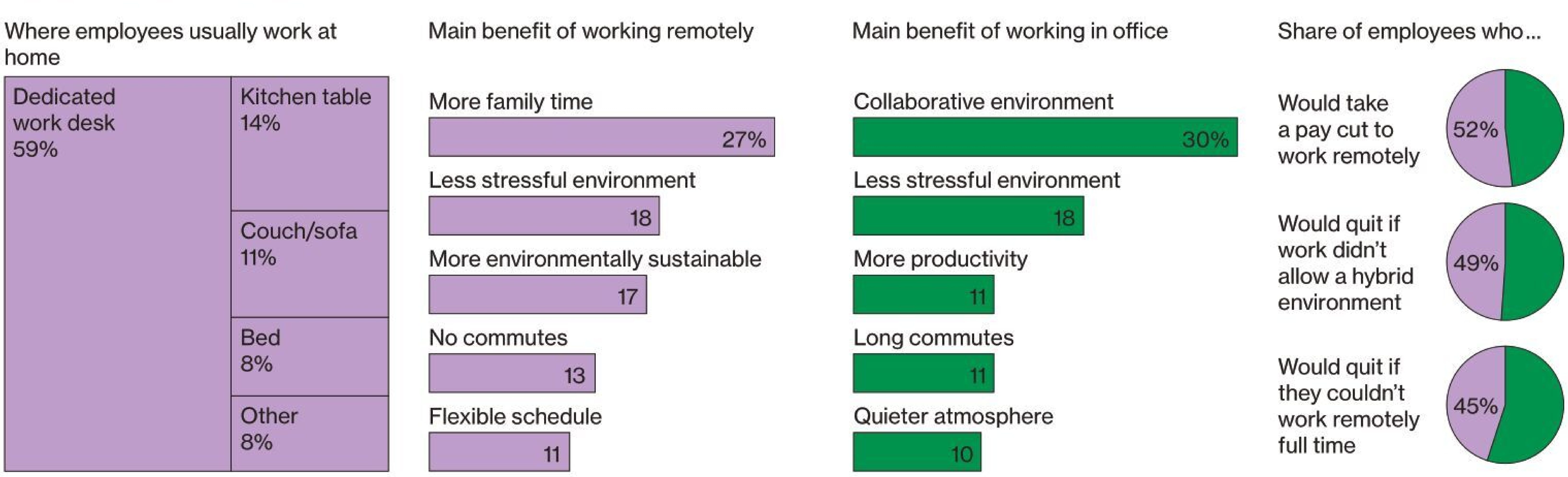
> "The best thing we can do is to help people prepare for the unknown"

Through its surveys, Tinypulse, a Seattle company that helps employers conduct polls of their workers' views, has found that fully remote workers are the most burned out, but few want to be in the office full time, with the ideal seen to be one to three days a week, says David Niu, CEO and founder. Women with children were least likely to favor the return to office, and parents with partners were most keen on it, a reflection of uncertainty around child care. All workers felt they were as productive at home as in the office, so it will be hard for any company to win employees over to the idea that the office is a must, every day. "I find it hard to believe we will ever go back to the status quo" of the pre-pandemic office, says Niu.

Many of the employees suddenly sent home to work on laptops from their kitchen tables last year went through the five stages of grief, and now they'll have to do it again when they return, says Dennis Baltzley, an industrial psychologist who is the global head of leadership development at recruiter and consultant Korn Ferry. Employers need to know where their workers are in the process and strategize with them. "We've gone through the mother of all change," Baltzley says. "The best thing we can do is to help people prepare for the unknown." —*Jeff Green*

Work-Life Balance

May survey of 1,378 Americans



MASTERING HYBRID WORK

● Juggling multiple offices is an essential skill. Here's how to manage the gear and setups, and avoid aches and pains

❶ CATER TO YOUR BODY FIRST
"My rule of thumb is to create environments that support the body in five or six different positions," says body-conscious design expert Galen Cranz, professor emerita at the University of California at Berkeley and principal at Cranz Consulting. Start with two body positions at each office (four total): At home you can't go wrong with "perching," which is seating your rear on the edge of a bar-height stool with your weight on your legs. If your in-office setup is a typical desk and chair, add a standing option.

❷ AT HOME, SOUND MATTERS
Children, pets, phones, and neighbors all shift your focus away from work. "Invest in noise-canceling headphones—they allow you to work undistracted," says Tal Shelef, co-founder of Canadian condominium and townhouse database CondoWizard.ca.

❸ YOUR BAG IS NOW MORE IMPORTANT THAN YOUR OFFICE
Laptops are the epicenter of hybrid offices, and nothing trashes a workday like a forgotten cord. Your bag should include a kit that allows you to seamlessly transition and work anywhere in a pinch. This will save you grief, says organizational consultant Carrie Collins, chief executive organizer of H.O.W. Highly Organized Woman. Consider including all connection cords and dongles,

a charger with a few ports, a 3-in-1 cable, headphones, a phone earpiece, and a multiport battery big enough to fully recharge your laptop, phone, and tablet.

❹ DITCH THE NOTEBOOKS
Legal pads and notebooks aren't hybrid-appropriate. "I simplified my notebooks and invested in an amazing digital tablet that writes like a notepad but saves my notes and information like a laptop, and lets me upload drawings," says Thomas Drew, co-founder of Black-owned wellness company 1And1 Life.

❺ TO DUPLICATE OR NOT TO DUPLICATE?
Some executives re-create their office setup at home for efficiency and psychological cuing. "I duplicated my workspaces so that it is easy to switch into 'work mode' wherever I am," says Gabriel Dungan, CEO of Charlotte-based bedding company ViscoSoft. Others

cringe at the idea. "Create a space that brings out the best in you," says Kunal Sawhney, CEO of finance news company Kalkine Media. "It's OK and even rewarding to create a space of one's own, something you may not be able to attempt in an office."

Ask yourself what environment fuels your best work and well-being. "Think about what would make you feel motivated and energized," says Navarre Trousselot, CEO of finance portfolio tracker Navexa. "Is that a very bright corner with lots of paints and colorful items? Or modern industrial style that reminds you of traditional offices?" Add books or photographs that inspire you.

❻ GO BIG ON HOME AUDIOVISUAL GEAR
Your conferencing equipment needs to be top-notch. Why? In a conference room, a glitchy mic is shrugged off; at home it suggests unprofessionalism. Invest in great lighting, quality cameras and microphones, and a sharp-looking background.

In a family home, consider disappearing desks. "I invested in a simple folding table, laptop stand, and Bluetooth keyboard," says Alison French, mother of three and CEO of Emerged, a health-care software-as-a-service company. —*Arianne Cohen*

● PRO TIPS

❶ Don't organize around tasks. Plan to do almost all tasks at both locations. This will avoid a semi-catastrophe when you unexpectedly can't get from one to the other.

❷ Beverages matter. Set up your favorite coffee maker or espresso machine or tea gear nearby, along with go-to mugs.

❸ Put your home desk adjacent to a window. In-office desks typically face the door, but at home, working by a window makes the space feel larger and more alive, while adding visual variety, natural light, and a built-in respite from screen eyestrain.

ILLUSTRATIONS BY MICHELLE KWON

Q&A

THINK BEFORE YOU CC

There's a workplace threat among us, even with so many people working from home: collaboration. Excessive collaboration, that is. Already surging before the pandemic, it's crescendoed into a tremendous surplus of Zoom meetings and cc'ing, says Rob Cross, associate professor of global leadership at Babson College, a private business school in Wellesley, Mass. Cross has tracked the phenomenon for 20 years through Connected Commons, a consortium of more than 100 companies including Citigroup, General Mills, and Microsoft, where he follows the work habits of high performers and traces the interactions of hundreds of thousands of employees through social network analysis. Cross, whose new book is *Beyond Collaboration Overload: How to Work Smarter, Get Ahead, and Restore Your Well-Being*, sat down to talk about the problem. The interview was edited for length and clarity:

● What's bad about collaboration?

It's not that collaboration itself is bad, but the sheer amount of it. Pre-pandemic, about 85% of most people's work was spent on the phone, on email, or in meetings. As we've gone through the pandemic, that number has gone up about five to eight hours a week, with people working in collaborative activities on email, Slack, and organizations' own apps. Employees are on earlier in the morning and later into the night than ever before.

● What caused the surge before the pandemic?

Organizations have moved to be more structurally nimble and agile, and they've removed layers from the hierarchy and streamlined decision-making. But that, along with technologies that connect people instantaneously, has put collaborative demands on people like we've never seen before.

● Didn't people work together a lot decades ago?

We've moved from scheduling 45- to 60-minute meetings to trying to cram in a series of 30-minute meetings, which means that you have to be more intense, as well as switch across contexts, and then you end up with longer to-do lists at the end of the day. Both the volume and the demands are just too much.

● I thought that interacting with co-workers was supposed to be healthy.

Many co-workers are very positive people whom we love, but they vent for 30 seconds and then move on, and you think about it for three hours. Some days you experience 20 or 25 or 30 of these, and you go home and you're exhausted.

● Do high-performers collaborate differently?

Yes. They tend to be about 18% to 24% more efficient, which buys them about one day every week of time. They're very purposeful in how they engage, and that allows them to collaborate in ways that scale better.

● Why does your book suggest that excessive collaboration fuels most burnout?

The likelihood of an individual disengaging or leaving the organization goes up greatly as the volume of collaboration accelerates past certain thresholds.

● What's the most important takeaway here?

We all have a tendency to jump into opportunities, even when we know with every fiber of our being that we shouldn't do it. Then we convince ourselves of five reasons we have to do it, and then a month later we're overwhelmed—and forget that we were the one who jumped in.

● So the solution to hypercollaboration is really within ourselves?

When I started, I was convinced that the enemy was all external, like email and time zones and nasty bosses. But all these interviews convinced me that 50% or more of the problem is with us. —*Arianne Cohen*

Last Days of t

▲ Scenes from the former jungle in Rondônia state

he Rainforest

The Brazilian Amazon is approaching the point of no return, and the government is fanning the flames

By Jessica Brice and Michael Smith
Photographs by Larissa Zaidan

This article was produced with support from the Pulitzer Center's Rainforest Investigations Network.

In April, lawmakers in the Brazilian state of Rondônia gathered for a hasty vote in a squat cube of a building that had sat largely empty for months. Few places on Earth had been hit harder by Covid-19 than Porto Velho, the concrete capital city, which, like everything else in the region, has been carved out of the Amazon rainforest. But on that rainy afternoon, while the city was in lockdown, the legislators felt they couldn't wait any longer.

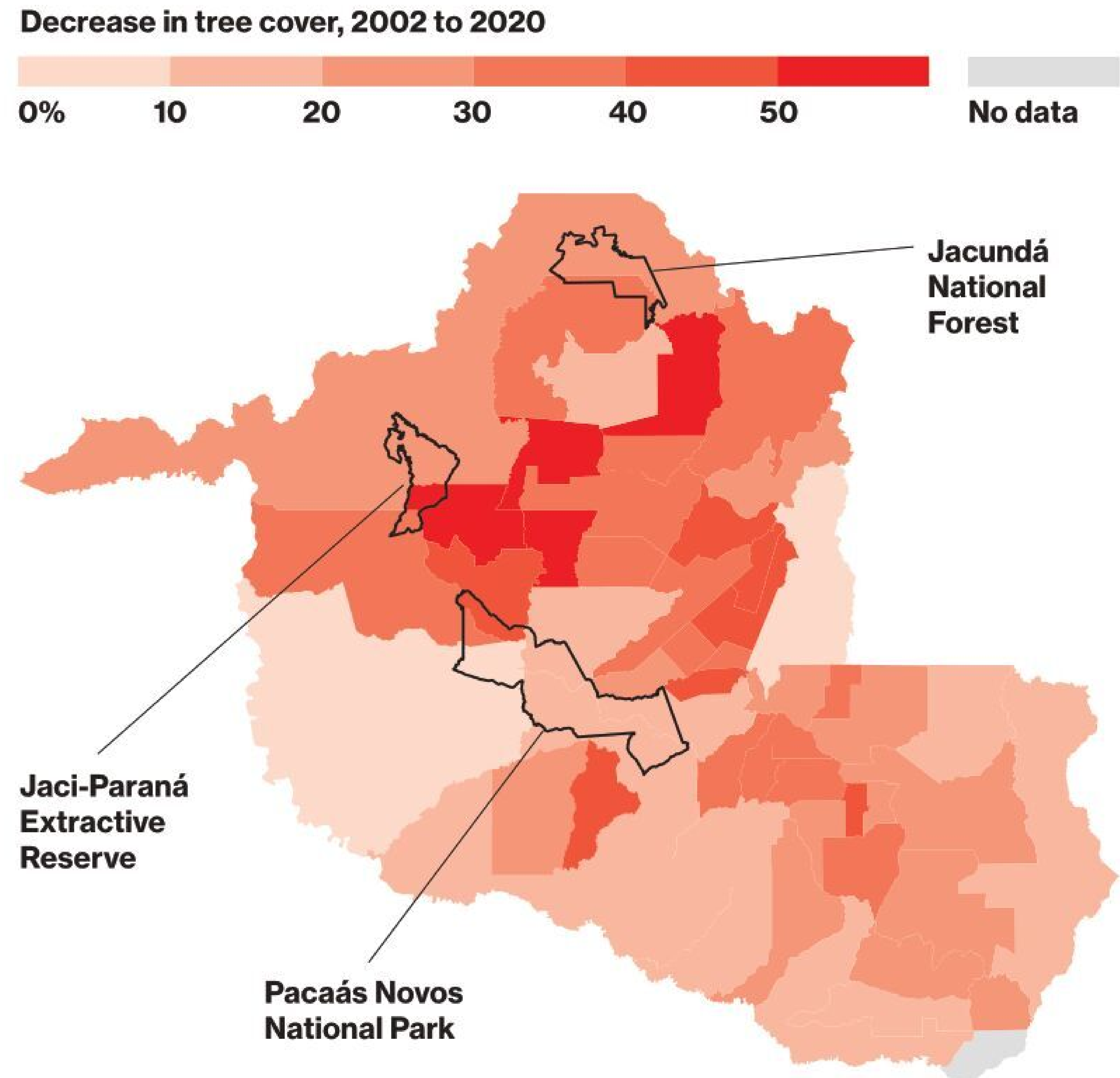
They needed to pass a bill that would slash the size of a state rainforest reserve known as Jaci-Paraná and another park farther south. Once a vast expanse of sinuous streams and soaring stands of mahogany and castanha trees, Jaci-Paraná Extractive Reserve has been largely transformed into pasture for cattle. Roads cut into the bright red mud crisscross the reserve, connecting hundreds of ranches where 120,000 cattle graze. The ranches are illegal. The new law would change that. Their owners would no longer have to hide the origin of their livestock to sell to big beef producers. More important, the land grabbers would have a path to legal title. Almost half the state legislators are ranchers or got elected with agribusiness money. They'd long wanted to wipe the slate clean for their rural base, and now they had support all the way up to the presidential palace in Brasilia.

In a few days, President Jair Bolsonaro would appear at a U.S.-sponsored climate summit to defend Brazil's record on the Amazon. For two years, Donald Trump had been a friend as Bolsonaro dismantled protections for the rainforest. President Joe Biden most certainly would not be. The lawmakers' plan could fall apart if Biden ratcheted up the pressure. "Listen well," Ezequiel Neiva, a rancher and lawmaker, told his colleagues. "This is one of our last chances to vote." The bill passed unanimously. Coronel Marcos Rocha, Rondônia's governor and one of Bolsonaro's staunchest allies, signed it into law on May 20. (It's being challenged in court.) Jaci-Paraná, formerly large enough to swallow Mexico City, was slashed in size by 89%, leaving only a sliver of terrain along its western edge. The other state reserve mentioned in the bill, Guajará-Mirim, lost 50,000 hectares, or 124,000 acres.

Two days after the Rondônia law passed, Bolsonaro didn't let down the ranchers. He was defiant when he spoke via video link to Biden and other heads of state at the Leaders Summit on Climate. Bolsonaro praised Brazil's work in protecting the Amazon, while pointing a finger at the developed world's addiction to fossil fuels as the key culprit in climate change. Above all he lamented the "Amazonian paradox." The rainforest is one of the globe's greatest natural resources—in both the commodities it holds and its role in producing oxygen and cleaning the world's air—and yet most of the 24 million people living in and around it are poor.

"The value of the standing forest" must be acknowledged Bolsonaro said. "There must be fair payment for environmental services provided by our biomes to the planet at large." The message to the world was clear: Pay us to leave the Amazon alone, or Brazil will find its own way to extract that value.

The Deforestation of Rondônia



DATA: GLOBAL FOREST WATCH

There's ample evidence that the government is already doing that. A review of thousands of public documents and dozens of interviews with prosecutors, forest rangers, and members of Bolsonaro's inner circle show that Brazil's government is engaged in an active campaign to open up the Amazon to privatization and development—first by turning a blind eye as public and protected lands are raided and cleared, and then by systematically pardoning the people responsible and granting them legal title to the stolen lands.

Bolsonaro's government didn't invent the practice. It's rooted in the nation's 1988 constitution, and two presidents before Bolsonaro rammed through changes that essentially amnestied about 25,000 people who'd been squatting on public properties, a review of Brazilian land records shows. But Bolsonaro and his team want to accelerate the process like never before by making it easier for big ranchers to get in on the game. "All that land that's been cleared in the Amazon, the law allowed it," says Luiz Antônio Nabhan Garcia, Bolsonaro's land-policy czar. "That's how it happened in the United States. It happened in Australia. When colonizers first went out and took that virgin land, all of it came from the state."

Nabhan Garcia, 63, is himself a rancher. He and his boss came of age during the 1970s, when the military government in Brazil viewed turning the wild expanses of the Amazon into cities, farms, and mines as an imperative of national security. The dictatorship, which endured until 1985, built military bases, power plants, and a network of roadways throughout the thick jungle. Those infrastructure projects fueled what's known as the "Brazilian Miracle," a period of 10% annual

▼ Everaldo Pandolfi has been on this land for two decades

"It used to be pure rainforest. I tore it all down"

economic growth that still stands out in many minds as the nation's golden era. But these were some of the darkest days for the rainforest itself. Millions of people migrated inland from coastal cities, carving homesteads and huge industrial hubs out of the jungle. In 40 years, the Amazon has lost an area as big as California to deforestation. Some scientists suggest the Amazon is now close to a tipping point, at which it will become a savanna rather than a rainforest. It will pump greenhouse gases into the atmosphere instead of pulling them down, and so-called flying rivers–bands of moisture in the air that bring rainfall to the continent–will dry up. As many as 10,000 species may be at risk of dying off.

Since taking office in January 2019, Bolsonaro, a former army captain, has revived the 50-year-old worldview that Amazon development and Brazilian prosperity go hand in hand. And he's stacked key land management and environment agencies with farmers and ranchers who share his vision. Jaci-Paraná is the latest example of that vision's realization, but it's far from the only one.

União Bandeirantes, located east of Jaci-Paraná, is a dusty blip of a farming community, a crosshatch of dirt roads and a few dozen structures surrounded by coffee plantations and cattle pastures. A little more than two decades ago, it didn't exist. No roads. No ranchers. Just rainforest. Today, it's something of a model for would-be land-grabbers across Rondônia.

Edmo Ferreira Pinto, 49, is proud to take credit for the transformation. Wearing trim jeans and a fitted button-down shirt, he's intense and energetic as he sits in a trendy wine bar on a recent evening in Porto Velho recounting how he and his friends hacked their way through the jungle and divvied up land that wasn't theirs. He fancies himself a modern-day Robin Hood who stole from the state to give to the poor. "I still look back and can't believe we pulled it off," Ferreira Pinto says.

Known as Dim-Dim (pronounced jeen-jeen), Ferreira Pinto was only 12 when he, his parents, four siblings, and two other families piled into the back of an open-air fruit truck and traveled the 2,500 kilometers (1,500 miles) from coastal Bahia state to Rondônia. It was the mid-1980s, and the truck's owner made a living charging a few bucks per head to ferry migrants such as them to the Amazon. For years government ads on TV and radio and in newspapers had promised plots and prosperity for anyone willing to make the journey. The Amazon was "a land without men for men without land," the ads declared. Millions answered the call to conquer the "green hell," and the population of Rondônia swelled from about 115,000 people in 1970 to more than 1.1 million in 1990. Behind the boom was the National Institute of Colonization and Agrarian Reform, or Incra, a government agency the military regime created to speed Brazil's industrial revolution.

The trip took a week. They sat on wooden benches, a tarp offering shade from the scorching sun. Like the millions of others making their way to Brazil's Wild West, ▶

◀ they followed a highway built as part of a World Bank-backed push to thread roads through the jungle. Once in Rondônia the family moved in with an uncle who'd made the same trek a decade earlier. He'd been rewarded with land, but by the time Ferreira Pinto arrived, everything had changed.

After the military dictatorship gave way to a democracy, Incra was given a new mission. Instead of colonizing the Amazon with industrial farms and factories, the agency was told to reclaim whatever hadn't yet been developed, dice it up into tiny lots, and hand those out to Brazil's poor for subsistence farming. It was one of the largest social welfare giveaways of all time. But the execution was bungled. No longer backed by the power of the military, Incra couldn't enforce its rules when conflicts over land broke out. People rushed to claim whatever plots appeared to be free. Wealthy owners stripped of their properties fought in court to save their stakes, tying the land up for decades. Documents were easily forged or altered to make bogus titles look legitimate. A resale black market for the dubious claims proliferated. Some falsified documents have now changed hands so many times that it's impossible to determine the real owners of some parcels.

A decade after they arrived, Ferreira Pinto's parents found their way to an Incra settlement on a massive farm that had been granted to a conglomerate during the dictatorship, then confiscated after the company failed to develop the land. Ferreira Pinto looked around at people who'd been there for years. They were still living in tarp-covered shacks without water or electricity while waiting for Incra to tell them which plot was theirs. "You see that, and it hurts," Ferreira Pinto says. "I don't think my father ever really let it get to him, or at least he didn't show it. But me, it hurt." By then he and his friends, who'd also come with their parents in search of land, had been waiting for most of their lives. When they heard about a strip of terrain standing free to the east of Jaci-Paraná, they hatched a plan.

On Dec. 3, 1999, which locals still remember as an independence day of sorts, Ferreira Pinto and three busloads of people drove to the edge of the rainforest and set up camp. They built small huts, then started cutting out roads, knocking down trees everywhere they went. It took a year to hack through the rainforest to the spot that is now the heart of União Bandeirantes, which translates as Pioneers Union. Along the way they recruited topographers, lawyers, builders, and administrators, all of them eager to fill the vacuum left by the government—and grab a slice of public land for themselves. Ferreira Pinto was arrested twice for conflicts and invasions but was never convicted of a crime. In the end, he estimates, his group settled some 1,800 families. Current law allows anyone who developed land as recently as 2008 to apply for amnesty. The people of União Bandeirantes made a bet, and it paid off.

Everaldo Pandolfi is sitting on a brown horse at the intersection of two dirt roads, watching his son tend to cattle in a fenced-in lot. "That's all his now," Pandolfi says as he points to a sweeping field in front of him where the jagged teeth of torched tree stumps still poke out from the tall grass. Behind him is a plot he transferred to his daughter; to his left is a field owned by his other son. Combined, they add up to more than 200 hectares. "It used to be pure rainforest," he says. "I tore it all down."

An original settler of União Bandeirantes, Pandolfi, who's 51, paid 250 reais (about $80 back then) to a surveyor working with Dim-Dim to mark his future farm. From there he followed a familiar playbook: First he went for the majestic hardwoods, hundreds of years old and as much as 11 feet in diameter. They brought in fast cash from exporters. Then he torched the land to clear the scrub, before planting a weedy grass that is a staple in cattle diets. Eventually he built a small house, with two fish ponds and a pen for pigs out back. In a few more years, the burned tree stumps may break down enough

How to Become an Amazon Rancher

1 **Find a piece of open public land.**

2 **Chainsaw through the big trees and sell them for quick cash.**

3 **Torch the rest to clear the scrub; plant grass.**

4 **Get some cattle to graze the land.**

Did the environmental regulator catch you?

Yes ▽	No ▽
Register everything under someone else's name and to a different piece of land. That's usually enough to fool the meatpackers.	**You're free to sell to the big beef producers.**

Is your ranch on protected land?

Yes ▽	No ▽
Ship your cattle to an outside farm, even if the stopover is just for a few hours. From there, they can go to the slaughterhouse and no one is the wiser.	**You're free to sell to the big beef producers.**

5 **Register your land grab with Incra and ask for title. If you're not yet eligible, have patience. Lawmakers have moved the needle twice on who qualifies for amnesty and they're trying to do it again.**

▼ **One of Rondônia's 14 million cows. They all graze on land that was jungle**

to make way for the payday: coffee or soybeans. "That's the dream," a neighboring farmer explains. In the south of the state, where big farmers reign, the shift to soybeans is already under way. But for that you need investment: irrigation, machinery, and fertilizer. The little guys rarely get there.

The Brazilian Institute of Environment and Renewable Natural Resources, the federal regulator known as Ibama, knows all about the deforestation but doesn't do much to stop it. A study by the independent news site *InfoAmazonia* found that between 1980 and 2019, Ibama issued 75 billion reais ($14 billion) of fines, adjusted for inflation, but collected only 3.3% of the total. Pandolfi has himself been fined three times, adding up to 600,000 reais. He doesn't plan on ever paying it. "How can I?" he asks, sitting barefoot on his porch late in the afternoon, with a straight-shot view of rainforest territory set aside for indigenous people. Blond and tan, Pandolfi is unassuming and a little bit goofy, curling his legs beneath him as he breaks down how he gets around the fines in order to sell his cattle to big beef producers, whose policies prohibit them from buying from deforesters. "I took everything out of my name," he says. "My car, my house, the land." He sells cattle to one of the biggest slaughterhouses in the area by registering the transactions in another rancher's name. It's a well-known practice. Laundered beef has been found in the supply chains of meatpackers JBS and Marfrig Global Foods, and the supermarket chain Carrefour. These companies say they vet direct suppliers extensively, and that such cases represent a very small portion of their beef purchases.

It would be easy to think of Pandolfi as a villain, a callous land-grabber who blithely destroyed a patch of precious rainforest. But he and his neighbors paint a picture in which policy, poverty, and the world's insatiable demand for commodities all pushed them toward the choices they've made. The only way to get credit from lenders is to use cattle or land—even untitled land—as collateral. Global markets don't buy enough sustainably produced foods such as Brazil nuts or acai to keep people afloat, whereas the appetite for beef, grains, and timber seems bottomless. (In 2020, Brazil exported $35.2 billion of soybeans, soybean meal, and soybean oil, and only $128.3 million of nuts.) Meanwhile, politicians, from local council members all the way up to the president, encourage the destruction. A cross-check of political databases and Ibama fines shows almost 1,000 elected officials and political appointees are on government blacklists for environmental crimes.

It's poverty that truly drives the calls to develop the rainforest, from both the left and the right. Thirty percent of Brazilians live in poverty, including 13% who survive on less than $2 a day, according to the World Bank. In the country's north, where the rainforest is, poverty is especially dire: Clean water, sanitation, and electricity are luxuries. Almost one-third of the population is functionally illiterate, unable to meet day-to-day reading or writing needs. The Covid pandemic became just one more item on a long list of scourges that includes malaria, dengue, and Zika.

The commodities boom in the mid-2000s brought a wave of prosperity that few Brazilians had experienced. The crash a few years later dragged down everyone. Today, prices are again surging, and with them, schemes to grab even more land. Only now the schemes are more daring, more organized, and a lot more violent.

Carlos Rangel da Silva hikes into the Pacaás Novos National Park in central Rondônia, leaving behind the waist-high grass and searing tropical heat of a cattle pasture for the cool shade of the rainforest canopy. Suddenly he stops, pointing his machete at something ahead. The eight armed police officers and three park rangers in his entourage freeze, waiting for his cue. He motions to a lightly trampled patch of grass and, farther out, a faint track across the red dirt. "A motorcycle," he says. "Could be someone going after timber or scouting the area." The lead ranger breaks off to check it out, trailed by two police officers, their assault rifles ready.

It turns out to be nothing, but there's a reason Rangel is on high alert. Informants had been warning that land-grabbers were massing for another assault on Pacaás Novos, a vast national park that's home to a stunning half-moon-shaped canyon, towering cliffs, and plunging waterfalls. The preserve overlaps the territory of the Uru-Eu-Wau-Wau, an elusive indigenous tribe that didn't make contact with the outside world until the 1980s and still keeps its distance. On paper, being both a park and a reserve for indigenous people gives the preserve two layers of protection under Brazilian ▶

◀ law. "But that doesn't mean much, especially these days," Rangel says.

At 72, Rangel may be the oldest park superintendent in Brazil. His team consists of nine firefighters who double as rangers, patrolling a park twice the size of Rhode Island. He's been in the job for 20 years and fantasizes about retiring and writing the next big Brazilian bestseller. But the names his bosses in Brasilia put up to replace him, he says, are a joke; they want to bring in a bureaucrat. The work is physically demanding, requiring Rangel and his rangers to hack their way through the jungle and sleep in tents, among the poisonous snakes and the mosquitoes. "You need someone who will fight," he says.

A few years back, Rangel discovered an especially well-organized push to claim 60,000 hectares of park. It was led by a local rancher named Stable Queiroz, his two brothers, and a 92-year-old grandmother named Victoria Pando de Souza, according to a criminal complaint filed in federal court. Pando's family had been granted permits to tap rubber in the park in 1917, and the crew argued that those documents gave them the right to buy and sell the land. According to the complaint, they tried to divide the park land into small plots to sell to anyone who wanted a farm. They hired a lawyer to create an association and sent people into the park to build a sales office. Hundreds of potential buyers–mainly impoverished farmworkers in the area–jumped at the offer. Queiroz dreamed of creating a new farming town to be named Rio Bonito, or Beautiful River; he would be its de facto mayor.

Federal officials monitoring satellite images in Brasilia tipped off Rangel. A skilled logger with a chainsaw can cut through more than two hectares a day, and Queiroz had a whole team. The destruction was spreading quickly. For months, Rangel plotted raids from his office in Campo Novo, a remote town of about 14,000 people where rangers and deforesters live side by side.

Rangel mustered a few police patrols, made up of junior officers who volunteered in order to make an extra 180 reais a day. Any time they ventured out, they were met with threats and intimidation. "From now on, it's going to be fire and steel," Queiroz warned in a voice message that was cited in court papers. "From now on, you will respect us, or you will suffer the consequences." It took 12 hours to drive 20 kilometers over rutted and roadblocked trails to where the illegal loggers operated, and once they got there, it was all too easy for the gang to flee into the thick jungle. Once, after Rangel and his team managed to arrest someone, Queiroz and about 30 others ambushed them on the road back to Campo Novo. They carried Molotov cocktails and surrounded the police vehicles, threatening to set them on fire if they didn't get their man back, according to sworn statements by Rangel. The standoff lasted an hour before Rangel and his lead ranger talked Queiroz down. But they did give up the prisoner.

While the group chanted "Land, land, land," the outnumbered officers climbed back into their vehicles and drove off

The complaint against Queiroz and his associates was filed in October 2019. They denied any wrongdoing. They were let out of jail in the spring, before their trial, when the government emptied cells because of the pandemic. They've been ordered to stay far from the park. But if there's one thing the past 20 years have taught Rangel, it's that there's always someone in the wings, waiting for the guards to look away.

Under the glaring sun, several watchmen with walkie-talkies take cover in two shacks. A rope dangling between the shacks forms a makeshift gate to the Jacundá National Forest, a 220,000-hectare preserve that's become a flashpoint in the war for land. Past the rope, a dirt trail dips into a narrow valley, where a river meanders under a sturdy bridge built with slabs cut from giant logs. Children jump from the bridge into the water, while two women fish with a green plastic net. A half-dozen more wash clothes a few meters downstream. The trail climbs back up into a camp called Terra Prometida, or Promised Land, where 200 families have settled inside the protected jungle.

At the entrance to the camp, Fernanda Santana, 20 years old and 8 months pregnant, lounges in a white plastic chair inside a two-room hut with palm leaves covering the roof and walls. She has straight brown hair that passes her shoulders, acrylic nails, and a calm conviction. In the room next door, a mint-green dentist's chair and equipment stand idle. Outside, men are constructing a clinic to house it all.

The camp sprouted up fast. In the five months since the land-seekers arrived, they've built a church with a loudspeaker and a couple of hundred huts, identical in design and arranged in an orderly grid. There's an internet tower, a generator, a schoolroom, a vegetable garden, and showers for the women. (The men bathe in the river.) In a cantina, a half-dozen cooks prepare a lunch of rice, beans, beef, and vegetables in dented steel pots over wood fires; their work schedule is posted on a tree trunk supporting the roof. The pantry is packed with food bought in bulk. Asked how they pay for all this, Santana says everyone pitches in with whatever they have. When the meal is ready, one of the women steps outside and hollers. Dozens of residents hurry over carrying plastic bowls and plates.

Santana has known many of these people her whole life. She's from a small village outside the park, now drained of its people. "Everyone came here," she says. To the villagers, Jacundá and its vast, untouched jungle felt like an affront. For nights they'd camped out in the fields at the edge of the park, debating strategies while waiting for enough families to join them before going in and staking a claim. They figured the

► **Rangers in Pacaás Novos take a break, top right. Rangel, their leader, below, on patrol**

more people at the outset, the easier it would be to resist eviction. And they were right: A few months after they settled in, police rolled up and ordered everyone to leave. The residents assembled on the narrow road, crossed the log bridge, and met the officers head-on at the checkpoint. While the group chanted, "Land, land, land," the outnumbered officers climbed back into their vehicles and drove off.

Brazil's deforestation machine is complex, and it's impossible to know exactly who's directing its movements. A large part is certainly driven by the everyday Brazilian who longs for land, but that alone can't explain the sheer scale of the destruction or the recent sophistication in the attacks. A few decades ago, when undesignated government land was bountiful, it was easy for a lone farmer to drive some stakes in the ground and claim it as his own. But those plots are gone; what's left in Rondônia are protected parks and territories. Environmental-crime prosecutors now describe a fraud that turns poor Brazilians into foot soldiers for criminal gangs, logging companies, and industrial farming operations. It's the stuff of novels, the type of book Carlos Rangel dreams of writing if only he could retire. "The people on the ground don't have the financial wherewithal to pay for the kind of operations you see," says former state prosecutor Aidee Maria Moser Torquato Luiz, who tried for two decades to stop the land grabs in Jaci-Paraná before finally giving up and moving away from the Amazon. "Someone is bankrolling them."

At the core of the scams is the byzantine land-management system Incra left standing in the chaotic transition from dictatorship to democracy. "There's a huge discrepancy between reality of fact and the reality in our documentation," says Tatiana de Noronha Versiani Ribeiro, the lead federal prosecutor on the Queiroz case. "Criminal gangs figured out how to mine the documentation and exploit the confusion." First, the gangs comb through public records, looking for loopholes such as Queiroz's 100-year-old rubber-tapping permits. Then, with phony paperwork in hand, they recruit desperate families and convince them the land is up for grabs. They bus them out to remote reserves, promising to pay for supplies and food. The claims are always challenged in court, but they sit in legal limbo for years. By that time, the camps have grown into villages, and it gets more politically complicated to evict hundreds of families with children. All the while, the masterminds are raiding the forest of its hardwood. When they're done, they move on to their next target. Many of the families can't make it on their own and end up abandoning the land they fought so hard for, or selling it cheap to big farmers amassing soybean and ranching empires.

At Terra Prometida, Santana says the camp has no leaders. "These people just want what others have." People arrive daily to join them, from all over. One of the guards, a man in his early 50s with wire-rimmed glasses, journeyed with his family from Venezuela, a country in complete collapse. The head cook at the cantina, a woman from Porto Velho named Elisangela (she didn't want to give her last name), says she'd been waiting her whole life for this opportunity. "As soon as I heard about it, I left everything behind," she says. Many learned about Terra Prometida from WhatsApp groups. A few made the trip after watching the camp's YouTube channel.

They plan to carve up the jungle into 20-hectare plots for family farms and say they have every right to be there. As proof, Santana is eager to show off a crumpled steel marker, drilled into the earth in the backyard of one of the huts and stamped by Incra: Tract 4, Mark 7. It may have been part of a settlement once or a marker when the land was surveyed, but it likely lost any validity when the park was created. Across the camp, there are signs of cut logs and patches of scorched earth. Satellite images compiled by Global Forest Watch show hot spots of tree cover loss all around. Santana acknowledges the jungle is being stripped of its hardwoods but says the settlers aren't the ones doing it. "There's a big sawmill nearby," she says. "They're using us as an excuse." ►

▼ Garcia, top row center, at an event for landowners. Below: their less-prosperous counterparts

◀ Nabhan Garcia, Bolsonaro's land-policy czar at the Ministry of Agriculture, is a stout fast-talker with a bushy mustache and a penchant for khaki hunting vests. On a June day, he walks into a barbecue for ranchers at the Ji-Paraná fairgrounds in Rondônia, and the crowd gathered under a long ramada whoops and cheers. The dirt parking lot is brimming with four-wheel-drive Toyota Hiluxes and Ford Rangers and, next to it, a row of 10 forequarters of beef slowly roast over a bed of coal. In the crowd are politicians, mining executives, and ranchers who've expanded into solar power and construction. In one of the world's most unequal societies, these are the guys who've made it big, who've built empires—who, as Nabhan Garcia tells them, "carry Brazil on your backs and sustain it with your sweat." Some boast of properties in the tens of thousands of hectares, which is possible only if they were granted during the dictatorship or pieced together from failed smaller farms, or are untitled land grabs. These are the guys Bolsonaro wants to boost.

Under legislation the president introduced in 2019 that's now making its way through Congress, industrial-scale farmers may for the first time be able to get in on the legal land laundering and win clean titles to public tracts that were originally intended for settlements or reserves. The proposal opens the door to more farmers sitting on properties between about 300 hectares and 2,500 hectares. All combined, that's an extra 16 million hectares of Amazon land that could soon be titled, including properties that were deforested as recently as 2012. The most dangerous change, however, according to Raoni Rajão, a land-management and environmental policy expert at the Federal University in Minas Gerais, is that the government wants to make it a no-check process, meaning Incra officials will no longer be required to go out into the field and inspect the properties before issuing titles. They'll rely only on satellite images. "It works for the land-grabbers to not have Incra doing its job," Rajão says. "It becomes an incentive to keep stealing land."

As special secretary of land affairs, Nabhan Garcia is leading the charge to rally support for the bill. With no previous political experience other than a failed congressional run in 2006, he's managed to amass an almost cultlike following among his fellow ranchers and an impressive level of influence with the president. The two bonded during Bolsonaro's 2018 campaign over a shared love of guns and disdain for foreign governments they say are threatened by Brazil's agricultural prowess. "Behind it all—all the lies about the Amazon—is a dirty war fueled by geopolitics and hypocrisy," Nabhan Garcia says. "No other country in the world has the potential to boost production the way Brazil does, and that scares people." Arguments such as this one are a common thread at the luncheon in Ji-Paraná. One rancher talks of a powerful milk and cheese industry in southern Brazil that doesn't want competition from the north; another says American soybean farmers, unhappy that their Brazilian counterparts picked up the slack and undermined the U.S.'s trade war with China, are slandering the country. They say the situation in the Amazon isn't portrayed fairly abroad, that the burns aren't as bad as the media makes them out to be, that the best way to preserve the forest is to put private property owners with resources in charge of it. "When you have a title and you can say 'this property is mine,' that alone can put an end to illegal fires," Rocha, Rondônia's governor, says in an interview at the barbecue.

Among the sponsors of the event was the Association of Rural Landowners of Rondônia, whose president is Adelio Barofaldi, a beef tycoon who owns about 40,000 hectares across several farms. A few days earlier, on a trip to a 9,000-hectare property that was once federal public land, he explained how he acquired it eight years ago from smaller farmers who'd abandoned their holdings. Now he's building a 3 million-real feedlot able to hold 15,000 head of cattle.

Central to the private-property argument is that owners will have the incentive to enforce Brazil's forest code. The law requires property owners to preserve 80% of their land, while allowing for the rest to be deforested. In Barofaldi's case, that's more than 30,000 hectares of jungle he says he pays to maintain, employing guards to protect it from bands of invaders trying to tear it down. "I pay for security and the taxes on that land, which doesn't earn me a cent of profit," he says.

There had been an uptick in violent conflicts on private

► **Manoel walks toward the still-forested part of his 100 hectares**

property, and a few days before the barbecue, the national guard had descended on Rondônia for a 90-day mission. Nabhan Garcia and his ranching backers draw distinctions when talking about who's doing the land-grabbing. There's a big difference, they say, between farmers and ranchers moving in on public land and leftist radicals targeting private property, whether titled or not. Nabhan Garcia was cited in a 2005 congressional investigation for alleged ties to militias that hunted down squatters on farms in his state, São Paulo. He denies the accusations and was never charged with a crime, but he vehemently defends the use of force when asked. "A person's land is his life. It's his family's life," he says. "If someone invades your property, you have the right to react and stop that invasion, even finish him off."

About 167,000 claims for titles are awaiting an Incra decision. As many as 12% of them involve farms not currently allowed by law, making up 60% of the area being claimed. Almost 30% of the land shows no signs of use before 2018, meaning the law change isn't about giving security to families who've been on the properties for decades, Rajão says. It's about amnestying more recent and bigger invasions. Once Incra approves the title, the owner essentially buys it from the federal government. In a municipality in Para state, for example, a hectare from Incra costs as little as 46 reais. It's worth more than 100 times that in the open market.

Barofaldi is requesting title to 470 acres of government land west of Porto Velho, an Incra database shows. Some 200 politicians in the Amazon have also filed paperwork for titles to public land, including a Rondônia state assembly member who voted for the Jaci-Paraná bill. At least two of the outstanding claims are for properties inside national parks. One member of Brazil's National Congress even listed an unregulated property in his electoral declaration.

The analysis of title claims is far from complete, mainly because data on properties is so hard to come by. Bolsonaro's government has used the pandemic as cover to clamp down on access to public information related to land grabs, and Rondônia state has been among the most aggressive in locking away its documents.

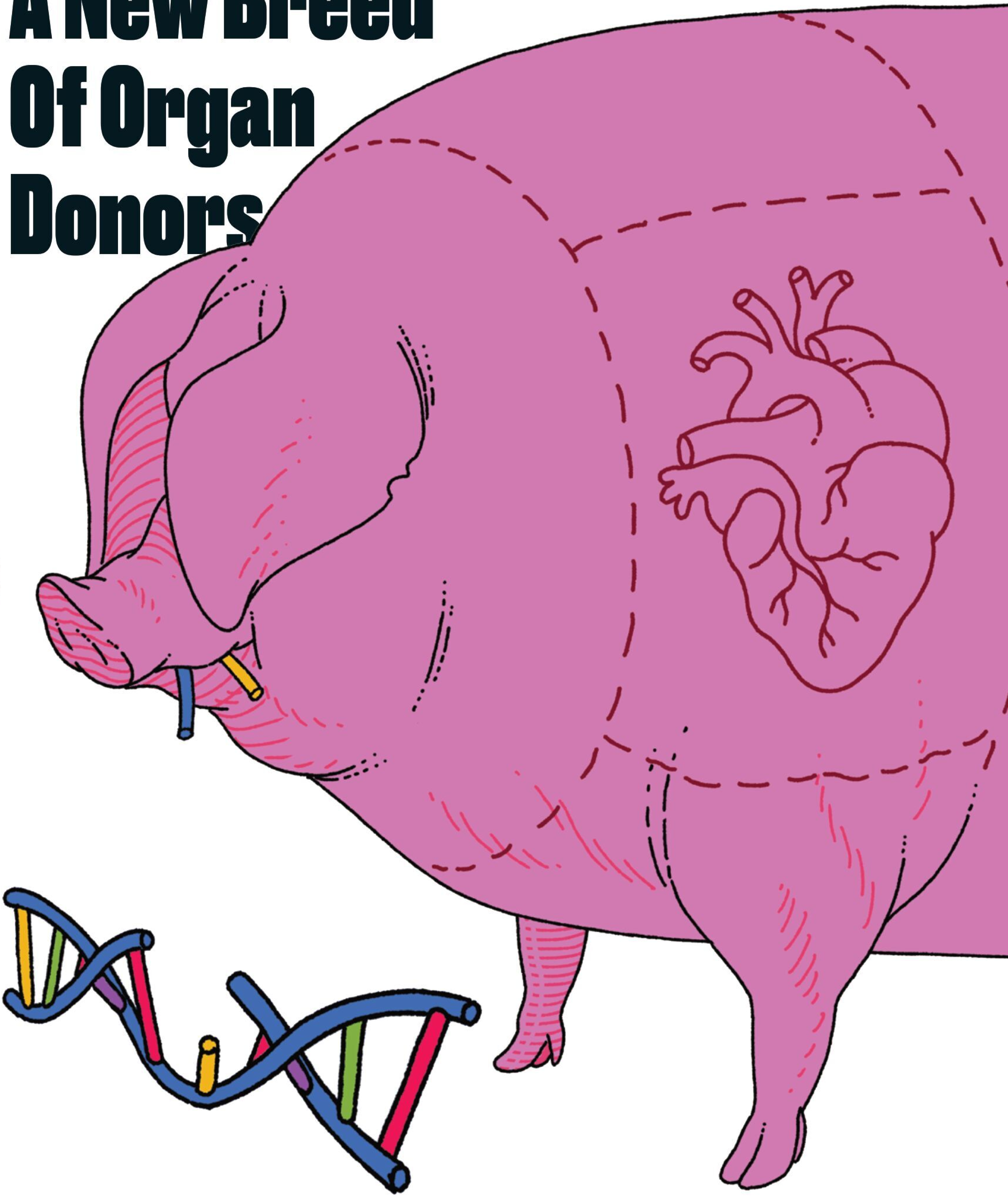
What is sure is that the destruction is accelerating. In recent years, Bolsonaro put the Ministry of Agriculture in charge of the environmental regulator, cut firefighting and management budgets, reversed plans to protect large swaths of indigenous lands, and proposed opening up indigenous lands to mining. Roughly 10,500 square kilometers of rainforest were destroyed in the first six months of 2021, on course to eclipse 2020's 11-year high. A study released in July by Brazil's National Institute for Space Research shows that parts of the Amazon where the burns are the worst have flipped into net carbon emitters, contributing to climate change rather than helping to limit it. Many of the land grabs go far beyond what even Bolsonaro's administration has proposed pardoning. The thinking is that even though greenwashed titles for, say, a national park may not be in the pipeline now, it's only a matter of time before they are. With no real consequence or enforcement, why not stake the claims now? "What's astonishing is that these are self-confessed crimes," Rajão says. "People go in and say, 'I'm seizing this land,' and they're rewarded for it, because the lawmakers keep moving the line forward."

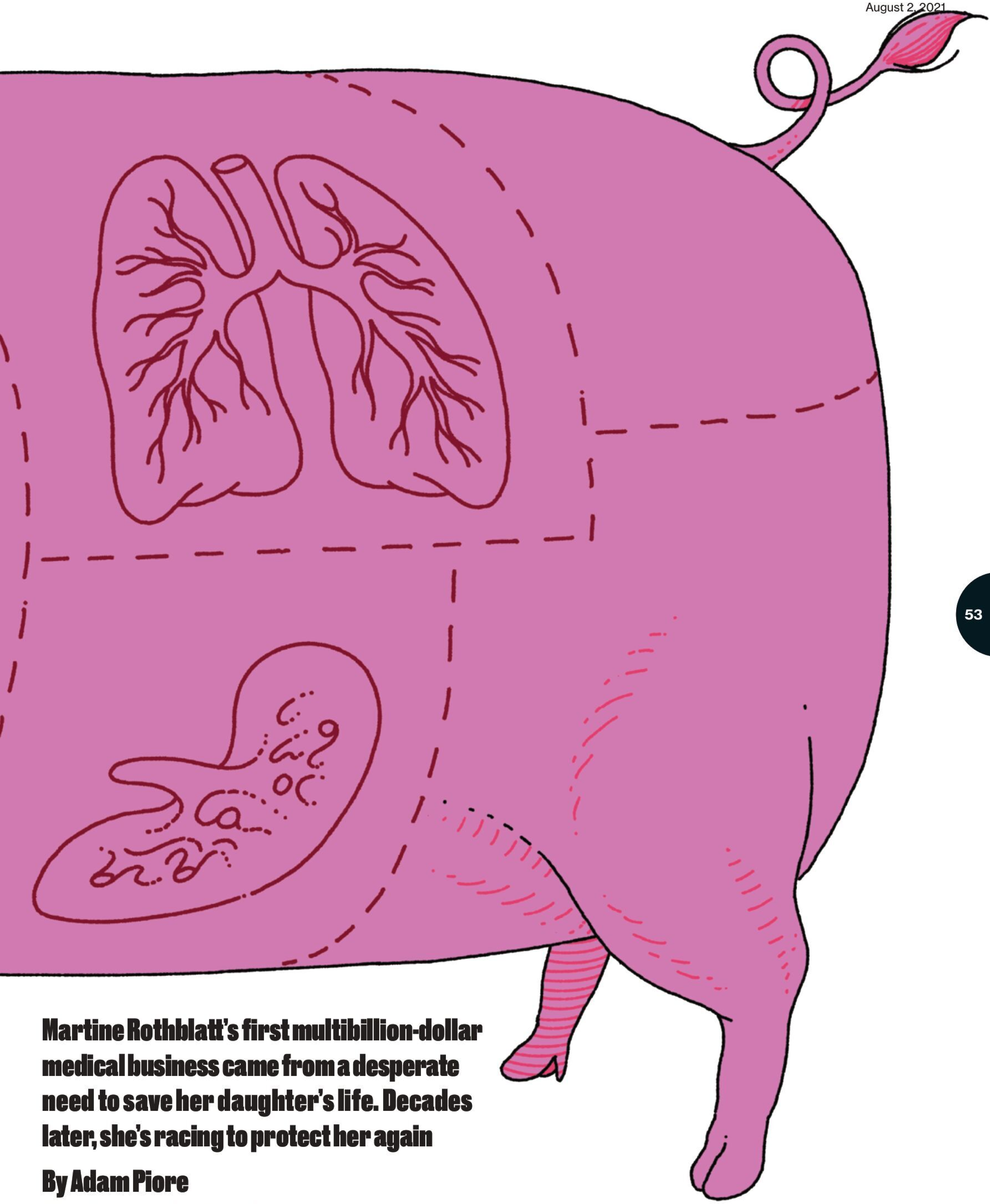
Itamar Lopes Manoel walks a half-kilometer from the rutted dirt road along a rare patch of forest still standing in Jaci-Paraná. Manoel, who is 54, bought the 100-hectare terrain in 2005 for 1,200 reais from a man who had no right to own it in the first place. It was a deal sealed with a handshake and no documentation. He says he had no idea it was a state reserve when he arrived. But then again, no one ever told him to leave.

He's cleared a small pasture, where his neighbor grazes cows for 25 reais a head per month, but his focus is on the forested part of his land. "This is where my dreams begin, right here," Manoel says. There's space for a grove of 3,000 cacao trees to earn him a good living, he figures, plus chickens, pigs, and milk cows for his family. He doesn't want to do it in the typical way, by illegally clearing and burning it all (not least because he'd like to avoid getting fined by Ibama). But his dreams have been elusive. "They don't give loans for cacao, only cattle," he says. "And cattle can't be produced in the jungle. Cacao, yes, but not cattle."

Lawmakers pushing to develop the Amazon often say they're trying to help people such as Manoel. But they've been saying that for decades, while inequality has grown worse. Without government programs to help people work the land sustainably, chances are Manoel will eventually clear-cut it all or abandon it. Already, in the eastern half of Jaci-Paraná, farms are being consolidated into industrial-size ranches. "Most small farmers end up selling to the big ones," Manoel says. "We can't survive. They can." Ⓑ

A New Breed Of Organ Donors





Martine Rothblatt's first multibillion-dollar medical business came from a desperate need to save her daughter's life. Decades later, she's racing to protect her again

By Adam Piore
Illustrations by Pete Sharp

"I went right ahead and did research on my own and found out what he was saying was true," Martine Rothblatt would later recall. "There were no medicines for it. Everybody did die."

A doctor at Children's National Medical Center in Washington, D.C., had just told Rothblatt and her wife, Bina, that the couple's youngest daughter, 9-year-old Jenesis, had a rare medical condition that likely gave her three years to live. The arteries between Jenesis's heart and lungs had narrowed, choking off oxygen and placing an unsustainable burden on her heart as it struggled to send blood through her thinning blood vessels, like trying to push water through a hose with a kink in it. The condition, known as pulmonary arterial hypertension, was progressive, and there were no approved treatments, short of a lung transplant—almost unheard-of in children.

Rothblatt set out to make one. On the cusp of 40 in the mid-1990s, she was a wealthy, pioneering aerospace attorney and communications entrepreneur. Her startups included the satellite navigation company GeoStar and the company that would later come to be known as SiriusXM Satellite Radio. On a personal level, Rothblatt was in the process of transforming into the person she'd always been meant to be. Within months, she would undergo sex reassignment surgery and come out to the world as Martine.

But Rothblatt spent the nights after Jenesis's diagnosis in the hospital's basement library, studying the molecular biology of her daughter's disease in medical journals. She looked up unfamiliar terms and concepts in textbooks, tracked down obscure articles mentioned in cryptic footnotes, and grew convinced that technology could solve her daughter's problem. "I just felt like I had no choice," she would later say. "My only purpose in life now was not to help move to the stars with satellites and stuff like that. Instead, it was to save Jenesis."

A pharmaceutical company in North Carolina had what Rothblatt considered a promising chemical compound sitting unused on the shelf. When the company's lawyers refused to license it to an individual, Rothblatt started a biotech company, assembled a team of scientists, and persuaded the pharma company to take her money. Then, using her windfall from Sirius's recent initial public offering, they developed the compound into a workable drug, took it all the way through clinical trials, and won approval from the U.S. Food and Drug Administration. The medication saved Jenesis and tens of thousands of other people.

Today, Rothblatt's biotech company, United Therapeutics Corp., is worth about $8 billion. More than 100,000 people around the world rely on it to produce the lifesaving medicine, called Remodulin, and Rothblatt is the highest-paid female executive in the U.S. At age 36, Jenesis is working for the company, too.

"I did the math," Rothblatt says. "So I decided to change the math"

And yet Rothblatt has always known the work was only half done. Remodulin is a treatment, not a cure, and it's tough to be certain how long it will hold off the disease for each patient. At some unknown point, Jenesis's lungs might still fail. The only permanent solution remains a transplant, and in a good year, not even 1% of the patients who need lung transplants receive them. In 2019 about 250,000 people died of end-stage lung failure, too far down the transplant list or otherwise unable to get one.

So once again, Rothblatt has vowed to solve the problem threatening her daughter's life. This time, it's the global organ shortage. "I did the math," she says. "So I decided to change the math."

Backed by United's nine-figure annual research and development budget and about $2 billion in cash, Rothblatt and her team have been quietly working to create manufacturing techniques that don't require human donors. Through acquisition and collaborations, what began several years ago at United's headquarters in downtown Silver Spring, Md., as a small effort to solve the long-term organ shortage problem has grown into a network of small labs and research facilities scattered across the U.S. that are experimenting with possible solutions.

In Jacksonville, Fla., a team of United engineers at a Mayo Clinic facility is testing a method of lung perfusion, a technology that can help assess whether damaged donor lungs are still be usable for transplantation. In Manchester, N.H., and Research Triangle Park, N.C., United has hired teams of scientists to try to figure out how to seed decellularized animal organs with human stem cells, a first step toward 3D-printed organs using patients' own cell samples.

Now Rothblatt's company is getting ready to move forward with perhaps the most sci-fi of these efforts: growing genetically modified, human-compatible organs in pigs.

At a Rothblatt-designed facility at the University of Alabama at Birmingham, some of the people who cloned Dolly the Sheep have been helping to create a small army of swine with custom-edited genes. Each pig will carry a minimum of 10 genetic modifications that scientists say will make their organs, already comparable in size to those in the human body, acceptable to human hosts. Kidneys are the first goal, but they won't be the last. Instead of using a pig valve in a heart transplant, which has been a common procedure for decades, why not the whole heart? Or the lungs that might someday save Jenesis's life?

Rothblatt's team is tackling a

challenge that has frustrated some of the world's top scientists for decades. The human immune system is notoriously fickle when it comes to accepting organs that come from another human, let alone a pig. "An organ must interact with a body along hundreds of biochemical links, whereas a drug needs to interact along only a few," Rothblatt says. "The biochemistry is orders of magnitude more challenging."

Rothblatt (center) with her daughter Jenesis (left) and wife, Bina

Several analysts who cover United tell *Bloomberg Businessweek* that potential breakthroughs in any of these efforts seem too far away to factor into their estimates of the company's revenue. Still, Rothblatt's team has already made significant progress with gene editing. It has successfully transplanted genetically modified pig kidneys into several baboons, which have genetic codes 94% identical to those of humans and have all survived for more than six months since. At the end of 2020, United received FDA approval to use its first gene edit in medicine and food. (The tweak removes a common sugar in pig meat known to cause allergic reactions in humans.)

The team has been working to prepare more advanced gene-edited pigs for FDA review. Rothblatt, who declined to provide an update on United's latest progress before publication, said last year that the company should be able to begin FDA-approved, late-stage human clinical trials with pig-grown kidneys as early as 2022. After that, she said, hearts and lungs would no longer sound like science fiction.

Back in 1954 a Boston doctor named Joseph Murray performed the first successful human organ transplant, transferring a kidney from 23-year-old Ronald Herrick to his twin brother, Richard. The genetic similarities allowed Ronald's organ to survive in his brother without being attacked by Richard's immune system as a foreign substance. In the early 1960s, French doctors managed to repeat the procedure using a donor who wasn't related to the recipient, by using radiation to weaken the recipient's immune system temporarily. Live heart and pancreas transplants followed by the end of the decade, and lung and intestine transplants began in the 1980s.

In 2019 doctors around the world performed more than 100,000 organ transplants from both deceased and living donors, according to the nonprofit United Network for Organ Sharing, a record. In the U.S., which accounted for about 40% of that total, patients and insurers spent $13 billion on transplants.

But the supply has never come close to meeting the demand. In the U.S., someone is added to the 107,000-person-long recipient waiting list every nine minutes, and an average of 17 people a day die waiting. Those numbers don't account for the true need, because not everybody makes the list. Inclusion is based on a complex formula weighted to favor the patients most likely to survive and those thought to have the most to gain from a transplant. Kidneys alone represent a huge need: Around the world, hundreds of millions of people in end-stage renal disease are relying on dialysis to stay alive.

Scientists have been dreaming of solutions such as Rothblatt's for decades, starting with heart valves grown in cows and pigs that have been chemically treated to avoid immune rejection. Most pig valves wear out after 15 years, but they still have a major advantage over more durable carbon-based mechanical valves. Patients who use the artificial parts must take anticoagulant drugs indefinitely to prevent stroke-causing blood clots from building up around them, whereas those with genetically engineered valves can live a mostly normal life—and get laughs at parties by claiming to be part pig.

Full-scale organs, however, are far more complicated and liable to prompt a fatal immune response. The field was largely abandoned in the wake of the AIDS crisis over fears that transplanting organs from other species might threaten humans with ancient retroviruses lying dormant in animals. In recent years, though, advances in gene-editing techniques have allowed molecular biologists to rewrite bodily blueprints with previously unimaginable speed and precision. In 2015, George Church, a pioneer in the use of gene editing in mammalian cells, announced that he and colleagues had used the technology to disable 62 retroviruses found in pig embryos.

"This is not a question of if this is going to work, it's a question of when," says Paul Sekhri, the president and chief executive officer of EGenesis, a United rival co-founded by Church that's raised more than $263 million. EGenesis said this year that its latest $125 million from investors will be used largely to advance animal-to-human kidney transplants, which the company aims to bring to clinical trials in 2023.

Several analysts who cover the company say they wouldn't bet against Rothblatt getting there faster. "Martine is a different kind of person in ▶

GETTY IMAGES

◀ general," says Liana Moussatos, an analyst at investment firm Wedbush Securities Inc. "From what I have seen, once she has her mind set on something, she's going to figure it out."

In 1974, while Rothblatt was a 20-year-old college kid visiting a remote tropical island in the Seychelles, a local mentioned it was home to a world-class NASA satellite-tracking station. Rothblatt, who was wandering the world in search of meaning beyond depressing headlines about Watergate and Vietnam, recalls being drawn to the futuristic spectacle "like a bee to a flower."

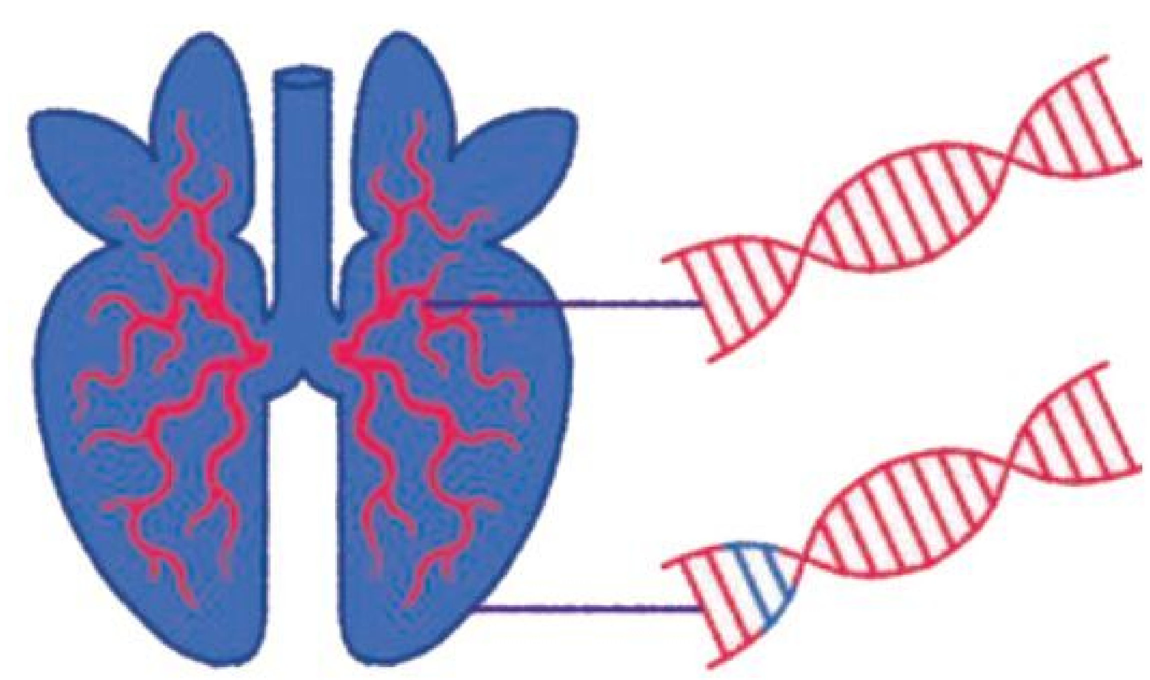
At the facility, perched atop a palm-tree-lined tabletop mountain in the middle of the Indian Ocean, she met a NASA engineer who explained how the base's two humongous white satellite dishes were receiving signals from a spacecraft orbiting Jupiter, 451 million miles away. It was a distance so vast, the engineer said, that detecting the transmitter's weak signal was akin to spotting a New York City flashlight from Los Angeles.

What would happen, Rothblatt asked the engineer, if you built the probe's transmitter as large as the receiving dishes? Could you then make the satellite dishes the size of a flashlight? When the engineer acknowledged it might be possible, Rothblatt glimpsed the future. "I'm going to build a big house-size satellite-transmitting antenna in orbit," she would later recall thinking, "and connect the whole world together with tiny flashlight-size antennas."

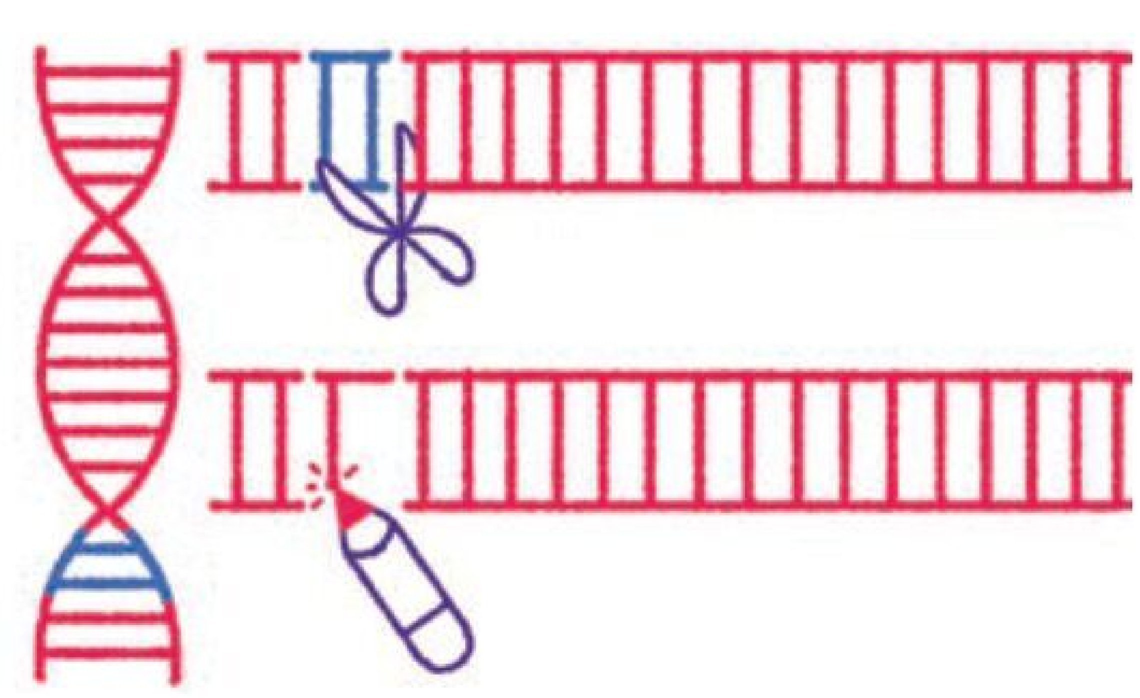
Rothblatt returned to the University of California at Los Angeles and wrote a bachelor's thesis on international direct-broadcast satellites. Then she earned a JD/MBA and became a regulatory attorney and entrepreneur specializing in satellite and broadband technologies. By her late 30s, she was a leading voice in the field, having collaborated with governments and private clients around the world to figure out how to commercialize satellite tech. She'd poured her profits from GeoStar's successful car-navigation business into Sirius and was raising four kids with her wife, Bina Aspen.

But in the early 1990s, Jenesis's occasional shortness of breath became a more constant problem. What was once trouble keeping up during a ski trip was, a few years later, serious difficulty getting onto the school bus. Her lips turned blue, she experienced fainting spells, and she struggled to walk upstairs. In 1993 she received the pulmonary arterial hypertension diagnosis.

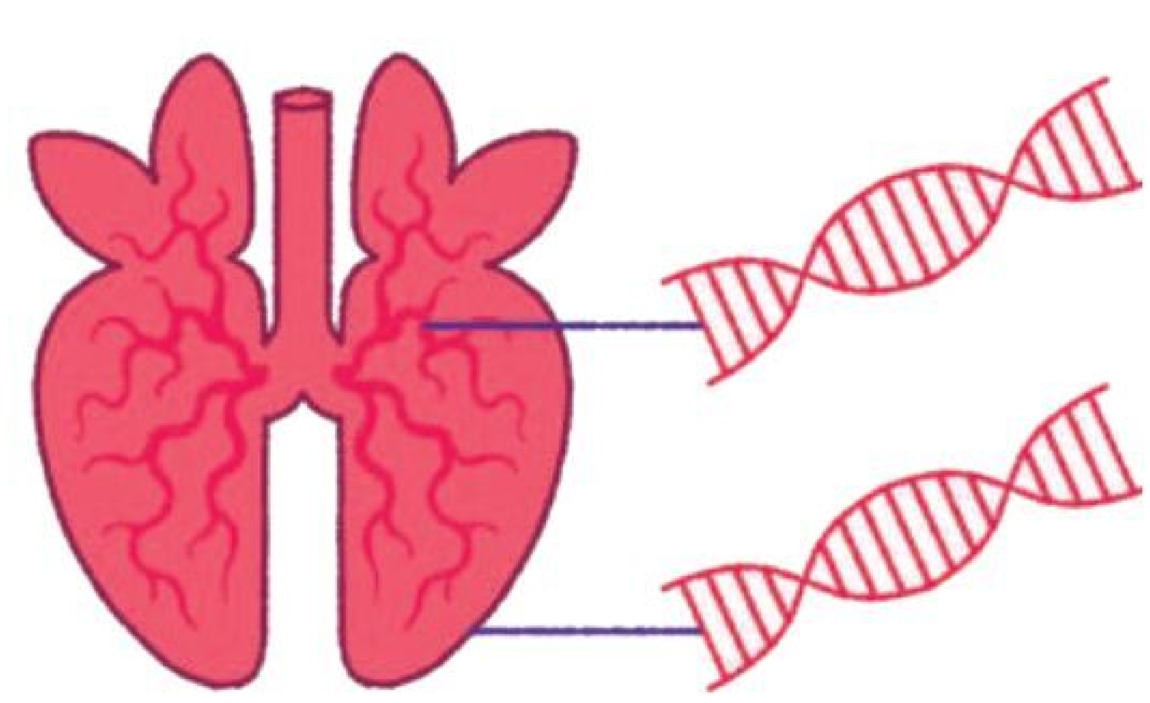
More Than Just Valves



❶ **A major obstacle to transplanting organs from pigs into humans is that differences in the pig's genetic code might make human blood cells react to the organ as if it's an invading disease they need to destroy. One way scientists can spot these problems is to remove the organ and place it in a machine that runs human blood through it for hours at a time.**



❷ **As soon as the scientists have a list of the pig-specific genes activated by the human blood, they can try to figure out what those genes do, then use genetic engineering techniques to modify or remove any genes that might trigger an immune response.**



❸ **After the scientists have fixed the troublesome genes, they can try again with the organ from a pig modified to their new genetic specifications. When they think they've eliminated any potential problems, they can transplant the organ into a baboon for further testing.**

Months later, Sirius went public, so there was money. One day soon after, Rothblatt presented Jenesis's pediatric cardiologist with a small pile of photocopied articles about the condition, along with a list of the names of 40-odd doctors who'd written about it. Would the cardiologist be willing to serve on a grant review committee if Rothblatt set up a foundation to accelerate the doctors' research? (Yes.)

One of Rothblatt's grantees told her about Burroughs Wellcome, then a midsize drug development company in North Carolina. Preliminary results suggested the Burroughs compound relaxed the smooth muscle tissue lining the arteries of the heart in ways that might restore normal blood flow to patients like Jenesis. But Burroughs had recently been acquired by Glaxo, which shut down the research—along with any project expected to yield less than $1 billion a year in revenue—and gave early retirement packages to the scientists involved.

Rothblatt marched into Glaxo for a meeting, so nervous she was shaking. Company officials said they weren't going to restart drug development on the compound or license it to a nonprofit with no clinical development expertise and no employees. So Rothblatt started her own company and asked every member of the retired team to come work for it.

Bob Bell, Glaxo's head of R&D at the time, recalls meeting Rothblatt during one of her later visits and thinking the chances of anyone developing the project Glaxo had shelved into a workable drug was less than 10%. Indeed, after finally persuading him and his superiors to license the compound, it took Rothblatt another year to find chemists capable of converting the chemical molecule into a medicine that could be manufactured on a large scale—a process that required 23 steps to safely produce it.

Bell became an enthusiastic backer and would eventually take great pride in the deal, which saved the life of his sister—now a United customer—among many others. And Glaxo gets 10% of the royalties on Remodulin's profits. In the years since, those profits have run into the billions. "I think it's the best business decision I've probably ever made," Bell says.

But Remodulin was only the first part of Rothblatt's plan. Next she wanted to master the intricacies of clinical trial design, something she saw as necessary to lead a biotech. The result was a doctorate in medical ethics at Barts and the London School of Medicine and Dentistry. In 2003 she published her doctoral dissertation, about animal-to-human transplants, as a book called *Your Life or Mine: How Geoethics Can Resolve the Conflict Between Public and Private Interests in Xenotransplantation*.

The body is "a kind of a machine," Rothblatt wrote in the book, and, like cars and planes, could theoretically be kept going indefinitely if it were possible to swap out failing parts. Although the logistics of harvesting organs from the deceased, or from living donors, are "vastly more problematic than the ordering of spare parts from a manufacturer's catalogue," she noted, many people were working on the problem. "As a result of these activities, the science of extending human life through organ transplantation will soon be as mature as the practice of extending the lives of complex machines," Rothblatt wrote.

Rothblatt's starter pig facility is in Blacksburg, Va., a little less than 3 miles from the neo-Gothic campus of Virginia Tech. On a treeless gravel lot surrounded by rolling green hills, long rows of modular trailers the size of shipping containers emit a low, constant hum from their scores of fans and air filters.

Inside one of the trailers one afternoon last year, an enormous sow with mud-streaked haunches was reclining on an orange plastic grate as five baby piglets squealed, grunted, and climbed all over one another, attempting to nurse. There's something unusual about this ensemble, says David Ayares, the executive overseeing United's xenotransplantation programs under its subsidiary, Revivicor. The larger pig isn't the piglets' mom, but a slightly older version of each one of them. They're all clones—each carrying the same exact genetic material, infused into the nucleus of an embryo by Ayares and his team, using the same techniques his old company used to clone Dolly back in the 1990s.

The body's last line of defense against pathogens in the air, the lungs are more prone to rejection

"We have knocked out four pig genes and added six human genes to make it more compatible," Ayares says. "These are pigs that we'd be going forward with in kidney, heart, and lungs trials."

The key to making the organs compatible with human recipients is twofold. First, scientists have to identify and eliminate each of the proteins in the pigs' organs most likely to ring alarm bells in the human immune system. Then they have to figure out which human genes will produce the kind of biochemical secret handshake needed to trick the body into thinking the organ is a native resident.

The first task is painstaking. To speed it along, Rothblatt's team developed a battery of lab tests that measure the ability of their genetically engineered pig cells to avoid rejection by a human immune system. Genetic analyses measure the activity of as many as 50,000 genes at once to spell out which ones are associated with organ rejection. In this way, the company is able to zero in on specific genes, then use engineering techniques to turn them on or off.

The work, however, is just beginning. Although Ayares and his team say they've solved most of the problems in pig kidneys and even hearts, far less finished is the proper genetic engineering needed for pig lungs that a human immune system would likely accept. The lungs are the body's last line of defense against pathogens in the air and are thus far more prone to rejection than most other organs. Last year, Ayares said his team had increased lung survival from three hours to more than a month and would continue to build on that. But before they can begin human trials, they'd need to get to six months. And they still wouldn't be done.

"Even the first lung that probably United is going to be able to transplant is going to be far from perfect," says Hartaj Singh, an analyst at investment bank Oppenheimer & Co. "It's going to be like the Model T Ford, and 100 years later, probably that lung will be that much better and will be much easier to give to patients."

Jenesis recently celebrated her 36th birthday in good health, but Rothblatt and her team can't help but feel they're racing against the clock. Now a project leader for corporate telepresence and robotics at United, Jenesis has presented at sales meetings, summed up the company's annual performance at the end-of-year holiday party, and shared her health challenges. (Long hikes are still out.)

"It becomes very real," Ayares says of working with Jenesis and Martine on transplantation. "Because you go to a quarterly meeting, and instead of it being a bean counter across the table or someone who is designing a clinical trial, the person at the end of the table is Martine, telling you, 'I want you to hit your milestone because my daughter needs a lung from your pig.' If there are delays, or if there are things that go ahead of schedule, those are celebrations and challenges that are very personal." Ⓑ

Boozy scoops (from top): Proof bourbon-caramel; Scoops on Tap cookies & cream and blackberry; Salt & Straw mango; Oddfellows gimlet and La Finca; Tipsy Spoon banana; and Proof strawberry

'Can I Get Drunk On This?'

A heap of new alcohol-infused ice creams are cooling down summer—with a twist. *By Kate Krader*

Photograph by Ted & Chelsea Cavanaugh

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Edited by Chris Rovzar

Businessweek.com

Can I get drunk on this?' That's the No. 1 question I get," says Melissa Tavss, founder of Tipsy Scoop LLC in New York. On the 8-year-old company's website, customers have to verify they're older than 21 to peruse specialty flavors such as a whiskey-infused dark chocolate with salted caramel or a mango-margarita sorbet, punched up with tequila and orange liqueur. They can reach 5% alcohol by volume (ABV).

Tipsy Scoop is one of several sloshed startups that have gotten into the international ice cream market, valued at $65.8 billion in 2020. Revenue for the segment of the market dedicated to alcohol-infused ice cream, which was estimated at more than $335 million in 2019, is expected to exceed $450 million by 2025.

Last year, New York Governor Andrew Cuomo legalized alcoholic ice cream with an ABV of 5% in the state, but Tavss says adding booze is "not supposed to knock you off your feet. It's to enhance the flavor." She saw sales rise 85% from 2019 to $3.5 million in 2020 through her mail-order business and expects another bump this year once all of her physical stores reopen. Her audience is "the 30ish crowd"—adults nostalgic for the simple joys of ice cream. A light buzz is trendy, too, she says: "It's a lower ABV option than a traditional cocktail."

"For ice cream makers, ice cream is a platform and a way to partner with microdistilleries to tell stories"

Freezing an alcohol-infused product isn't easy; as anyone who's stored a bottle of vodka in the icebox knows, it doesn't turn into a solid icy block. In the past, for example, makers of rum raisin ice cream typically employed extract. If they used real rum, they added minute amounts or cooked off the alcohol while making the custard base.

A new generation of companies has lately devised various methods to pump booze into their frozen confections. At Tipsy Scoop, Tavss makes ice cream with a high amount of butterfat—16%—to counterbalance the straight alcohol that's added after cooking. (Having worked in marketing for brands including Jack Daniel's, Tavss knew it was important to get the zing of alcohol upfront.)

Sam Howland of Scoops on Tap LLC in Montclair, Calif., adds craft beer to the ice cream base without putting it over heat. The amount depends on the intensity of the brew, "but California will only allow us to go up to 5%," he says. "A big bourbon barrel-aged stout might need to be used in smaller amounts because of its flavor as well as its alcohol content vs., say, a lower-ABV blond ale."

Some manufacturers are using improved technology to add more alcohol to their product. At Clementine's Naughty & Nice Creamery in St. Louis, Tamara Keefe concocts flavors such as Manhattan, with bourbon and sweet vermouth, that can hit 18% alcohol by weight. She used her background at Abbott Laboratories to patent a process for freezing generous amounts of spirits into ice cream without making it too soft to scoop or too icy to enjoy. "Too little alcohol—what's the point?" she asks.

Keefe calls Clementine's, which she started in 2014, the "first microcreamery in the country—think microbrewery for beer but for ice cream." Since then it's racked up almost $5 million in sales, and she has a goal of $50 million with 50 shops in the next 10 years.

Part of the appeal of boozy ice cream is that businesses can work with other small operators to create unique offerings. This year, Brooklyn, N.Y.'s OddFellows Ice Cream Co. and six high-end bars created cocktail-infused flavors. One of them, La Finca, a sweet sherry-spiked coffee ice cream from the renowned Sydney spot Maybe Sammy, has an ABV of about 5%.

Others focus on more local partnerships. At Proof Alcohol Ice Cream in Columbia, S.C., Jenn Randall-Collins uses a family recipe from her native Kentucky for her bourbon-vanilla-caramel ice cream with 7% ABV. She's also found an audience for ice creams spiked with the high-proof alcohol moonshine: Her three classic flavors include strawberry-moonshine and mocha-chocolate-moonshine. Her year-over-year sales growth has quadrupled since 2018. "We're preparing to expand to the West Coast in Q3 and anticipate triple-digit revenue growth," says Randall-Collins.

Tyler Malek, co-founder of up-and-coming ice cream maker Salt & Straw out of Portland, Ore., which has 26 locations nationally, credits the interest in local spirits for the current buzz in alcohol-infused ice cream. "The variety of liquors coming out in cities is mind-blowing," he says. "For ice cream makers, ice cream is a platform and a way to partner with microdistilleries to tell stories."

He created the Cold One, a five- or six-pack of pints flavored with brews that hail from Oregon producers, such as Great Notion's mellifluous strawberry-and-guava smoothie sour and Breakside Brewery's half-and-half crunch. Salt & Straw opts to market a product with an ABV of 0.5% in its infused flavors. "Our churning process is not well suited to high levels of spirits or beer," says Malek, who's been making spiked ice creams since he began operations in 2011.

Last winter, Malek's company worked with Dwayne "the Rock" Johnson to produce the limited-edition Dwanta's Teremana Spiked Eggnog, named for the actor's holiday alter ego and flavored with his tequila. This summer, Malek is offering a mango-habanero IPA sorbet with Miami's Wynwood Brewing Co. To augment the crisp taste of the brew, he adds a few more hops.

Malek used the same tactic when Salt & Straw joined with Aviation American Gin to make a gin-and-tonic ice cream enhanced with the liquor company's custom spice blend. "At the end of the day, we want in-your-face gin, without all the alcohol," Malek says. Get on board the boozy ice cream bandwagon with these five creative ways to enjoy it. B

FOOD STYLIST: HADAS SMIRNOFF

What to Do With Boozy Ice Cream

How to make your own, and the best ways to enjoy it. *By Kate Krader*

THE BASE

Whisky-Vanilla Ice Cream

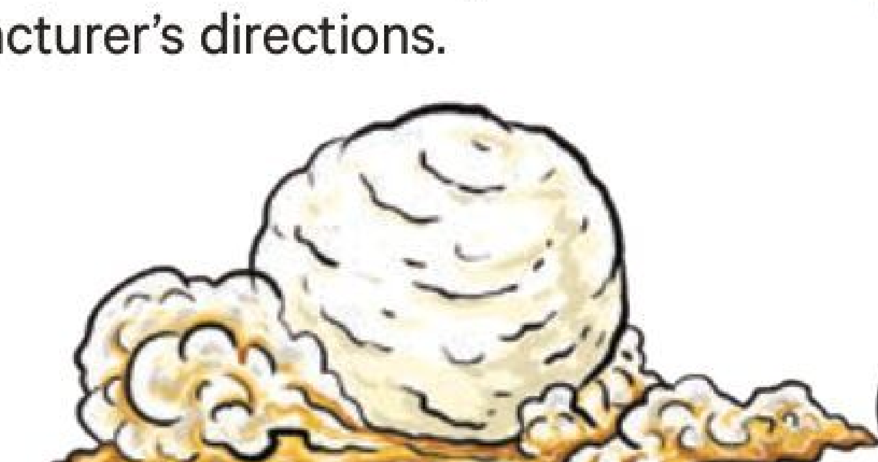
Churning up an intoxicating scoop (or three) is easier than you think. This upgrade is adapted from a recipe by Max Falkowitz and makes about 1 quart. Use it in all the following variations.

In a saucepan, bring 2 cups cream and 1 cup whole milk to a simmer. Remove from heat. Add a halved vanilla bean and let stand 1 hour. Remove bean. In a bowl, whisk 8 large egg yolks and ¾ cup sugar until light yellow. Slowly whisk into cream mixture. Cook over low heat, whisking constantly, until custard is thick enough to coat the back of a spoon. Remove from heat and stir in 3 Tbsp Scotch whisky, 1 tsp pure vanilla extract, and ½ tsp kosher salt. Refrigerate until chilled, then transfer to an ice cream maker and freeze according to manufacturer's directions.

↓ Ice Cream Soda

An adult version of an old-school favorite.

In a tall glass, combine 3 Tbsp chocolate syrup with 2 Tbsp heavy cream. Pour in about 10 oz cold club soda to fill the glass three-quarters full. Add 2 scoops whisky-vanilla ice cream and top with another splash of club soda.



Affogato ↘

The only way to improve on the coffee drink is to add a shot.

In a cup, top 1 or 2 scoops of whisky-vanilla ice cream with a shot (or 2) of espresso.

↖ Ice Cream Sandwich

Boozy ice cream is great for giving the hot-weather favorite an edge.

Top a soft chocolate chip, a regular chocolate chip, or an oatmeal cookie with 1 or 2 scoops of slightly softened whisky-vanilla ice cream. Top with a second cookie and coat the sides with chocolate chips, if desired.

↑ Frozen Espresso Martini

To enhance the drink of the summer, add spiked ice cream.

In a cocktail shaker, make an espresso martini using one part each espresso and coffee liqueur and two parts vodka. Fill with ice and shake well. Pour into a martini glass, add 1 or 2 scoops of whisky-vanilla ice cream, and drink.

↓ Milkshake

A loaded milkshake does double duty as an over-the-top beverage for dessert.

In a blender, combine whisky-vanilla ice cream with a little milk, about 3 Tbsp per cup of ice cream. Add flavorings: an extra shot of whisky, a few spoonfuls of chocolate syrup, strawberry syrup, or maple syrup. Top with whipped cream, nuts, and cherries, if desired.

ILLUSTRATIONS BY TOM HOVEY

The Travel Agent Is Back

Uncertainty in the friendly skies is forcing vacation planners to rethink the value of a profession long thought departed. *By Jen Murphy*

Like most travel agents, Sarah Fazendin spent much of last year canceling trips for clients. The owner of Videre Travel, an agency in Denver that specializes in high-end family getaways, scrambled to secure refunds and credit vouchers and organize paperwork for travel insurance claims.

That wasn't the worst of it. "When an airline refunded a client, they also recalled our commission," she says. "So as I worked around the clock, I watched my revenue go from record-breaking to nonexistent." Hers is a common story: Travel agents as a whole lost a combined $12.4 billion in 2020, according to research company Phocuswright.

The travel agent may be one of the most misunderstood professional groups around. In a world with tons of digital DIY planning tools, who needs them? But thanks to fast-changing Covid-19 testing protocols, border restrictions, shifting airline schedules, rental car scarcity, and limited hotel inventory, even the most confident jet-setters are turning to the pros for help.

Consider the case of Huby Saroukhanoff. The 39-year-old Los Angeles-based manager of talent acquisition at Netflix Inc. used to research her own vacation itineraries as a way to get excited about a trip. But when outdated and conflicting information complicated her ability to pick a destination for a beach vacation this year with her vaccinated husband and mother, she took a friend's advice and reached out to a travel adviser instead.

On the recommendation of Josh Geller at Embark Beyond in New York, Saroukhanoff and her family set off to French Polynesia, a region with a proven track record for Covid safety. Geller coordinated their border-entry paperwork and kept track of the four Covid tests they were required to take over the course of the trip.

"There was so much uncertainty about the process that I nearly opted for a staycation," Saroukhanoff says. "Before, I didn't see what the value of working with an adviser would be except maybe saving you time. Josh alleviated the stressful parts like the flights, transfers, resort booking, and paperwork so we could focus on the fun parts."

Because they make most of their profits off hotel commissions, high-end travel advisers can charge as little as $100, and some don't charge at all—though depending on the labor involved per trip, that number can rise to four figures.

ARCHIVE PHOTOS/STRINGER/GETTY IMAGES

But in many cases, the cost can be applied to the total of the trip; even when it's not, it's easily offset with specially negotiated discounts on hotel rooms, flights, and added perks such as free upgrades and complimentary breakfasts. (Those perks are handed out only to affiliates of companies that book in large volumes–group discounts, if you will–so there's no way to replicate the deals they get on your own.) When you add in the bonus of how Expedia Group Inc. and other sites tend to offer nonrefundable bookings, the financial benefit of an adviser grows.

Outstanding agents can fast-track guests through airport immigration and expedite U.S. passport renewals amid a backlog that has stretched average wait times from a few weeks to several months. Most also have 24/7 support to troubleshoot in the event of flight cancellations or lost luggage.

Some agencies, Embark among them, also have Covid-focused hot desks to monitor every country's entry requirements on a daily basis and alert booked clients about relevant changes. They also coordinate house calls for travel Covid swabs and testing abroad for those returning to the U.S.

Travelers are taking notice. New client acquisition at Embark is up 325% from March 2021 until June 2021, and it regularly works with about 2,875 in total. Almost 65% of its clients who are under the age of 40 have never used a travel adviser before.

According to a June poll conducted by the American Society of Travel Advisors, 76% of advisers are seeing an increase in customers compared with pre-pandemic levels, and 81% of advisers are hearing from travelers who have never used an adviser.

Fabienne DiMartino, 59, an executive sales consultant in LA, hadn't used a travel agent in a decade but says she could never have planned a 12-day family trip to Italy in late June without John Clifford, founder and chief travel designer at International Travel Management. Not all her relatives were vaccinated, adding layers of complication. But Clifford kept her abreast of changes and built in extra layover time to fill out paperwork, which kept the group from missing connecting flights. "I work and don't have time to keep tabs on the rules," she says. "If I travel again in the future, I'll use an adviser."

There are limits to advisers' powers, however. "With many countries still off limits, the world feels very small, and inventory is extremely low," says Peter Bates, founder of Strategic Vision, a marketing communications company in New York that targets tourism and hospitality. "Travelers making short-notice bookings only compounds the problem." Geller says he's had clients reach out 24 hours in advance requesting luxury dude ranch stays, which are almost completely booked through the summer. He's had to pull strings to get rooms and keeps tabs on availability at lesser-known properties farther off the beaten path.

The shortage of seasonal workers and the shift away from the service industry have also made it very hard for agents to guarantee the same level of experience that clients have become accustomed to, says Cari Gray, founder of luxury active travel agency Gray & Co. in Santa Monica, Calif. At one luxe Montana lodge she recently visited, for example, the kitchen was running out of food for guests.

The rest of the world is catching up with the U.S. in terms of relaxing Covid rules. But many countries still require masks, have curfews and bans on live music in bars, and limit capacity at museums and restaurants.

Even so, the extra legwork associated with post-pandemic travel planning has emboldened some agents to charge more for their services. Fazendin, who relied solely on commissions pre-2020, now charges planning fees starting at $350–and her business has transformed from planning rare bucket-list trips to Machu Picchu to booking plenty of long weekends in Mexico or Hawaii.

Geller also increased his planning fee, from $500 to $1,000, in February. His rationale: "People are more than happy to pay for knowledge and peace of mind." B

Do You Really Need To Hire An Expert?

We've compiled a 10-question test to see how you score on the I-need-a-pro scale. Give yourself one point for every question you answer in the affirmative

1. Are you traveling outside your country's borders?
2. Will there be any connecting flights?
3. Is it very important to get perks such as late checkout, restaurant reservations, or private access to museums? (Add a half-point for each additional perk checked.)
4. Does anyone in your traveling party have allergies or any other special needs?
5. Is anyone in your traveling party unvaccinated?
6. Are you going to a location where you don't speak the language?
7. Do you plan to go to locations where internet or phone service is spotty?
8. Are you traveling with a large group?
9. Do you prefer a cultural travel experience over a resort-focused vacation?
10. Is this a last-minute trip?

0–2: YOU CAN DO THIS
Last-minute flight and hotel deals are available at Expedia and other booking sites. But beware of complex cancellation policies: If something goes awry, you could have a tough time reaching a human to assist you.

3–6: FIND A PRO
But don't feel the need to overspend. A generalist who's part of a major travel consortium (Virtuoso Ltd., for example) can get upgrades at hotels, keep you abreast of any changing Covid rules, and come to the rescue in case of complications.

7+: GET A SPECIALIST
Destination-based trip planners, such as those travel expert Wendy Perrin has vetted for her Wow List, are exceptionally well connected and can open doors to VIP experiences (behind-the-scenes access to the Louvre, for example) and be available 24/7.

Seated Bliss

Whether you prefer spalike massage experiences or an airbag for your knees, the competition among luxury automakers has become a race for the bottoms. Here are the most important car seats of 2021

By Hannah Elliott

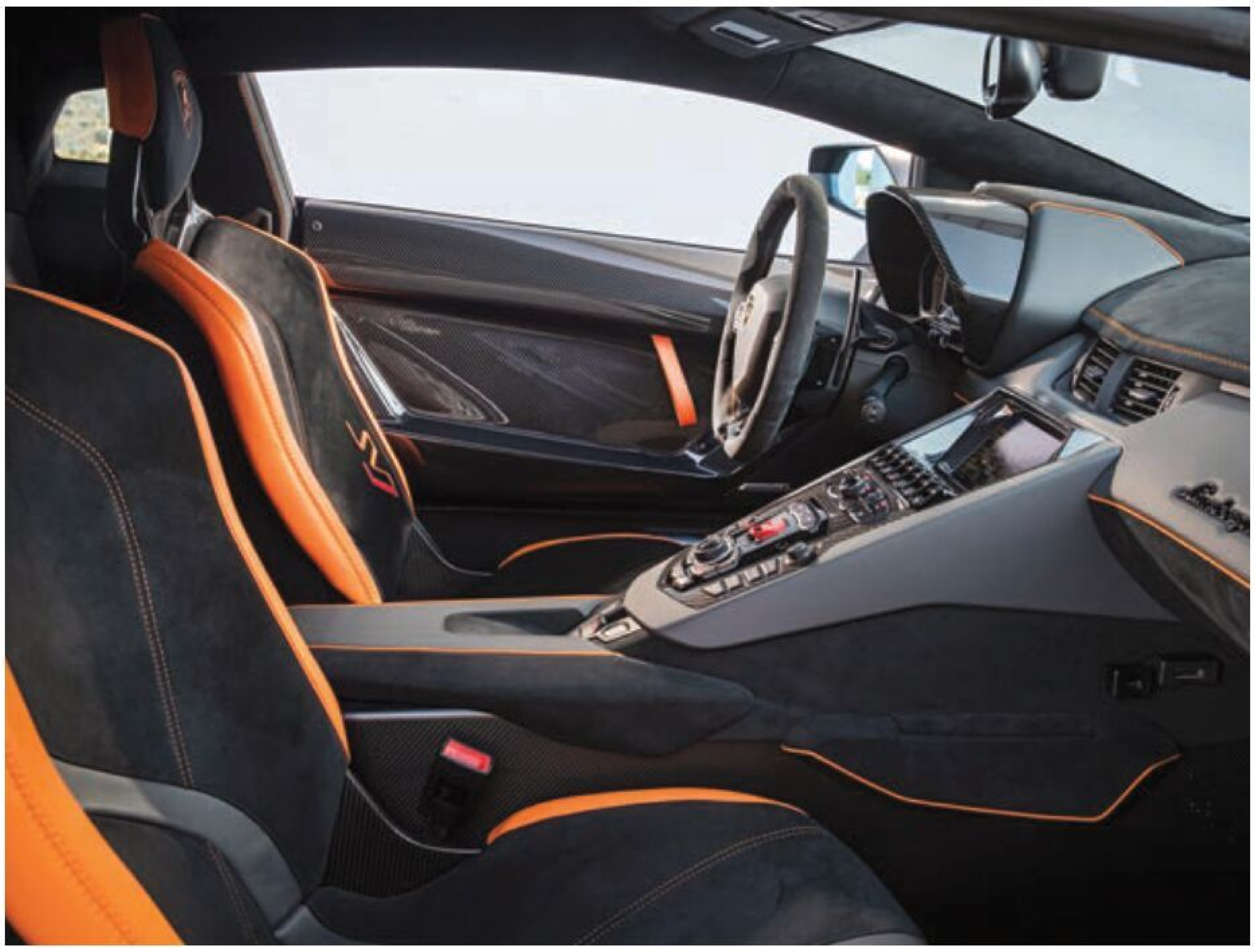
2021 Mercedes-Benz S580

TECHNOLOGY The new seats' mechanical air bladders are closer to the surface than in prior years, allowing for better contact from the 10 massage programs. The car also features the world's first series production rear-seat airbag.
COMFORT The pillow inserts on the front- and rear-seat headrests support your head with the care (and warmth!) of a masseuse.
MATERIALS Quilted leathers in the new S-Class are as soft and stylish as a high-end handbag.
BONUS Mercedes's famous "Energizing Comfort" program offers refresh, vitality, warmth, joy, and comfort settings that adjust lighting, screen displays, sound, and seat inputs such as temperature and massage strength. It's so effective that the car feels like it transforms into a day spa on four wheels.
MSRP *$116,300*

2022 Rolls-Royce Phantom Tempus

TECHNOLOGY Along each door, fiber-optic lighting peeps through tiny perforations to form swirling, twisting patterns that complement Rolls-Royce's famous starlight ceilings.
COMFORT In the extended wheelbase Tempus, the rear offers fully elevated footrests and suede pillows. All four seats have massage capability.
MATERIALS Coverings are stitched by hand and set above deep-pile lambswool carpeting. The wood paneling across the back of the front seats was inspired by the Eames lounge chair.
BONUS A Champagne cooler with room for two bottles and holders for two crystal flutes comes standard between the rear seats. Buyers can also commission seating choices better suited to their requirements, including the more intimate lounge seat and the newly introduced sleeping seat.
MSRP *$500,000 (est.)*

COURTESY COMPANIES (5)



2021 Lamborghini Aventador SVJ

TECHNOLOGY The two seats in this track-ready racer are kept to the bare minimum to ensure optimal handling. There aren't any electronic adjustments—don't expect to see any seat heaters here—other than for support.
COMFORT Bucket-style seats, inspired by fighter jets, are tightly padded with tall sides to keep you in place as you race around those hairpin turns. Their strict lines hug your hips and shoulders, keeping you firmly upright and alert without preventing you from moving your head, elbows, and arms.
MATERIALS Covered in suede-like Alcantara and leather, the seats are compatible with five-point racing harnesses.
BONUS Lamborghini offers hundreds of options for bright contrast stitching, strips of colored trim, and bold tones across the bottom, sides, and back of the seat.
MSRP *$517,700*

Koenigsegg Gemera

TECHNOLOGY In the first 2+2 seating arrangement in an electric hypercar, the rear seats are set slightly higher than the front to ensure clear sightlines and maximum space.
COMFORT The front seats are four-way electrically adjustable. You get into the front and rear via a single large, vertically opening door on each side of the car. There's enough room to fit four large adults comfortably—plus carry-on luggage.
MATERIALS The bucket-style seats are made with integrated memory foam for ideal support along the full length of the spine.
BONUS There are no B-pillars here, so the Gemera's cabin is unobstructed for front and rear passengers. The eight cup holders offer both hot and cold temperatures, while front and rear infotainment displays, wireless chargers, and four reading lights add to the creature comforts.
MSRP *$1.7 million*

2021 Volvo XC90

TECHNOLOGY Thanks to their high-grade steel frames, each seat is capable of reducing vertical forces by a third on the occupants. Passengers in the second and third rows also have protective inflatable curtains integrated in the roof. There's even a knee airbag on the driver's side.
COMFORT By far the most affordable option on this list, the XC90 still has heated, ventilated, and 10-point massaging front seats.
MATERIALS Volvo has long pioneered sustainable and nonleather seating technologies. Its tailored wool blend, a material made from real wool and recycled polyester, is a no-cost option on the XC90 Inscription model.
BONUS "Room Transformation" technology developed with the Swedish software specialist Dirac Research re-creates the acoustics of a specific room—like a concert hall or studio—for each seat.
MSRP *$49,000*

The Salinger Dilemma

How do you put a price on the sound of an author's voice?

By Brin-Jonathan Butler

On June 13, 1980, Betty Eppes got the interview of a lifetime. The 40-year-old reporter for the *Baton Rouge Advocate* had just completed treatment for breast cancer and returned to the newsroom determined to do "something that I thought was significant," she told me from her current home in Pearl, Miss.

So she talked to her editor and made a list of the people she believed to be the most difficult in the world to interview: Ugandan President Idi Amin, Thomas Pynchon, and J.D. Salinger. She quickly landed on *The Catcher in the Rye* author, who hadn't published anything since 1965 and had given his last interview in 1953.

Eppes flew to Boston, rented a sky-blue Pinto, and drove into the Green Mountains in search of the recluse at his home in Cornish, N.H. She got his phone number from a local grocer and then, on the recommendation of Salinger's housekeeper, gave a note to the clerk at the Windsor post office where he received his mail.

In a letter to him, she described herself as not a journalist but a novelist—tall, with green eyes and red-gold hair—who had no intention of "usurping any of your privacy." She said there were no phones in the hotel where she was staying and suggested they meet at 9:30 the next morning at Cummins Corner, a series of shops containing a grocery, liquor store, barber shop, and ice cream parlor that Salinger was known to frequent.

What she didn't tell Salinger was that she also had a Sony recorder stuffed down the sleeve of her blouse, clutched under her armpit.

Lo and behold, the 61-year-old Salinger showed up the next morning wearing jeans, sneakers, and a shirt jacket. Eppes turned on the recorder and asked him if Holden Caulfield, his most famous character, was ever going to grow up. "It's all in the book," he said. She also asked about Salinger's experience in World War II, whether he was still writing, why he refused to publish any longer, and whether he believed in the American dream. "My own version of it, yes," he said.

In all, Eppes recorded 27 minutes' worth of conversation with Salinger before some of the locals came over and tried to shake his hand. Angry, he stormed off back home. "The whole thing almost sounds like a Salinger story," George Plimpton told the *New York Times* in 1981, not long after publishing a version of Eppes's interview in the *Paris Review* titled "What I Did Last Summer."

After playing five minutes of the tape to her bosses at the *Advocate* to establish its authenticity, she placed it in the safety deposit box where it's remained ever since. According to Paul Alexander, author of *Salinger: A Biography*, Eppes's tape is the only known recording of his voice.

Recordings of authors' voices have an odd history. We have their words, but we know next to nothing about what past greats actually sounded like before, say, 1950. The only known tape of Oscar Wilde's voice was debunked as fake in 2000. What George Orwell sounded like remains a mystery, even though he regularly worked for BBC Radio. Only two brief recordings of F. Scott Fitzgerald, reading *Ode to a Nightingale* and a passage from *Othello*, exist. Thomas Edison may have recorded both Alfred Lord Tennyson and Walt Whitman on a wax cylinder in 1889 and 1890, but its authenticity remains in dispute.

Over the years, Eppes has had several opportunities to sell the tape. The most lucrative, she says, came after her *Paris Review* article, from someone she'll only call "a wealthy, interested foreign party," who offered $500,000. The closest she came after that was when the director and writer Shane Salerno wanted to use it for his 2013 documentary, *Salinger*.

The author's memorabilia has proved to be a profitable market: In 1999 author Joyce Maynard sold 14 letters Salinger wrote to the software entrepreneur Peter Norton for $156,500; five years later, 41 letters Salinger signed sold at Christie's for $185,000.

But Eppes has refused to sell the tape out of guilt over how she went about getting it. "In the years after I did that, I came to regret it, terribly, terribly. I have spent many, many, many, many hours a day thinking about this. And, of course, it means an awful lot to me," she says. "Sometimes I wake up in the middle of the night and I think, 'I stole that. I stole his voice.' You know that's like stealing somebody's soul, right? That tape is not mine to give or sell."

Not long after our conversation, Eppes called me to let me know she'd updated her will. The tape now will be placed, along with her body, in the crematorium. Ⓑ

ILLUSTRATION BY CLAIRE MERCHLINSKY

Quiet On the Outside

Headphones that pair with a TV can insulate sleeping family members from your latest binge. *Photograph by Janelle Jones*

It's 4:30 a.m., and European football is on. Or maybe it's the diving semifinals broadcast live from the Tokyo Olympics. Either way, the screen on your phone or laptop is just too small: You need a TV. But keeping the sound of the big screen to yourself—especially as a courtesy to a sleeping partner—can be surprisingly challenging. Most manufacturers see TV headsets as an unsexy category that's not worth the effort, and the sound provided through built-in solutions like basic Bluetooth can lag behind the picture. The $280 RS 175-U from Sennheiser Electronic Corp. is still the standard-bearer: It operates with no discernible delay, even through walls, so you won't miss the action when you head to the kitchen for another coffee.

THE COMPETITION

• The spooky-sounding "out-of-head localization" technology JVC employs in its XP-EXT1 headphones ($1,000) can render TV audio as a full-on home theater.

• Koss Corp.'s $100 wireless pair use infrared transmission, much like your TV's remote control. The only downside: The signal depends on a line-of-sight connection.

• To use an existing set of Bluetooth earphones, seek out Avantree's $80 Oasis Plus transmitter. Its aptX Low Latency codec from Qualcomm Inc. keeps what you see and hear in sync.

THE CASE

As with most headphones from 76-year-old Sennheiser (whose consumer-electronics division was just sold to Switzerland's Sonova Holding AG), the sound of the RS 175-U is meticulously accurate, maybe even a little austere. On the headphones themselves are buttons for a subtly energizing bass boost and an ersatz surround sound that adds a little echoing spaciousness. Setup is straightforward: A transmitter base with a charging dock at the top plugs into the audio output on your screen. If there happens to be a second night owl in your nest, you can pair another set of headphones to the base. And with a stated battery life of 18 hours, it's designed to see you comfortably through a whole marathon, whether it's of the Olympic or Marvel variety. *$280; sennheiser.com*

China Doesn't Care How Much Money You Lose

By Shuli Ren

Whether you're a bond or stock investor, chances are you've been burned by the Chinese government this year. For example, just days after DiDi Global Inc. raised $4.4 billion in a New York initial public offering, Beijing started an investigation over the ride-hailing giant's data security practices. DiDi has lost about $29 billion in market value in less than a month.

On July 23 there were official reports that Beijing was planning to force companies that offer school tutoring to turn into nonprofits. Gaotu Techedu, New Oriental Education & Technology Group, and TAL Education Group, some of the largest Chinese education companies traded in the U.S., lost more than half their value. On July 26, food delivery super-app Meituan learned of the Chinese government's resolve to protect gig workers and promptly lost about $30 billion of market value.

Does Beijing not care how much money foreign investors have lost? Does the government really want to close China Inc.'s access to the deep pool of global capital? The short answer is, no, the government doesn't care. But it's not that simple. Beijing is pursuing other goals: reining in the power of its tech titans and boosting startups; protecting social equality; and making sure the cost of living in cities isn't so high that families aren't willing to have children. And Beijing is suspicious of companies that are skilled at raising capital overseas—beyond its watchful eye.

There's one practice it's especially concerned about: a variable interest entity (VIE) corporate structure commonly deployed by the hottest unicorns. Often incorporated in the Cayman Islands, these startups raise capital and list their shares offshore. The money raised, in turn, gets pumped into China for business developments.

Sometimes, China might feel it's being hijacked by hot foreign money. For example, Beijing wanted to scale down investment in for-profit education as early as 2018, but venture capital kept pouring in. Now the lucrative bet has been called to a halt.

Or consider geopolitical risks. Because of the VIE structure, in theory, DiDi, incorporated in the Cayman Islands, didn't need Beijing's approval to list in New York. But China's cybersecurity office was concerned enough about data security—such as possible exposures to sensitive government locations—that it suggested DiDi postpone its IPO. DiDi ignored the warning. We all know how it's turning out.

Beijing has made great efforts to instill discipline into its marketplace, and it wants to see more hot unicorns list and raise money on the mainland. Yet they continue favoring New York over Shenzhen, Hong Kong over Shanghai.

So it's not that China is antagonistic toward foreign money. It just wants to admonish those who seek loopholes abroad. And this is the new message: If you're going to invest in China, you'll have to do it through the capital markets it's developing. That won't only strengthen the domestic economy, it will allow Beijing to keep careful track of the money flows. Ⓑ *—Ren is a columnist for Bloomberg Opinion*

ILLUSTRATION BY GEORGE WYLESOL

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