

The cost of a flawed policy is only mounting—for China and the world 22



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Bloomberg Businessweek



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■ COVER TRAIL

How the cover gets made

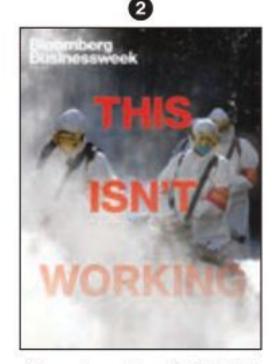


"So this week's story is about China and its Covid Zero policy."

"Xi's really committed to that, huh?"

"You could say that."

"Well, the good thing is that after two years of this, Beijing must have a bunch of new Covidfighting techniques, right? We'll find photos of the latest protocols."

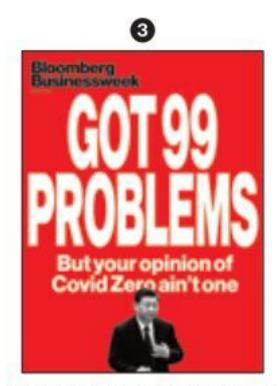


"Looks like 2020."

"It's from, like, last week."

"Xi's got some problems."

"Ah! I've got an idea."



"Wow. I mean, it's not not accurate. Is the tone right, though?"

"Definitely not, but sometimes you have to stop at satire on the way to tragedy. Let's sober this up."



Cover: Alex Plaveski/ EPA-EFE/Shutterstock

What if →

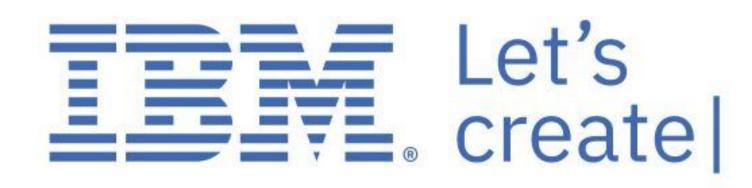


you were a global energy company with operations in Scotland and technologists in India? You and your customers are all on different systems but you need to pull it all together. So you call in IBM and Red Hat to create an open hybrid cloud platform that makes data available anywhere securely. Now your digital transformation is helping find new ways to unlock energy around the world. So that people say...

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Globally, there have been
 512 million Covid-19 cases,

6.2m

people have died, and almost 11.6 billion vaccine doses have been given. China is intensifying its "Zero Covid" strategy as cases surge. In Shanghai, where the government began erecting fences to close people off, residents complained the measures were inhumane and posed serious fire hazards. ▷ 22

• War in Ukraine

- ▶ Russia cut off gas flows to Bulgaria and Poland after they refused to switch their payments to rubles. The EU has rejected paying for imports in the Russian currency, saying it would violate sanctions and strengthen Vladimir Putin.
- ► President Maia Sandu, blaming recent violence in Moldova on Russian-backed factions in the separatist-held enclave of Transnistria, said she would resist attempts to drag Moldova into the war in neighboring Ukraine.
- ▶ On April 27, Trevor Reed, a former U.S. Marine imprisoned in Russia on an assault charge, was swapped for Konstantin Yaroshenko, a Russian pilot jailed in 2011 for conspiring to smuggle cocaine into the U.S.



▲ Children in Kyiv re-create a Soviet monument to friendship between Ukraine and Russia after it was pulled down on April 26.

- ► Russian Foreign Minister Sergei
 Lavrov warned that the conflict could
 lead to nuclear war. "The danger
 is serious, the danger is real, and
 shouldn't be underestimated," he said,
 even as he signaled the Kremlin was
 willing to talk to the U.S. to try to resolve
 the confrontation.
- ► Meanwhile, the invasion, along with China's Covid lockdowns, continues to roil markets. In the first quarter, Norway's \$1.3 trillion sovereign wealth fund, the world's biggest, lost

\$740

Elon Musk and Twitter reached an agreement on April 25 for him to buy the social networking platform for \$44 billion.

As the new owner, Musk has pledged to make Twitter a haven for unfettered speech. But one of its most prominent users, former President Donald Trump, has already said he won't be returning to the platform if his permanent ban is lifted. ▷ 14

Russian tennis star Daniil
 Medvedev has been barred



from participating at Wimbledon. But his chief rival at the

top of the rankings,
Novak Djokovic,
will be allowed to
defend his title. The Serb
had been ejected from the
Australian Open in January
because of his vaccination
status, but Wimbledon's
organizers said they will
allow unvaccinated players
to compete in June.

Archegos
 Capital founder
 Bill Hwang was
 arrested on
 April 27.

Hwang, who was charged with 11 counts, including racketeering conspiracy and securities fraud, is accused of artificially inflating the family office's portfolio from \$1.5 billion to \$35 billion in the runup to its 2021 implosion, which resulted in \$10 billion in losses at banks. Hwang's lawyer said his client was innocent.

• After a 130-page report by a committee of Harvard faculty found the university's presidents and other staff had enslaved more than 70 people in the 17th and 18th centuries, the school vowed to spend

\$100m to research and atone for its extensive past ties with slavery.

BLOOMBERG OPINION

Cancel Culture Is Bipartisan. Let's Fight It

By Michael R. Bloomberg

In our ongoing debate over "self-evident truths," American history has always been contested ground. On every issue, each side has claimed to be the true voice of America's founding ideals. But in recent years, the debate has taken a turn. More and more, there are people who look at U.S. leaders from earlier generations and see flaws that should disqualify their statues from places of honor. To continue to honor them, these critics say, is to condone racism. Or

sexism. Or homophobia. And they believe we should cleanse our public spaces of them.

On the other side, there are people who look at the same leaders and see virtues that should shield them from criticism. To call attention to their flaws, they say, is to hate America, and they are trying to cleanse schools of books that might make students feel uncomfortable, if they were to learn about these flaws and other dark chapters in our history.

Each side scorns the other with righteous intolerance. But I think most of us would agree that there is a reasonable middle ground. The fact is: We can honor a person's good deeds and be critical of their failings. It's not one or the other. Doing both is a matter of national survival—because a nation that shares no heroes will not long be a nation. And a democracy that demands blind devotion to heroes will not long be a democracy.

We are not a perfect country. But every time we face up to our mistakes and failures, we grow stronger—because patriotism doesn't require perfection from the past. It requires honesty in the present.

Each generation is called to refresh the story of America. Not to rewrite history, but to revisit it; and recast it; and reclaim it; and pass it down to the next generation, by teaching about our civic foundations—cracks and all—so that they can continue the work of building a more perfect union.

Sadly, there is growing evidence that we are failing to meet that responsibility—and we can see the failure on both sides of the political aisle. And again, the problem is the same: righteous intolerance.

Today, there are militant groups that hark back to the American Revolution, with names like the "Oath Keepers" and "Three Percenters." They see themselves as the heirs of the Sons of Liberty, even though their antigovernment and often racist ideologies have far more in common with the old Confederates.

There will always be extremists in politics, but before Jan. 6, 2021, we had never seen a mob storm the Capitol to block the peaceful transfer of power after an election. What happened in the days and months that followed was no less disturbing. Far too many people in the former president's party downplayed the attack, as if it were just another peaceful protest march. Although there have been important exceptions to that in Washington, polls show that the majority of Republicans believe not only that the 2020 election was stolen, but also that the members of the mob who stormed the Capitol were actually protecting democracy—rather than attempting to overthrow it.

My fellow citizens, that is a five-alarm fire, and it is burning with the kind of fuel that can consume a democracy: anger, distrust, and conspiracy. When righteous intolerance is expressed in apocalyptic terms, like "the end of liberty" and "the end of America," it can become a justification for doing anything, no matter how extreme or unlawful. Unless we do more to extinguish this raging fire, the flames will spread. Instead of the torch of liberty that shines from New York Harbor, we will again see the torches of mobs, just as we did in Charlottesville five years ago. In that same city of Charlottesville, we can also see how the righteous intolerance threatening our democracy is a bipartisan problem.

Former Vice President Mike Pence recently gave a speech at the University of Virginia over the objections of the student newspaper, which argued that he shouldn't be allowed to speak. Now, it won't come as a surprise to you that the former vice president and I don't agree on just about anything. And that is exactly why it's my obligation to defend his right to speak. Because when we don't uphold the rights of our political opponents, we shouldn't be surprised when they fail to uphold ours.

To its credit, the university's leadership stood up and ensured that the lecture could go on. But the problem of intolerance for free expression and the civil exchange of ideas has gotten much worse since 2014, when I gave a commencement speech on the topic at Harvard University. And it has spread far beyond college campuses.

Today, in addition to academics and students, people of all walks of life are increasingly afraid to speak their minds. They fear they might say something that could be taken the wrong way—leading them to be publicly humiliated, socially ostracized, and even fired from their jobs. This is another form of mob rule. Although the danger isn't of the same magnitude as a mob attacking the Capitol to overturn an election, it is born of the same spirit of righteous intolerance.

In both cases, the populist wings of our parties are taking a page from the Salem witch trials. They are convinced they know what justice requires based on their own morally absolute views—heretics be damned. Sadly, many elected officials in both parties quietly go along with them to preserve their political careers.

Although neither side wants to admit it, the challenges to democracy from the right and left are closely related. Because the spirit of righteous intolerance that silences speakers is the same spirit that bans books, and even bans certain words and topics. The impulse to nullify other people's speech is the same impulse that led people to try to nullify an election. Because when people can cancel opinions, they begin to think they can cancel votes, too.

In all its forms, left and right, "cancel culture" is a cancer on our democracy—and all of us in both parties need to stand up and fight it.

To be able to stand up. And be heard. And be counted. And be free to pursue our ambitions and express our beliefs. That has always been America's fight, and it's why those "self-evident truths" have changed so much since 1776. Because every generation has fought to stand up—to expand the definition of equality and liberty. And time and again, we have supported other nations in their fights to stand up, including the courageous people of Ukraine, who have inspired the world.

Our commitment to the good fight—the fight against tyranny and intolerance in all their forms—is why America has always been the place where people come when they vote with their feet.

In 1967, the Rev. Martin Luther King Jr. said, "We still need some Paul Revere of conscience to alert every hamlet and every village of America that revolution is still at hand." It was true then. It is true today. And it will be true tomorrow.

And just as we need Paul Reveres, we need leaders who hang lanterns high for all to see, and citizens who rouse from their slumbers when liberty is threatened, and young people who see that the next chapter in the story of America is theirs to write as they carry on the tradition of debating those "self-evident truths," and putting their faith in their fellow citizens, even when they passionately disagree, because that is the essence of democracy, and the obligation of patriotism. **3** *Adapted from a speech delivered at the Old North Church in Boston on April 13.*

REMARKS

We Can't Beat Covid With Faulty Data

- Measurements of illnesses and vaccinations haven't kept up with the changing nature of the pandemic
- By Drew Armstrong

In early January the state of Massachusetts added a new set of figures to its Covid-19 dashboard. Two years into the pandemic, it began to draw a distinction between people who were hospitalized because of the virus and people who were there for other reasons but also happened to be infected.

Nothing changed inside the hospitals' walls—a Covidpositive patient there because of a car crash still had to be isolated. But the effect on the state's numbers was dramatic. It cut them in half.

While case numbers have plunged and the death tally is slowing, the U.S. will in the next few weeks pass 1 million Covid fatalities, and more than half the country has been infected. There will almost certainly be more waves of illness, either from new variants or as a seasonal event. When those waves come, they may be less deadly, thanks to a wall of immunity from vaccinations and prior infections. And because of that, political leaders, health experts, and regular people across the country are adopting new attitudes toward risk and what costs they're willing to pay to stop transmission.

But they're making those choices with flawed, or at least outdated, information, thanks in part to the U.S.'s fractured public-health system. That deficit has made it harder to assess the consequences of the pandemic—and what we're willing to do to avoid them—and helped create a vacuum that's been filled by fatigue and distrust.

Even after billions of dollars in spending and a million dead, the way we measure the impact of the virus hasn't improved much in the past two years. The question of how many people are hospitalized is crucial—new thresholds for public-health rules from the Centers for Disease Control and Prevention depend on it. If the virus does return in another wave, it will be essential to know how much vulnerability exists in communities—but U.S. data systems make that impossible. And how will we spot that wave when more people either stop testing or shift to at-home tests that don't get reported? The pandemic has changed. The way the country measures it needs to change, too.

Throughout the pandemic, tallying hospitalizations has been one of the best ways of measuring the virus's consequences. Case numbers undercount the number of sick and lump in the barely symptomatic with the gravely ill. Deaths are a final reckoning but come weeks or even months too late to have any predictive value. Hospitalizations tally the strain on

the health system and the financial costs, as well as the impact on those who spend weeks in an inpatient bed.

In the first year and a half of the pandemic, hospitalizations were a simple measure: Almost everybody infected with Covid who ended up in the hospital during the surges was there because of the virus. But during the wave of omicron-variant-driven disease that started late last year, something changed: About half the people with Covid who entered the hospital were there for something else.

Only a handful of researchers and public-health departments have looked at the issue. A team based at Harvard Medical School examined medical records to separate patients hospitalized "with" Covid from those hospitalized "for" Covid. A team at the University of California at San Francisco has done the same. And New York and Massachusetts this year began breaking out "with" vs. "for" hospitalizations in their data. All found the same thing: As Covid became more widespread and more people gained protection from vaccines or prior illness, the number of people admitted "with" Covid but not "for" Covid made up a substantial share of the more than 20,000 people a day the CDC was counting as new Covid inpatients.

"As we started looking into this, we realized this has huge implications in public-health reporting," says Jeffrey Klann, an assistant professor at Harvard Medical School, who conducted one of the studies. It means the country has failed to count the real cost of Covid as the pandemic has evolved. And because the CDC and many states use hospitalizations as a core measure of the risk level of the pandemic, they and the public have been using far-too-blunt data as well.

A Bloomberg review of state Covid data dashboards found that although Massachusetts, New Hampshire, and New York post the data, only a handful of other states have even done one-time surveys.

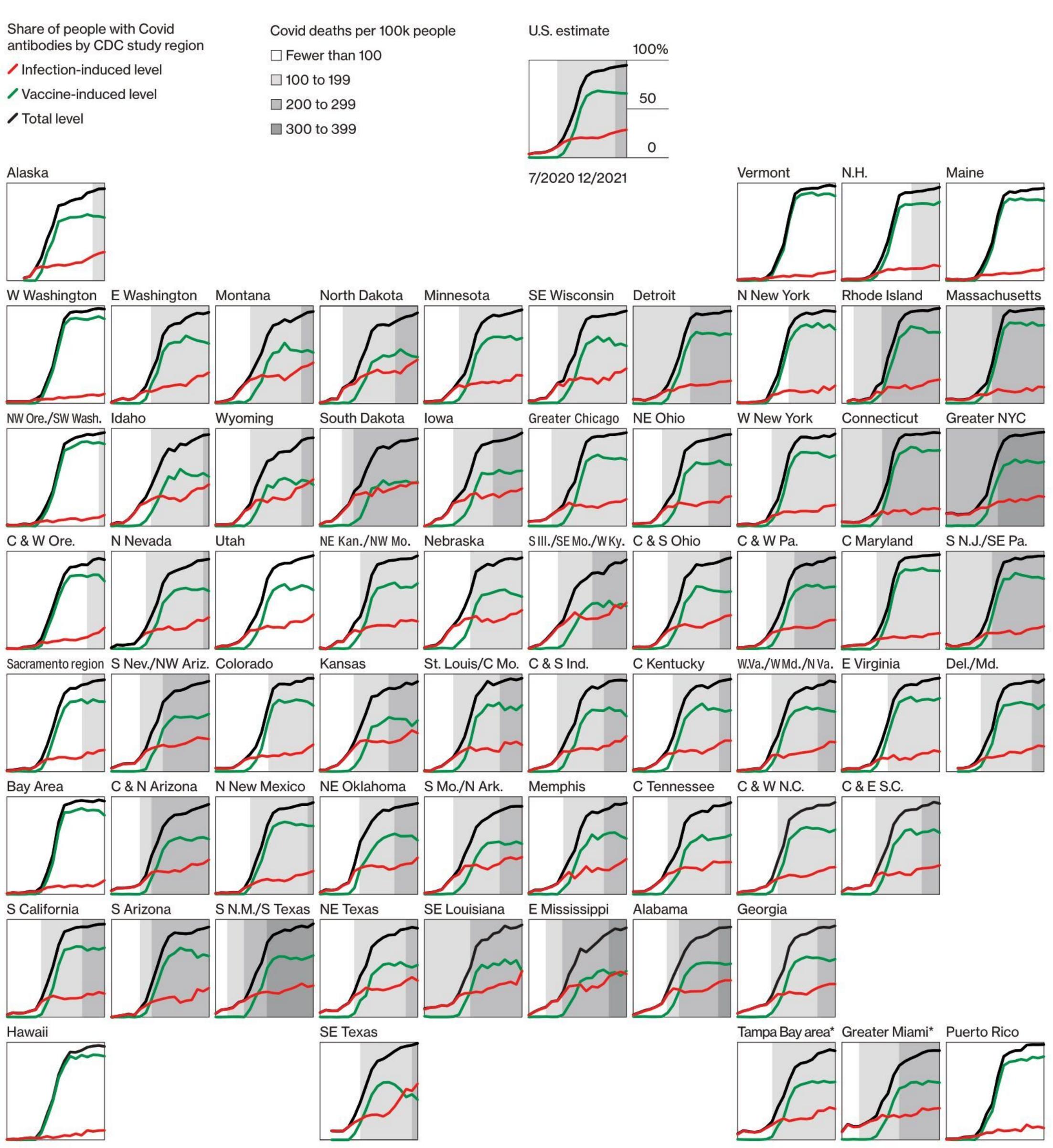
How did this happen? How are only a few states regularly tracking what seems like a crucial distinction in consequences, with vast implications for how society judges risk?

One reason may be that the question has been poisoned by the politics that have engulfed seemingly every aspect of the pandemic in the U.S. The "with Covid" vs. "for Covid" distinction has been used by skeptics pushing the idea that the pandemic was never as severe as authorities said it was.

Klann got sucked into that undercurrent when his group published its work. "People were talking about how we ▶

Widespread Protection, at Very Different Costs

The Pacific Northwest avoided the worst of Covid-19 primarily with the help of vaccines. Some Southern states have comparable levels of antibody protection, but only after experiencing large numbers of infections and deaths.



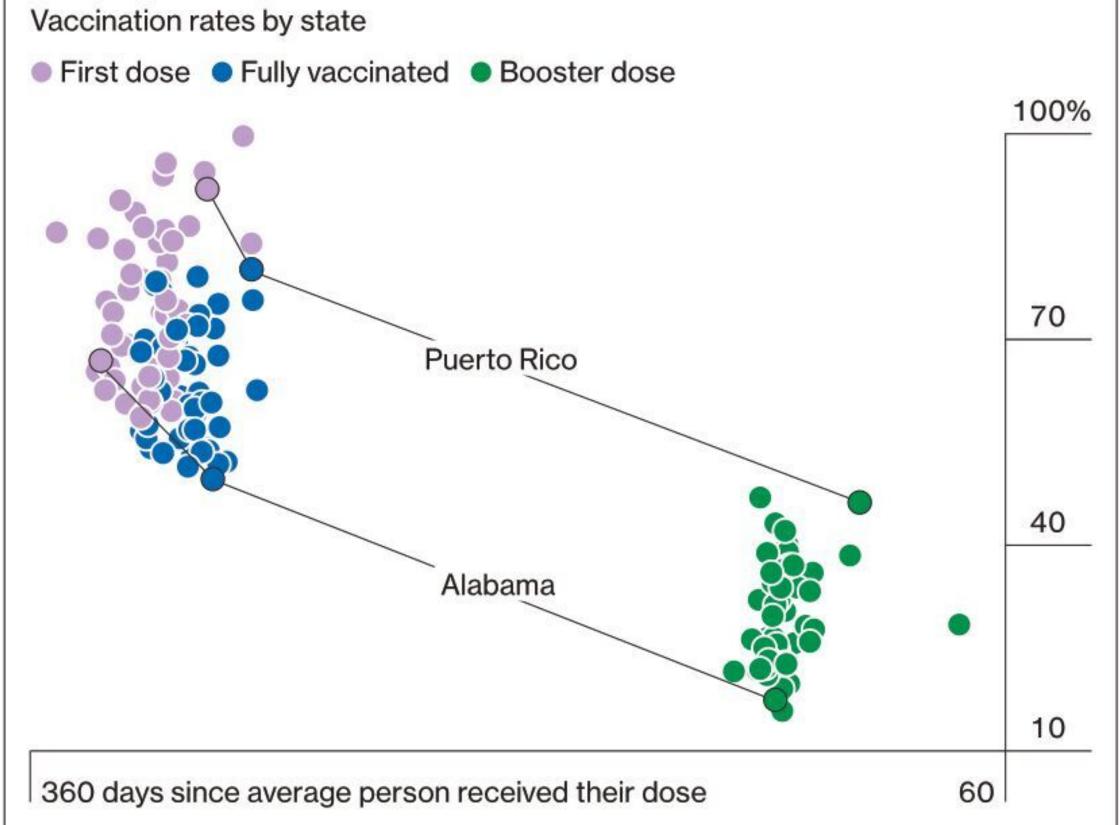
■ must be anti-vaxxers because we're trying to minimize the
problem of Covid, or, from the other perspective, that Covid
is not really a problem and we're spending too much money
on it," he says. "Which is not what we're trying to show at all."

Almost every public-health decision is a trade-off. A work-from-home order will reduce transmission but might crush the economy. Closing nursing homes to visitors might save people from dying of Covid but will cut them off from family members they depend on. How many hospitalizations are enough that we should put restrictions like those back in place? What price are we willing to pay to not have to wear masks at the airport? What if there's another variant? Or, in the future, another pandemic? If you're going to make those choices, wouldn't it be nice to have better data?

There's little sign that the country is ready to do better. The CDC's new "Community Level" guidelines, which are the basis for recommending or scaling back measures like mask wearing, draw no data distinction between a hospitalization "with" or "for" Covid. CDC Director Rochelle Walensky, in a news conference on Feb. 25, said the agency had decided not to ask hospitals for those details. Most places can't or won't report them, and Covid-positive patients put the same infection-control burden on hospitals, she said. (They do not, however, put the same strain on limited resources such as ICU beds, ventilators, and staff.) Eventually, Walensky said, she expects U.S. hospitals will stop testing every patient for Covid. "When that happens, we won't actually be able to differentiate," she said.

That may be true, but it also fits a pattern at the agency, which has sometimes backed away from data collection that would've provided a clearer view. A few months into the vaccination effort, in 2021, the CDC decided to stop counting mild vaccine breakthrough infections, describing them as expected. It was a decision that left the agency unable to see clearly when vaccine efficacy began to fade. (The CDC is taking steps to do better: It's pushed for more authority to collect local data, and

Year-Old Vaccine Protection Wanes



DATA: CDC, U.S. CENSUS BUREAU (2020 DECENNIAL CENSUS)

on April 19 it launched its Center for Forecasting and Outbreak Analytics, promising that it would help modernize efforts to better understand and predict infectious diseases.)

Other countries do collect "with" vs. "for" hospital data—the U.K. publishes regular updates, for example. But what other countries have done only highlights the U.S.'s deficiency: Lacking a national health records system, time and again the U.S. has struggled to amass data—whether for hospitalizations, testing, vaccine efficacy, or other metrics—that could have provided a better picture of the pandemic.

This spring and summer the U.S. is likely to go through another viral lull, accompanied by the relaxation of public-health rules across the country. But Covid is raging in China and continues to transmit in the U.S. and everywhere else around the globe—it's far from done. There will likely be another surge or another variant, perhaps one that's better at evading our vaccines. When that happens, will less, worse data really be the answer?

The U.S. is flying blind in at least one other respect. Blood surveys show that more than 90% of Americans have some level of immune marker of protection. That includes the 66% of the population that's been fully vaccinated (though fewer than half of those people have gotten a booster). Close to 60% of the country has been infected with SARS-CoV-2, according to the CDC's surveys. Some people have been infected but not vaccinated, some vaccinated but not infected, some both, and some never exposed at all. All of those combinations carry different levels of protection.

And although the U.S. has relatively detailed vaccination records, there's far less data on the infected, certainly not at the individual or community level. That makes it hard to tell where protection is the strongest, where it's fading, and where there are already holes.

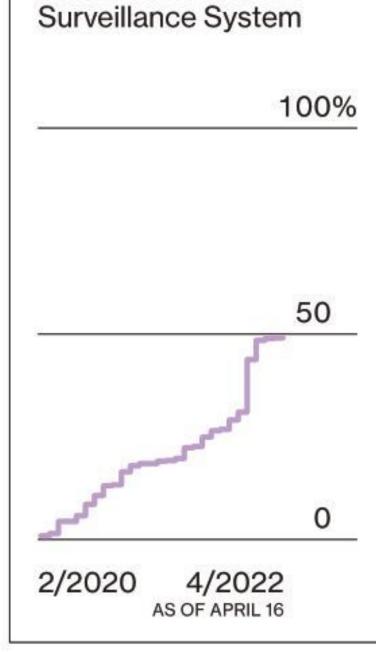
So what happens later this year if a new wave of Covid hits the U.S. and immune protection has waned? Which parts of the U.S. will be most vulnerable? Which will be most protected? "We don't know what our current supply of immunity is," says Bryan Lewis, a University of Virginia researcher who's tracked the virus and modeled how it might act. "It's really important to highlight this deficit." He compares each community to a sandcastle as the tide is changing. "Think about waves hitting a beach. How high up is your sandcastle?"

While U.S. Covid testing has presented challenges all along, it's entering a new, more complex phase. Funding for test reimbursement has expired, though at-home tests are plentiful. Many cases are mild, meaning a smaller proportion of cases show up at hospitals or other "official" points of care where they might be tallied. Daily case counts—always unreliable—have become even more so. Combine waning surveillance with fading immunity, and what comes out is growing vulnerability but fewer ways to spot the danger.

Some U.S. states and cities are trying to change that, with new surveillance methods that can spot infections without having to depend on that most unreliable of data sources: people. They've built networks that sample sewage for the virus. People with Covid shed the virus in their stool, often days before they test positive, and sampling wastewater can spot a wave before it shows up in tests.

"The advantage wastewater surveillance has is that it's not dependent on human behavior, beyond using the bathroom," says Amy Kirby, the head of the CDC's wastewater program. "As the dynamics of the pandemic change, it remains an accurate measure."

The CDC also plans to rely more on syndrome surveillance—tracking visits to hospitals and clinics for things that look like Covid. It's been done before: In early March 2020 there was little to no



Share of U.S.

population in counties

covered by the CDC's

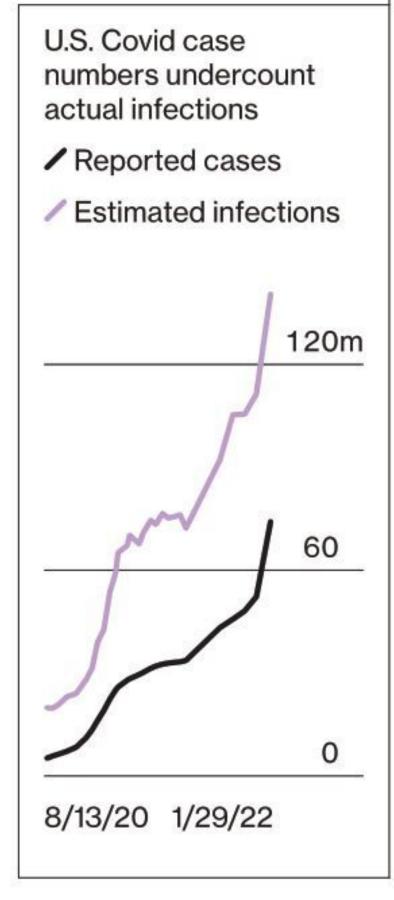
National Wastewater

testing and few other ways to broadly identify Covid cases. But a U.S. public-health network that monitors emergency rooms and clinics for people with flulike illness picked up a surge in patients who had similar symptoms but whose lab samples hadn't tested positive for flu.

If you put it all together, what you start to see is a bigger change. Our response to Covid is evolving—or being pushed from a public-health problem to an individual one, from a shared risk to a personal one. For many people, a combination of vaccination, more widely available therapies, and prior infection means their risk has fallen substantially from where it was a year ago. But not for everyone. The country is still recording more than 300 deaths a day. Many of the most vulnerable are the same people who were at risk at the start of the pandemic: the old, the frail, those with underlying medical conditions. "This question of 'we're all in this together' vs. 'everybody is on their own' is the debate we're going through right now," says Jay Varma, who helped lead New York City's Covid response. He's now a professor at Weill Cornell Medicine, directing its new Center for Pandemic Prevention and Response.

Maybe that transition is inevitable. The flip side of being the land of opportunity has long been that America is also a land of inequality. And when we can't agree on a common set of facts because we haven't created the data to understand where we are, then individuality starts to win out. Why should somebody sacrifice more when they can't even agree what they're sacrificing for?

"People who are very vocal from the public-health community and historically marginalized communities are saying, 'You're leaving us behind and our lives are not important,' "Varma says. "And you have people on the other side saying, 'Ah, you're stopping contact tracing, it was never useful.' Actually,



it was really useful for a while! It saved thousands of lives."

Making those transitions means giving people who are at higher risk the tools to protect themselves, Varma says. "You have to move to an individual approach, but we have to make that handover the way it should be," he says.

Bill Hanage, an associate professor of epidemiology at the Harvard T.H. Chan School of Public Health, is even more forceful. "When you say vulnerable people have the tools, do they? Do they really?" he says. "If you struggle with access to health care, how are you going to get your rapid test? If you do get a rapid test, how are you going to turn it into a prescription?"

The Biden administration has launched a "test to treat" program that would allow people with Covid to quickly get access to antiviral pills. At the same time, there's still a lack of free access to masks, emergency money for vaccines, drugs, and tests has run out, and the government has purchased only a portion of the pills it might need in a new surge.

Hanage, who's from the U.K., has dreams about the pan-

demic. When things were going badly, he dreamed he'd taken off his mask to step outside and when he began to go back indoors he found himself staring at a huge pile of masks, unable to tell which was his. As the pandemic got better, he dreamed he was on the Tube in London, riding along as things used to be.

Amid a sea of Covid metrics, each with its own flaws, Hanage's dreams may seem just as useful as any other method in understanding where the virus is heading and what do to about it. The reality is, the response to Covid has sometimes been influenced as much by feeling as fact. It's come down to values, and the country has never agreed on what those values are—not before the

250 2/2020 4/2022

Covid patients at the

Hospitalized with

Covid

at San Francisco

University of California

Hospitalized for Covid

pandemic, not after it.

Would better data create an easier conversation about values? Maybe. But look too deeply and what reflects back isn't a new, perfect view of Covid; it's the unfairness of the U.S. health-care system, which was endemic long before the virus. Death data turns into people who didn't get a cancer screening because hospitals were closed. Low vaccination rates kaleidoscope into the one-fifth of Americans who don't have a primary care physician to talk with about their hesitation. Hospital capacity levels reveal not only how many Covid patients were sick but also how deeply the health-care workforce has been broken.

In that imperfect view, the endemic phase of Covid becomes one more weight tilting the scales against the people who've always lost out in health care, either because of bad luck, bad genes, the ravages of time or poverty or circumstance—all the things that make us sicker and eventually pull us away from this world, some sooner than others. **6** — With Andre Tartar, Madison Muller, Robert Langreth, and John Lauerman

DUS NES

Edited by David Rocks

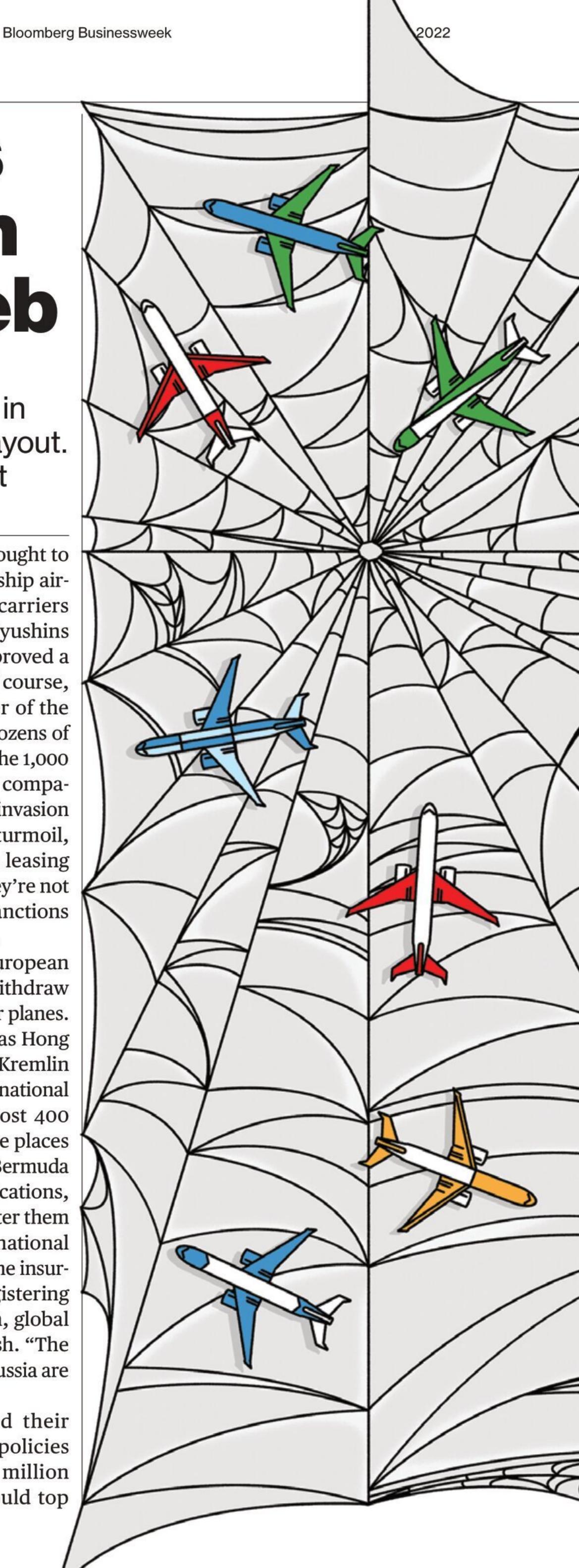
The Jets Caught in Putin's Web

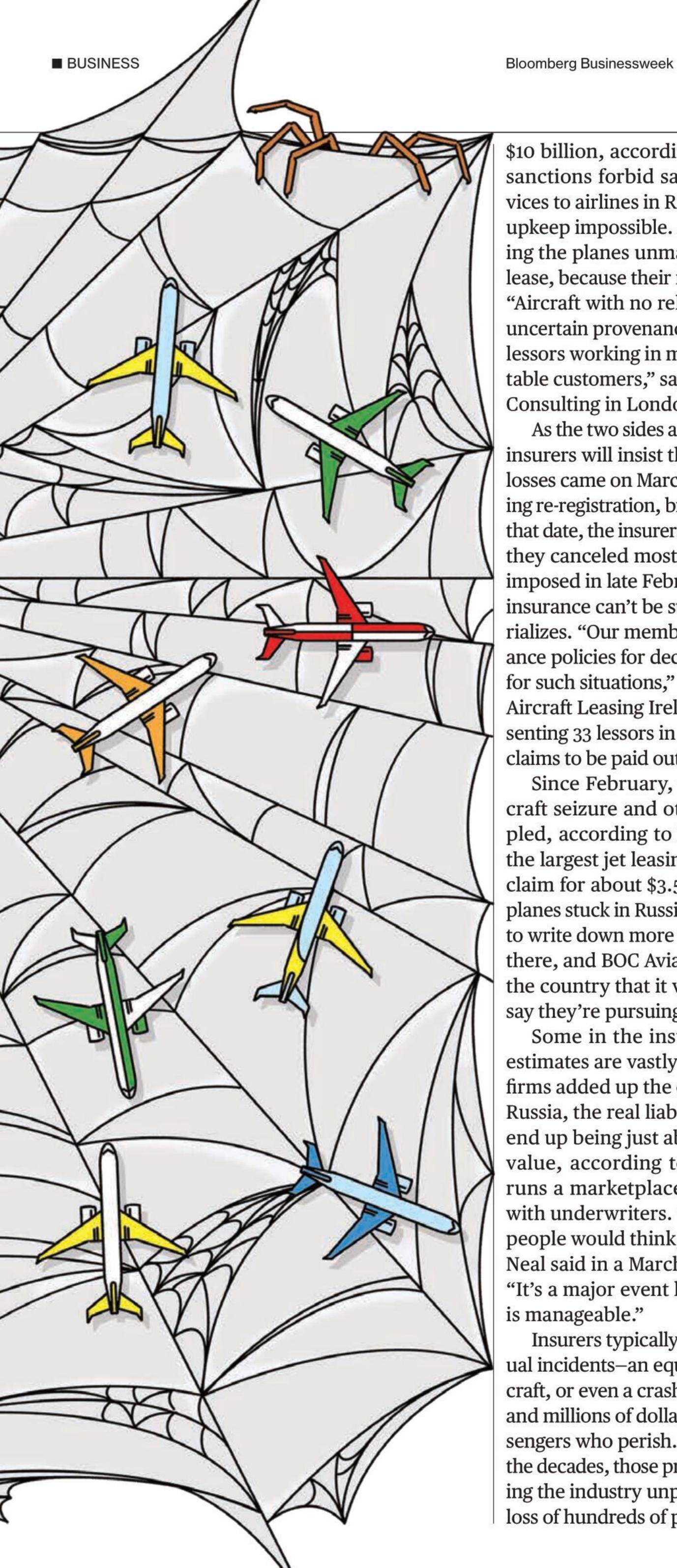
Owners of planes stuck in Russia want a \$10 billion payout. Insurers say not so fast

Two decades ago, as a resurgent Russia sought to reclaim its place on the global stage, flagship airline Aeroflot PJSC and various startup carriers accelerated their shift from Soviet-era Ilyushins and Tupolevs to modern jetliners. That proved a bounty for Airbus SE and Boeing Co., of course, but it also enriched a less exalted corner of the aviation business: aircraft leasing firms. Dozens of lessors jumped in, and today about half of the 1,000 planes in the Russian fleet are owned by companies outside the country. Vladimir Putin's invasion of Ukraine has thrown that market into turmoil, setting up a high-stakes tussle between leasing companies and their insurers, who say they're not obligated to pay many claims because sanctions required them to drop coverage in Russia.

Days after the fighting started, the European Union, seeking to pressure Moscow to withdraw its troops, ordered lessors to take back their planes. About 30 jets were seized in places such as Hong Kong, Istanbul, and Mexico City. But the Kremlin quickly imposed its own ban on most international flights for Russian airlines, leaving almost 400 foreign-owned aircraft stranded. When the places where the planes were registered–mostly Bermuda and Ireland-withdrew their safety certifications, Russia encouraged its carriers to also register them at home, a move that's banned by international aviation treaties. "I don't think anyone in the insurance market contemplated Russia re-registering Western aircraft," says Garrett Hanrahan, global head of aviation at insurance broker Marsh. "The equipment, the hulls, and the engines in Russia are likely to stay there."

The leasing companies soon called their insurers and demanded payments on policies valuing planes at anywhere from \$15 million to \$150 million—for total claims that could top





\$10 billion, according to Fitch Ratings. The EU's sanctions forbid sales of original parts and services to airlines in Russia, which will make normal upkeep impossible. And the situation risks rendering the planes unmarketable when they come off lease, because their maintenance won't be verified. "Aircraft with no reliable maintenance records or uncertain provenance would be worthless to major lessors working in mainstream markets with reputable customers," says John Strickland, head of JLS Consulting in London.

As the two sides argue over who picks up the tab, insurers will insist the triggering event for lessors' losses came on March 14, when Russia began allowing re-registration, brokerage Jefferies predicts. And that date, the insurers will say, is—conveniently—after they canceled most policies because of sanctions imposed in late February. The lessors counter that insurance can't be stripped away after a risk materializes. "Our members have paid for robust insurance policies for decades, which are held precisely for such situations," says Declan Kelly, chairman of Aircraft Leasing Ireland, an industry group representing 33 lessors in the country. "We expect these claims to be paid out in full."

Since February, the cost of insurance for aircraft seizure and other war-related risks has tripled, according to Marsh. AerCap Holdings NV, the largest jet leasing company, says it has filed a claim for about \$3.5 billion to cover losses on 113 planes stuck in Russia. Air Lease Corp., which plans to write down more than \$800 million for its 27 jets there, and BOC Aviation Capital, with 17 planes in the country that it values at almost \$600 million, say they're pursuing insurers on the losses.

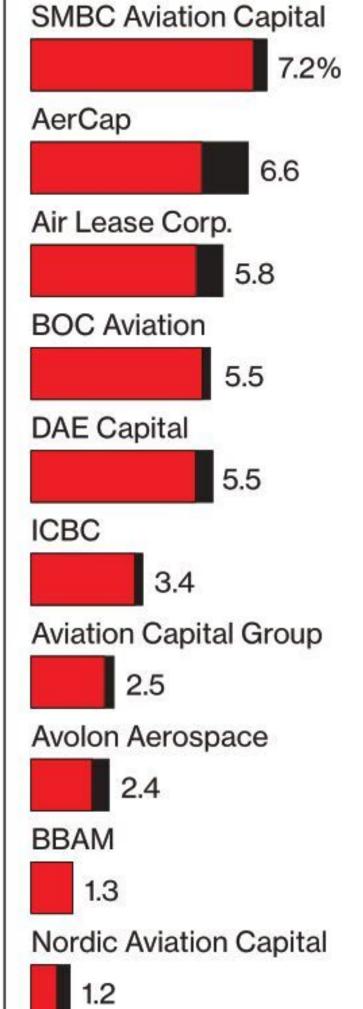
Some in the insurance industry say the loss estimates are vastly overblown. While the ratings firms added up the entire value of planes stuck in Russia, the real liability faced by the insurers will end up being just about 10% to 15% of the planes' value, according to Lloyd's of London, which runs a marketplace connecting aircraft owners with underwriters. "It's much smaller than many people would think," Chief Executive Officer John Neal said in a March interview on Bloomberg TV. "It's a major event loss, but it's a loss that I think is manageable."

Insurers typically must cover the cost of individual incidents-an equipment failure, damage to aircraft, or even a crash resulting in the loss of a plane and millions of dollars in payouts to families of passengers who perish. As flying has gotten safer over the decades, those premiums have come down, leaving the industry unprepared for events such as the loss of hundreds of planes to Russia.

- ▼ Share of major lessors' fleets leased to Russian airlines, as of
- Currently in Russia

April 22

Outside Russia, or location unknown



■ Marsh says Russia's seizure could surpass the Sept. 11, 2001, attacks to become the biggest coverage loss in aviation history. Days after New York's Twin Towers fell, insurance companies canceled airlines' war and terrorism policies on short notice, forcing governments to step in and offer coverage. Before Sept. 11, "no one expected four planes to go down at once," says James Healy-Pratt, a partner with Keystone Law in London. "Similarly, the risk of a mass seizure like what we've seen in Russia wasn't properly contemplated. This will result in a price shock"—and perhaps spur carriers to bypass underwriters by setting up their own coverage pools.

Lessors argue that they, and ultimately airlines and their passengers, will end up footing the bill. Insurers will "make it back from charging all of us all over again the following year and for many years to come," Robert Martin, CEO of BOC Aviation, said at an industry event on April 7. "It may force us all to do a complete rethinking about how the aviation industry does insurance." —Siddharth Philip and Will Louch

THE BOTTOM LINE Leasing companies want \$15 million to \$150 million for each plane stuck in Russia, but Lloyd's of London says payouts will only be 10% to 15% of those figures.

DeSantis Slams Disney to Stand Up To Trump

 The Florida governor targets a "woke" corporation to burnish his conservative cred

It's unusual for a governor to denounce one of his state's biggest and most prominent employers. But Florida Governor Ron DeSantis's attacks on Walt Disney Co. for criticizing a new law curtailing what schools can teach students about gender identity and sexual orientation aren't likely to be a limited instance. Instead, they're another sign that political fights—especially for presidential hopefuls like DeSantis—are expanding from legislatures to corporations and the business world.

Last month, under pressure from activists and its own employees, Disney put out a statement declaring that the "Don't Say Gay" legislation, as critics have dubbed it, "should never have been passed and should never have been signed into law." The company vowed to work to help get it repealed or struck down in court.

Disney's actions follow what's recently become a familiar playbook. Lacking the legislative muscle to block conservative measures in red states such as Florida, liberal activists have taken to pressuring corporations to speak out against them-often with at least limited success. Last year's sweeping measures in Georgia to curb voting access are a prime example. Spurred by Donald Trump's false claims that fraudulent votes cost him the state in the 2020 presidential election, Georgia Republicans introduced onerous new voting restrictions that alarmed Democrats. With the state's Democrats unable to halt the bill, activists pressured Georgiabased businesses such as Delta Air Lines Inc. and Coca-Cola Co. to publicly oppose it in hopes of weakening or killing it; Major League Baseball moved its All-Star Game from Atlanta to Denver in response to the outcry. Although this didn't stop the law, controversial restrictions such as ending early Sunday voting were removed or watered down. Many Republicans were incensed by what they deemed "woke capitalist" interference in the political process, and not just in Georgia.

"Texans are fed up with corporations that don't share our values trying to dictate public policy," Texas Lieutenant Governor Dan Patrick fumed, after American Airlines Inc., which has its headquarters in Fort Worth, criticized similar voting restrictions in Texas. In these cases and others, liberal activists were the aggressors who shifted the battle terrain to the corporate realm, which they rightly deemed to be more sympathetic to their views—and more pliable to public pressure—than Republican legislators. Republican politicians were put on the defensive and were angry about it; several, including Trump, called for boycotts of Coke, Delta, and MLB.

DeSantis's retaliation against Disney differs from last year's fights in two significant respects. First, he went beyond boycotts, which failed miserably against the Georgia companies Republicans targeted. (Coca-Cola, for example, reported block-buster earnings on April 25 that blew away Wall Street analysts' expectations.) Instead, the governor presided over a special session of the Florida Legislature and stripped Disney of special tax privileges. "They're going to pay more taxes as a result," he crowed at an April 22 signing ceremony.

Second, and more important, DeSantis was the aggressor in the fight, and he plainly relishes the notoriety that comes with attacking a prominent company for being an alleged practitioner of woke capitalism and succumbing to liberal social concerns. Disney turned out to be the useful punching bag he'd been

 Share of respondents in an April 20 poll saying they would support DeSantis in 2024 if Trump doesn't run

35%

 Pence was a distant second at

15%

searching for since at least the fall, when he delivered a speech blasting "the rise of woke capitalism" and thumping his chest about how he longed to fight back. "If you're using your power as a corporation and you're leveraging that to try to advance any ideology," he said, "I think it's very dangerous for this country, and I'm not just gonna sit idly by."

DeSantis's spokeswoman, Christina Pushaw, denies that politics played any factor in his turn against Disney. "It is not 'retaliatory' to pass legislation that gets rid of carve-outs and promotes a fairer environment for all companies to do business," she said in an April 21 statement. "It was unfortunate that Disney decided to wade into a political debate and attempt to strong-arm Florida into overturning a common-sense law." But even Pushaw's denial echoes and amplifies conservatives' preferred political framing. And DeSantis's eagerness to tout his punishment of Disney is a clear sign he's interested in more than adjusting special tax provisions.

Why would a popular Republican governor

with an eye on the White House pick such a fight in the first place? The answer is: It neatly solves a dilemma confronting the entire field of 2024 GOP presidential hopefuls. Today's Republican Party is increasingly focused on cultural grievances, most of which center on Trump. This essentially forces candidates to adopt a position of worshipful subservience toward the former president in a bid to attract his

supporters' backing.

that animate GOP primaries are the ones Trump has generated, such as his claim that the 2020 election was stolen from him.

The jury is still out on whether this approach will work in House and Senate primaries. But as DeSantis plainly intuits, adopting a beta-male stance toward the former president in a presidential primary in which Trump himself may well run is a guarantee of a swift and humiliating loss. The value of the Disney fight is that it creates the sort of charged, angry cultural imbroglio Trump is notorious for sparking and conservatives are conditioned to respond to, but it doesn't actually revolve around—or even have anything to do with—Trump himself. DeSantis alone is the star of the show.

May 2, 2022

The attention the Disney fight has already generated, especially on Fox News and in other right-leaning outlets, is testimony to DeSantis's understanding of the current Republican political mood and its hostility toward institutions, including Fortune 500 companies, that are perceived to bow to liberal social ideals. "Ten years ago you didn't have to worry about the CEO of Disney or Coke or Delta weighing in on politics the way they do today, because they did not feel comfortable using their companies as platforms to try and influence social issues," says Dan Grant, the co-founder of 2ndVote Advisers, a firm started by politically conservative money managers that has launched a series of exchange-traded funds designed to profit from a backlash against woke capitalism.

While the 2024 Republican presidential primaries are a long way off, and Trump's intentions about seeking another term are still murky, there's no question that DeSantis's efforts to distinguish himself without alienating Trump sup-

> Insights poll on who Republicans would support if Trump decides not to run found DeSantis leading the field by a healthy margin, with 35% of the vote. Former Vice President Mike

porters are raising his profile among

primary voters. An April 20 Echelon

Pence was a distant second at 15%, and no other candidate reached double digits.

Trump has complained for months

And it all but ensures that the cultural disputes | about DeSantis's unwillingness to defer to him, privately mocking his "dull personality" to advisers and suggesting in a television interview that the Florida governor is "gutless" for refusing to say whether he's received a Covid booster shot.

The Disney fight makes it less likely that DeSantis will ever have to submit. By shifting conservatives' attention from Trump to woke capitalism, the governor is torching the traditionally clubby relationship between the GOP and the business community. But his success and poll numbers all but ensure that GOP imitators will soon follow suit. — Joshua Green



Edited by Joshua Brustein and Anne VanderMey When it began in early April, Elon Musk's pursuit of Twitter Inc. had the tone of a prank. Soon it seemed to get slightly out of hand, then spiraled completely out of control, and culminated on April 25 with the world's richest man agreeing to spend \$44 billion for one of the most politically important technology companies in history. There have been bigger acquisitions in financial terms, but Twitter's significance has always been out of line with its balance sheet. There's never been a Silicon Valley deal quite like this one.

To recap how we got here: In early April, Musk disclosed that he'd acquired a stake in Twitter, explaining the move by railing about the social media company's supposed squelching of free speech. His complaints have lacked specifics, instead relying heavily on the dog whistles of the extremely online segment of the political right. On April 5 he seemed set to join Twitter's board, then on April 9 said he wouldn't do so, then said four days later that he'd buy the whole thing for \$54.20 per share. Longtime fans of the famously chill chief executive officer noticed the 420 reference immediately—as did Twitter's directors, who parried with a "shareholder rights" plan (i.e., a poison pill) that also included a 420 joke.

No one was quite sure whether the bid was real. Musk's plans for Twitter seemed implausible or just lacking in seriousness. "We will defeat the spambots or die trying," he tweeted, referring to automated accounts that use his name to promote cryptocurrencies. He antagonized his would-be employees, suggesting that since so few showed up at Twitter's San Francisco headquarters he'd turn it into a homeless shelter, offering a proposal to rename the company Titter, and expressing solidarity with his growing cadre of conservative fans. "The woke mind virus is making Netflix unwatchable," he tweeted after the streaming media company's dismal earnings report on April 19.

But Musk secured funding, and after a frantic weekend of negotiations, Twitter announced it was taking the deal. Unlike with a typical buyout, Musk will assume most of the financial risk personally, putting up as much as \$21 billion in cash and borrowing an additional \$12.5 billion against his Tesla stock. The biggest change expected to come from the deal is the replatforming of accounts Twitter banned after they were used to harass others, spread misinformation, or incite violence—including, perhaps, the account of former President Donald Trump. This has already put Musk at odds with his own left-leaning employees, not to mention his company's left-leaning users, as well as its advertisers, who would in general prefer more content moderation, not less.

The company's previous leadership has tripped over similar problems. Founder Jack Dorsey resigned last year in the face of complaints that growth and product development had slowed and that he was distracted by his second job as CEO of payments processing company Block Inc. But Dorsey is a paragon of focus compared to Musk, a parent of seven who already runs four companies—besides Tesla and SpaceX, there's the Boring Co., his tunneling venture, and Neuralink, which manufactures tiny implantable computers.

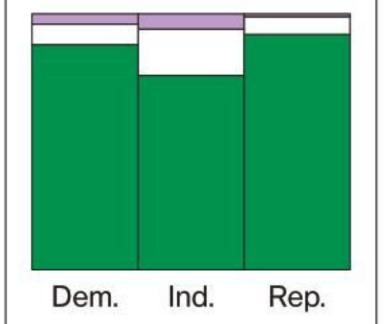
The biggest motivation for Musk in buying Twitter might be political. By spending \$44 billion on this particular vision of "free speech," he's cemented an alliance with the American far right. Since Trump was thrown off the major social media platforms for encouraging the rioters at the U.S. Capitol on Jan. 6, 2021, conservative activists have promoted a series of competing upstart Twitter competitors-Parler, Gettr, and Trump's own effort, Truth Social-aimed at right-wing users. None has taken off, but Musk has a shot at giving them a social network with both lax content moderation and a real user base. Trump said after the deal was announced that he wouldn't return to Twitter, but if he did come back, he'd hardly be the first user to swear off the service only to later rejoin it.

That prospect is already being celebrated by conservative activists and lawmakers. Josh Hawley, the Republican senator from Missouri, called it "a great day for free speech in America." Tucker Carlson, the highly rated cable news host, began his nightly Fox show the day the deal was announced with a 10-minute monologue in praise of Musk's move. He gushed over Musk and called the deal "the single biggest political development since Donald Trump's election in 2016."

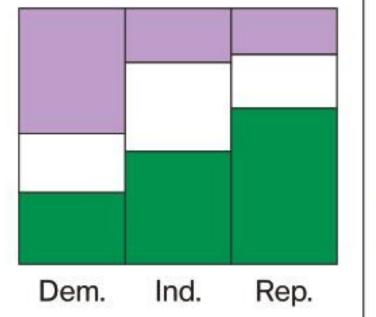
But fans and detractors who view Musk as a former liberal who's now a conservative underestimate how much his business interests influence his political ideology. During the George W. Bush presidency, he marketed Tesla's vehicles not only as carbon savers, but also as superior machines that were faster and cooler than gas-powered luxury cars. During the Barack Obama years, while receiving government loans and benefiting from EV tax credits, Musk won a huge following among wealthy environmentalists who reserved hundreds of thousands of Tesla sedans years before they were made. Trump-era Musk called for a carbon tax, but he also played to the "Make America Great Again" moment, hosting the president at Florida rocket launches and fighting with local officials (and his own workers) over Covid-19 rules that prevented him from quickly reopening his Bay Area factory. ▶

- ▼ Share of respondents who agree or disagree with the following statements:
- Agree
- □ Not sure
- Disagree

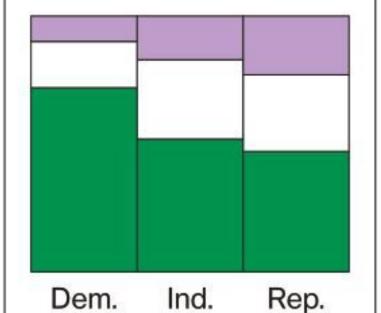
Free speech is essential to a functioning democracy



The internet should be a free-speech zone, where speech should be uncensored



Free speech doesn't mean social media platforms must amplify or widely distribute everyone's views



■ Musk's pivot rightward conveniently coincided not only with the rise of the nationalist-populist right but also with the wish to cater to a growing market for EVs. In 2019 he unveiled a Tesla pickup, the Cybertruck, and the following year, after calling California's stay-at-home orders "fascist," he announced he'd be manufacturing it at a new plant outside Austin. In 2021 he decided he would relocate Tesla's headquarters there, too, complaining that California was the "land of over-regulation." Musk's Bay Area bashing was part of his effort to reframe Tesla as a company for pickup-driving dudes when Ford Motor Co. and General Motors Co. were beating him to the electric-truck market.

In the same way, his purchase of Twitter will be impossible to separate from his other business interests. Tesla operates a factory in China and has enjoyed good relations with Beijing. This—as Amazon.com Inc. founder Jeff Bezos impishly pointed out—could be perceived as a conflict of interest when Musk's Twitter has to decide how to treat Chinese-backed disinformation.

Musk has focused on Twitter's product and its social impact, but some of the biggest challenges he faces with the company are financial: To comfortably service his new debt, he'll need to increase Twitter's cash flow or dramatically cut costs. But even if Musk can't do that, there are other ways for him to benefit from the deal. In recent days he's used the increased attention he's attracting to promote other business interests: Boring has hyperloops coming soon, Musk tweeted, and Neuralink brain implants are just around the corner! Don't forget about Tesla's long-promised robotaxis!

The benefits to his other businesses may be one reason that Musk is comfortable saying he has no expectation of making a profit. "This is not a way to sort of make money," Musk said at the TED conference, insisting that his interest in Twitter was purely benevolent. "I don't care about the economics at all."

There's a temptation, given the rockets and the weed jokes, to see Musk as singular—and his gonzo buyout will undoubtedly fuel this narrative. On the other hand, he's a megabillionaire spending a modest sum—for him, anyway, since the money he's putting up amounts to only about 13% of his net worth—for a potentially enormous amount of influence. Musk makes everything seem novel, but this deal is just the latest version of one of the oldest stories in the media business. —*Max Chafkin*

THE BOTTOM LINE Elon Musk sees Twitter as a way to advance a political agenda that largely aligns with the Trumpist right while also benefiting Tesla and his other businesses.

Google Tries to Repair Its D.C. Reputation

 The search giant has lost ground to Microsoft, the current master of Washington diplomacy

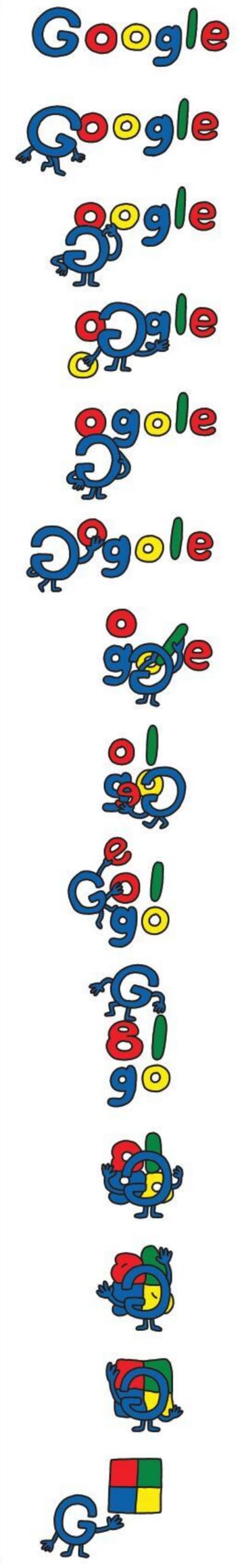
In recent months members of Google's Washington policy group received a new assignment: study the opposing team at Microsoft Corp. and figure out what it does that works so well. On paper it was a strange mandate. Microsoft was famously targeted by a government antimonopoly lawsuit in the 1990s, and Google spent its first decades trying desperately not to be the Redmond, Wash., company.

Today, though, there's a serious case of Microsoft envy going around Silicon Valley. While Google parent Alphabet Inc. and its peers—Apple, Amazon, and Facebook—have been dragged through the political mud during the "techlash," Microsoft has stayed clean. It sat out the marathon congressional hearings on the industry's ills. New bills designed to curb tech's market power don't touch much of Microsoft's business, even though it's the U.S.'s second most valuable company. Microsoft still operates in China and makes mega-acquisitions (two deals since last year worth a combined \$88 billion, pending approvals)—things that Google, for political reasons, simply can't do.

Google says that any analysis it's doing of Microsoft is part of routine "benchmarking exercises," where it keeps tabs on the strategies of competitors. Still, several Capitol Hill staffers and D.C. insiders say the company has recently been adjusting its behavior in Washington. And some of them have a suggestion: Be more like Microsoft.

Google is facing a U.S. Department of Justice antitrust case and battling two proposals in Congress that could force it to change its search services and app stores. There's also an antisurveillance bill that if enacted would gut its ad-tech operation.

At the same time the company's D.C. strategy has rubbed some lawmakers the wrong way. In 2018, Google Chief Executive Officer Sundar Pichai declined an invitation to testify before a Senate panel, and lawmakers marked his absence with an empty chair. William Kovacic, a former Federal Trade Commission chair who now teaches at George Washington University, says that in his law classes he plays 2020 footage of Pichai testifying before the House antitrust subcommittee during an adversarial hearing as an example of what not to do.



The contrast between Google's and Microsoft's approach has been stark, Kovacic says. "It's a difference between having a conversation with someone who says prefabricated answers and somebody who's listening to what you have to say," he says.

On Capitol Hill, Brad Smith, Microsoft's president and chief diplomat, is treated almost like a sage, invited to advise lawmakers and weigh in on policies. At one point, Representative David Cicilline (D-R.I.), who's leading political probes into the industry, thanked Smith for providing briefing material for the investigation into tech influence. A Microsoft spokesperson declined to comment for this story.

Kovacic's advice for Google: "I'd study Microsoft very carefully." Google, however, says it's taking its "own approach" to working with D.C. "We've worked constructively and positively with lawmakers and regulators for many years, and we continue that approach," spokesman José Castañeda says.

Still, Google has recently made overtures to several tech skeptics. In the fall, Pichai paid a visit to Senator Amy Klobuchar, a Minnesota Democrat behind multiple bills aimed at the company. It also dispatched Chief Financial Officer Ruth Porat, a former Morgan Stanley executive who advised the Treasury Department during the financial crisis. She met with Senator Mark Warner (D-Va.), a major industry critic, to discuss economic policies—not Google's regulatory issues. A spokesperson for Warner declined to comment.

In March the company played host to members of the U.K. Parliament working on digital-markets legislation. Darren Jones, a Labour politician, describes the tone of the meeting as amiable. "We recognize you're doing your job," Jones says Google told the group. "We want to provide our position and make the best of it." During the trip, Google took the visitors to see X, the company's "moonshot factory." Astro Teller, the lab's chief, arrived wearing his customary Rollerblades, guiding the parliamentarians on a tour while skating backward.

And in March, according to a person familiar with the discussion, Google officials asked a Senate staffer a simple question: How do we fix our reputation with your office? Google denies the exchange took place, saying its government affairs officials don't ask this sort of question. (As with other people who spoke about Google's efforts on Capitol Hill for this story, the person asked not to be identified discussing private conversations.)

Google didn't always have to play catch-up with government officials. During the Obama era it had mastered soft political power, but that advantage quickly unspooled under Donald Trump. Once seen as a source of innovation and ideas in D.C., the company increasingly drew accusations of being a monopolist and censor. Google has since reshuffled its political approach multiple times and reported that it more than halved its federal lobbying spending to \$10 million in 2021 from \$21 million in 2018.

The results of its efforts have been mixed. "I've never had a problem with the people in the government affairs shop," says Representative Ken Buck of Colorado, the top Republican on the House antitrust subcommittee, who's criticized Google over privacy and competition issues. "They've been courteous and thoughtful. They have been very knowledgeable. The problem is they're trying to put lipstick on a pig." Buck lauded Microsoft's "openness" around its planned acquisition of Activision Blizzard. He's also said he doesn't even use Google's search engine.

Google does have one advantage in the Washington popularity contest: It's not Facebook. A Senate staffer characterized Google's reputation as "middle of the pack," ahead of both Apple Inc. and Facebook parent Meta Platforms Inc., which were the least liked. Sarah Miller, executive director for the American Economic Liberties Project, an antitrust advocacy group, says that for Google, compared with some tech and social media behemoths, it's easier "to present a warm and fuzzy front."

Yet the company is intensifying its political efforts, Miller says, taking a "war position" against the tech bills in Congress and its various competition lawsuits in D.C. and beyond. "They've stopped trying to soft-pedal," she says, even if the latest approach is more finesse than force.

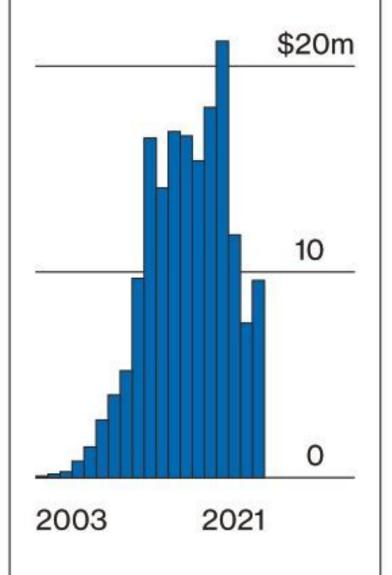
Google will need all the political capital it can muster. Although it opposes some new regulations, it's also fighting for immigration reform and a national privacy law. Microsoft, meanwhile, is pushing for a much wider suite of legislation. Microsoft's Smith has endorsed the Senate bill to deconstruct the app store models of both Google and Apple, as well as measures overseas to force Google and other online platforms to pay news publishers.

In mid-April, Smith delivered a speech at a privacy conference to push for greater government oversight of the industry. He touted Microsoft's cybersecurity work in Ukraine and mentioned his three trips to the Vatican. "The tech sector needs to mature, and we need to lean in to help make a new era of regulation work," Smith concluded. The audience gave him a hearty round of applause. —Mark Bergen and Brody Ford, with Thomas Seal

THE BOTTOM LINE Google wants to repair its reputation in Washington as the technology industry faces rising regulatory and legal challenges.

"The problem is they're trying to put lipstick on a pig"

▼ Google's reported spending on congressional lobbying



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Jack Bogle Was Such a Punk

A new book shows how radical Vanguard's founder was—and that his mission has just begun

For the past decade, while cryptocurrencies, Fed policy, meme stocks, and Elon Musk have captured all the headlines, investors have been quietly funneling a billion dollars a day into the greatest moneytransfer machine in the history of capitalism: Vanguard. Yet the company shouldn't even exist. An asset manager owned by its investors? That invests in passive indexes? That charges only microscopic fees? That's made millions of Americans fabulously wealthy and bankrolled countless retirements without succumbing to Wall Street?

The money manager now has more than \$8 trillion in assets—second only to BlackRock, which it could surpass in a few years—as well as the three biggest funds in the world and another three in the top 10. Vanguard's influence extends well beyond the numbers on any scoreboard. The entire investing universe now bends toward the company's head-quarters in sleepy Malvern, Pa.

The reason for Vanguard's quiet dominance is both its unusual ownership structure and the unusual structure of its founder, Jack Bogle, who passed away in 2019 at age 89. As an exchange-traded funds analyst for Bloomberg Intelligence, I spoke with Bogle many times, including in an interview six months before his death, with Joel Weber, the editor of *Bloomberg Businessweek*, for our *Trillions* podcast. My study of Bogle and Vanguard culminates with my forthcoming book, *The Bogle Effect*.

Perhaps the most astonishing fact about Vanguard is that, though it manages more than a quarter of the assets in the entire fund industry, it accounts for only 5% of the industry's revenue. Bogle's net worth was about \$80 million when he died, a fraction of what his peers in finance had amassed. "In the history of Wall Street," Michael Lewis, author of *Liar's Poker* and *The Big Short*,

told me, "the ratio of

money touched to money taken was never so high."

Bogle may have looked like a friendly grandfather, but throughout his career the words that left his mouth (and some that filled his bestselling investing books) were utterly punk rock. His TV hits on business networks were mostly about the futility of trying to pick stocks or time the market. He'd give a speech at an ETF conference about why ETFs were awful, or trash active management at a conference for fund managers. He could be savage and stubborn; he got the boot at the only other place he ever worked, Wellington, and late in his career tangled with Vanguard's management, too.

Bogle's story may seem like ancient history, or like it lacks a dramatic arc, yet it's about what's to come in finance—a future full of conflict and consequence. He was so hardcore that his dream remains far from complete. "The first sign that Vanguard's mission has created a better world for the investor will be when our market share begins to erode," Bogle told employees in a 1991 speech, when the company had less than 1% of its assets today. For Vanguard, success meant forcing other money managers to follow its lead in cutting costs and putting customers' interests first.

Bogle shared something else with punk: the concept of addition by subtraction. As Johnny Ramone once described the genre to Rolling Stone: "What we did was take out everything we didn't like about rock 'n' roll and use the rest, so there would be no blues influence, no long guitar solos, nothing that would get in the way of the songs." Punk rock was, as the magazine had previously written, "a negation, a call to stark, brutal simplicity." If that doesn't describe Bogle's life's work-and a low-cost index fund-I don't know what does. He built an entire genre of investing by trying to eliminate everything that gets in

Edited by David Rocks the way of investors getting a fair share of returns, including management fees, brokers, turnover, trading costs, market timing, and human emotion. The company he founded would actually be owned by the mutual funds it managed—and in turn by their shareholders—so its chief incentive would be to get more and more efficient and leave more money in clients' pockets.

Bogle knew Vanguard's customer-owned structure would, over time, lower costs to the point that investors would beat a path to the company's door. And they did. That structure, paired with Bogle's contrarian attitude, has already saved investors about \$1 trillion. But what many financial professionals and investors don't realize, and what I document in my book, is that index funds were merely a byproduct of Vanguard's unique ownership structure and arguably get too much credit for the index fund revolution. In the end, the funds needed Vanguard more than Vanguard needed them—the two just happened to be a perfect match.

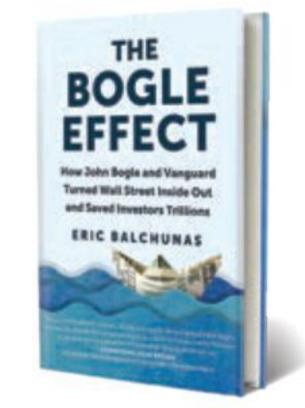
And what about the company's market share, which is fast approaching 30% of U.S. fund assets? While critics of Vanguard–and passive funds in general-contend that index investing will suffer without an easy Federal Reserve monetary policy fueling a long, boring bull market, it's more likely that Vanguard's market share will grow even faster in a bear market. Even this year, as markets have wobbled with the Fed's hawkish turn, Vanguard took in \$71 billion in the first quarter; the rest of the asset management industry, combined, saw about \$30 billion in outflows. This same pattern well-disciplined Vanguard investors leaning in while everyone else leans out-has been seen in each selloff of the past 15 years.

Without the subsidy provided by a bull market, increases in assets will come mainly from investment flows rather than price gains. It's possible Vanguard could end up managing half of America's fund assets before we see the erosion Bogle foreshadowed. The Bogle effect means asset management will see more consolidation—and perhaps much more. In his interview for Trillions, Bogle said many will become so desperate that they'll choose to "mutualize" just like Vanguard did. The thought of BlackRock, Fidelity, Charles Schwab, JPMorgan Chase, or Goldman Sachs mutualizing is about as radical as it gets on Wall Street. But going toe-to-toe with Vanguard will force companies to jettison their fees in a race to the bottom. The only way to slow the company down-and this is the existential threat facing Wall Street in the coming decades—is to offer funds that earn no revenue. The "better world" Bogle envisioned for investors

creates a hellscape for the financial industry.

This "great cost migration" isn't limited to funds or asset management, either. Cost compression follows wherever Vanguard goes. The advisory business, where the company already has about \$300 billion in assets and employs more than 1,000 certified financial planners, seems to be next. International markets, institutional clients, private equity, and alternatives—maybe even crypto could eventually become Vanguard victims. In a world overflowing with paths to a cheap market return, asset managers must find ways to add value by complementing index funds.

The good news for Wall Street is that, even in a Vanguardian future, a portion of flows will still want to chase performance with something besides an index. Thematic investing and high-octane stockpicking both accomplish this feat. The Bogle effect is, ironically, a big reason behind the staying power of Cathie Wood, the risk-taking manager of the ARK funds. Bogle's success and legacy weren't built on playing the game well, but rather on changing the entire game—to the benefit of investors. —Eric Balchunas, a senior ETF analyst with Bloomberg Intelligence



May 2, 2022

▲ Adapted from The Bogle Effect: How John Bogle and Vanguard Turned Wall Street Inside Out and Saved Investors Trillions, which was published on April 26 by Matt Holt

De-FAANGed

 Investors are rethinking a strategy that's served them for the better part of a decade

Nine years ago, Jim Cramer-the gleefully loudmouthed CNBC pundit-introduced the world to what he called the FANG investment strategy. Facebook, Amazon, Netflix, and Google, his reasoning went, were as close to a sure bet as you could get as commerce, community, and content shifted online. A few years later the acronym was plumped up to FAANG with the addition of Apple Inc. Corporate rebrandings at Facebook and Google would end up messing with the spelling, and some insisted Microsoft Corp. should join the party. But the one constant was a sense of infinite optimism about the companies' ability to dominate their markets and continue growing at a breakneck pace, making huge sums of money for their shareholders.

These days the FAANGs-or whatever you might call them—are looking increasingly toothless. On April 19, Netflix Inc. shocked Wall Street when ▶ 20

◀ it announced that for the first time in a decade it had lost customers and predicted that even more would bail in coming months. Its shares fell more than a third that day. That followed Facebook's February meltdown after it revealed user growth had stalled. The company's stock suffered the biggest one-day loss in value in U.S. market history.

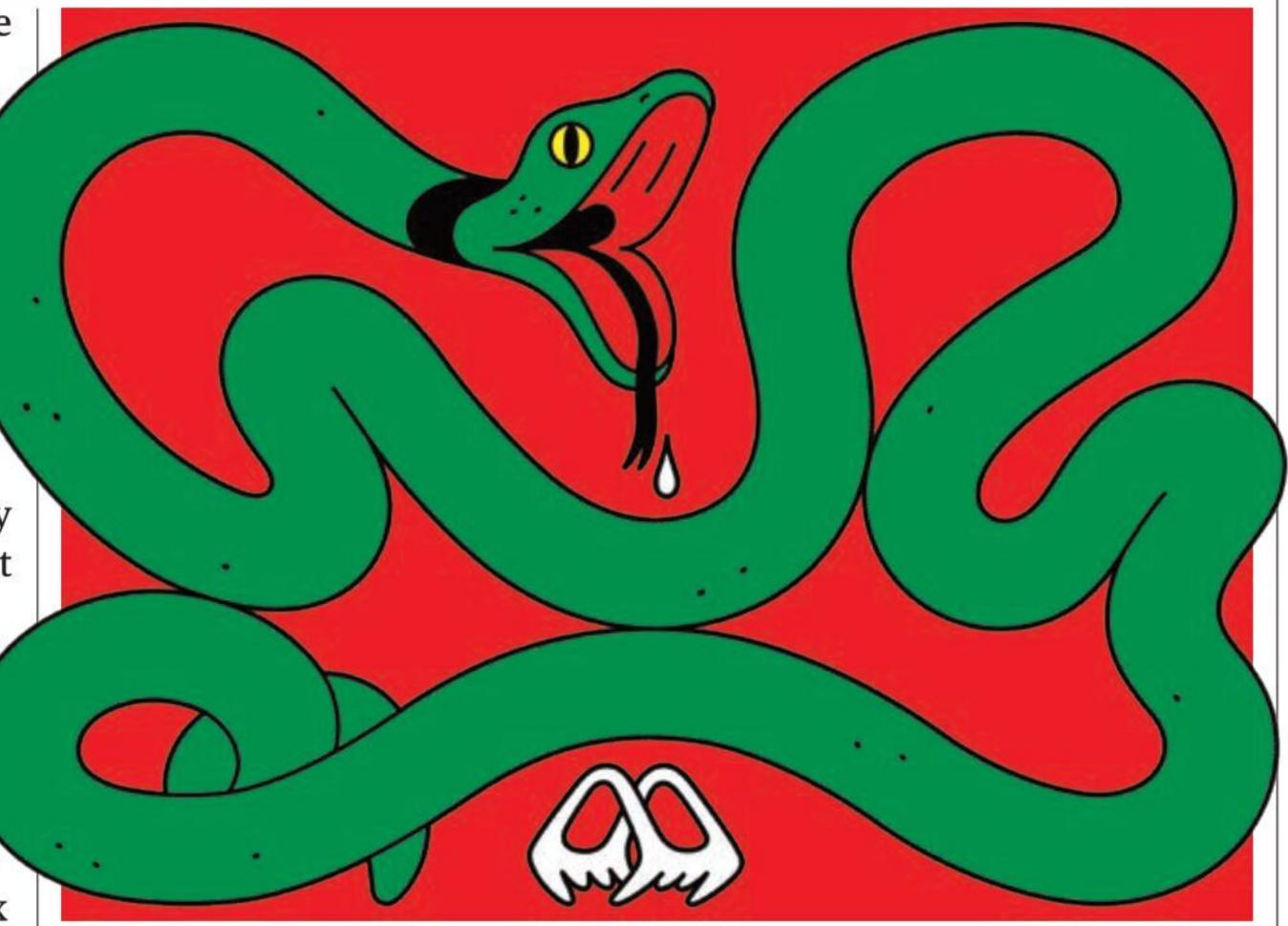
Facebook in October changed its name to Meta Platforms Inc. in an embrace of the so-called metaverse, but its market value has plummeted by about \$500 billion from a September peak of almost \$1.1 trillion—even after the company reported more upbeat user numbers on April 27. Netflix, which just two years ago was more valuable than Walt Disney Co., has seen its shares tumble more than 70% since November and is now worth less than half as much as Disney.

Of course, the hard times at Meta and Netflix don't mean that they won't bounce back or that the same fate awaits Apple, Amazon, and Google's parent, Alphabet. Despite Netflix's woes, it's still one of the best-performing stocks of the past two decades, up more than 17,000% since its 2002 debut as it delivers average annual returns of about 30%. Over that same span, Apple has returned more than 42,000% (35% average annual gain), and Amazon.com Inc. has risen about 15,000% (28% on average). "These companies went from micro or startups to behemoths in a record short period of time," says Michael O'Rourke, chief market strategist at JonesTrading. "The market mistake with these names was the thinking that, oh, this is going to go on forever."

So what does the prospect of soft-gummed megacaps mean? With the Federal Reserve reversing its easy-money policies and investors fearing an economic slowdown, Alphabet, Amazon, and Microsoft all lag the S&P 500 index. Another problem is soaring U.S. Treasury yields, which diminish the projected value of future corporate profits—a big deal for tech companies, which often enjoy lofty valuations on promises of fatter earnings.

Rather than supercharging market returns as they have for most of the past decade, the companies have become a drag. The FAANGs plus Microsoft account for less than a quarter of the value of the S&P 500 but more than half its decline this year, as of April 21, according to researcher Bespoke Investment Group. That should trouble bulls expecting a quick market rebound, says Matt Maley of Miller Tabak + Co. "When a market is being held up by a few stocks, it doesn't last very long," he says. "If these stocks go down, the market will go with them."

Apple is the single member of the group that's outperforming the S&P 500 in 2022, albeit by a



whisker. While investors prize Apple's devoted customers and the massive cash flows they feed, it's difficult to argue that the world's biggest company is a growth stock. Its revenue jumped during the pandemic as customers stuck at home loaded up on iPhones, Macs, and iPads, but sales are projected to expand just 8% in the current fiscal year and continue to slow through at least 2024, according to analyst estimates compiled by Bloomberg.

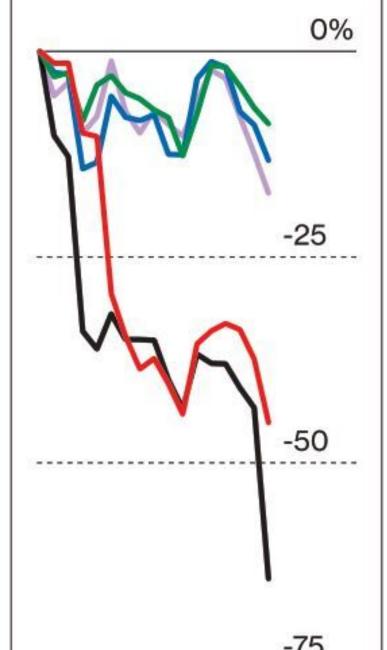
Amazon and Alphabet Inc. are the only FAANGs that might still be considered growth companies. Amazon's revenue is predicted to increase 15% in the current fiscal year, fueled by its highly profitable web-services business. And Alphabet is projected to deliver 17% sales growth in its current fiscal year.

As the market seeks stocks hot enough to create the next acronym, there's little consensus about which—if any—will have the staying power of the FAANGs. Tesla Inc., for one, has cult status with a market value of almost \$1 trillion. Whether it can keep its first-mover advantage or deliver on Chief Executive Officer Elon Musk's visions of self-driving taxis and humanoid robots remains to be seen.

For now, at least, the FAANGs may not have lost all their bite, says Greg Taylor, chief investment officer at Purpose Investments. The companies are still worth owning, if not for relentless expansion then for strong balance sheets and stock buyback potential, which they can use to boost earnings per share. "It doesn't mean they're failures," he says. "They just need to evolve, and investors need to look at them for what they are—more of a core holding than growth." —Jeran Wittenstein

THE BOTTOM LINE The FAANGs plus Microsoft are responsible for more than half of the S&P 500's decline this year despite accounting for less than a quarter of the weighted index.

- ▼ Change in share price since Dec. 31, 2021, weekly
- / Apple
- / Amazon
- Google (Alphabet)
- / Facebook (Meta)
- ✓ Netflix



12/31/21 4/22/22

Bring On the Bonds

 After being pounded by inflation concerns, government debt is getting a lift-from inflation

As inflation fears surge, holders of U.S. government debt are having a rough ride. Investors have abandoned the market en masse, making the first quarter the worst on record and devastating the value of bond portfolios. But now fixed-income returns are starting to get a lift from that same boogeyman.

With the Federal Reserve battling inflation by raising rates and signaling more hikes to come, prices of bonds have fallen. And when the price of a bond falls, its yield—the return investors expect to get from holding it—goes up. In mid-April, for the first time in two years, yields on some government debt that's adjusted for inflation began to fully offset the toll of rising prices, albeit briefly. "Bonds and credit both look a lot more attractive now," says Raymond Lee, chief investment officer at Torica Capital in Sydney.

The market is betting that the Fed will increase rates by half a percentage point four times this year. That would boost the federal funds rate from its current top level of 0.5% all the way to 2.5%, prodding the yield on Treasuries even higher. That might not seem sexy compared with the 6% average paid for 10-year bonds since the 1960s, but it's a huge increase from the near-zero rates of the past 15 years. "The dominant factor driving yields right now is the more aggressive Fed," says Rajeev De Mello, a portfolio manager at GAMA Asset Management in Geneva.

The instruments that offered inflation-beating yields in April were Treasury Inflation-Protected Securities, or TIPS, which are indexed to rising prices. Those returns, though, had been negative for about two years, given that nominal rates remained low even as inflationary expectations climbed. But Bloomberg Intelligence predicts that in the coming months, more and more kinds of government debt will start providing a positive total return. Sure, 2022 will still be tough for the Treasury index, which lost 5.6% in the first quarter alone. But by this time next year the index will likely begin showing a small return as higher interest payments offset price declines, according to BI.

With stocks continuing to slide on worries about the war in Ukraine, dismal results from the likes of Netflix Inc. and Meta Platforms Inc., and concerns that inflation and higher interest rates will crimp corporate earnings, a shift back into the safety of fixed-income securities is increasingly likely. "Rising yields, all else equal, reduce the relative attractiveness of equities compared with bonds," says Mark Haefele, CIO at UBS Global Wealth Management.

The trend may be further accelerated by concern about an economic downturn, which typically spurs investment in bonds. Economists see increasing odds of a U.S. recession, with more than a quarter surveyed by Bloomberg in April expecting a contraction, up from 20% a month earlier. Jan Hatzius, chief economist at Goldman Sachs Group Inc., predicts Fed Chair Jerome Powell will struggle to bring inflation down to its 2% target without causing a recession. "The Fed faces a hard path to a soft landing," Hatzius wrote in an April 17 note.

come from retirement funds. Flush with cash after the bull market of recent years, pensions are likely to seek a haven for some of their gains. And the trend will be amplified by foreigners, who were crowded out of the market as the Fed itself bought

Much of the momentum toward bonds will

A Shift in the Market U.S. 10-year Treasury yield Weekly fund flows* Unadjusted Equity funds Inflation-indexed Bond funds -20 12/31/21 4/21/22 4/13/22 12/29/21

DATA: BLOOMBERG, INVESTMENT COMPANY INSTITUTE

trillions of dollars in Treasuries to bolster the economy in recent years, according to Lazard Asset Management. Particularly important will be investors in Japan, where yields remain low and there's growing risk of the yen losing ground to the dollar. "With the volatility in the equity markets," says Lazard portfolio manager Yvette Klevan, "a lot of pensions are trying to immunize their portfolios and take risk off the table." —Liz McCormick, with Ruth Carson and Greg Ritchie

THE BOTTOM LINE With the federal funds rate poised to reach 2.5% this year—a huge change from the near-zero level of the past 15 years—rising yields are making bonds increasingly attractive.

"The dominant factor driving yields right now is the more aggressive Fed"

4

China



 China's economy hasn't been in this bad a shape since the start of the pandemic

Virus outbreaks and a property slump are forcing Xi Jinping to put his revamp of China's economy on hold—and he faces mounting pressure to reverse last year's policies.

The omicron variant of the coronavirus slipped through China's border controls and is causing the largest outbreaks since Wuhan in 2020. About a quarter of China's population lives in cities that are now under some form of lockdown. Most of Shanghai's 25 million residents have been confined to their homes for more than a month. High-frequency indicators, such as city-to-city truck flows, suggest China's economy is contracting, and residents in multiple cities are struggling to find food and even dying from lack of medicines.

The economic outlook ranges from bad to very bad. In the most optimistic scenarios, the pace of new outbreaks slows as cities institute early and short lockdowns. In worse-case scenarios, China could face multiple Shanghais each month over the second and third quarters, which would raise the risk of a recession—something the country hasn't seen in the modern era.

With roadblocks across the country to prevent the spread of infections, activity at Chinese ports has plummeted, further straining global supply chains. Chinese financial and currency markets have sold off, and demand for imports of oil and other commodities is plunging.

The human suffering is raising doubts about the Chinese Communist Party's governing capacity. "There are a lot of unsatisfying decisions from the party," says Ada Yuan, a finance worker in Shanghai. "This is a big lesson for all of us after the country enjoyed a safe, stable environment without Covid-19."

It's a contrast from the initial phase of the pandemic—when China's successful "Covid Zero" strategy, combining strict border controls, mass testing, and quarantine of anyone infected—made it the only major economy to avoid a deep contraction. Foreign investment flowed in, and Xi and the rest of the CCP's elite Politburo announced that the rapid rebound had opened a "strategic window" to reshape the world's second-largest economy.

In a flurry of regulatory moves, Beijing reduced the power of China's largest internet companies, wiped out the for-profit tutoring industry, and took on video streaming sites and delivery platforms. Then came an ambitious campaign to slow debt growth, especially in the real estate sector, which accounts for about 20% of China's economy. The

Edited by Cristina Lindblad



moves sent a clear signal that the party's vision of "common prosperity"—greater equality, national security, financial stability, and technological self-sufficiency—would take precedence over the demands of big business and wealthy investors.

Growth itself was downgraded: Xi wrote his name into a landmark party resolution in November, declaring that gross domestic product was no longer the "sole yardstick" of development.

Strains from this approach became clear less than two months later, when a massive real estate slump sucked oxygen from the economy. Xi and the Politburo declared that the top task was now economic "stabilization," and credit growth began to accelerate. Cities started to ease housing restrictions.

China's National People's Congress, which meets in full session for roughly a week each March, went even further. Not content with stabilizing the economy, it set an aggressive GDP growth target of "about 5.5%" for 2022. Common prosperity got a single mention in the Government Work Report, a policy document that outlines a vast range of economic and development tasks for the country to pursue over the coming year.

Political considerations most likely prompted the turnaround. At a once-every-five-years party conclave this coming fall, Xi is expected to secure a third term as party leader, in defiance of recent precedent. That means economic growth and job creation—the traditional means of ensuring social stability—are back at the top of the agenda, and dozens of senior officials across China also vying for promotion at the congress will be graded on how they deliver on these metrics.

"Beijing seems to have realized that it went too far on many things, including on tech platforms and property, and are now making course corrections," says Tianlei Huang, an economist at the Peterson Institute for International Economics. "Economic policy is indeed more improvised this year."

While the ink on the work report was drying, the highly infectious omicron variant was silently creeping into dozens of Chinese cities. It had already torn through Hong Kong in February, killing thousands. But China's leadership was distracted by Vladimir Putin's invasion of Ukraine: Unprecedentedly tough sanctions on Russia, combined with Beijing's close ties with Moscow, had foreign money managers asking if China was becoming "uninvestable." Hong Kong-listed Chinese stocks registered their sharpest drop since the 2008 financial crisis.

Economy czar Liu He called China's top financial regulators in for an early morning meeting on March 16. In an about-face from the previous year, he declared they should "actively implement policies that benefit markets."

In the tech hub of Shenzhen, officials ordered a lockdown after daily cases ticked up into the dozens, and the outbreak was suppressed in a week. In Shanghai, a financial center and China's largest metropolis, officials initially played down the likelihood of a lockdown. So when they later declared one, many residents were caught without stockpiles of food and medicine. As in Hong Kong, lack of planning and poor execution created man-made disasters. Reports of an elderly person who died of asthma after ambulances refused to take him to a hospital attracted more than 55 million readers.

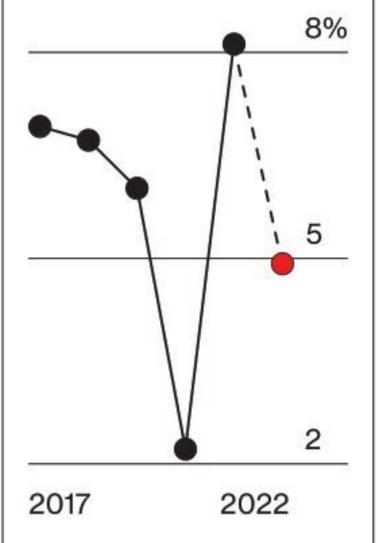
As activity in locked-down cities ground to an almost complete halt, the government directed aid at businesses, not households. Workers in the informal economy, deprived of income, subsisted on handouts from local volunteers.

Xi stayed aloof from the disaster in Shanghai, avoiding the city while reaffirming the government's commitment to Covid Zero. Speaking at a celebration honoring Olympic athletes held in Beijing in early April, he said, "Some foreign athletes told us that if there was a gold medal for epidemic response, it should be awarded to China."

Although the botched Shanghai lockdown has dented confidence in the Covid Zero approach, ▶

◆ Preparing for the start
of a lockdown in the
Puxi district of Shanghai
on March 31

- ▼ China's annual GDP, year-over-year change
- Bloomberg survey of economists consensus forecast



■ Xi and the rest of China's top leadership are not under threat. Local communist cadres get very little guidance on how to execute on the targets and policies the government hands down, and they shoulder much of the blame when things go wrong.

Make no mistake: Judged purely on public health grounds, China's Covid Zero strategy has been a demonstrable success so far. Not only has it sharply curbed deaths compared with Western nations, but it also has allowed the country to concentrate its more limited health resources on an extensive vaccination campaign. Eighty-eight percent of the population has received at least two shots, one of the highest proportions anywhere. And half have gotten boosters, compared with about 30% in the U.S.

Nevertheless, the risks of quickly exiting Covid Zero should not be understated. A wave of infections would trigger a spike in worker absenteeism and overwhelm China's hospital system, partly because of a lower vaccination rate among elderly people. Zhong Nanshan, the Chinese doctor who is the country's equivalent of Anthony Fauci, wrote in March that elimination policy "cannot be pursued in the long run." But he said a shift would require improved vaccination coverage, including the deployment of more effective messenger RNA, or mRNA, shots not yet available in China, and reliance on antibody rather than PCR tests.

A more immediate problem for the government is shoring up an economy that's decelerating rapidly. China has signaled that it will allow local governments to load up on off-balance sheet debt to finance the core of its stimulus plan, a list of major investment projects worth at least \$2.3 trillion. "The markets are preparing for more stimulus and possibly a flip-flopping on real estate," says Jeremy Stevens, chief China economist at South Africa's Standard Bank.

Many economists say they fear that the renewed focus on top-line growth will come at the expense of efforts to make China's economy more sustainable. "The 5.5% target is too aggressive," says Chen Zhiwu, a professor at Hong Kong University who's advised China's securities regulator. "Given the upcoming 20th Party Congress, they may still try all these measures to achieve it, even at the cost of further messing up the economic structure."

Yuen Yuen Ang, an expert on Chinese policy at the University of Michigan, predicts Xi will revert to his common prosperity agenda, which seeks to purge the excesses of China's Gilded Age, once he secures a third term. "The mission is not going away," she says. The risk for Chinese households and investors both here and abroad is that the current pause will necessitate even more draconian measures to set China back on the course Xi has charted. —*Tom Hancock*, *with Allen Wan*

THE BOTTOM LINE Xi's common prosperity agenda is on ice as Beijing grapples with the economic consequences of massive lockdowns and the erosion of investor sentiment.

Checking China's Numbers

Even in a country where the credibility of official statistics frequently comes under question, a data release on April 18 looked particularly suspicious. It showed China's gross domestic product growth accelerated to 4.8% in the first quarter, from 4% in the final three months of 2021, even though property sales worsened and lockdowns were imposed in dozens of cities.

With access to data from satellites, independent surveys, and industrial output, China watchers can make corrections to the official picture. Their information suggests the reality is worse, though some government numbers seem reliable. Here's a user's guide on China's economic statistics this year.

With the real estate sector and demand for materials accounting for 20% of GDP, the rest of the economy would have to grow at a 7% to 8% pace to produce the official growth number for the first quarter. Logan Wright, head of China markets at Rhodium Group LLC, says that would imply a "highly improbable" acceleration from prepandemic growth rates.

China's target of about 5.5% growth for the year looked to be a stretch even before the omicron variant started spreading in March. The consensus among economists surveyed by Bloomberg is 4.9%.

Beijing has never adjusted the GDP target midyear and has admitted to missing it only once (in 1998, following the Asian financial crisis). With a Communist Party reshuffle due in the fall, local officials have a powerful incentive to report that they're hitting their numbers. "It's clear that there's always been a political element to China's messaging about growth," Wright says. "If that's more relevant in 2022,

it starts to raise broader questions about the longterm credibility of the data."

Some economists have accused China's statistics bureau of using its GDP price deflator to artificially smooth the more volatile nominal series. Pantheon Macroeconomics uses publicly available price data instead: The U.K.-based outfit pegs first-quarter growth at 2.4%—half the official figure.

Most of China's economy consists of services, making it crucial to track household consumption spending.

Officially, disposable income rose 5.1% in real terms in the first quarter. Independent estimates tell a different story. According to Credit Suisse Group AG, which surveys households in 56 cities, income growth averaged only 1% over the period.

China also produces a closely watched retail sales figure, which fell 3.5% from a year earlier in March,

compared with an almost 16% decline during the 2020 lockdown. SpaceKnow Inc. in New York, which uses satellites to track the number of vehicles in parking lots at shopping malls in China, reports a decline in retail activity for March that was substantially smaller than what was seen in the first virus outbreaks in 2020. That's not a bad fit with official data.

China reports monthly output for dozens of products, including industrial robots and cloth, and an aggregate headline number, which was 6.5% in the first quarter—about the same as pre-pandemic rates. Analysts say the more granular figures on output volumes are on the mark.

Rhodium combines the monthly volume data with measures of the size of different sectors to produce its own measure. It shows that industrial output grew at about

half the pre-pandemic rate for the last three quarters.

China is more investmentdriven than most major economies, but what it calls "fixed asset investment" is probably the most dubious dataset. The measure was up 9.3% in the first quarter from a year earlier, even as output of construction materials fell at least 10%. Foursquare, which uses satellites to track construction sites in China's top three economic regions, recorded a 57% decline in activity from the previous year in March.

Carsten Holz, an expert on Chinese statistics at the Hong Kong University of Science & Technology, says one big reason the investment numbers are unreliable is they rely heavily on reports by local governments, which are "currently under extreme pressure to keep economic growth strong [and] may again be highly tempted to fudge some data." — Tom Hancock

Shanghai's Black Eye

 Expats are ditching the city, jeopardizing efforts to turn it into a top financial hub in Asia

An eerie silence hangs over Shanghai's financial district weeks into a draconian lockdown of the city. The streets of Lujiazui have been emptied of the 300,000 professionals who flood in on a typical day. Pockets of traders and bankers living in its high-rises keep business ticking while separated from their families.

Across Shanghai, millions are confined to their homes and workplaces as China holds fast to its "Covid Zero" strategy while much of the rest of the world learns to live with the virus. Social media posts about the scramble to find food, toddlers forced to quarantine separately from their parents, and clashes between anxious residents and the police have captivated audiences in China and abroad.

Such is the plight of this city of about 26 million that China's authorities have spent decades turning it into a paragon of the country's openness to money and talent from around the world. Few question that Shanghai, home to one-quarter of China's expatriate population, will remain a vibrant center of commerce, but Eric Zheng, president of the American Chamber of Commerce in Shanghai, says restoring the city's battered image will be a "huge test." A survey of the chamber's members found that for 81%, Covid measures were impeding their ability to attract or retain skilled foreign staff.

Although it lags behind regional rivals Hong Kong and Singapore, Shanghai's status as a financial hub had been rising in recent years, spurred by market liberalization and heavy investment in housing, schools, and transportation. A blue-print published last year pledged preferential tax treatment for "high-end" foreign talent willing to move to the city, an attempt to match the perks offered in the Greater Bay Area, a megalopolis of nine cities and two territories in southern China. Shanghai authorities also expanded the categories of desirable expats to include newly minted doctorates in disciplines such as science and streamlined the process for visa applications.

Freed from the requirement of having to



▲ Food has become a precious commodity in locked-down Shanghai

operate joint ventures with local partners, foreign banks including Goldman Sachs Group Inc. and Credit Suisse Group AG have been sketching out plans to double or triple their workforces in China. Shanghai's bungled lockdown, however, is serving as a reminder that even the city's well-heeled residents are subject to the whims of an authoritarian regime. Expats and even Chinese professionals, key ingredients to building out a business hub, are having second thoughts about making it their long-term home.

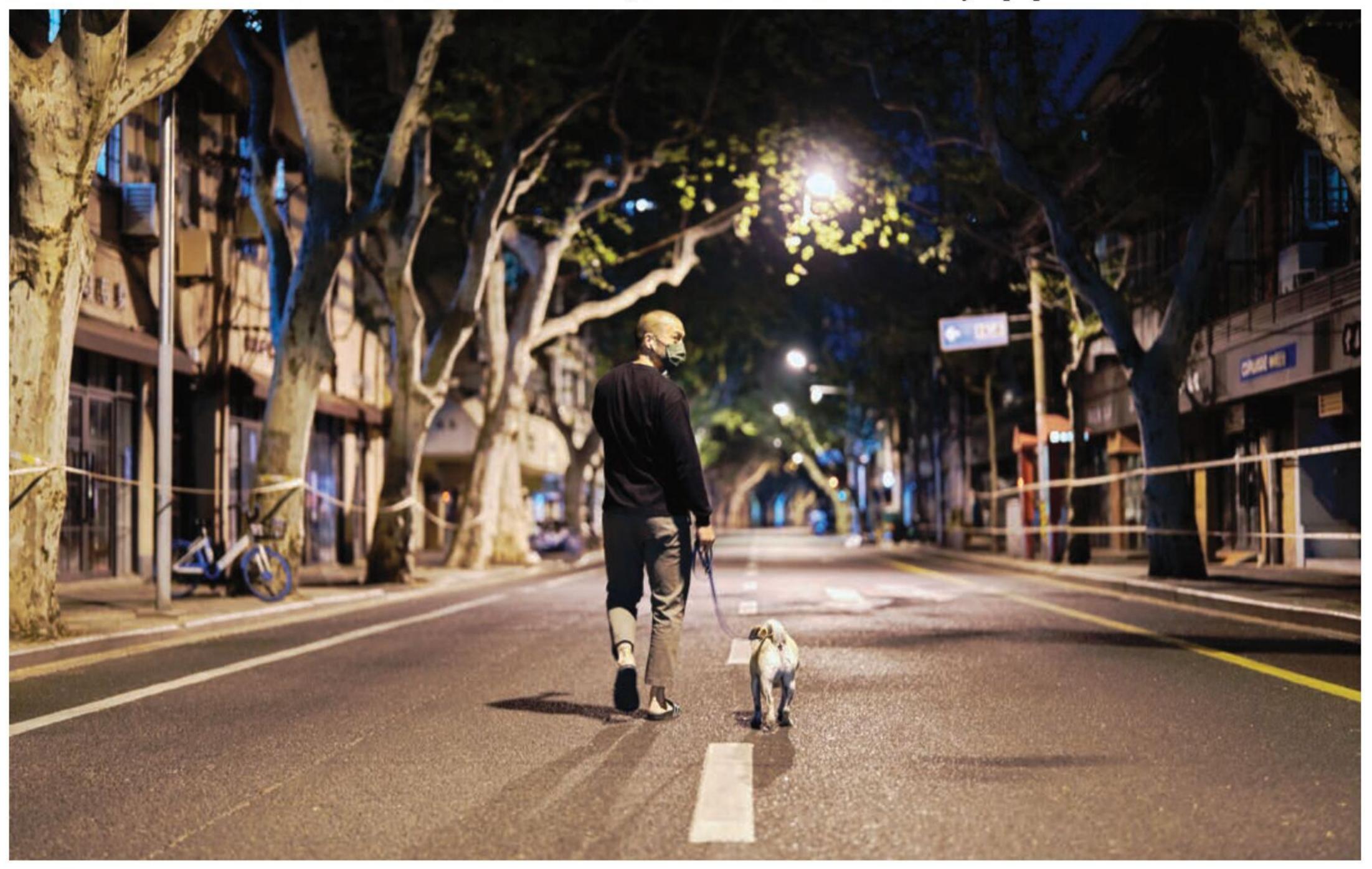
Ralf, a German-born event planner in Shanghai who recorded a contentious conversation in which he resisted instructions to report to a quarantine center and then shared it on social media, says he's making preparations to leave China as soon as possible. "I can't trust the people," he says.

The head of a foreign asset-management firm ▶

◀ in Shanghai said the company has seen most of its non-Chinese employees depart this year and has now given up on recruiting from abroad. A Hong Kong-based fund manager is recommending that his U.K. company establish its China headquarters in Shenzhen, which has lower taxes. The dire stories emerging from Shanghai have helped his case, he says, asking not be named because of potential business repercussions.

A survey conducted before the lockdown showed enrollment at international schools across China falling by 25% for the next academic year, says Julian Fisher, an education consultant in Beijing and vicechair of the British Chamber of Commerce in China. while reaffirming the government's commitment to Covid Zero. "The current policy with lockdowns leading to production stops, logistic and supply chain disruptions, and restrictions on the movement of people do not only pose a short-term concern, but will leave their marks on the long run," Jens Hildebrandt, executive director of the German Chamber of Commerce in North China, said in an email.

In the third week of April, some businesses including Tesla Inc. and French grocery chain Carrefour SA began to gradually resume operations in Shanghai as Covid cases declined. Still, about two-thirds of the city's population



Still, many foreign companies are sitting tight, betting that gaining even a sliver of China's \$45 trillion financial industry is worth the sacrifices. It helps that in recent weeks China's leadership has taken steps to shore up sagging investor confidence, enacting measures to support the economy and vowing a quick conclusion to the crackdown on big technology companies that has destroyed billions in shareholder equity.

Foreign businesses, represented by chambers of commerce from Europe, Japan, and the U.S., got a chance to air their grievances in a meeting on April 18 with Commerce Minister Wang Wentao, who pledged to address their concerns

remains confined, and there is no indication when restrictions will be lifted.

Jasper, a 35-year-old banker who moved from Hong Kong to Shanghai five years ago, says he's thinking of leaving once he is able. "How is it possible for a city to develop into an international finance center while the government can't even make sure its residents can get enough food?" he asks. —Lisa Du, Amanda Wang, and Colum Murphy, with James Mayger, Cathy Chan, and Zheng Li

THE BOTTOM LINE Many in Shanghai's cosseted community of expat and Chinese professionals are rethinking their commitment to living there in light of harsh lockdown restrictions.

▲ A nighttime walk in Shanghai during lockdown in April

27

Waiting on mRNA Shots

 Beijing refuses to allow Western vaccines even as the development of Chinese ones lags

China's government has demonstrated it's willing to go to extremes in its quest to contain the virus. But one thing it has so far been unwilling to do is deploy a powerful tool against the highly contagious omicron variant: mRNA vaccines. These shots could reduce the chances of elderly and other vulnerable Chinese getting seriously ill or dying—and possibly help the country transition out of Covid Zero.

Lining up the necessary supplies shouldn't be a problem. Toward the end of 2020, Shanghai Fosun Pharmaceutical Group Co. reached a deal with Germany's BioNTech SE to distribute 100 million doses of the mRNA vaccine the German company co-developed with Pfizer Inc., once China's drug regulator gave the green light. Approval is still pending, though. "Worldwide data clearly indicates mRNA is the gold standard," says Joerg Wuttke, president of the European Union Chamber of Commerce in China, which wrote to the Chinese government in April urging it to allow the shots. "Why waste time and wait? For what?"

The wait, many analysts say, is for a local company to come up with its own mRNA vaccine. Since the start of the pandemic, China's government has touted self-reliance in fighting Covid, promoting domestic vaccines based on inactivated versions of the virus and barring all foreign ones from the market. Slightly more than 88% of China's 1.4 billion people have received two doses of those shots. Opening up to foreign-made mRNA vaccines risks embarrassing President Xi Jinping and other officials, says Allison Hills, senior consultant in London with Eradigm Consulting. "For them to say now we are accepting BioNTech," she says, "it's tantamount to saying ours are not as good."

Clinical trials have shown the inactivated vaccines from China's Sinopharm Group Co. and Sinovac Biotech Ltd. to be less effective in stopping infections, though the gap in protecting against severe disease and death is narrower.

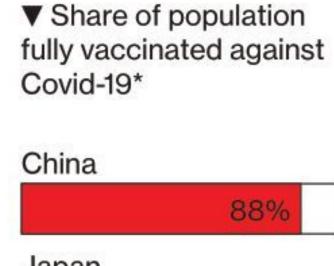
Last year, optimists hoped China's go-it-alone strategy would lead to the speedy approval of a locally made mRNA vaccine, co-developed by Walvax Biotechnology Co., Suzhou Abogen

Bioscience Co., and the Academy of Military Medical Sciences. The partners invested in a new facility to ramp up production once the government gave the nod, and state media reported production would start by August 2021. But results of early trials were disappointing, and the vaccine is unlikely to reach the market before the end of 2022, according to Bloomberg Intelligence.

One reason for the delay could be the different approach the Walvax group took. Unlike the shots from Pfizer-BioNTech and Moderna Inc., the Chinese vaccine targets a part of the coronavirus spike protein that binds to cells in the body, says Sam Fazeli, senior pharmaceutical analyst with Bloomberg Intelligence in London. For vaccine developers, focusing on this smaller area, called the receptor binding domain, can reduce costs and may facilitate manufacturing. It can also add uncertainty, given that this particular domain is a focal point for mutations in newer variants.

Walvax, which didn't respond to a request for comment regarding the design of the mRNA vaccine it co-developed with Abogen, says it has teamed up with a Chinese startup, RNACure Biopharma, to develop another mRNA vaccine targeting variants, including omicron. This one encodes a full-length spike protein that covers major mutations from variants. The companies are seeking approvals to begin human testing.

Walvax's difficulties have raised the stakes ▶



Japan 80 Brazil

Germany 76 U.K.

U.S.

India

50

Russia

▼ A senior citizen receives a Covid shot at a Beijing mobile vaccination site in April



28

◀ for other Chinese companies working on mRNA vaccines. In early April, China gave permission for CanSino Biologics Inc. and CSPC Pharmaceutical Group Ltd. to each begin first-phase trials. Others are further along: Stemirna Therapeutics Co. is seeking emergency-use approval in Southeast Asia and South America, having tested its vaccine candidate in Brazil and Laos. AIM Vaccine Co. expects to apply for conditional approval by the end of the year, says spokesperson Lingna Ding.

Early data from Hong Kong's winter omicron wave show why mRNA vaccines could be valuable in China. A preprint study by researchers at the University of Hong Kong in late March concluded that two doses of the Sinovac vaccine underperformed BioNTech's shots, especially among the elderly. For prevention of severe disease, BioNTech's vaccine effectiveness in people 80 and older was 84.5%, compared with only 60.2% for Sinovac; for protection against death, there was a gap of about 20 percentage points, with BioNTech at 88.2% and Sinovac at 66.8%.

The study, which was funded by the Chinese government, found no significant gap for those who had received three doses. That cohort, however, was small, as only about 10% of seniors had received boosters and government vaccination teams dispatched to nursing homes-sites of the worst outbreaks-only offered Sinovac shots.

Jyoti Somani, senior consultant for the Division of Infectious Diseases at National University Hospital in Singapore, says China should consider deploying mRNA shots as boosters for people who have received two doses of Chinese vaccines. "It looks like you are getting a much broader immune response when you mix and match," she says. "What is clear is that we need both." That argument is winning support inside China. Zhong Nanshan, a pulmonologist and influential government adviser on Covid, in March co-authored a road map for the country's reopening that identified better booster coverage, with different vaccine types, as essential.

With no home-made mRNA vaccines on the horizon, health officials may have to focus on better deploying the shots now available, targeting vaccine holdouts, especially among seniors, and improving booster rates. Approximately half the Chinese population has received boosters. That compares with about 30% in the U.S. "Any of the vaccines would be a good thing," says Colin Pouton, a professor at the Monash Institute of Pharmaceutical Sciences in Melbourne. —Bruce Einhorn and Dong Lyu

THE BOTTOM LINE There are at least six Chinese-made mRNA vaccines in development, but none is expected to reach the market in 2022.

Evading Beijing's Social Media Containment Policy

In the early hours of April 14, the Chinese Communist Party's social media strategy went off the rails.

It began when state media accounts on Weibo, China's Twitter equivalent, promoted the hashtag "The U.S. is the country with the largest human-rights deficit." Tens of thousands of Chinese internet users turned the accusation around onto Beijing.

They criticized not only China's Covid response of strict stay-at-home orders and minimal financial support for households but also wider social problems: long working hours, high property prices, violence against women, and censorship itself. "Our doors are locked down. Our pets are killed. Our medical resources are wasted so that people with acute illness can't be treated," wrote one poster. "The American government is so horrible, I'm so lucky to be born in China," read a typically ironic post.

would be so symbolic in Chinese politics?"

China largely outsources censorship duties to online platforms themselves, but this has become an overwhelming job, because the number of posts has proliferated as Chinese turn to social media to plead for assistance for themselves or for relatives who are running short of medicine or food.

The lockdowns have created a captive audience for viral videos, some of which have been viewed tens of millions of times. One showed crying children who'd been separated from their parents and warehoused in makeshift, understaffed quarantine centers. In another, hazmatsuited workers beat a pet dog to death.

The online outrage these clips provoke presents a contrast with the reaction to China's earlier coronavirus outbreak in Wuhan. Back then netizens voiced their displeasure that early

comments section was divided between criticism and support. Yet the most popular response—with more than 17,000 likes—was a call for economic support: "What about giving everyone a handout of 10,000 yuan [\$1,524] each month, and I'll support your citywide lockdowns?" it read.

China's leadership has demonstrated it's often willing to tolerate a degree of dissent as long as it doesn't lead to direct action. It helped that many outside Shanghai blamed city officials for laxity. "The majority of voices take local government officials as the scapegoats and accuse them of disobeying or neglecting top officials' directives," says Wendy Zhou, a Chinese media researcher at Georgia State University.

Still, censorship has been rife. At one point, Weibo even blocked searches on how to find food in Shanghai, because such posts undermine pillars of the Communist Party's legitimacy. It also quickly purged images of sporadic real-life protests.

One theme among the critics is that the lockdowns are driven by a desire to showcase the superiority of China's system and aren't grounded in hard science. That's why a recording of a Shanghai health official struck a nerve. In the audio clip, Zhu Weiping laments that city officials haven't listened to her repeated pleas to let those with mild or no symptoms isolate at home. "This illness has become a political virus," she says. Platforms swiftly limited sharing of the recording, but millions had already heard it. A hashtag "Protect Zhu Weiping" was viewed 2.8 million times.

On the morning of April 23, after Shanghai authorities announced even stricter measures for some districts, the battle shifted from Weibo to WeChat, an instant messaging app. A six-minute video titled The Sound of April painted a heart-wrenching portrait of Shanghai under lockdown; it went viral and was soon removed. To evade censorship software, WeChat users uploaded it upside-down and also mirrored versions until late into the night. The cat-andmouse game continues. — Tom Hancock and Jing Li

The pressure had been building for weeks. While Shanghai's streets have been silenced by a strict lockdown that began in March, a noisy wave of dissent spread from the city onto social media. Censors have struggled to keep up with the volume and creativity of criticism.

Subversion of officially promoted hashtags makes life harder for censors. As well as the hashtag about human rights, internet users have piggybacked on official hashtags about "investigating epidemic rumors" and another about a foreign ministry spokesman criticizing the U.S. In the latter instance, some posters referenced the Oscar-winning film La La Land to poke fun at the spokesman, as its title sounds similar to a phrase he used to describe the happiness of life in China. "Censors simply cannot keep up with digitally savvy and rights-conscious citizens. This is a classic game of cat and mouse," says Diana Fu, an associate professor of political science at the University of Toronto. "Who knew that La La Land

reports of the virus had been suppressed, but there was a general consensus that tough measures were needed to eliminate it. Now, increasingly, it's the zero-tolerance stance that's coming in for criticism.

The Shanghai lockdown was "the first time that relatively large numbers of citizens began to question the zero-Covid policy on social media," says Guobin Yang, a University of Pennsylvania professor who is an expert on China's digital culture and the author of a book about the experience in Wuhan. Since then, almost 90% of the population has been vaccinated and many "have less fear," he added. They're also aware that many countries have given up on eradicating the virus and are now focused on how to coexist with it.

There are no authoritative surveys or other data on Chinese attitudes, but the public discourse has become polarized. When Wu Zunyou, a senior epidemiologist, explained the zero-tolerance approach on his Weibo account on April 18, the



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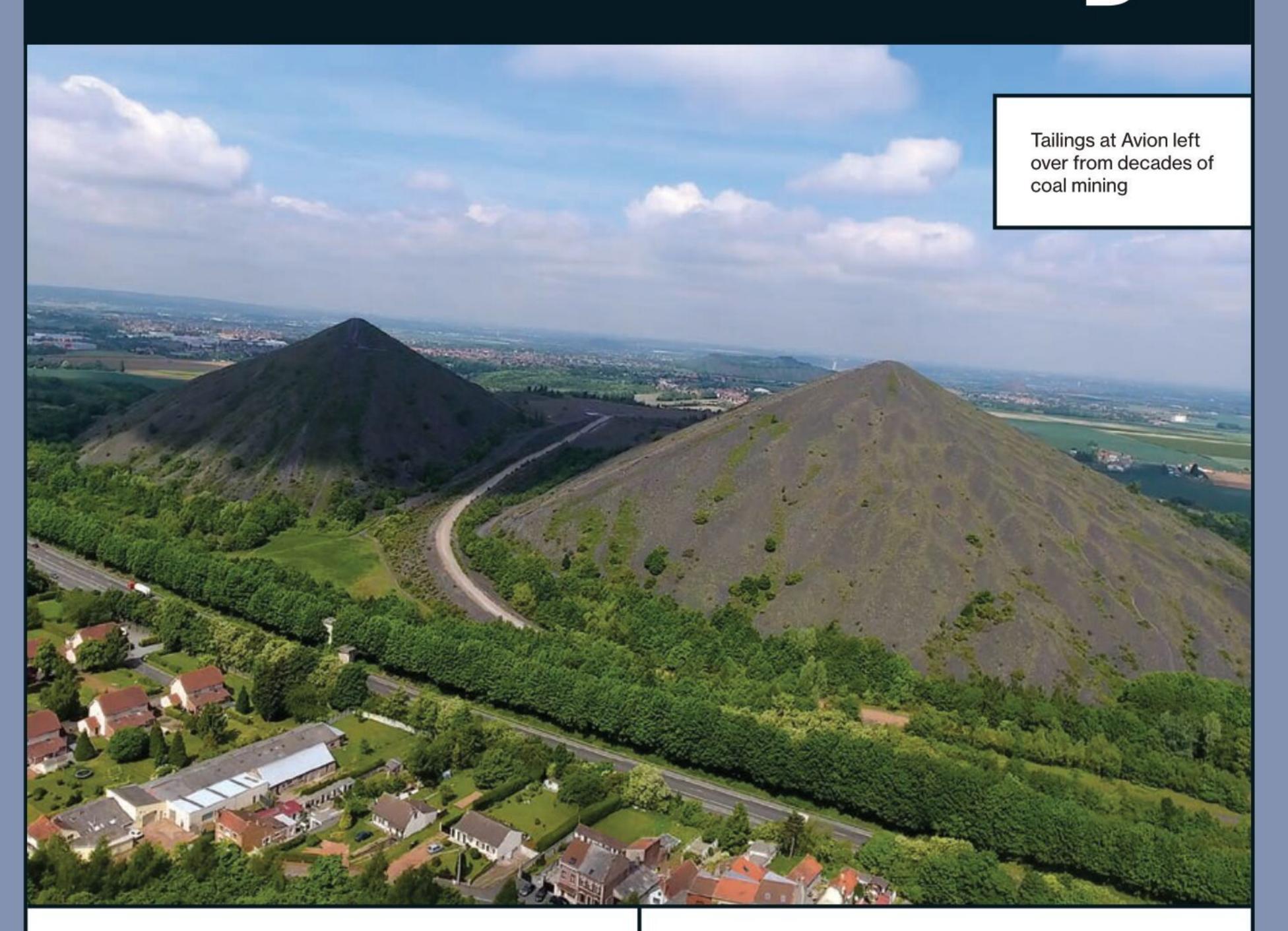
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RESTRICTIONS APPLY



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Sustainability



Cleaning Up Coal's Carbon Legacy

Abandoned mines leak methane for decades, but the gas can be captured to provide energy

Just outside the northern French town of Avion, there's a 20-foot-wide concrete disk with a small plaque reading "Shaft 7B 1920-1986." The site marks the entrance to a coal mine that once employed 3,000 people, whose modest red-brick homes still stand nearby. These days, few signs of their work remain other than the 50-foot-high piles of tailings from the mine—and a pair of 12-inchwide pipes protruding from the disk that connect to a tangle of tubes and valves.

The pipes carry methane, an odorless, flammable gas that gets released when the coal is dug out of the earth. The methane—the main component in natural gas—rises from 4,000 feet below and accumulates beneath the concrete plug, where a company called Française de l'Energie (FDE) captures it to produce heat and electricity. "You don't need any underground installation," says Julian Moulin, the company's founder, touring the site in a reflective orange puffer over his blue blazer. "You just safely seal the former well-head, connect it to the pipeline, filter the gas, and inject it into the network."

At the height of the mining era, 350 coal mines dotted northern France and southern Belgium. When cheaper coal became available from abroad and French energy policy shifted to nuclear, they began to shut down. None operate today, but "closed mines produce methane for decades," creating dangerous buildup, says Raymond Pilcher, chair of a United Nations panel on the gas. Because methane has 25 times the global

May 2, 2022

Edited by Rebecca Penty and David Rocks warming potency of carbon dioxide, it's a climate change nightmare. "Coal extraction is forbidden in France now, but we still have this gas issue," says Yann Fouant, FDE's director of operations.

The U.S. National Oceanic and Atmospheric Administration announced in April that methane emissions from all sources reached a record high in 2021. Thousands of coal mines have shut down in the past decade, and the Environmental Protection Agency says they account for 9% of global methane emissions. But recent observations indicate those figures may be low. New satellite data has found that a single mine accounting for 1% of Australia's coal production emits 20% of the country's reported methane emissions—suggesting that the problem is far worse than previously believed.

At Avion, one pipe moves methane into a filtration system to remove microscopic coal particles. From there, the gas flows to an adjacent building where machines that sound something like a malfunctioning jet engine compress it and push it into a local natural gas distribution pipeline. A second pipe leads to co-generation engines—essentially miniature gas-fired power plants—that create electricity for the local grid.

FDE operates 10 such sites in the area, using various iterations of the technology. Twelve miles away, beside a soccer field in the town of Béthune, the company processes gas from another mine that's sent through a rehabbed pipeline. The gas provides electricity for about 22,000 people, and the heat the generators give off is captured for a local network; the system has lowered residents' energy bills by 20% and cut their greenhouse gas emissions by 35%, according to the company. Across the border in Belgium, an electricity-only setup fueled by captured methane provides 7.5 megawatts—about as much as 20 large wind turbines would generate—for 35,000 residents.

French government officials say if the power FDE supplies came from natural gas extracted by conventional methods rather than methane captured from leaky coal mines, an additional 1 million tons of CO₂ equivalent would be emitted annually. Altogether, FDE says, its sites contain enough gas reserves to cover a decade of France's current consumption. The company's revenue grew 30% last year, and profits more than doubled as existing facilities produced more energy and new projects came online. Moulin says FDE, whose Euronext-listed stock has almost quadrupled in the past five years, is on track to reach €35 million (\$38 million) in revenue and a 45% profit margin by the end of the year.

Moulin got the idea after investing in an Australian company that developed so-called coalbed methane projects, in which the gas is extracted prior to mining. He realized that the mines around Avion had closed without a long-term plan to handle their methane buildup, and

that across Europe many more sites would shut down as countries shifted to cleaner fuels. "We were getting out of coal but not dealing with the methane emissions," Moulin says. "All the Eastern European countries will need to deal with this issue."

May 2, 2022

Even though the technology isn't new—gas from at least one closed mine in the U.K. has been captured for energy since the 1950s, and Germany's Steag New Energies powers more than 150,000 homes with abandoned-mine methane—Moulin had trouble building his business. "No one was interested," he says. "Everyone was focused on carbon dioxide."

But as countries started to set more ambitious emissions reduction targets, methane emerged as an easy fix, and current methods of dealing with the gas buildup all have shortcomings. Mines are sometimes flooded to lock the gas in, but the water can poison drinking supplies or percolate up to the surface. Another method is to seal a mine and walk away, but the pressure eventually builds to a dangerous level, and the methane must be vented anyway. The third option is to simply let the gas escape into the atmosphere—fueling global warming.

In Avion, Mayor Jean-Marc Tellier says the facility has boosted the local economy and inspired a plan to



Moulin (right) and staff members at the Française de l'Energie plant in Avion

place solar panels atop the tailings piles to generate even more clean electricity for the area. Just as important, he says, by providing a catalyst for smarter management of the methane problem, the project serves as something of a memorial to 21 people who were killed in a methane explosion deep underground in 1965—a tragedy that remains etched into the local consciousness. "This was becoming a wasteland," Tellier says. "Now it's a godsend for us. And, I would say, a fair return for the miners." —Paul Tullis

THE BOTTOM LINE As Française de l'Energie opened new projects and its existing facilities produced more power, the company's revenue last year grew 30%, and its profits more than doubled.

Gourmet From Scraps

London's Silo throws nothing away in its approach to fine dining

Almost every dish chef Douglas McMaster concocts contains the remnants of another. The fish sauce he drizzles over leeks for a starter on his current seasonal menu comes from boiling down cuttlefish remains; an entree that consists of potato, seaweed, and crème fraîche flavored with coffee and kombucha gets its hint of java from the husks of roasted coffee beans; and his dessert sandwich contains ice cream from the buttermilk left over from making butter, a wafer of wheat husks from bread-making, and a salted caramel-like syrup that's the fermented prize of soaking surplus bread for two days.

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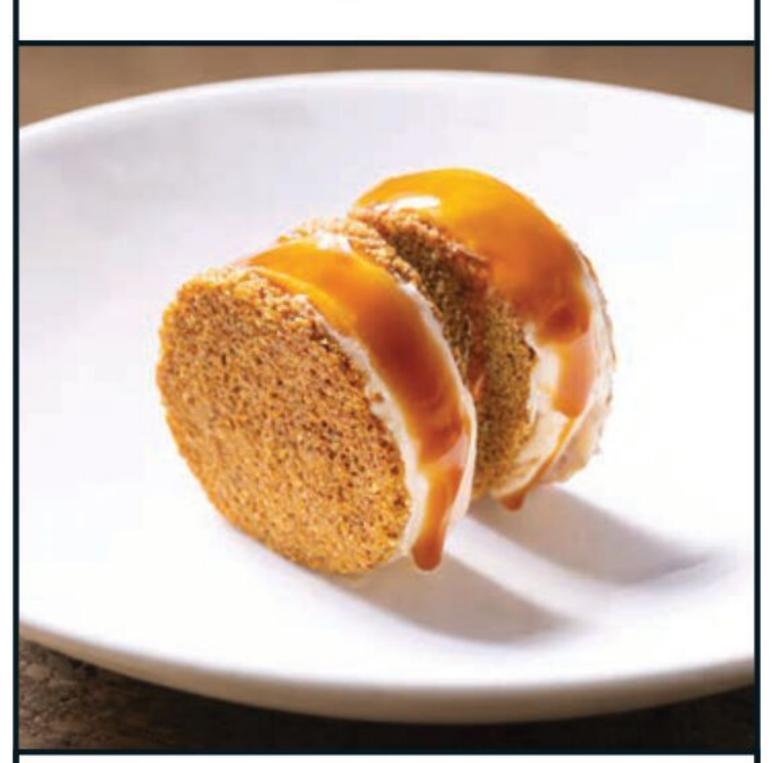
McMaster is waging war against waste at Silo, which he opened as head chef in 2019 in East London's hip Hackney Wick neighborhood. It continues the zero-waste concept of his first restaurant, in Brighton, England—also called Silo—which he opened in 2014 and closed to move to the capital. Silo London's interior is designed with recycled or recyclable materials—the lampshades are made of seaweed, the bar of reused plastic, the cutlery holders of crushed wine bottles. Local farmers supply the ingredients and collect what diners don't eat to make compost. McMaster uses every scrap he can in his dishes, which also feature invasive species such as crayfish. "We try to remove the human

wasting component, such as using plastic or throwing too much food away," McMaster says.

Bloomberg Businessweek

Food waste produces methane when it breaks down in landfills, and is responsible for as much as 10% of global greenhouse gas emissions, according to the United Nations Environment Programme. Households are the biggest culprit, but the food service industry accounts for about 26% of the gases caused by food waste, the organization's data show. And while no-waste cooking is on trend with diners expecting sustainable options, Silo takes the ethos to the extreme.

The focus on preventing waste was on display during a recent dinner service. Cooks used scales to measure ingredients, and they made real-time portion adjustments if they noticed customers leaving food uneaten. "I just told one of the cooks to put slightly fewer potatoes



Silo's ice cream sandwich

on the plates," says Liam Colucci, a chef who was serving from the open-bar kitchen, which overlooks fewer than a dozen tables in the dining room. Each member of the small staff has encyclopedic knowledge of the dishes and the operations of the restaurant—and can preach its no-waste principles about as well as McMaster.

Silo is ranked 27th on the where-to-eat guide of the National Restaurant Awards, ahead of the more famous haunts St. John (where McMaster trained), Kiln, and the Ritz, and while it's not in the main guide, it boasts a Michelin Guide green star for sustainability. A tasting of the entire menu-including smaller portions of the three starters, six mains, and two desserts—costs £59 (\$74), plus the 12.5% discretionary service charge that's customary in British restaurants.

It's not easy being waste-free. Among the challenges are finding farmers and dealing with weather events that change crop yields and availability, and the occasional human error by suppliers, says McMaster. But reining in waste helps the bottom line, as well as the environment. An average-size restaurant in the U.K. loses about £20,000 a year on wasted food, according to the nonprofit Waste and Resources Action Programme.

Although food service operations have recently made strides in reducing food and packaging waste, the pandemic reversed some of those gains as restaurants focused simply on surviving, says Noam Wolf, general manager of Marketman, which sells management software to the hospitality industry. Less than half of restaurant groups in the U.S. track food waste, and only 14% compost it, according to the National Restaurant Association.

McMaster's methods are hard to replicate, but they serve to inspire consumers and the wider society to rethink their food habits, says Louisa Dodd, senior project manager at the U.K. Sustainable Restaurant Association. "Hospitality influences the household," she says. "We turn to people like Doug McMaster when cooking at home." ——Alice Kantor

THE BOTTOM LINE Restaurants are under pressure to reduce their environmental impact. Silo's zero-waste model is one to emulate.

Turning Trash Into Furniture



A Spanish company makes products from discarded TVs and phones

The office Ignacio Garcia shares with his colleagues is a showcase for his company's creations—a plaque, one of the tables, even pots for his plants. The objects in the open-plan room are functionally distinct but share a common origin: the trash.

Garcia's business recovers the components and raw materials from discarded electronic items for resale. It breaks down the plastic and metal bits it can't sell, trans-

forming them into new products. The Spanish company is called La Hormiga Verde, or "the green ant," after Garcia's antlike penchant for gathering and storing things. "I lost my job in 2018 and had to reinvent myself," says Garcia, 50, an industrial engineer who spent 15 years in the biomass industry. "Looking at my mobile, I realized it was packed

Global electronic waste in 2019, millions of metric tons

Small appliances 17.4

Cooling and freezing equipment 10.8

Screens and monitors 6.7

IT and telecom devices 4.7

Lamps 0.9

with recyclable materials. I saw a business opportunity."

Based in the southwestern city of Villafranca de los Barros, La Hormiga Verde recycles 99.5% of the roughly 1,200 metric tons of discarded items it collects each year. The mere existence of the business points to a problem: Old TVs, computers, and mobile phones are piling up everywhere. E-waste—a health and environmental hazard—is set to rise globally to 75 million metric tons by 2030, from 53.6 million metric tons in 2019, according to the Global E-waste Statistics Partnership, a coalition of the United Nations, World Health Organization, and other institutions.

Although sales of components and raw materials are La Hormiga Verde's main source of income, it also receives public subsidies as a registered special employment center: Of its 34 workers, 32 have some kind of disability. "I conceived the company as a tool to help other people who had lost their job, as I did," Garcia says.

Revenue, including the subsidies, reached about €800,000 (\$845,000) in 2021, and Garcia expects it to increase by as much as 35% in 2022, exceeding €1 million. He's expanding the operation within Spain and plans to enter Portugal next year.

Staff on the disassembly line at La Hormiga Verde's 2,200-square-meter (23,681 sq. ft.) industrial building work at individual stations to take apart old photocopiers, microwave ovens, batteries, and other items using hand tools and specialized mechanical equipment. Each day they recover about 1,000 kilograms each of plastic and iron and about 300kg of copper. Some employees focus on transforming these materials into products: tables made of ground plastic, stools from recycled washing machine parts, and flower pots from cables.

Workers also recycle about 500,000kg of damaged solar panels each year, dismantling them to extract raw materials, or refurbishing them for resale or to be used on-site. Functioning components such as circuit boards are sent elsewhere to companies that specialize in recovering their parts.

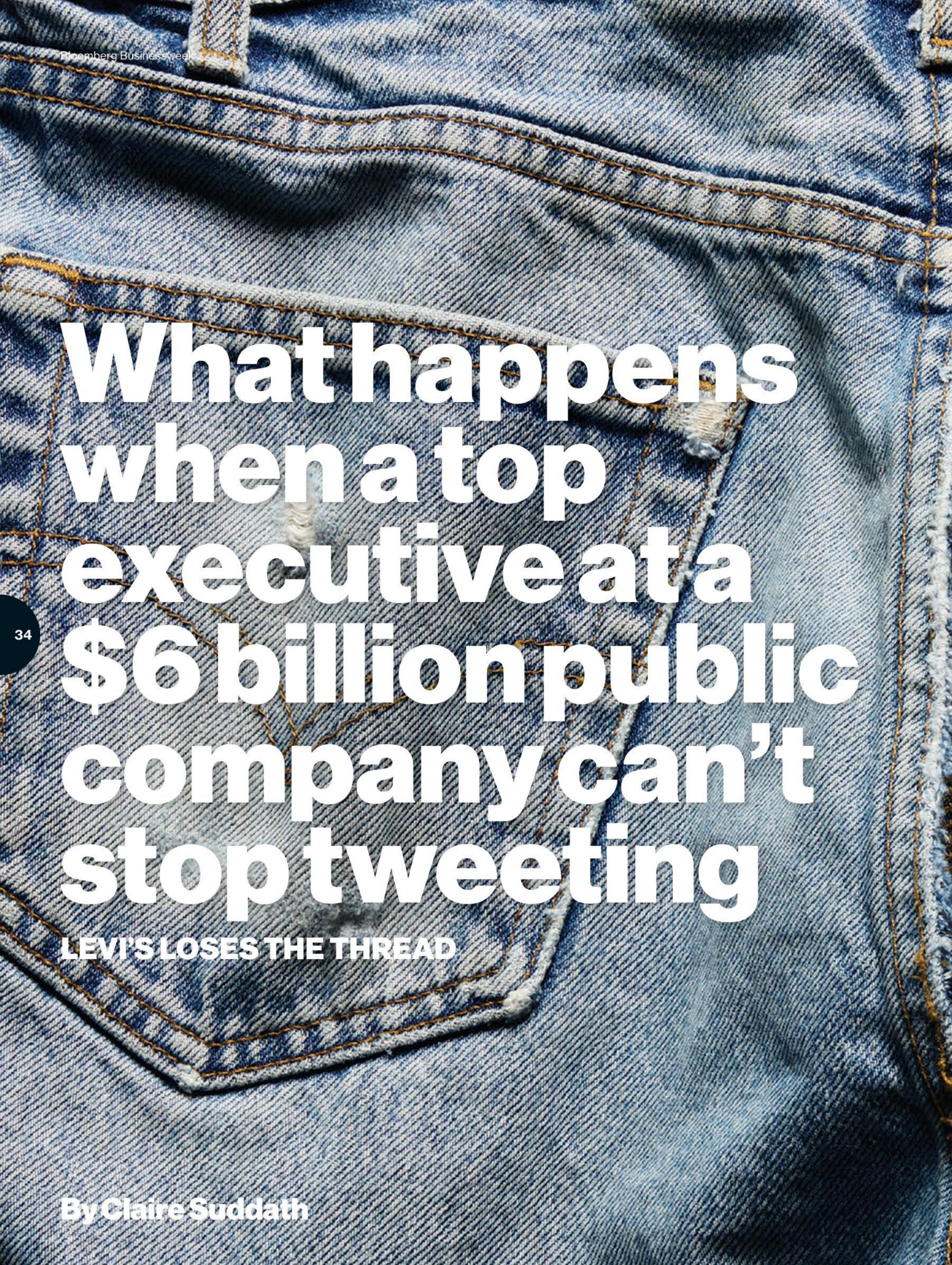
Domingo Fernandez, 49, is responsible for sifting through objects to select those that don't require disassembly and can be resold. Computers in good condition are refurbished into "social PCs" to be sold to nonprofit institutions or low-income people for about €70. Vintage and rare items are put up for sale in the company's showroom or online. "I was unemployed for five years before starting this job and could only find it thanks to my disability. Without it I'd still be at home," Fernandez says.

Eva Santiago, 43, traded her temporary job caring for children in a kindergarten for a permanent position at La Hormiga Verde. "I was looking for long-term employment, for more stability, and this was a great opportunity," she says.

Disassembling objects "is addictive, and everybody can do it," Garcia says. "We've excellent workers here, some of them even over 60, and I know for sure I'll keep hiring disabled people."

La Hormiga Verde has about 400 collection points and has its own logistics in place to transport the discarded items. But as e-waste balloons, people increasingly deliver objects directly to the company, Garcia says. "For La Hormiga Verde, that means the more kilograms we get the more employment we generate." — Thomas Gualtieri

THE BOTTOM LINE The growing global problem of electronic waste is providing a business and employment opportunity for Spain's La Hormiga Verde, which recycles the components and raw materials.





at home with a husband, four children, a dining room table converted into a makeshift office, and no idea how the Covid-19 pandemic would unfold or when it would end. So she started posting on social media. A lot.

Sey lived in San Francisco, one of the first cities in the U.S. to issue a shelter-in-place order. Her eldest son from a previous marriage returned from the University of California at Berkeley, which had closed its campus. His brother, then a high school junior, was marooned at home, too. Sey's husband, Daniel Kotzin, an attorney-turned-stay-at-home dad, took care of their two youngest, then 5 and 3. "We were trying to manage, all of us in an apartment," Sey recalled. "It just felt completely absurd."

Sey attempted to maintain some semblance of normalcy. She dressed for work every morning, putting on shoes even though she was no longer going into the office. Although their 3,000-square-foot, two-story, four-bedroom condominium was bigger than most in San Francisco, it didn't have a back-yard. Kotzin kept taking his kids to shuttered playgrounds. They'd play until the cops came and kicked them out.

Aside from Kotzin's low-grade civil disobedience, he and Sey endured the early weeks of the pandemic more or less the same as everybody else. They followed the news obsessively and were particularly heartened by a survey of 105 Covid patients in Italy which found that, at the time, the median age of death from the virus was 81. No one under 18 in Italy had died yet either, which seemed like good news, too. So why, Sey wondered, were schools and playgrounds closed? They should reopen immediately, she thought. She vented her frustrations on Facebook.

This didn't go over well with her friends and family, who pointed out that this new and not yet fully understood virus was killing thousands of people with no end in sight. "I realized Facebook was unproductive rather quickly," she says. "But I couldn't help myself. I needed to talk it through." She switched to Twitter.

"I realized Facebook was unproductive rather quickly. But I couldn't help myself. I needed to talk it through"

Before the pandemic, Sey used Twitter only occasionally. Her followers were mostly fellow gymnastics fans who knew her either as the 1986 women's all-around national champion or as the author of *Chalked Up*, her 2008 memoir about the physical and emotional abuse she'd endured as a gymnast. Now Sey was tweeting several times a day. She fretted about rising unemployment. She shared a *Mother Jones* article about cases of child abuse going unreported because teachers, often the first to notice something wrong, were no longer with children in school. A month into the pandemic, she was calling for the country to return to normal.

"We just need to open up and learn to deal," she tweeted on April 25. "We can't live this way forever." She veered between the thoughtful—"We have to weigh the impacts of kids missing a semester, a year etc of education vs risks to other populations from covid"—and inflammatory falsehoods: "School age children [are] more likely to be hit by lightning than die of coronavirus." By May 28: "Science is being used as a smokescreen."

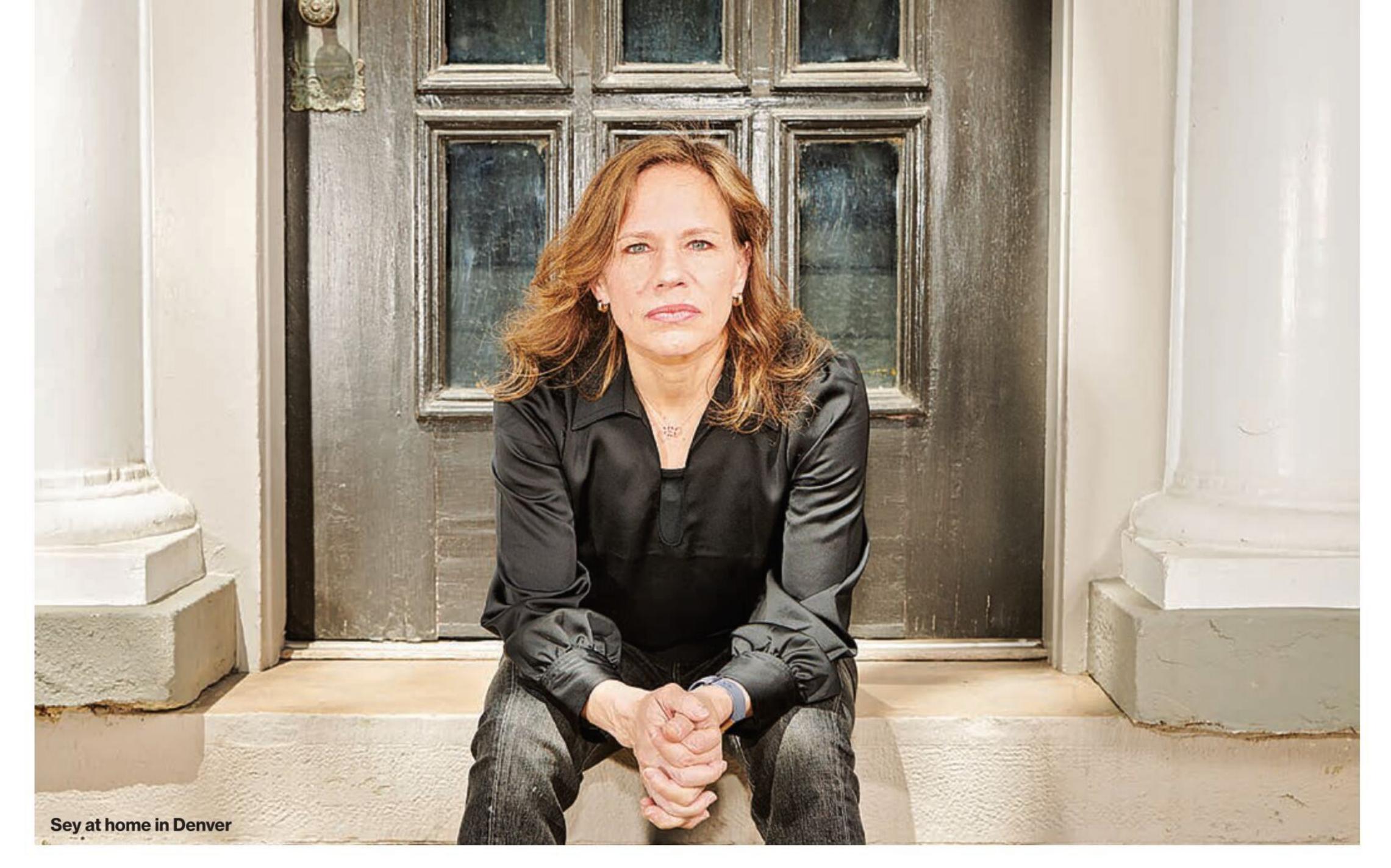
Kotzin, also on Twitter, was more combative. Sometimes he'd get into fights, and Sey would jump to his defense. "People were calling me horrible names," Sey says. "Like, 'You're obviously a racist.'" But over time, she connected with like-minded people, many of them parents frustrated by remote learning. Sey's follower count started to rise.

The months, and tweets, flew by. "Masking a 2 year old asserts that babies are dangerous and to be feared." "I would not volunteer my kids [for vaccine trials] knowing that they are at virtually no risk if they do get Covid without a vaccine." Anthony Fauci, she wrote, "promised an AIDS vaccine in '87. I think we're still waiting."

Her tweets would have passed unnoticed, gossip fodder among her friends and relatives, except for one thing: She was chief marketing officer of Levi Strauss & Co., the 169-year-old, \$6 billion publicly traded company that had 16,600 employees and whose blue jeans, Dockers khakis, and other apparel were sold in more than 50,000 stores in 110 countries around the world. At the company's headquarters in San Francisco, Sey was the chief architect of the brand's image, overseeing hundreds of people. Some of her colleagues—eventually, including Chief Executive Officer Chip Bergh—were not happy about what their CMO was saying on Twitter.

The idea that an executive at Levi's would publicly speak her mind isn't out of the ordinary at the company. Levi Strauss & Co. started in 1853 as a dry goods store that catered to cowboys and fortune seekers lured to California during the gold rush—people who lived on the fringes of respectable society. In 1934 it became the first company to design jeans for women, even though it wasn't acceptable for women to wear pants in public at the time. The company started racially integrating its factories in the 1940s, long before it was legally required, and in 1992 it became the first Fortune 500 company to extend benefits to employees' same-sex partners.

For a long time, Levi's progressive stances were known internally but rarely publicized. "We'd been very hesitant to say anything publicly," Sey says. "It felt a little too chest-pounding and almost gauche." But as consumption became an increasingly political act, to the point where the type of car a person drove or where they bought their clothes was seen as an extension of their values and beliefs, staying silent became a problem. Patagonia and Ben & Jerry's had long worn their progressive ideals on their sleeve, while Delta and Dick's Sporting Goods had more recently found there was upside in joining the political conversation. "Consumers



wanted to know what you stood for," Sey says. "They wanted to choose brands that represented their values." So under CEO Bergh, who joined the company from Procter & Gamble Co. in 2011, Levi's became more outspoken in its beliefs.

Understanding when to deploy its political muscle is a hard thing for a company to get right. Last year the Coca-Cola Co. managed to irritate almost everyone when it spoke out against Georgia's new voting law: Republicans were angry that Coke opposed their voting restrictions, and Democrats considered the move hypocritical because the company had made campaign contributions to several of the bill's sponsors. More recently Walt Disney Co. has found itself fumbling in Florida, when Disney employees shamed executives for staying silent on the state's ban on discussing sexual orientation in early elementary grades, prompting Disney to finally condemn the law. (Incensed Florida lawmakers then voted to strip the "woke" corporation, as Governor Ron DeSantis described Disney, of its decades-long special taxing district). "It's not just a question of knowing what your consumers care about, it's also about understanding whether they expect you to take a position," says Anthony Johndrow, co-founder of Reputation Economy Advisors, a consulting firm.

Levi's approach was to stick to issues it already knew. The company had enjoyed a close relationship with the LGBTQ community for decades. In 1982 its philanthropic arm, the Levi Strauss Foundation, donated to the San Francisco clinic that was treating the country's first AIDS patients. A decade later it stopped supporting the Boy Scouts of America after the organization refused to accept gay scouts and scoutmasters. So its first forays into politics seemed a natural fit: In 2015, Levi's signed a U.S. Supreme Court amicus brief in support of marriage equality, and it has since signed another in support of transgender rights. In 2016, after a customer in an open-carry

state accidentally fired his gun while trying on clothes in a Levi's store, injuring himself and scaring employees, Bergh asked customers not to bring guns into Levi's stores. Two years later, after the school shooting in Parkland, Fla., the company publicly called for stricter gun control laws. (The foundation also partnered with Everytown for Gun Safety, founded by Michael Bloomberg, owner of *Bloomberg Businessweek*.)

Each time Levi's hitched itself to an issue, it incurred at least some backlash. After its gun control announcement, the conservative think tank the National Center for Public Policy Research's Free Enterprise Project crashed a shareholder meeting to tell Bergh that the company was becoming "a muscle for fringe politics." But no criticism was so widespread that it noticeably affected company sales.

Levi's also opposed many of President Donald Trump's immigration policies while he was in office, positioning them as a threat to business innovation and growth. Even though Trump had a habit of calling for his followers to boycott Apple, Goodyear, Harley-Davidson, and other corporations when they did things he disliked, Levi's managed to escape his ire. Instead of finding itself thrust into the culture wars, it subtly refined its customer base: An MRI-Simmons study in 2019 found that Wrangler's customers leaned Republican, while Levi's was more popular with Democrats.

Sey started at Levi's as an assistant marketing manager in 1999 at the age of 30. Over the next two decades, as jeans styles changed—boot cut, bell-bottom, skinny, low-rise, boyfriend, high-waisted, and on and on—and as newer denim brands flitted in and out of fashion, her job was to somehow keep Levi's cool. It was a struggle. Between 1996 and 2010, Levi's sales plummeted 60% and the company repeatedly had to close plants and lay off employees. ▶

■ "There were trends, especially in the late '90s and early 2000s, that Levi's should have been able to take advantage of but didn't," Sey says. "We'd grown complacent."

As Sey, a talented marketer, rose through the organization, she worked to make Levi's relevant again. She got a pair of Levi's to star in the 2005 film *Sisterhood of the Traveling Pants*, prompting *Ad Age* to name her to its list of 40 marketers under 40. After she became the company's CMO in 2013, she fixated on music. Levi's started hosting parties at Coachella Valley Music & Arts Festival, hired Alicia Keys as its brand ambassador, and collaborated with Justin Timberlake on a clothing line. As sales rebounded, Sey's personal accomplishments swelled: She was honored as one of *Billboard*'s 25 most powerful people in music fashion in 2016 and among *Forbes*'s most influential CMOs three years in a row.

At the same time, she and Bergh devised Levi's social issue strategy. She didn't choose the issues but was part of the executive team that figured out when it made sense for Levi's to speak out and in what way. "The part that I drove—and I'm pondering this a lot now—was our pivot," Sey says. "How do we communicate these things we care about in a way that feels authentic?"

evi's first approached Sey about her Twitter behavior in the summer of 2020. The head of corporate communications, Kelly McGinnis, broke the ice with a phone call.

"The first thing Jen said was, 'I expected this call,'" McGinnis recalls. "She wasn't surprised at all." The women knew each other well. Over the years they'd worked together on presentations and get-out-the-vote drives. McGinnis was upfront with Sey.

"Her concern was that when I speak as the CMO of the brand, I speak for the brand even if I don't have Levi's mentioned in my [Twitter] profile," Sey says. (According to the Internet Archive, Sey had "proud Levi's employee of 22 years" in her Twitter bio as of December 2021.)

McGinnis didn't ask Sey to stop tweeting, just to think before she did. If an executive of Levi's was publicly casting doubt on the legitimacy of public health policy, calling for the end of lockdowns, claiming that Fauci didn't care if people starved, it sounded as if Levi's felt that way, too.

"I said, 'I don't think that's true,' " Sey says she told McGinnis. "I am a private citizen and a public school mom. From my perspective, this is too important."

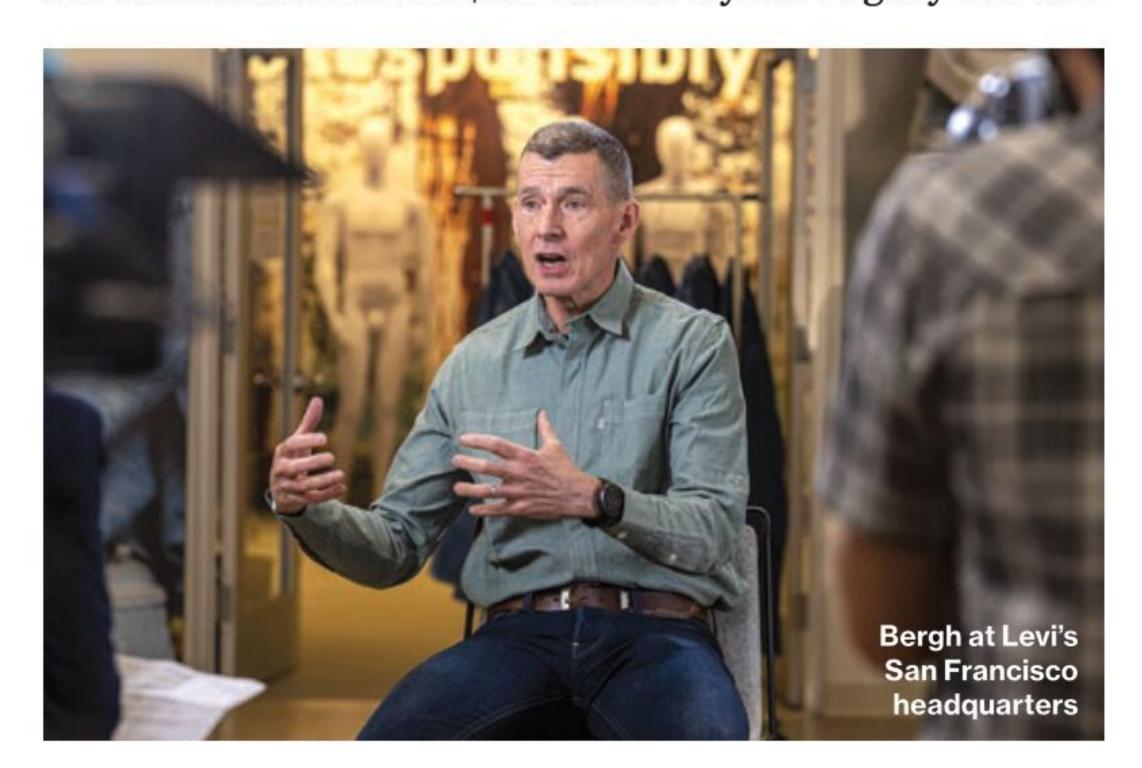
That's not how McGinnis remembers the conversation. "She knew she was the steward of our most popular brand. She said, 'I understand. I hear you. I can hold that line.'"

Sey was part of the executive team that received updates on Levi's employees who were falling sick and even dying from Covid, the team that decided what safety precautions the company should put in place. On Levi's website she wrote open letters to the company's employees and customers about how the pandemic affected her personally and invited people to participate in a daily #handstandchallenge on her personal social media. In many

ways, Sey was the second person, after its CEO, who served as the public face of the company.

She was also thriving in her actual job. With music festivals canceled, Sey had Levi's host Instagram live concerts featuring Snoop Dogg, Questlove, and other musicians. A bet that she and Levi's chief product officer had made a few years before the pandemic was finally paying off, too. The two had reintroduced the company's line of women's jeans, which had historically always been an afterthought, accounting for just 20% of revenue. But women bought more clothes online than men during the pandemic, and their efforts kept sales at Levi's from tumbling even further. (Today, a third of Levi's revenue comes from women's jeans, and the company expects it to rise to half within a few years.)

In October 2020, Levi's promoted Sey to brand president. When her salary, bonus, and stock options were combined, she would make about \$2.8 million a year. Legally she also



became what's known as a beneficial owner of the company, one of a handful of executives whose stock trades—along with those of her husband—had to be filed with the U.S. Securities and Exchange Commission to avoid allegations of insider trading. Sey now oversaw both the company's merchandising and design teams and was the top executive in charge of Levi's image. "It's sort of like all the functions that create the brand perception," Sey says. She was also one of the few people in line to become the next CEO whenever the 64-year-old Bergh decided to retire.

Meanwhile, Sey kept tweeting. She said that putting a mask on a child "signals to the world and the child themselves that they are dangerous, vile, to be silenced and shunned." She incorrectly claimed that in California, people who lived alone "are never allowed to see anyone ever." (Another Twitter user corrected her.) But the topic she mentioned most frequently was schools. In San Francisco, as in many districts around the country, by the fall of 2020, private schools had reopened but public schools remained closed. Sey joined a local parenting group, and in December 2020 she, Kotzin, and a few other parents protested outside San Francisco's City Hall, pushing for a return to in-person learning.

She also approached Levi's executive team with a

proposition: The company should take a public stance, as it had done with gun control and LGBTQ rights, and advocate for the reopening of San Francisco's schools. Levi's declined, saying it didn't wade into local issues. Sey says McGinnis also told executives there were "a lot of potential negatives" to taking a stand on public schools, because most Levi's executives' kids went to private school.

Sey was livid. "The policy of closed schools is fundamentally an issue of equality, and for wealthy White executives to send their kids to private school and have no care that other people can't access that same right, that is hypocrisy to the highest degree," she told me. But she didn't say that at the time. "I just made my proposal and accepted their response." And Levi's did agree to work with her behind the scenes. It helped Sey get in touch with San Francisco's chamber of commerce and facilitated an introduction to Mayor London Breed's chief of staff.

Regular Levi's employees weren't aware of this intraexecutive disagreement over schools. All they saw were Sey's public tweets. By early 2021, Levi's HR department and McGinnis's communications team were getting questions about her. Why was a Levi's executive questioning the efficacy of masks, a direct contradiction to company policy? Did she not care that hundreds of thousands of people across the country had died from Covid? The communications team shared what they were hearing with both Bergh and Sey.

Gossip was circulating in other ways, too. A story spread about a group of designers at Levi's Innovation Lab—where prototypes for new styles and production methods are developed and tested—who'd spent weeks preparing for a presentation to Sey, only to see that she'd somehow tweeted about Covid 11 times during their hourlong meeting.

McGinnis talked to her again. "Then it was legal. Then it was HR," Sey says. "I'd ask, 'Are you telling me that I need to stop tweeting?' And they would always say, 'No, we can't do that, but we're urging you to consider what you're saying.'"

Offline, she and Kotzin got increasingly frustrated that their children weren't in school. Their 5-year-old son started kindergarten on a Chromebook. They worried he was becoming withdrawn. Sey would be working remotely for the foreseeable future, so they sold their San Francisco condo for \$2.4 million and in February 2021 moved to an 8,000-square-foot, \$3.8 million mansion in Denver so he could attend a public charter school in person. "I wanted to go to Florida," Kotzin says—they'd recently become fans of Governor DeSantis's carefree handling of Covid—but the three-hour time difference would've made it hard for Sey to do her job.

After Sey tweeted about her family's decision to move, she was invited to appear on *The Ingraham Angle* on Fox News as a mom who'd "fled" California's draconian Covid protocols. Before she went on, she told Bergh that she was going to do a television interview, but she didn't say what show it was. Sey didn't mention Levi's or say anything controversial during the four minutes she was on the air, but

before her segment, host Laura Ingraham railed against "the medical media cartel" as a chyron below her flashed "Dems push litany of lies to obscure radical agenda."

Ingraham's show was a strange venue choice for Sey. The image that she had helped cultivate for Levi's could easily be described as the opposite of whatever Ingraham thinks. On a previous show, Ingraham had joked that most people would rather wear adult diapers than use a unisex bathroom. Levi's signed a 2019 amicus brief in support of a transgender teenager who was denied the use of his high school restroom. The company's foundation also donated to reproductive health groups including the International Planned Parenthood Federation; Ingraham claimed the organization conducted "mass extermination" and likened it to Hitler.

Employees were furious. At the beginning of the pandemic, Bergh had started hosting virtual town hall events-cutely named Chips and Beer-where employees could submit questions, which the communications team would vet live and pass along to him. At the next Chips and Beer so many people complained about Sey's Ingraham Angle appearance that the communications team felt Bergh had to address the unrest. "Can Chip please comment on Jen Sey's recent appearance on Laura Ingraham's show on Fox News? I was deeply disappointed and confused at the disconnect between morals & values the company projects and that of our leaders," one employee submitted. Bergh, who declined to be interviewed by Businessweek, defended Sey, explaining that she was speaking as a private citizen about school closures and it was within her right to do so. "I really appreciate Chip addressing the Jen Sey question," another employee responded, "however I am still very uncomfortable with her appearing on Laura Ingraham's show....She is an especially divisive and bigoted personality who regularly attacks the very causes that Chip and the company champion. I am embarrassed that my brand president gave her credence by appearing on her show and to me it showed very poor judgement."

"I'll be honest," says Sey, who was responsible for Levi's massive advertising budget. "I've never seen her show. I've never even watched Fox News." Before Covid, Sey says, she'd been a self-described "left of left of center" Democrat. She and Kotzin marched in San Francisco's Pride parades, hung not one but three framed Barack Obama "Hope" posters in their dining room, and supported Elizabeth Warren's candidacy. Once during the early days of the pandemic, Sey was so frustrated with Trump that she tweeted a poop emoji at him. But extended lockdowns changed all that.

"I've watched 'progressive' leaders destroy public education, deny kids access to public life, ruin small businesses, demonize a segment of the population," she wrote on Twitter, where she increasingly referred to herself as a woman without a political party. Sey says she would have gladly gone on CNN, but Fox was the only network to invite her on air. "We all have to come out of our corners a little bit and talk to each other," she told me.

At Levi's, employees weren't buying the idea that Sey ▶

■ was speaking as a private citizen—nor that her appearance didn't indicate tacit support of Ingraham's beliefs. Some people emailed Bergh directly with their concerns.

"I didn't care about her opinion on schools," says Brian Nixon, an executive assistant at Levi's and one of the people who reached out to Bergh about Sey. "Her Covid views were pretty extreme." Sey had coined the term "vaccist," for vaccinated people who refused to associate with the unvaccinated, and "childsplaining," for "when those without children explain why your kids are learning just fine on Zoom and at least they aren't dead." She objected to the characterization of ivermectin. "Stop calling it horse dewormer!" she tweeted. She questioned whether booster shots were just drug companies' latest money-making schemes.

"She was repeatedly attacking obese people, old people. She was anti-vax, anti-mask, and that wasn't following the science, in my mind," Nixon says. "We were making decisions as a company on masking policies, and it felt like she didn't believe in any of that." Bergh shared Nixon's concerns anonymously with Sey.

Companies have been navigating the highs and lows of social media for almost 20 years, but Levi's had suddenly found itself in its most dreaded terrain: a star executive tweeting controversial opinions about a deadly pandemic, and employees holding the company accountable for it. To see how the uproar might play out, all Levi's had to do was look at other companies that had faced similar bouts of internal activism. In 2014, Mozilla Corp. employees effectively pushed out their CEO because he'd supported California's anti-gay-marriage law Proposition 8 six years previously. More recently, workers at Amazon.com, Disney, Facebook, Google, and Netflix have staged highly publicized walkouts for corpo-

rate inaction on issues ranging from climate change to hate speech. So far, Levi's employees hadn't gone public, but the more Sey tweeted, the more likely that would change.

Pressure was mounting from the outside, too. Sey's tweets had earned her tens of thousands of new followers, and random people were taking screenshots and tagging Levi's with questions about its executive's behav-

ior. On Reddit's r/gymnastics community, users got so upset over Sey's Covid stances that they considered circulating a petition to get her fired from Levi's.

Again, Levi's human resources team met with Sey. At their suggestion, she deleted some of her tweets, including an objection to employers requiring vaccines (a contradiction of Levi's own mandate) and one in which she suggested the CDC fight Covid by urging obese people to "get healthy."

Employees also complained about Kotzin, who often compared the medical community to Nazis and other oppressors. "Living in San Francisco is like living in North Korea," he tweeted. "The people who put masks on small children are

the same people who whipped their slaves in times gone by."
"We are not beagles in Fauci's lab."

In May 2021, after Kotzin tweeted a picture of two drinking fountains with the words "vaxxed" and "unvaxxed" over them, along with the observation that "Separate is never equal," the company's Black employee resource group asked to meet with Sey, who was the group's founding executive sponsor. They were upset that her husband seemed to equate a temporary public health measure with racist segregation in the Jim Crow South. By all accounts the meeting went relatively well, though Sey rejected the idea that her husband's tweets might reflect badly on her.

"My response was always, 'He doesn't work here,'" she says. At home, things were less black and white. "We had many discussions on it," Kotzin says. "The concern was, 'If you keep tweeting, I won't be able to be CEO.'" Kotzin offered to delete any tweets that made his wife uncomfortable. "She took me up on it, so I deleted two tweets that were fairly anodyne." He says he can't remember what they were.

performance as brand president, which they both agreed was going well. Levi's sales had rebounded from their early pandemic slump. The company's stock price was up. The brand was cool again; *Vogue* editors had recently selected multiple Levi's styles, including the classic 501, in their roundup of favorite jeans.

At Levi's, as is the case at many companies, it's standard practice to conduct a due diligence analysis of top executives who are considered potential successors. They'd check to make sure neither Sey nor her husband had financial conflicts of interest or held political office. They'd do background checks.

And they'd review their social media accounts for anything that could damage the company's reputation. Bergh asked Sey whether, given the controversy over her tweets, she'd like to undergo the investigation now or wait until it became unavoidable. Sey agreed to get it over with but wasn't optimistic. "I said to him, 'I think I know what you're going to find."

During the last week of January, to no one's surprise, Bergh told Sey that she'd failed the due diligence report. Not only would she never become Levi's CEO, but Bergh informed her she couldn't continue to hold the title of brand president, which was supposed to be filled by a potential successor. According to Levi's, Bergh offered to let Sey move into a different, less visible, position, but Sey told him she didn't want to. (Sey says another role was never discussed as a viable option.) Their conversation

Sey says HR asked her to remain at Levi's for six months while the company looked for her replacement—and to please cool it with the tweeting in the meantime. "That put me over

ended there. The HR department would handle the rest.



Sey on Laura Ingraham's show on Fox News

the edge," Sey told me. "You've been asking me for two years to stop, with essentially the threat of my job. Now I don't have a job. Why do you think that I would stop now?"

Levi's says discussions between Sey and HR didn't advance because three weeks later she quit.

On Feb. 13, during the Super Bowl, after 23 years of working for the company, Sey sent Bergh a three-sentence resignation email. The next morning, she published a confessional online titled "Yesterday I Was Levi's Brand President. I Quit So I Could Be Free." In it, she said that Levi's—"like so many other American companies: held hostage by intolerant ideologues who do not believe in genuine inclusion or diversity"—pushed her out because of her belief that schools needed to be reopened. "I was on track to become the next CEO of Levi's," she wrote. "All I had to do was stop talking about the school thing."

She chose to run the piece in the personal Substack newsletter of Bari Weiss, a former *New York Times* editor who in 2020 had resigned with her own open letter accusing the newspaper of abandoning "intellectual curiosity" in favor of a "new orthodoxy" of progressivism. After that came television interviews: Sey went on *Tucker Carlson Tonight* and returned to Ingraham's show. There were spots on CNN, CNBC, Megyn Kelly's podcast, and others. She and Kotzin did joint interviews on a local Denver talk show, an anti-Covid lockdown podcast and a libertarian one. Fox News' *Rundown* podcast lamented that Sey was yet another victim of "cancel culture." The *New York Post* reprinted Sey's op-ed article with the headline, "I Was Bullied Out of Levi's by the Intolerant Woke Mob."

In her interviews, Sey was friendly and calm; she came across as someone with a lot of media experience, which of course she had. She hit the same talking points over and over. "The issue at stake is free speech," she told Kelly. To Carlson: "This whole thing has sort of culminated in really being about the silencing of dissent."

When NPR, the *New York Times*, and the *Washington Post* picked up the story, they also took the bait, characterizing Sey's departure as an issue of free speech, though the First Amendment doesn't actually apply to employees of private companies. After the story in the *Times* ran, even its own columnist Kara Swisher called out the disingenuous nature of the free speech argument by a veteran executive. "Pretending that an utterly progressive company like Levi's would not react is willfully naive," Swisher tweeted. "If you worked for any number of conservative companies and went off, the result would be the same."

Much of the coverage also focused on a claim Sey had made in her resignation essay: that Levi's had offered her \$1 million in exchange for signing a nondisclosure agreement about why she left—but she wouldn't take it. "It's such a virtuous thing to do," Carlson told her. Kelly called her "very brave."

But Levi's says it never offered her \$1 million to stay silent. According to the standard executive severance agreement

outlined in the company's proxy report, Sey would have received 78 weeks of her base salary pay, which works out to about \$1 million. But she quit before a formal offer was made. "I asked several times to see the package. Three times. But it was not sent to me," Sey told me. She says the \$1 million amount "was told to me" by Bergh, though she concedes she never did get it in writing.

Since Sey left, both she and Levi's have fallen back into their respective comfort zones. In recent weeks, Levi's has tweeted a link to its Diversity, Equity, and Inclusion Impact report. It joined a list of 60 companies condemning Texas for classifying teens' transgender medical treatment as "child abuse." It gave a social media shoutout to the Chicano community.

Sey, of course, is still tweeting to her now 63,000 followers. About the pandemic, yes, but also about free speech, forprofit drug companies, and "modern wokeness." Her tone feels different, though. Angrier. Accusatory. She's getting in

"You've been asking me for two years to stop, with essentially the threat of my job. Now I don't have a job. Why do you think that I would stop now?"

Twitter spats, most recently with the American Red Cross. In March, when Kotzin was briefly suspended from Twitter, Sey tweeted that he had been silenced, too. "You think they aren't coming for you?" she posted. "We're just evil?"

After three decades in corporate America, Sey says she's taking a break. She's writing a "memoir about using your voice" and making a documentary about the harmful effects of pandemic school closures on children. Kotzin and two other Covid skeptics are suing the U.S. Department of Health and Human Services for infringing upon their freedom of speech by allegedly directing Twitter to police Covid misinformation.

She's also flirting with politics. In March, Sey flew to Florida to attend a roundtable hosted by DeSantis, in which he promised to "stop the Covid theater." "@GovRonDeSantis went business casual in Levi's. Here for it," Sey tweeted after the event, attaching a photo of her grinning next to the politician.

Quitting a company and then publicly airing a litany of grievances against it would normally make a person unemployable. But Sey is a sly marketer who knows that with every rebrand comes the possibility of new customers. "Need a brand president? CMO?" she tweeted at Elon Musk hours after he struck a deal to buy Twitter. Musk didn't reply, but no matter, she says she's already been approached by other companies, though she won't say which ones. "Respectable brands I used to use as reference points. Competitors," she says. "Not like, My Pillow or whatever."



alf a Greek alphabet and two years into the pandemic, the world is coming to terms with the notion that Covid-19 is here to stay. As new variants emerge, millions are still falling ill, increasing the risk of even harder-hitting strains. While coronavirus shots are among the greatest medical achievements of all time, reaching the market in less than a year and saving millions of lives, anyone who's received three doses and still gotten infected will understand that the virus is a resilient opponent.

Marty Moore says he can beat it.

"Covid isn't just a sprint, it's a marathon," says Moore, the relentlessly upbeat founder of Meissa Vaccines Inc. Today's vaccines have largely won the sprint of preventing serious disease, "and thank goodness for that," he says. "But now we need something else to gain control of the virus."

Moore is among a growing cohort of virologists proposing we spray vaccines up people's noses rather than inject them into arms. The advantage of that approach, they argue, is it can trigger the body to develop infection-blocking defenses in the sinuses and throat and allow it to start fighting illness much faster than an injected vaccine can.

There are only two ways to stop the spread of the disease, according to Christian Drosten, Germany's most prominent virologist. One would be for enough people to build up protection via repeated illness that increases immunity at the front end of the respiratory tract. "The alternative would be to have a live vaccine that gets sprayed in the nose or throat," he said on a podcast in March. Or, as Moore says,

to build protection where the battle begins, like putting

guards in front of a building rather than inside it.

In early 2020, Moore's company was just beginning its first human test of a vaccine against respiratory syncytial virus, or RSV, which kills tens of thousands of children a year worldwide. Moore immediately saw the potential to retool his product to bring the coronavirus to heel and set to work adapting it. For the past year, Meissa has been conducting human trials of a candidate formula, and Moore expects to have results by this fall. That means it could start going into noses within a year if regulators fast-track it as they did the first round of Covid vaccines—a big "if" given pandemic fatigue and the growing sense of resignation about the disease. Yet with the progress he's made so far, Moore says he's more convinced than ever that nasal sprays can do the job. "People didn't realize how long we were going to be fighting Covid," he says. "It's sinking in that there's this new normal, and you are forced to accept it. But we don't accept it."

or any nasal spray Covid vaccine to make a difference, it will first have to overcome towering structural challenges, ranging from the scientific to the economic to the logistical. While the Pfizer-BioNTech and Moderna shots offer robust protection against hospitalization and death, their effectiveness against infection—running the marathon, in Moore's analogy—fades as time

passes and new variants emerge. Future vaccines should offer improvement when it comes to tolerability, length of protection, or ability to actually block infections, he says.

And that, he insists, is where nasal sprays can help—though they're tough to pull off. It's relatively easy to stick a needle in someone's arm and get a precise dose of medication to the cells. With a squirt up the nose, it's difficult to get the right amount, every time, past the body's thicket of natural defenses: nostril hairs, sneezing, and the dense layer of mucus that lines the respiratory tract.

Those challenges help explain why, of the 153 Covid vaccines undergoing clinical trials, only a half-dozen are nasal sprays. Among the contenders, a team in China is using an influenza virus filled with genetic instructions for making a piece of the coronavirus spike, which the body learns to attack. Bharat Biotech International Ltd. of India, which makes a widely used Covid shot, employs a chimpanzee adenovirus to deliver the genetic information payload. And there's a joint effort from New York-based Codagenix Inc. and the Serum Institute of India Pvt Ltd., which utilizes a weakened version of the coronavirus strain first seen in Wuhan, China.

Meissa's candidate, too, uses a weakened virus to do the dirty work, making it a so-called live-attenuated vaccine. The advantage of this is that viruses are particularly deft at penetrating the body's defenses to infect cells. But to employ them as a medicine, they first must be attenuated, or weakened, to



make sure they're safe. That's no simple feat. If they're too weak, they won't trigger an adequate immune response. But the weakened virus, once inside the body, must also never mutate to the point that it might make a person sick. Because of this, the pharmaceutical industry in recent decades has focused on alternatives such as introducing only a piece of a virus, even if these approaches aren't always as powerful. Liveattenuated vaccines are "an art that's hard to master," says Paul Offit, director of the Vaccine Education Center at the Children's Hospital of Philadelphia. "You have to prove it's attenuated enough that it doesn't cause disease, but not so attenuated that it doesn't induce a vigorous immune response."

Even if you clear those hurdles, nasal spray vaccines can still be a tough sell. Consider FluMist, the influenza fighter that's the only one ever to make it to market. Since its debut in 2003, it's failed to live up to predictions that it would dominate the field. It's an attenuated form of the flu virus, designed to replicate only in the cooler temperatures of the nose, not the lungs or other, warmer parts of the body. Yet regulators, fearing the safety mechanism might fail in the elderly, are reluctant to recommend it to anyone older than 50, the biggest chunk of the flu vaccine market.

And it's traditionally been tough for startups to break into a business long dominated by the likes of Pfizer, Merck & Co., Sanofi, and GlaxoSmithKline. To start selling a product, companies must clear an exceptionally high bar in terms of safety and show clear superiority over existing options. The pandemic blew open that dynamic, catapulting technologies such as messenger RNA to center stage. That enabled the meteoric rise of Moderna and Germany's BioNTech, which co-developed its product with Pfizer. And it has brought in multitudes of investors, allowing smaller players to compete in a market that brokerage Jefferies LLC predicts will reach \$50 billion by 2025. Moore says he can win a piece of that business, even though his company remains tiny compared to many other newcomers.

o appreciate the promise of nasal sprays, it helps to understand what happens when the coronavirus infects you. First, messenger cells capture bits of the virus from your airways, sense something is wrong, and make an hourslong journey to the nearest lymph node to warn of the intruder. If you've had your Covid shots, there are B cells and T cells on hand, ready to fight back. These weapons multiply and begin a slow voyage through the body in search of the virus. This works well in preventing severe Covid, but it all takes a couple of days to play out while the virus is replicating fast, so people often infect others before they know they're sick.

A nasal spray might more accurately mimic the natural protection a person gains from a recent infection. That's because once the immune system encounters the virus (in this instance, from the nasal vaccine), it stations Covid-ready B and T cells in the nose and throat. What's more, it fosters the development of antibodies called IgA, which take up residence in the mucus lining and can stop the virus from ever reaching the

cells lining your airways. You can't get that from a shot, only from a vaccine that enters the body as a virus would. And the added protections give the immune system an advantage of as much as a day and a half in fighting Covid, says Frances Lund, director of the Immunology Institute at the University of Alabama at Birmingham. "You get a jump-start on clearing it out," she says. "Your viral load is going to be lower, which means fewer clinical symptoms for you and less virus that you can spew out to everybody else."

Nasal delivery works best with live-attenuated vaccines, Moore says, because they're so effective at getting to the most important cells. And Meissa employs a new way of attenuating a virus that can uncouple it from the safety-vs.-efficacy seesaw. The approach is inspired by its work with RSV, which has been weakened not by making it harder for the virus to replicate—the traditional method—but by genetically removing its ability to hide from the immune system. In theory, you could get dosed with a large amount of this mutant version of RSV, generating a massive immune response while posing little to no threat of making you sick. "If you block the blocker, then you unleash the immunogenic potential of that virus," Moore says.

To make its Covid vaccine, Meissa stuck the coronavirus spike protein onto the RSV shell. In tests on monkeys, the company found its product induced antibodies both in the mucus and in the blood, protecting the animals from the virus. Meissa is about halfway through an early-stage clinical trial in 130 people, for which it has reported positive preliminary data showing no serious safety problems, an indication that the virus has been well attenuated. Meanwhile, a single dose stimulated about the same level of IgA antibodies as what's seen in people recently infected with Covid.

The company expects to produce full results from the human trial this year. It's already added participants to test it as a booster and plans to soon begin studying it in children. Ultimately the product could be particularly well suited to kids, Moore says, as they tend to be afraid of needles and they play a big role in spreading most respiratory diseases.

In lab studies, Meissa's vaccine has offered significant protection against the alpha and beta variants, and tests for delta and omicron are in the works. Moore says the vaccine's potential ability to protect against a range of strains may be a result of its physics. Whereas many vaccines—including mRNA—offer a rigid version of the coronavirus spike to the immune system, the live-attenuated approach sends the spike right into the wilderness of the body. During its journey it gets bent this way and that, just like a virus does as it seeks to latch on to cells. This exposes the immune system to a fuller picture of the spike in action, giving it "better coverage to mismatched strains," Moore says.

oore has been fixated on respiratory viruses since his days as a graduate student at the University of Georgia. But in the early 2000s, as he was presenting his doctoral research into a type of adenovirus that infects mice, a distinguished professor stood up and said, "Nice >

■ work, Marty. Next time pick an important virus," Moore recalls. Taking the feedback to heart, he holed up in a library and built a spreadsheet to identify viruses that affect humans but get scant attention. His analysis revealed two candidates. The first was a coronavirus that had just emerged in China, causing severe acute respiratory syndrome, or SARS. That disease would vanish within months. The second was RSV.

Long a thorny challenge in virology, RSV infects almost everyone by their second birthday, then repeatedly throughout life. It typically inflicts just a common cold, but it can be dangerous for young children, with their smaller airways. During postdoctoral research at Vanderbilt University, Moore devised a way to reliably produce RSV of a specific genetic design, giving him a platform for dissecting the virus, which he further developed after landing a faculty position at Emory University in Atlanta.

Scientists had been stuck when it came to producing vaccines against RSV. In the 1960s, when they tried giving infants an inactivated form of the virus, the approach backfired, killing two trial participants. And they'd abandoned efforts to create a live-attenuated vaccine for it, because every time they weakened the virus enough to make it safe to administer to kids, it no longer elicited a sufficiently strong immune response.

Moore conceived of a new approach. The reason RSV can repeatedly infect us has nothing to do with quick mutations, which are a key factor for influenza and, to a lesser extent, the current coronavirus. Instead, its proteins block the immune raising funds, while Tang spent his days in the lab seeking to prove that Meissa's genetically modified version of RSV could make for a safe and powerful vaccine.

In 2019, the company got \$30 million from a venture capital firm and filed paperwork with U.S. regulators to start clinical trials. After a hiring spree that made things crowded in the tiny space at JLABS, Moore mapped out a plan to move into a bigger office near Stanford. As 2020 began, Meissa was on the cusp of spraying the first dose of its RSV vaccine into an actual human, a culmination of his life's work.

n a Saturday in mid-January, Moore rose at 4 a.m. in his San Carlos, Calif., home. Under the yellow street-light streaming into the room, he filled a mug of coffee and settled in behind a wooden desk that had once belonged to his father. Scientists had just posted the genome sequence of a novel pathogen wreaking havoc in Wuhan, and Moore downloaded the code. Feeding it into his laptop, he arranged four rows of genetic sequences on his screen, stacked on top of one another like sheet music. Each corresponded to the spike protein of a coronavirus, and Moore was shocked when his eyes scanned a portion of the spike's genetic makeup that suggested the virus could quickly latch on to human cells. "You look at that sequence and think, 'A lot of things can happen, and most of them are bad," he says.

As he pondered developing a vaccine against the new virus, Moore feared he might jeopardize everything he'd

"You're going to need this, you're going to Want this, because

system's ability to see that it's there. What would happen, he wondered, if you were to remove the proteins that let RSV sneak in undetected? Theoretically, you could spray that genetically engineered RSV into the nose, where it might replicate like normal—leading the immune system to unleash a barrage of B and T cells to kill it. Those weapons would then remain in the nose and throat, offering protection for months and perhaps as long as a year or two. It would be a new way to deliver a live-attenuated vaccine for various respiratory diseases.

When Moore presented this idea at a conference in Portugal in 2013, a big pharma company offered to license the technology, but he wanted to develop it himself. In 2014 he started Meissa Vaccines, naming it after the star in the Orion constellation that forms the mythical hunter's head. In 2017, Meissa landed a spot at JLABS, an incubator space in San Francisco backed by Johnson & Johnson, allowing Moore to apply for federal business grants. He and co-founder Roderick Tang, a scientist who'd worked at the company behind FluMist, quit their jobs to focus full-time on Meissa. Moore moved his family to California and devoted himself to

been chasing for two decades with RSV. Yet the stakes were obvious and overwhelming. The coronavirus, he suspected, would be with us for years, and few scientists would attempt to stop it with a nasal spray. So he grabbed a pen and pad and sketched out how he might insert the coronavirus spike into Meissa's RSV platform.

As patients around the world flooded hospitals, Moore settled on various virus constructs that might work as a vaccine. The crucial step—which each version tried to accomplish in a slightly different way—was attaching most of the coronavirus's spike to the root of RSV's surface protein. Absent this connection, the RSV platform would expel the spike, rendering the candidate useless. The Meissa team translated those models into a genetic sequence and ordered small vials of a solution containing that DNA from a supplier.

With the Bay Area in lockdown, Moore phoned Mariana Tioni, a newly hired virologist, to ask if she'd be willing to come into JLABS. She said yes, and soon she, Tang, and Moore were spending their days clad in N95 masks, booties, smocks, and hair covers. Returning home at night,



showing their vaccines were more than 90% effective, many people proclaimed the pandemic's end was near.

Moore was pleased that his rivals had developed their vaccines so quickly, and he looked forward to getting shots himself. But he disagreed with the notion that the pandemic was almost over. He's been proven right: Even as deaths have fallen by half globally in the past year, daily infections have roughly doubled—a testament to both the strengths and limitations of Covid shots. The bar for new candidates, though, has gotten higher because they must unseat established products.

There's reason to believe nasal sprays might, at minimum, serve as effective boosters for those who've been vaccinated or gotten infected with Covid. Lymph nodes in these people will already have coronavirus-ready B and T cells, so only a small amount of a vaccine would need to penetrate the nose's defenses—at which point the immune system, recognizing a familiar foe, would spring into action.

Moore acknowledges there's a long road ahead to prove his Covid candidate

they'd change clothes in the garage and sleep isolated from their families.

When the DNA samples arrived, the trio injected them one by one into cells, using the process Moore had developed at Vanderbilt. The goal is for the cell to start pumping out copies of the genetically engineered virus, a process that can take days. The team inserted a fluorescent protein marker that glows red if the virus is spreading. Meissa's first few attempts showed no glow, fueling fears the idea wasn't going to work. Then, a couple of days after injecting a candidate known as MV-014-210, Moore peered into a microscope, focused the lens, and saw a sea of red. "We were jumping up and down," he recalls. For the next month, the team harvested the mutant virus while planning the animal experiments required to convince regulators that the vaccine was safe and promising enough to justify testing on humans.

By that point, Pfizer and Moderna had started human trials for their mRNA candidates, and governments began directing all their resources toward the leaders. In November 2020, when the companies presented data is safe, effective, and superior in at least some respects to the shots. If trial results are strong, the next step would be broader tests, which can cost hundreds of millions of dollars—many multiples of the capital Moore currently has. "They need a lot more money to do this right," says Sam Fazeli, an analyst at Bloomberg Intelligence.

Meissa has relocated to a bigger facility, allowing Moore to increase his staff to about 25 people. They've expanded the study of their RSV candidate into infants and are doing early work on fighting two other respiratory viruses. Even if Meissa's spray arrives too late to have a big impact on Covid, the company aims to be prepared to quickly make a vaccine in response to the next pandemic. And for now, Moore remains convinced there's ample reason to build immunity against Covid in the nose and throat. "You're going to need this, you're going to want this, because it's the endgame," Moore says. Sure, boosters of the current vaccines can reduce infections, but only temporarily, like tapping snooze on an alarm clock. "Then it just repeats," he says. "If you want to stop hitting the snooze button, we need to actually block transmission."

1. **Total Condition**

2. **Total Condition**

2. **Total Condition**

2. **Total Condition**

3. **Total Condition

Abdul Jamal Sheriff



A powerful developer is remaking the Los Angeles neighborhood of West Adams according to his very particular vision. Some people just don't fit the picture



Alsace Hotel at 5170 West Adams Blvd.

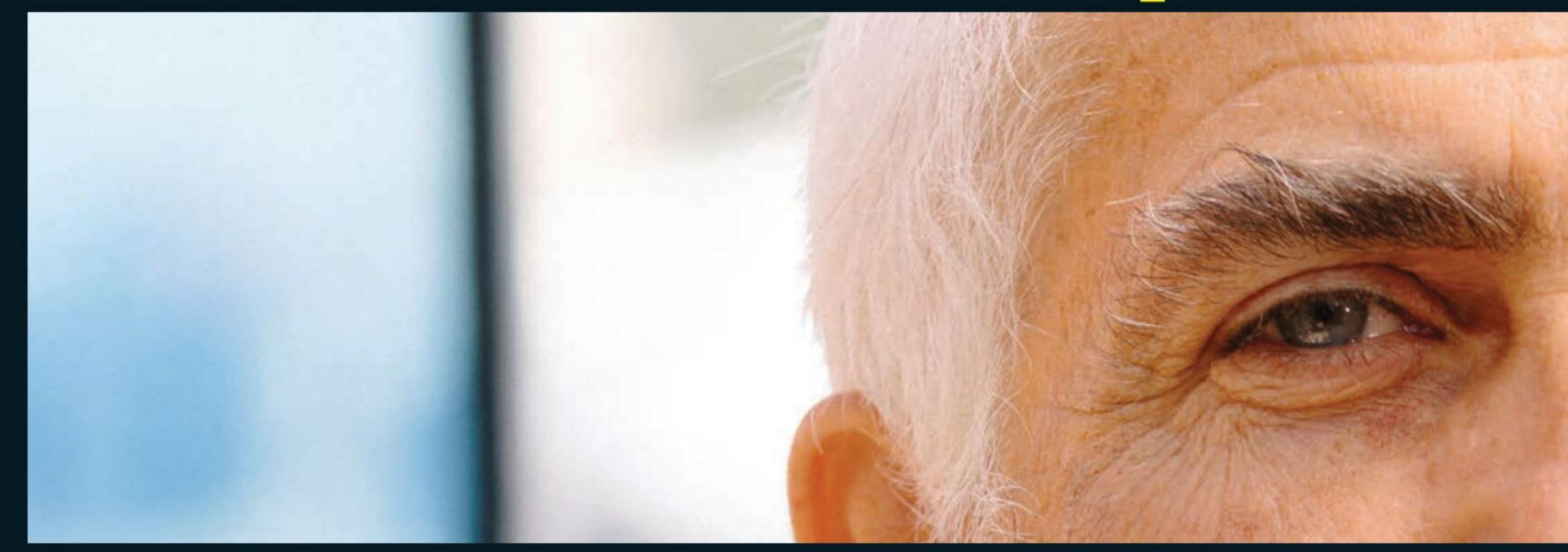


Alta Adams restaurant at 5359



An apartment building at 5

How to Flip a



Shau1 Kuba



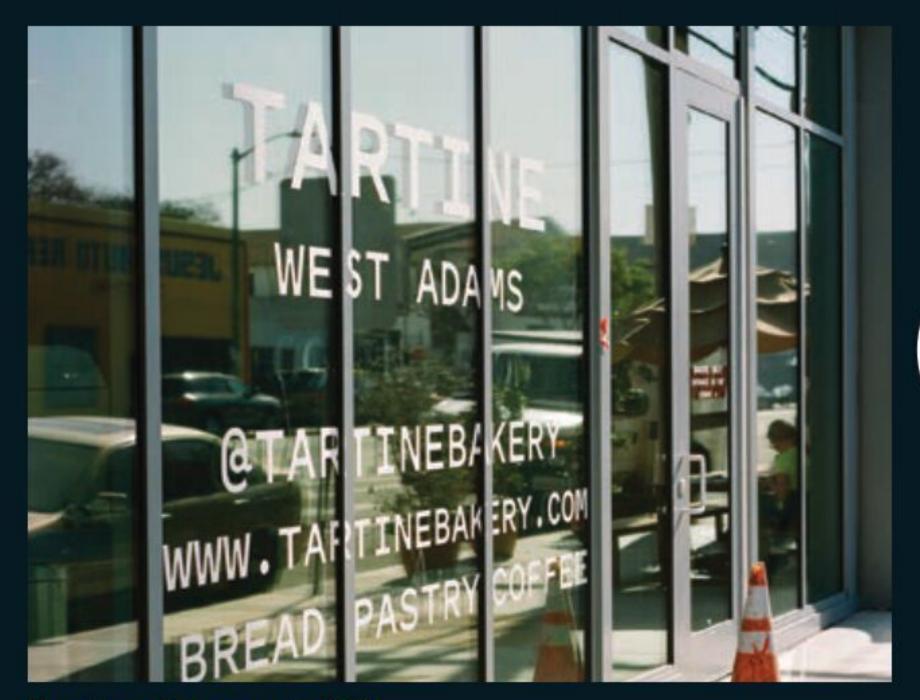
By Peter Waldman

Photographs by Stella Kalinina



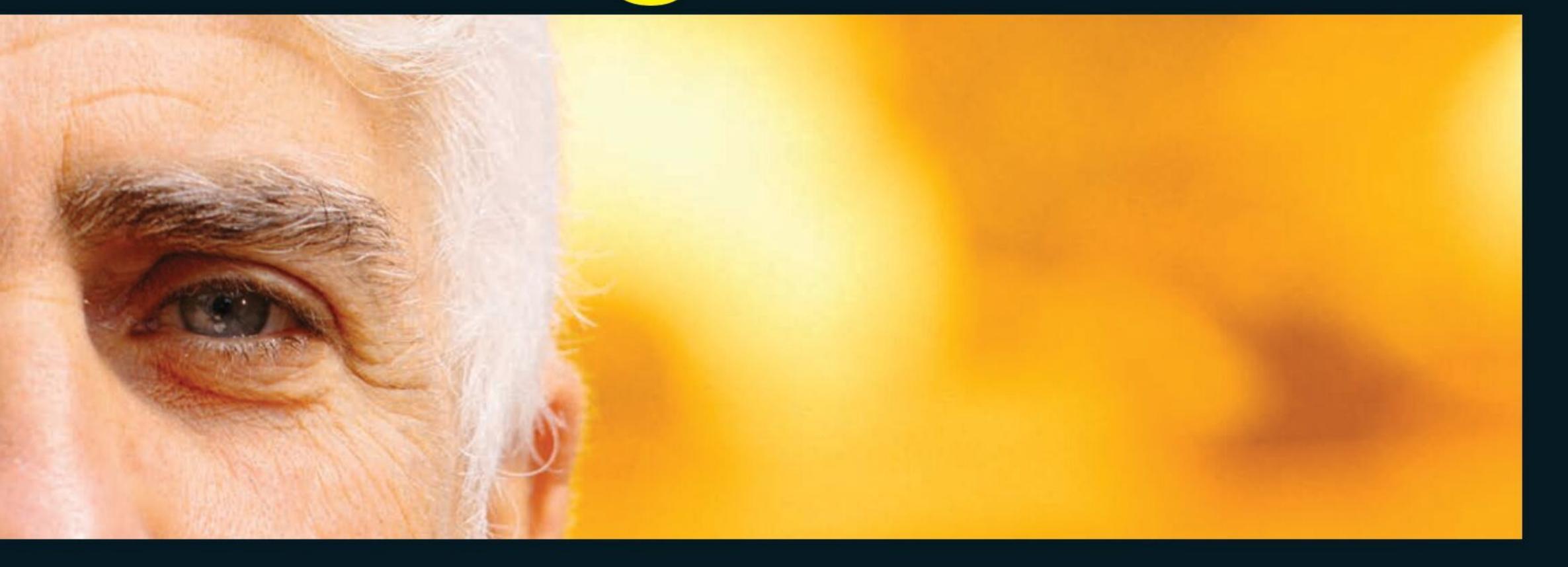
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Tartine Bakery at 5335

Neighborhood



49

West Adams Boulevard runs east and west through central Los Angeles. To the north rise the skyscrapers of Mid-Wilshire, California's new Wall Street, and the malls and mansions of Hollywood and Beverly Hills. To the south, such communities as Watts, Compton, and Inglewood line LA's vast interior grid, composed largely of low-income Black and Latino neighborhoods with steel bars on the doors and windows.

West Adams marked the northern curfew line during the Watts Rebellion in 1965 and still bears burn scars in empty lots from the 1992 Rodney King uprising. Today the neighborhood centered on the boulevard, also known as West Adams, is being rebuilt. One of the nation's largest real estate firms, LA's CIM Group, is testing the notion that a single developer can turn around a chronically underfunded inner-city neighborhood, block by block, in the tight, 10-year time frame of a real estate investment fund.

Led by Shaul Kuba, the firm's 59-year-old co-founder and development chief, CIM is working on 40 properties in West Adams at once. That includes construction of 15 new buildings, two to six stories high, with glass storefronts at street level and as many as 170 apartments above. Other CIM projects on West Adams are hipster bait—industrial spaces reconfigured to lure affluent tech and entertainment professionals. Because of Kuba, a neighborhood formerly occupied by auto mechanics, upholsterers, and pipe fitters, and long plagued by gang violence, now has its own Szechuan noodle joint, a vinyl record shop, and a \$200-a-night boutique hotel. White millennials who work in booming Culver City sip matcha drinks and walk their labradoodles on the boulevard, even at night, babbling obliviously on AirPods. Longtime residents gape at their nonchalance on streets where shootings were recently routine.

What's happening on West Adams, in real estate terms, is called "placemaking," or, as Kuba puts it, "merchandising" the boulevard after decades of decay. Others might call it neighborhood flipping, or just gentrification. It's happening in a highly racialized context, sometimes with the backing of the city and the police, in a place that, despite its troubles, had a proud, eclectic identity long before Kuba showed up.

The West Adams remake is displacing many of the Black and Latino families and entrepreneurs who gave the boulevard the distinctive character CIM is now exploiting. The company's checkbook has made many longtime residents in the area rich. Others, resisting Kuba's incursion, have paid a price. "This is a community that doesn't want to be erased, or lost, in this other vision of LA," says Miguel Santana, a West Adams resident who served as LA's chief administrative officer from 2009 to 2017 and now heads the Weingart Foundation, a philanthropy focused on social justice.

Four blocks east of CIM's new hotel, where West Adams crosses La Brea Avenue near an Interstate 10 cloverleaf, the old West Adams hasn't disappeared entirely. Strollers and dogs

give way to homeless people and drug users hanging out in the alleys behind a Chevron station and some auto body shops along the freeway. The intersection, a hot spot for gangs and police activity, remains an obstacle to CIM's march east.

In 2017, Kuba summoned Abdul Jamal Sheriff, who owns a liquor store a half-block from the Chevron station, to a meeting at CIM's Wilshire Boulevard offices. He offered Sheriff \$2.6 million for his store and an adjoining duplex, about 60% more than Sheriff paid for the business and buildings in 2005 and 2015.

Sheriff told Kuba he needed to think about it. Since scrubbing restrooms at Wendy's for \$3.50 an hour as a newly arrived immigrant from Sierra Leone 32 years ago, Sheriff, now 51, has earned a master's degree in quality assurance and parlayed proceeds from three liquor stores into a prolific house-flipping business. West Adams is his prize. Wearing a baseball cap, a fitted leather jacket, and Gucci loafers, he sells lottery tickets, cigarettes, and booze behind an inch-thick plexiglass barrier. He has a singular, incongruent dream: to bulldoze Holiday Liquor Market and construct his own CIM-style mixed-use apartment complex in its place. "I've always seen myself as a Shaul Kuba in the making," he says. "I want to be part of the new Adams."

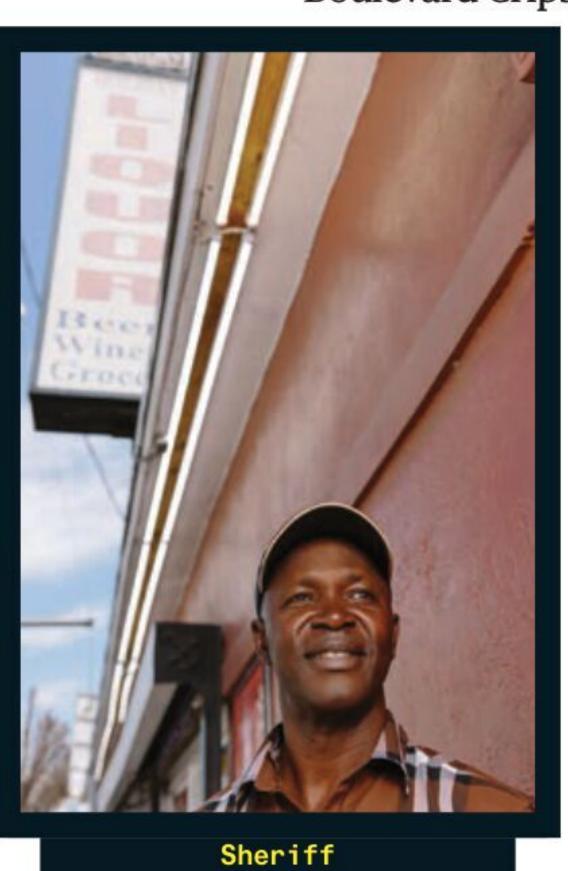
A few weeks after their first meeting, Kuba called Sheriff in again. It was time to close the deal, he said. He promised Sheriff he could continue operating Holiday Liquor for another year or two until CIM tore it down. Sheriff said he wasn't ready to sell. "That's when everything blew up," he says. Kuba exploded and called him "a piece of shit" and said CIM was just trying to help him because "nobody" wanted him on West Adams anymore, Sheriff testified in a 2019 court deposition.

"I remember looking around Shaul's conference room thinking I have no chance, I'm a Black guy with three White folks. No one will stand up for me," Sheriff says. "I told myself, you came here with dignity, you need to walk out of here with dignity."

Eight months after the meeting, as Sheriff was talking to architects about developing the property himself, the LA Office of the City Attorney accused him in a civil complaint of allowing Holiday Liquor to become an "anchor point" for the West Boulevard Crips gang in West Adams. The complaint cited three

> shootings and other crimes in the vicinity in the previous two years and described Holiday Liquor as "a threat." The prosecutors asked the judge to grant an injunction compelling Sheriff to abate the "public nuisance."

> In effect, the city was forcing Sheriff to take responsibility for controlling gang-related violence in the neighborhood. In the proposed injunction, prosecutors demanded he close Holiday Liquor at midnight instead of 2 a.m., stop selling single receptacles of alcohol, prevent loitering outside his store, and grant the Los Angeles Police Department blanket authorization to arrest anyone trespassing on his property. The city also insisted Sheriff install video cameras throughout the premises, make the surveillance feed accessible to



"The reuse of some of these buildings makes it very romantic and sexy. People just want to be part of it"

law enforcement 24/7, and have two security guards on the premises 10 hours a day.

The Chevron station and another liquor store a block away, both with extensive crime problems of their own, faced no such

restrictions. The order would kill his business, Sheriff says. He says Kuba used allies on the city council to sic the city attorney's office on him. "It was complete harassment to make me give up and sell the property to Shaul," he says. "With their racist and bullying and intimidating way of doing it, that option is gone."

Kuba doesn't believe it's anything he said that upset Sheriff so much. It's what he didn't say. "If I'd offered him another half a million dollars, 'You're a piece of shit' would have been 'Shaul is a great guy!'" Kuba says. He says he had nothing to do with Sheriff's legal troubles and doesn't know the details of the city's nuisance-abatement suit, only that the city attorney's office is trying to clean up that

stretch of West Adams. CIM owns several storefront properties in the area, including a duplex across the street from Holiday Liquor that Kuba renovated into a pasta restaurant called Cento.

Wallace Rowles Jr., a 74-year-old disabled veteran, used to live on the second floor. CIM paid him \$9,000 to move. "They said if I didn't take it, they'd evict me," he says. Rowles now splits his weeks sleeping in his car and at a single-room-occupancy hotel. "That money was gone in no time."

Two years into a pandemic in which property values and rents have soared throughout the country, LA is facing a housing cataclysm. Rents rose about 15% last year, and while the city estimates it needs 57,000 new housing units every year to keep up with demand, builders are producing fewer than 17,000. At last count, in early 2020, some 40,000 Angelenos were homeless, 70% of them Black and Hispanic. An additional 300,000 households, mostly non-White, risk eviction when a Los Angeles County eviction moratorium expires at yearend. West Adams is among the neighborhoods facing extreme "housing precarity," according to a University of California at Berkeley ranking of LA neighborhoods based on econometric data such as affordability. CIM is adding housing units in West Adams, with plans to build as many as 1,000 apartments on the boulevard. But the average rent for a two-bedroom in the neighborhood has risen about 40% since 2016, to \$3,075 a month.

Kuba grew up in Herzliya, near Tel Aviv, decades before the seaside town became famous as Israel's tech-rich "Silicon Beach." Both his parents came to Israel after the 1948 Arab-Israeli War—his mother from Egypt, his father from Iraq. Herzliya back then was a warren of ethnic quarters, with Poles and Romanians, Iranians and Iraqis struggling to get by with little in common but the Jewish religion, he says. The main divide was between immigrants from Europe, who founded the Zionist movement in the early 20th century and ran the

young state, and less-privileged refugees from North Africa and the Middle East like himself.

Racism was common, Kuba says. He experienced it when he was told he couldn't go to the largely European high

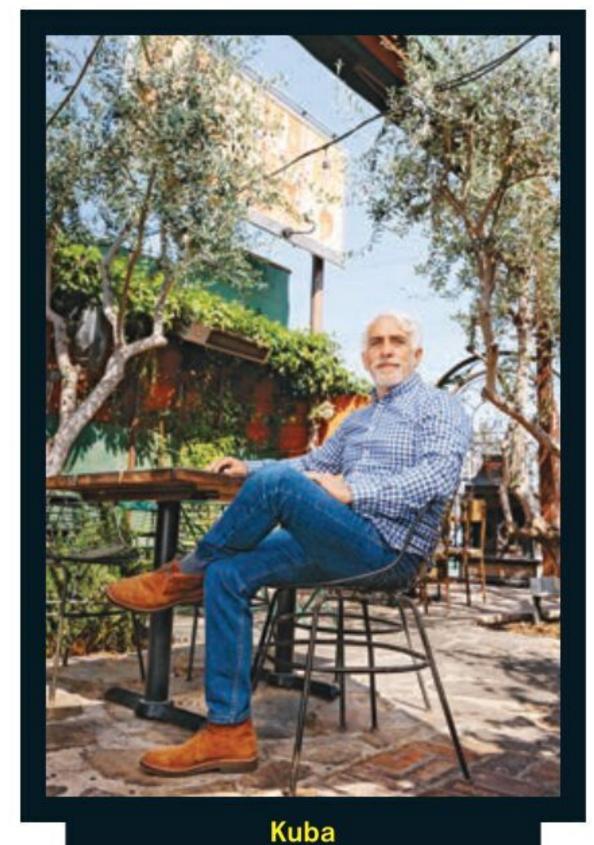
school he wanted to attend and was assigned to another school composed mostly of families from non-European countries. "Our parents would say you have to ignore it, it's a new country, it's confused," he says. "But we felt it." Kuba says the experience gives him empathy for places like West Adams that historically were dumping grounds for "all the crap": crack, fast food, alcohol, convenience stores with no fresh produce.

In 1986, after returning from the Israel-Lebanon War, he and a childhood friend and fellow paratrooper, Avi Shemesh, embarked on a road trip across the U.S.—the first time Kuba left Israel "not on a military airplane," he says. They ended up in Southern California, and joined a sprawling network

of young Israelis working in the building trades there. They renovated and flipped houses, landscaped rich people's gardens, and got their first big break redeveloping the 3rd Street Promenade in Santa Monica. In 1994, they pitched gardening work to Richard Ressler, and within months had founded CIM with him. Ressler, also founder and president of Orchard Capital, is deeply connected in finance: He worked at Drexel Burnham Lambert; his brother, Antony Ressler, co-founded private equity firms Apollo Global Management Inc. and Ares Management Corp.; and his brother-in-law is Leon Black, who co-founded Apollo Global and was its chairman and chief executive officer until he resigned last summer.

Shemesh and Ressler handle fundraising and operations at CIM, for a portfolio worth about \$30 billion. Kuba does development. He quickly became one of California's go-to placemakers, a builder who bundled architects, retailers, restaurants, and entertainment venues for state-funded redevelopment agencies trying to resuscitate downtowns. He calls the work "de-malling"—re-creating the "romantic experience" of bygone Main Streets. He's done it, in different forms, in Anaheim, LA, Oakland, Pasadena, San Diego, and San Jose, among other cities.

West Adams was lurching in the other direction. Kuba started buying properties in the neighborhood in 2007, not with a specific strategy in mind, he says, but with a feeling that prices were cheap, the location dead-center in LA, and the "bones" good. "I was like, it's for sale? I'll buy it," he says. That's how Kuba's representatives met Maria Ramirez, a house cleaner and babysitter from Honduras who owned a small home on a cul-de-sac between West Adams and the I-10. She purchased the house for \$250,000 in 2003 with a subprime mortgage. By 2008, after several interest-rate increases and deferred mortgage payments, she owed almost \$300,000 at an interest rate exceeding 8%. Afraid of foreclosure, Ramirez ▶



◀ contracted to sell the home for \$440,000 to
Kuba, who was trying to amass property for
a possible California Redevelopment Agency
project. Five days later, she backed out.

Kuba sued her in state court for reneging on the deal. Ramirez didn't show up in court—she speaks little English and says she didn't understand the summons. Kuba won a default judgment in 2009 ordering Ramirez to abide by the sales contract. She never met Kuba himself, but says his people would come by her house and toss papers on her doorstep with arrows saying "sign this, sign that."

Almost a decade passed until Kuba came back for her house. In 2018 he petitioned the court to enforce its 2009 ruling and force

Ramirez to sell him the house for the original \$440,000 price—half of what it was worth by then. A judge reissued the order. Still, Ramirez hangs on. More than 70 liens have been filed against the property, making a transfer of title very difficult until the claims are cleared up, according to her lawyer, Jonathan Black. Kuba says he is not pursuing enforcement of the court ruling. "Of course, we are not going to take her house," he says.

Ramirez's ambivalence and balkiness are typical of old-timers on West Adams who've weighed a CIM buyout. They need the money, but how do you sell the only valuable thing you've ever owned, and where do you go? Kuba says he works with property owners for months, even years, adjusting expectations. They come to him with a price they want, he says, "and I'm not saying it's not worth it, I just explain I can't make a fair return. If you find somebody who'll pay that, God bless you."

Sheriff hired a lawyer to challenge the city's nuisance-abatement injunction. He has his detractors in the neighborhood. Several signed a petition circulated by the police requesting conditions be placed on Holiday Liquor. One woman filed a court affidavit saying she routinely sees loiterers near the store selling and using drugs. At the same time, Sheriff is known on his stretch of West Adams for providing free sodas and snacks to local churches and, periodically, his credit card to a frantic mom trying to bail out her kid from the county lockup. When asked in his deposition by a city prosecutor what he knew about the West Boulevard Crips gang, Sheriff said many are neighborhood kids he watched grow up. "These are just boys that live in the community and just think they own it," he said. About a dozen West Adams residents submitted declarations to the court praising Sheriff, including several people who served with him as elected representatives on the local neighborhood council, an advisory body to LA's city government.

"Occasionally we get gunfire around here. You can't blame that on Holiday Liquor," says Irwin Davidson, a former member of the council whose Advance Staple Co. has manufactured wire fasteners in the neighborhood for 47 years. "They're a clean business."



At the court hearing on the injunction in 2019, about 20 of Sheriff's supporters, wearing yellow T-shirts, packed the gallery. The judge approved the city's demands without hearing oral testimony.

"They're targeting Abdul," says Steven Meeks, the West Adams Neighborhood Council president. "CIM is a multibillion-dollar corporation, and they have influence."

LA has been using nuisance-abatement suits to target suspected landlords and tenants for 15 years. The suits give city prosecutors important tactical advantages over criminal procedures. Among them, judges can impose injunctive relief without jury trials and court-appointed defense lawyers, and

civil cases require a lower burden of proof than criminal trials do. Police affidavits alleging that a person is a gang member or that a landlord tolerates gang activity are all that's usually needed.

In poor neighborhoods like West Adams, civil injunctions act as a cudgel to force out Black and Brown property owners, clearing a path for new owners and gentrification. In a study published in the journal *Antipode* in October, researchers at UCLA's Luskin School of Public Affairs analyzed 121 nuisance-abatement injunctions across LA issued from 2010 to 2018 and found that 80% targeted Black and Latino neighborhoods near downtown and South LA, which includes West Adams. In almost all the cases, the injunctions ordered property surveillance for an average of about five years, monitored at will by the police. Almost half the properties were sold after the injunctions were issued; one-quarter of them were sold twice, according to the study.

That's what happened to Mattie Sampson, in a case not related to CIM. The 78-year-old widow had lived in her home on West 52nd Street for 49 years when she was slapped with a nuisance-abatement suit in 2015. Police alleged Sampson failed to prevent drug dealing in her home, which they claimed was a known gang hangout because of the activities of her adult son, who lived there. After Sampson failed to show up in court because of poor health, a judge granted the city's requested injunction, forcing Sampson and her son to vacate and board up the property for one year. The mother and son were fined \$162,000, without any opportunity to contest the order.

Sampson, who used a wheelchair, moved into her car on the street. Two months later, a city employee drove her to the courthouse to file for bankruptcy protection. In 2017 she sold her home in a court-ordered liquidation for \$335,000. The city seized \$239,000 of the proceeds to cover fines and expenses, eviscerating half a century of Sampson family equity.

While he appeals the Holiday Liquor injunction, Sheriff is advancing his plans. He purchased a third property on his block last summer and is working with an all Black and Latino team to develop four buildings on it, including offices, 46 apartment units, and a swimming pool. The city attorney's

office is still pursuing him, though. In July prosecutors charged Sheriff with a misdemeanor for disobeying the court's order. They cited evidence from two undercover police officers who maintained a stakeout of Holiday Liquor on a Saturday night. Sitting in their unmarked car, the cops watched a lone man pull up in a black BMW, enter the store, and come out after several minutes holding a bag "with what appeared to be two single tall cans (24 Ounce) of beer," they wrote in their report. They also saw a woman roll up in a tan van, disappear into the market and emerge 30 seconds later holding a single cigarette. "The female never placed anything in her pockets that appeared to be a pack of cigarettes," they wrote. There was no armed security guard in front of the store, they noted.

In November, with the criminal charge now hanging over him, Sheriff received another offer for his West Adams properties. A company he never heard of called Westside Acquisitions (LA) LLC offered \$5.25 million for his three parcels. The offer made no mention of Kuba or CIM, but Sheriff discovered that the LLC was registered at 4700 Wilshire Blvd., CIM's headquarters. The offering document was signed by Adrian Bejarano, a managing director at CIM. Sheriff didn't reply.

"I am going ahead with my dreams," he says. "I'm going to show Shaul what a piece of shit looks like on Adams. God willing, that's what I'm going to do."

To Kuba, who isn't tall but stands out in a room with his thick silver hair, bushy dark eyebrows, and aquamarine eyes, West Adams's transformation is "almost personal," a labor of love for his staff and him.

"We all want to show that communities that are less fortunate, where the potential is not so obvious, can have the same things other places have," he says, over a meal of \$10 black-eyed-pea fritters, \$11 mac and cheese, and \$28 fried chicken at a "California soul food" restaurant called Alta Adams. Kuba gutted and renovated the building in 2016, after dislodging the upstairs residents and a small clothing boutique. Alta Adams's chef and co-owner, Keith Corbin, grew up in Watts and

spent 10 years in prison. Now he's president of the West Adams Business Improvement District, which CIM created. The restaurant's vine-shrouded garden is packed most evenings. Corbin's \$31 house-smoked brisket is outstanding. "I can't speak on gentrification or any of that, because I'm from the projects. They're tearing them down and building condos," says Corbin, who is remodeling his own home in West LA. "Who wants to live in a community with no investment? With life comes change."

Kuba is often spotted cruising West Adams in his BMW; he's known to pull over suddenly and jump out, with half the car sticking into the street. Two people report separate instances when he approached brokers in front of buildings for sale and offered more than \$1 million on the sidewalk. On a walk down the boulevard in January, he darted into the open door of a

small furniture-restoration shop, like a dog sniffing out a treat. The proprietor, who was sitting on some cinder blocks in front, ran in after him. "Still not for you," he called out. Kuba comes around every few months, the man said. An immigrant from Mexico who requested not to be named, he says he's glad West Adams has gotten safer since his wife was killed by a stray bullet in a gang shooting 26 years ago. But Kuba's attention unnerves him; he's heard that CIM turns in shops for code violations. "I just want to retire and get out of here," he says.

Across the street is another of Kuba's restaurant projects, a Middle Eastern cafe called Mizlala West Adams. The building was a tire repair shop before CIM bought it in 2018. Flashing photos on his cellphone, Kuba shows how CIM lovingly preserved the small building's rare bow-truss roof and converted the concrete auto repair pad, stacked high with tires and barrels of grease in the photos, into a brick patio with planted olive trees and a wrought-iron gate.

Kuba's proudest touch is a grapefruit-size splotch of blue paint left splattered, Jackson Pollock-style, on the building's address numerals above the courtyard. "I couldn't pay someone to paint that," he marvels. The splotch appears to date to the creation of the large mural of a woman's head on the side of the building. For Kuba, it is a portal to the gritty, vibrant past of a place he admires but is actively remaking for a higher-paying clientele. "The reuse of some of these build-

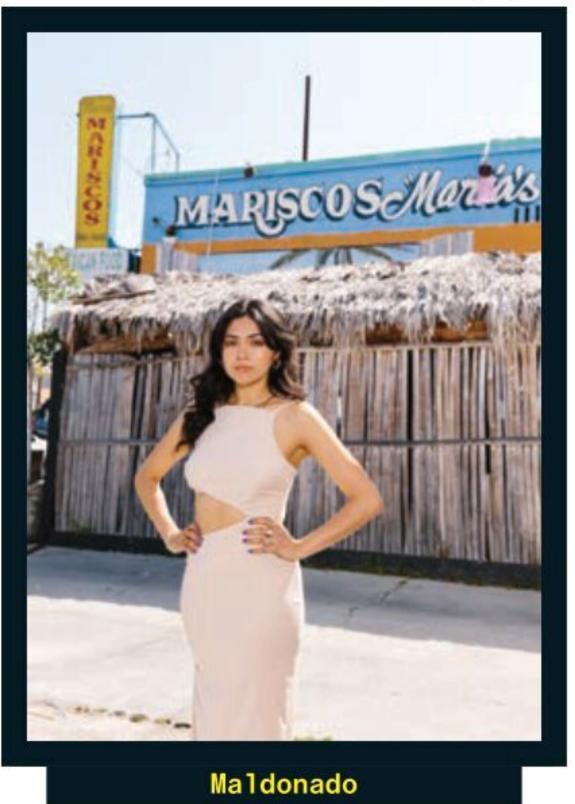
ings makes it very romantic and sexy," he says. "People just want to be part of it."

Not everyone. A half-mile west of Mizlala, 24-year-old Jasmine Maldonado sits in the palm-leaf-shaded patio of a more humble restaurant, Mariscos Maria's. She tells the story of her mother, who immigrated from Mexico in the 1980s at 16, raised seven children on the income from a taco truck after her husband abandoned them, and saved enough money to open the restaurant on West Adams in 2000. The beach-style seafood place (delicious \$2.99 fish tacos) became a gathering spot for the neighborhood's Latino community. Next door, the family opened a small banquet hall for weddings and *quinceañeras*.

door, the family opened a small banquet hall for weddings and *quinceañeras*.

As the neighborhood demographics shifted, so did the tolerance for Mexican fiestas. There were complaints about noise and crime, and in 2015 the city zoning administrator shut down the banquet hall. There are apparently no concerns about a newer, White-owned pizza parlor a few blocks away that throws DJ parties on weekends.

Maldonado and her fiance design and sell clothing in the former banquet hall space. They can't afford to live in the neighborhood they grew up in—they've moved to South Central. Several of their childhood friends have gone farther, all the way to Palmdale, near the Mojave Desert. Maldonado isn't impressed with Kuba's cherished blue splotch. "That's just a nice story to tell, their token, their badge of homage," she says. "They are painting over what once was West Adams." **3**

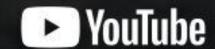


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Secrets of Multimillion-Dollar Weddings

What I learned from going behind the scenes and working as an elite event planner By Brandon Presser Illustrations by Kati Szilágyi 60 The ultimate gas guzzler goes electric

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May 2, 2022

Edited by Chris Rovzar

Businessweek.com

There's something leonine about Colin Cowie, party planner to the stars. He's cool and calm, his vibrato grabs the attention of everyone within earshot, and when the sun sets, he roars. Zambiaborn and South Africa-raised, he hit it big when Oprah anointed him her event planner of choice in the early 2000s. Now, Cowie counts Qatari princes, Nicole Kidman, and Ryan Seacrest as clients.

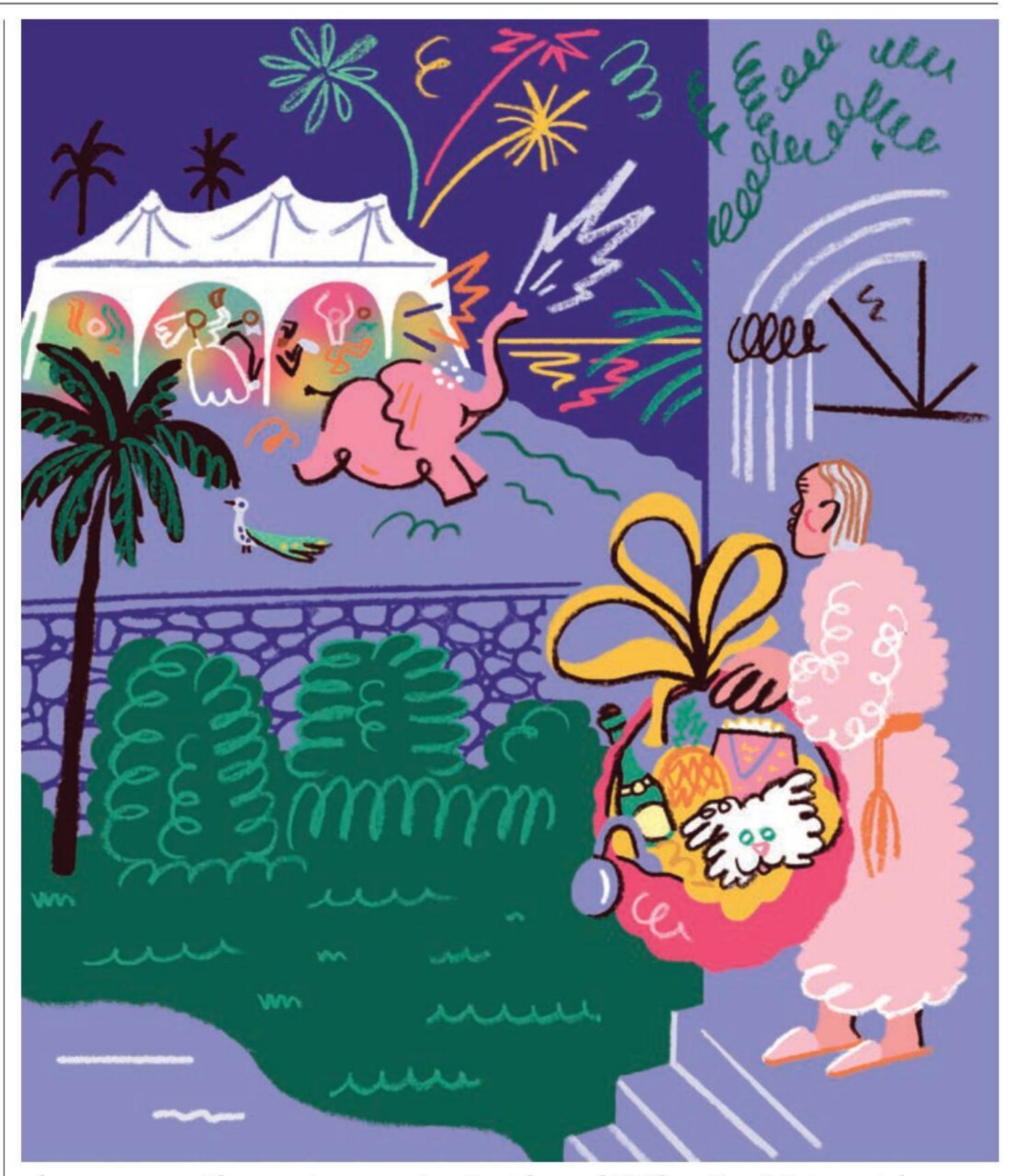
That was all before Covid-19 put an 18-month halt on large-scale events. Flash forward to today, and we're in a destination-wedding frenzy so unparalleled, there are big-budget celebrations seven days a week. According to Wedding Report, an industry group whose survey predicts 2.5 million nuptials in 2022, this will be the busiest year for event planners since 1984. And 45 of these ceremonies will be designed by Colin Cowie Lifestyle, up 50% from his pre-pandemic norm.

Cowie relies on a coterie of talented freelance producers and designers—and hard work. According to a CareerCast study, party planners have the fifth-most stressful careers, after military members and firefighters.

I learned that myself when I signed on to work a week for Cowie to see how it all goes down (the aisle) from the inside. In just seven days, I followed him on a tour of several cities, starting with a five-hour tasting in Manhattan and ending with a multimillion-dollar wedding weekend in Mexico. Along the way, I smuggled Fritos across borders and helped apprehend thieving rabbis. Here's everything I learned about what really happens behind the scenes of a seven-figure party.

1. How to Spend \$25 Million in One Weekend

The Colin Cowie Lifestyle brand is divided into two tiers: For a project of \$250,000 or more, you can get one of his minions for the junior stylist equivalent. But Cowie himself "won't touch a wedding if it's under \$1 million," his



planners say. The most expensive in recent memory was a party at a Mexican resort that cost \$191,000 per attendee, more than \$25 million in total. (Sadly, that wasn't my assignment.)

Ideally, Cowie wants nine months to execute a wedding, though he did once turn around a party in six days for a couple who came to him in hysterics after firing their previous producer. Cowie and his team have their hands in every aspect of the planning process: They'll hook up brides with gown and invitation designers, secure Broadway-caliber lighting and Michelin-quality food, and arrange for special fire code permits and garbage removal at private properties. The job even includes setting out gift baskets for neighbors to make nice before a weekend of raucous partying.

So how do you drop \$25 million between Friday night and Sunday brunch? When Cowie's team takes over a hotel, it cranks up the food and service so high that it would be unsustainable otherwise. World-famous chefs and maitre d's are flown in; added staff promise ultra-attentive service. The dishware is replaced; at one Middle Eastern affair, 40 VIP guests dined on settings that cost \$12,000 each. Elaborate structures can be custom-designed for one-time use, such as a wooden deck sprawling over the edge of the ocean and a tented pavilion dripping with chandeliers, both built for the celebration I worked in Mexico.

Take the \$11 million wedding that Erin Halley Reddy, one of Cowie's executive producers, recently helmed: Almost \$3 million went toward florals and \$1 million more on the tent. The cocktail-hour sushi bar was about \$30,000, as were the paper invitations. The average wedding in the U.S. runs \$29,000 in its entirety,

but in Cowie's world, that won't even cover the "concept presentations," where mood boards are brought to life with food tastings, florals, and fully realized options for place settings.

2. Planners Secretly Love It When Things Go Wrong

The mark of a good planner is having a bulletproof Plan B for everything—and we mean everything. Rain on your wedding day? Sorry, Alanis, that's not difficult to work around. Cowie usually has a second venue prepped and budgeted, just in case. Once, Reddy spent \$500,000 of an eight-figure wedding budget on a backup ballroom space that luckily (phew?) went unused.

There are worse things than a black fly in your chardonnay, too. At one wedding, the father of the bride insisted on serving vintages from his private stash of rare wines, only to find at the last minute that every bottle had turned. "The sommelier got extremely sick," recalls Robin Selden, a caterer who's worked with Cowie. "Meanwhile, staffers were frantically running around town to buy crates of anything they could find."

Sometimes wedding disasters are so extreme, you wish they were ironic. Early in his career, Cowie constructed a large beachside tent lined with sumptuous Moroccan textiles—then the high tide wrecked it all 30 minutes before the celebration began. At a prominent Malibu wedding, the violinist ghosted, leaving Cowie to point a microphone at his car speakers while the bride walked down the aisle. (Cue the music of Kenny G, whose nuptials Cowie also arranged.)

Then there was the time almost all the guests were no-shows: The couple had insisted on using a rare gold-foil ink on the invitations, only to have it rub off in transit. "We basically mailed blank cards to 150 people," Cowie says. Now he does a test mailing first.

3. Open Bars Are the Devil

"We once had a guest so drunk she fell over onto her wine glass and popped her silicone breast," says Sophie Landry, one of Cowie's designers, laughing. Cowie's team always has an ambulance ready for worst-case scenarios, especially because curbing alcohol consumption at a private event is tricky. It proved difficult in Mexico, where the bridal party took

frantically running around town to | in Mexico, where the bridal party took

nonstop tequila shots. Working that day as an assistant producer, I had the resort staff constantly circulating with extra glasses of ice water.

4. Smuggling And Cash "Gifts" Are Built Into The Contracts

It's not an over-the-top destination wedding if there's no private plane involved. Not for the guests: for Fritos and cake.

Cowie has shipped as many as 18 cargo containers and commercial planes (think 747s) full of furniture, decorations, and food items for single weddings in far-flung locales from the Middle East to the Midwest. Inside are briefcases full of steaks, crates of liquor—he famously taught Oprah how to shoot tequila (Don Julio 1942, natch)—thousands of AA batteries, and state-of-the-art lighting equipment. Once he brought an entire display of fireworks along on a chartered flight. "That time it felt like we were carrying a bomb through the sky," he says with a chuckle.

Cowie has legally cleared imports of 1 million (yes, million) plants from the Netherlands and Ecuador at a time. But delivering simple hangover remedies into hundreds of welcome bags always requires some smuggling—having one person carry thousands of Advil tablets makes them look like a drug mule. "The day before I leave for a destination wedding, I have my kids count out a ton of pills and divide them into little baggies," Reddy says. Spread among a few dozen staffers, she explains, it's easy to feign personal use.

Junk food and customized swag also get sneaked in: On our trip to Mexico, I was responsible for lugging two giant rolling duffels filled only with snack-size Fritos Honey BBQ Flavor Twists.

And don't forget money for unexpected "tips"! Cash running into five figures is spread across the team on every trip "to make problems go away," as Cowie says. He's used it to help 5,000 orchids miraculously rematerialize in Anguilla after they went missing upon landing. "The head of customs' sister just happened to have 5,000 of the same flower at her 'shop' in town," Cowie smirks.

Laine Sutten, one of Cowie's longest-serving producers, "was essentially kidnapped" by her boat captain in the South Pacific when he jacked his fee to \$20,000 for a ride back to her hotel from the deserted island where she was preparing a celebrity wedding. And it was all for naught: The event was eventually called off.

5. The Big Idea Comes First

"Our clients don't come to us with the big requests—they come to Colin so he can give them the big suggestions," says Alia Wilcox, Cowie's lead designer. He's synchronized a fleet of tall ships to shoot cannons for a rehearsal-dinner clambake in New England; he's had Grace Jones "zoom in" on a zip line for a live performance (it was a stuntwoman, but it worked); he even coaxed the bride of a music executive to walk down the aisle in black lace Givenchy while Mary J. Blige belted *When a Man Loves a Woman*.

Selden once catered a *Game of Thrones*-themed wedding at a private estate where naked wenches covered in body paint served as human food trays by the pool. A body-painting station encouraged keen invitees to strip down, and everyone ended up in the home's BDSM dungeon for the after-party.

Bridal processionals rarely stray from the norm—but one of Cowie's partners still talks about the bride who had six sheep accompany her down the aisle. "She was like a slutty Little Bo Peep," he says. "She had the full bonnet, but her gown left nothing to the imagination."

Elephants are more common than sheep. "There are three or four reputable vendors in the U.S. that specialize in elephant deliveries for Indian weddings," says Hannah Cregg, an expert in securing permits to shut down streets for stampedes and setting up tricked-out trailers for the posh pachyderms. Such a production will set you back \$10,000 to \$15,000—pricier than riding on a Percheron horse but cheaper than arriving by helicopter.

6. The Villain Is Rarely the Bride

"The whole bridezilla thing just doesn't exist at this level, where you're getting everything you want," Reddy says. One exception: "A bride once locked me in a closet and demanded, yelling, that I write her vows," recalls Krista Cremidan, a Cowie executive producer. "I don't think that marriage lasted very long."

New-money moms are the worst, says Landry: "They can finally have the wedding they didn't get when they were younger." Adds Reddy: "Last year a bride's mother made our videographer re-edit an entire wedding video because she wasn't 'starring' in it enough."

Fathers can be problematic, too. In Mexico the bride-to-be tipped me off with an email preapologizing for her dad's inevitable bad behavior, and he sprung into action immediately on arrival, demanding we replace the rabbis who'd been flown in to bless the

food with a new contingent of holy men from Miami. (One of these "good rabbis" shuttled in last-minute was caught stealing \$5,000 worth of kosher steaks and six cases of wine.)

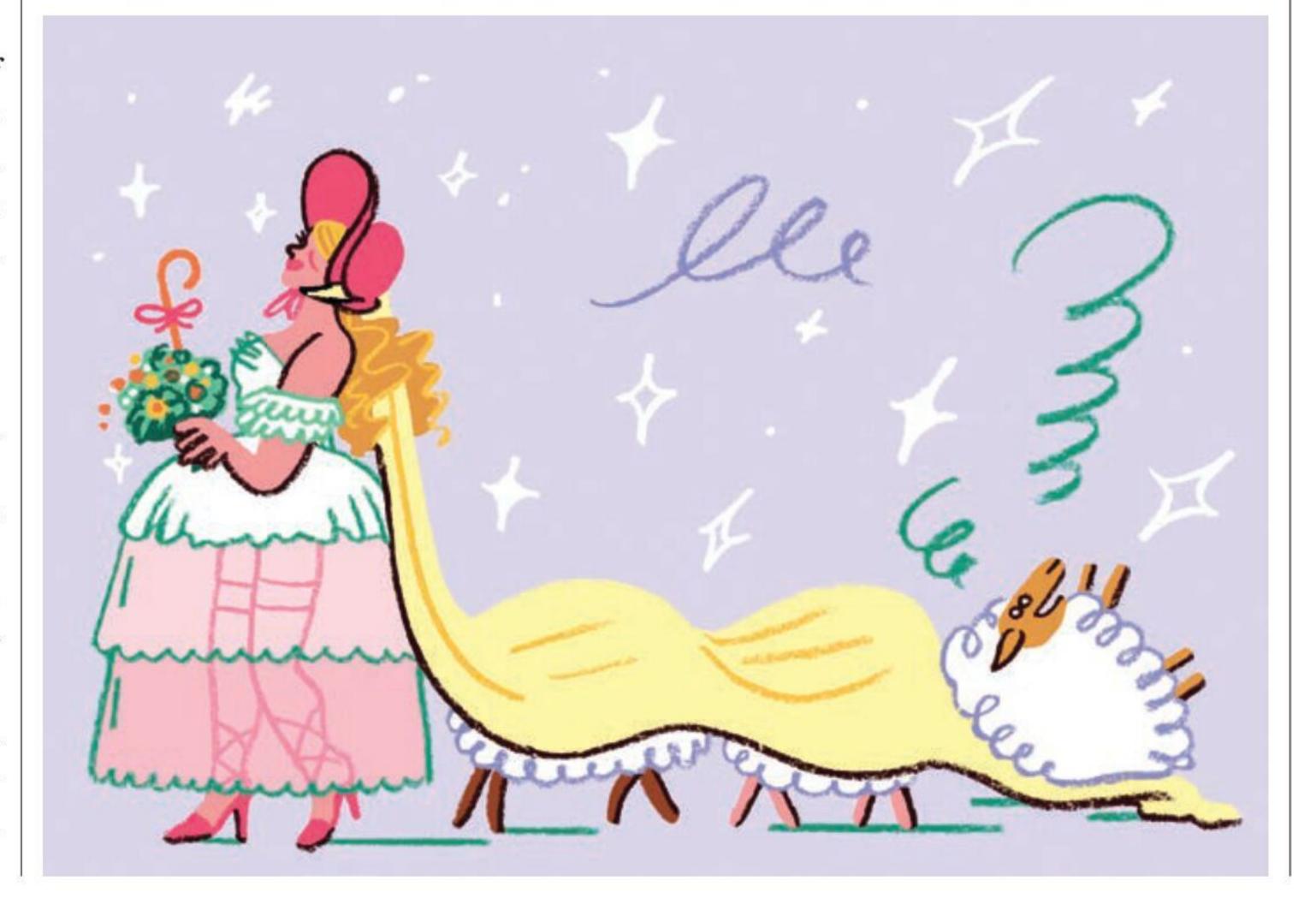
At a beach wedding, no one could find the father of the groom, who was in the ocean canoodling with his mistress. A staffer had to swim out to remind them not to miss the ceremony. The next task: finding him a dry tux, then plying his wife with Champagne.

A-list entertainers often include a week's worth of food in their riders, meant to provision their band and entourage. But some take it further: Several members of Cowie's team watched, stunned, as Bruno Mars devoured 25 hamburgers in his greenroom all on his own. One pop diva left thickly applied spray tan all over a hotel's walls and furniture, requiring eye-watering sums in reupholstery.

7. Prenups Can Pave the Way

On the odd occasion that a bride or groom gets cold feet, it's usually because someone's trying to stuff more cash into the prenup—using an embarrassing cancellation as a final negotiating chip.

Exhibit A: After an initial bout of



prewedding jitters, one millionaire fiancé offered an extravagant ceremony as a mea culpa-"the cake was in the oven, the foie gras was on the private jet, and the groom had sent me to pick out a million-dollar necklace as a gift for his bride," Cowie recalls. "Suddenly, I get a call: The fiancée wants a last-minute \$10 million signing bonus for the prenup. I put the necklace back in its casing, and down came the tent!" Steven Mindel, the premier prenup lawyer of Los Angeles, whose client set overlaps with Cowie's, says, "People think buying a house is the most expensive transaction of their life, but it's actually their marriage partner." He completes 40 to 60 such agreements a year.

8. Wedding Desserts Are No Piece of Cake

It takes a year's notice to hire Cowie's preferred baker, New York-based Ron Ben-Israel, who makes 400 pieces of "cake couture" annually, costing from \$4,000 to \$100,000. (Peanuts when your menu costs \$4 million.) For one pair of Middle Eastern royals, Cowie commissioned 2,500 hand-painted cakelets, each hermetically sealed to survive a transcontinental private jet trip. The total: \$500,000, not including labor or transit.

Not all wealthy patrons can have elaborate 10-tier confections. "If the couple is short, I don't do a high cake because they'll look miniaturized next to it," Ben-Israel explains. Animal motifs are also off-limits. "I find it repulsive to cut into a dog," he says. Instead he'll make furry critters from spun sugar as cake toppers.

There are *Great British Bake Off*-style disasters, too—often related to melting buttercream and sagging layers in hot climes. For a wedding in Sri Lanka, baking the soft tiers amid crippling humidity and monsoon rains meant Ben-Israel had to "recruit 10 local children to continuously fan the cake and shoo away thousands of giant ants." As for Ben-Israel's signature topsy-turvy designs



with tenuously balanced tiers on the diagonal? Those are intentional. They're a "metaphor for marriage," he says.

9. If You Don't Have Millions?

The secret to good vibes, Cowie confesses, is simple: Set tables close together so the energy from one spills over to the next, "and put 10 people at a table that at other weddings have eight."

Buffets are a no-no: They inspire the tacky behavior Cowie calls "vulture syndrome," where guests pile plates high with incongruous items. Three courses presented in 90 minutes is ideal. "Four courses may sound chic, but it's too much time sitting down." In Mexico, I called out timing cues that corresponded

with a 70-page event timeline; courses got turned over in exactly 13 minutes.

Ceremonial essentials like the father-daughter dance should be no more than 45 seconds before onlookers can join in, and cake cutting occurs at the very end of the night—it's bad manners to leave a wedding before it's sliced.

A note on speeches: Limit them to two or three, and don't let anyone exceed three minutes. "Make 'em laugh, make 'em cry, and you're done," Cowie says. My own tip? Don't make the speech all about yourself, like the maid of honor in Mexico who shared tales of vomiting on herself, getting kicked off an airplane, and failing a college final.

Then again, the pros may just sidestep the hassle altogether. Says Landry, who's in her early 30s and single: "When I get married, I swear, it's gonna be a courthouse wedding."



Electric Goes to Extremes

The gas-guzzling Hummer was huge, heavy, and easy to hate. A new battery-powered version is a twist on the old stereotype

By Hannah Elliott Photographs by Matt Martian There may be no more polarizing vehicle than the Hummer EV. The more-than-9,000-pound, \$112,595 pickup from General Motors Co. is a gargantuan remake of the military vehicle that AM General first tamed for civilians in 1992. (GM bought the brand in 1998.) It's 1,000 horsepower of muscled Americana with knobby tires and a ridiculous launch mode that will further inflate the swollen egos of those who engage it. It's as tall as a tank with a hood extending to the height of my shoulder. Nobody needs this truck.

On the other hand, it's electric! The driving range is 329 miles—about 100 miles fewer than the H2 could go on a full 32-gallon tank—and can charge to 100 miles in 12 minutes using a 800v DC fast-charger. Blissfully silent on my drive outside Scottsdale, Ariz., in March, it passed wild donkeys in the desert without so much as a flick of a furry ear.

So is it a paean to gluttony or an ode to innovation? The Hummer EV will divide opinions, but anyone can deduce its primary purpose simply by walking around it. This powerful machine is meant to signal the status of its owner. (Some might say it overcompensates for said status.) It excels at carrying sports and outdoor gear in its flatbed, and it's rugged enough to use for camping or exploring hard-to-access locales, as long

as you can figure out a way to charge it every other day or so. Towing things, driving through extreme temperatures, running the air conditioner, and so forth will deplete the battery faster. It will make a fine support mule when you want a homebase pickup for a weekend of riding dirt bikes and all-terrain vehicles, but be wary when planning adventures.

I drove a "first edition," which comes only in white, with a two-tone interior. The extreme off-road package adds air

suspension and a crab-walk function that turns wheels 10 degrees to move the vehicle diagonally. (Given its size, this feature will be useful in narrow spaces.) There are 35-inch tires, underbody armor, and rock sliders, which allow the rig to move down sheer hill-sides without harm.

Deliveries of the first edition—it's already sold out—started earlier this year. You can sign up for a subsequent production model for a \$100 reservation fee; pricing starts at \$79,995. You'll have to wait a year for it to be delivered, unless you hunt on Bring a Trailer, where one sold on April 1 for \$275,000.

It looks like the old Humvee Arnold Schwarzenegger fell in love with. Rectangular lights hang across the front like military medals. The headlights and taillights bear the distinctive H inside. Door handles, side mirrors, and fenders are all squared.

This Hummer is more capable than its predecessor. Launch mode takes the truck to 60 mph in three seconds.

I did it twice in a parking lot. It felt like that cartoon moment when the roller coaster plunges and the rider's skeleton moves forward but the organs and eyeballs lag behind. It was so jarring, it triggered a headache. Some will love it.

Torque is 11,500 pound-feet; towing is 7,500 pounds. The payload is 1,300 pounds—less than the 1,760 pounds the Rivian R1T promises and the 2,000 the Ford Lightning electric trucks guarantee. Top speed is 106 mph.

I was more impressed with how easily it cruised at 80 mph. It jumped from 60 mph to 90 mph with a quickness that, given the high vantage point, made me feel as if I were flying. Super Cruise mode guided me on cruise control, and it followed the curves in the highway without my input on the

steering wheel. I became so relaxed I almost missed my exit and had to cross three lanes of traffic in less space than I (and the drivers behind me) would have preferred.

The interior is minimal, with trimmings more entrylevel than the six-figure price tag would suggest. The vinyl floor and rubber flooring mats are not high-end, but they're easy to clean.

If I owned this thing, I'd load it with plants, pots, shov-

els, and the other gardening gear that I schlep around on weekends. I'm not such an advanced gardener-yet-that I'm hauling a lot of tools and machinery, but the heavyduty D-ring recovery hooks on the front and back of the Hummer I drove would easily suffice should the need arise. Each is frame-mounted and has a load capacity of as much as 15,000 pounds. Roof rails, a spare tire cover, and additional off-road high-mounted light bars and pod lights are also available.

Once on dirt, I switched to the Off-Road and Terrain modes, which helped navigate unstable rocks and deep gullies. (Each driving mode has specific chassis and suspension characteristics.) I did nothing as challenging as driving up rivers, crossing dunes, or crawling up boulders—which I have done in Rivian's R1T and Jeep's electric Wrangler—so I can't say how this behemoth would handle under those conditions.

The vehicle lacks visibility over its hood and sides. GM mitigates the blind spots by

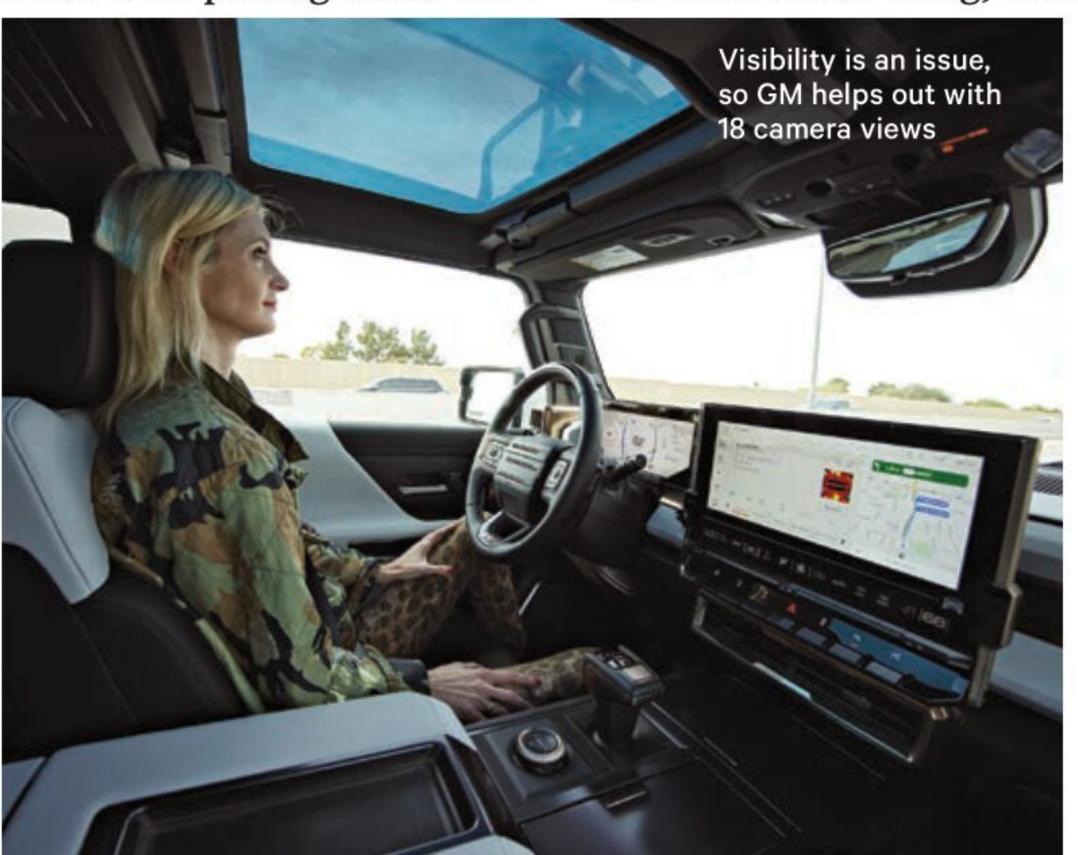
offering 18 camera views, among which I switched often to ensure I wouldn't graze rocks as I passed.

The roof consists of four removable panels that take only five minutes to slide off and store. As the truck sped forward silently, the scent of sage wafted in and a breeze brushed my cheeks. I felt so in touch with nature!

But on the way back, after I'd replaced the panels, the sun felt increasingly oppressive through the plastic top. I wanted to hide from the heat under a conventional roof, but the Hummer EV is inherently unconventional.

This vehicle has a strong point of view—though I wouldn't necessarily want that point of view every day. Do we need an electric Hummer? No. But plenty will want one.

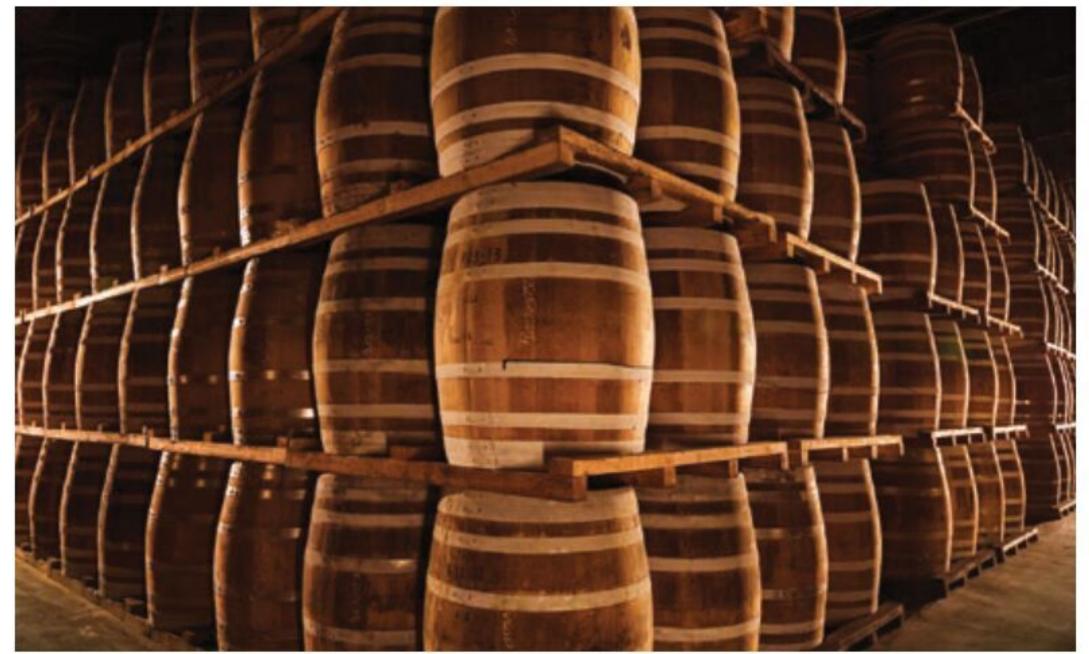
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The Aura Of Mizunara

Dissecting the price premium of the spirit world's latest supplement By Brad Japhe



The buzzword in booze these days is "mizunara." Over the past decade the rare species of old-growth Japanese oak has become prized for the unique, delicate notes of sandalwood and incense it imparts to spirits during aging—and the high prices those products can demand.

Mizunara casks were developed out of necessity during World War II, when the supply of European oak was cut off to the Far East. Although terribly unsuited to cooperage, the wood produced enviable results. Today you'll find all sorts of spirits beyond high-end Asian whisky flaunting mizunara bona fides: a \$50 Minoki rum, a \$350 Angel's Envy bourbon that flew off shelves in 2020, a \$1,000 Ki Noh Bi mizunara-finished gin. Courvoisier is the latest to tap the trend with a just-released limited-edition XO cognac retailing at \$2,000 a bottle.

After the war a majority of Japanese whisky production switched back to sherry butts and other imported oak. And so, like many things luxury, the allure of mizunara starts with scarcity—and a whole lot of headache. Mizunara's knotted and gnarled trunks generally aren't suitable to be cut into staves until the trees are at least 200 years old, and even then they typically yield only half as much timber as American oaks. In the forests of Hokkaido where they grow, the protected trees can't even be cut down; they must fall naturally.

"Mizunara means 'water oak' because it holds so much moisture," says Gary McLoughlin, co-founder of Glendalough Distillery, an Irish whiskey brand that introduced a permanent range of mizunara-finished single malts in February. After three years of air drying, the staves are "hard and brittle and not very pliable or cooperable. But it has much more 'space'—let's say—for whiskey to get into. Good for flavor, terrible for leaking."

Softer and more porous than durable American oak, the wood lets spirits pull more from its depths. (In general, 60% to 80% of a whiskey's flavor comes from the barrel.) Mizunara also has a much higher level of phenolic aldehyde, responsible for the vanilla flavor of wood-aged spirits. In Glendalough's seven-year-old single malt (\$100), the mizunara finish adds pleasant hints of incense, pepper, and cinnamon that slowly ebb. The Japanese cooperage unquestionably exerts its presence upon the palate.

In Dewar's Japanese Smooth blend, however, the impact is negligible—though that hasn't stopped some online retailers from trying to sell the \$25 bottle for \$120. Likewise, the 2020 Distiller's Cut from Monkey 47 gin, which spends six months in mizunara casks, fails to justify its \$76 per half-bottle price.

The Courvoisier Mizunara is more interesting, and a rare chance for innovation in the hypertraditional cognac space. Production protocols require that oak be used to age it but don't specify which variety. Distilled exclusively from grapes of Grande Champagne Cru, the XO spent a decade in French oak before moving to new mizunara barrels for its final three-and-a-half years of maturation. Leather-laden *rancio* notes typical to the base spirit are here embellished with a lingering thread of turmeric, coconut, and spiced pineapple.

To achieve this, Courvoisier master blender Patrice Pinet enlisted the help of Shinji Fukuyo of Suntory whisky, a sister brand under the Beam Suntory umbrella. "Shinji gave me the recommendation to evaluate the quality every six months—and to be patient, as the cognac may not show special aromas in the first years," Pinet says. "It was good advice, as the liquid began to have very rich aromas only after two years and beyond."

Which, it turns out, is a relatively short amount of time to wait. "In general our whiskies are matured for about 20 years in these casks," Fukuyo says.

Some brands opt to capture the cachet of the oak while forgoing aging in it altogether. When Mercer + Prince made its debut in March at \$30 a bottle, a news release for the A\$AP Rocky-backed Canadian whisky claimed it was "influenced" by rare Japanese mizunara. That influence arrives by way of *boisé*: a controversial technique in which a boiled-down reduction of wood chips and water is added as flavoring. (*Boisé* is also cognac's dirty little secret; it's perfectly allowed with no disclosure rules or limit on how much of the additive can be used.)

To unpack the mizunara mystique, savvy consumers should find out how much time that expensive spirit actually spent with the wood. Pinet has a good rule of thumb: "Less than two years in a barrel will not bring anything very interesting."

Aaron Goldfarb, author of *Hacking Whiskey*, says: "Most of them do happen to be pretty good, but few seem to really match the price point." But that \$100 Glendalough release, he says, "is proof that mizunara need not break the bank."

Belkin's latest power bank will get your gadgets charged when outlets are hard to find By Matthew Kronsberg Photograph by Wenting Gu

All phone batteries have one thing in common: They die. Sure, Apple Inc.'s iPhone 13 Pro can last for roughly 15 hours of typical browsing, about the same as Samsung Electronic Co.'s Galaxy S22+ Ultra, according to tests by the specifications experts at PhoneArena. But at some point usually when you're the farthest from a wall outlet—the electrons stop ricocheting and the screen goes dark. For people on the go, a portable charger such as Belkin's \$70 Boost Charge Plus remains an essential accessory. It's just 2.9 inches wide and less than an inch thick, and it weighs a mere 8 ounces, with enough juice to

give you an extra

31 hours on your

phone—plus it has

a snazzy blue cover.

THE COMPETITION

 Avoid cables entirely with the \$50 Mophie Snap+ Juice Pack Mini. A 5,000-milliampereper-hour capacity battery attaches magnetically to most MagSafe and Qi

wireless charging devices and comes with an adapter for phones without built-in magnets.

 At 1.3 pounds, Anker's 737 Power Bank stretches the limits of portability. But with a hefty

25,600mAh of power, the \$160 device has enough juice to keep a laptop going, as well as hand- (and ear-) held devices. Slightly larger

than a credit card, at 2 ounces and only 0.16 of an

inch thick, the \$50 Clutch V2 has 3,000mAh to get you through the day without weighing you down. It comes in three colors with either an Android or iPhone cable attached.

Belkin's 10,000mAh **Boost Charge Plus** will keep Murphy's law at bay. Two 5-inch-long cables, one with a USB-C tip for Android devices and the other with a Lightning connector for iPhones, are tucked neatly into its 6.1-inchlong flanks. Either one can deliver 18 watts of power -quick enough to charge a dead iPhone 13 in about two hours. Even using both cables simultaneously, you can get 23 watts of power. Ironically, the charger doesn't come with a cable or wall plug for charging itself, so you'll need to have one on hand occasionally. The power bank does, through charging, so you can boost your phone and the power bank at the same time. \$70; belkin.com



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Buybacks Are a Sign of Industrial Confidence

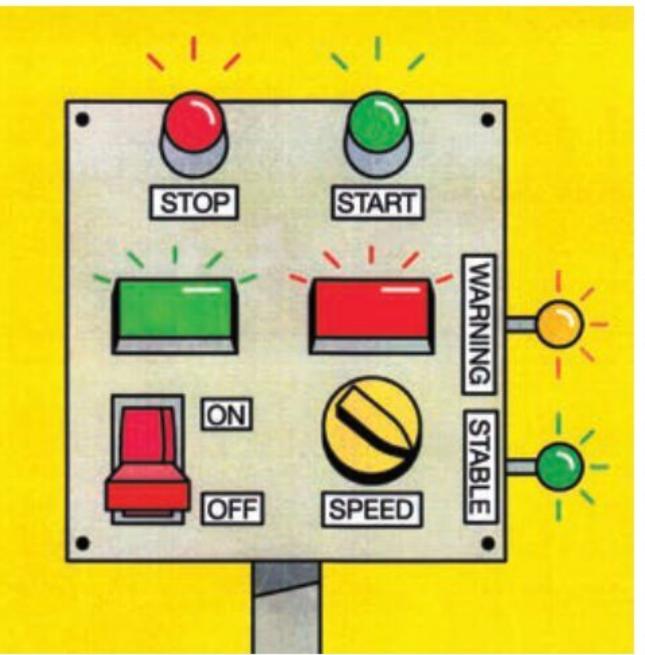
By Brooke Sutherland

Another earnings season is under way, and it's shaping up to be an exceptionally weird one for the industrial sector. Demand remains robust. U.S. factory output rose in March by more than economists had anticipated, while companies put a higher percentage of their manufacturing capacity to work as supply chains showed signs of stabilizing, according to Federal Reserve data released on April 15. Industrial distributor Fastenal Co. reported its strongest quarterly net sales growth in at least a

decade. The push to decarbonize industrial processes and localize more manufacturing work to be closer to the end customer should theoretically support elevated capital spending for years to come.

At the same time, concerns about rising inflation and the knock-on effects from China's Covid-19 lockdowns and Russia's invasion of Ukraine have many investors questioning whether the best of this manufacturing recovery has already come and gone.

Continued logistics snarls are muddling the picture and making it difficult to calculate the extent to which rising costs might eventually start weighing on demand. One way to gauge how industrial chief executive officers really feel about the state of the economy is to follow how they spend their companies' cash. In times of economic uncertainty, CEOs' willingness to invest in their own stock can be a sign of confidence in companies' long-term growth prospects and a signal to investors that they may be missing the forest for



the trees. A number of industrial giants have announced plans for increased or accelerated share buybacks. Honeywell International Inc. has committed to deploying at least \$25 billion over the next three years, including \$4 billion of share repurchases in 2022. Carrier Global Corp. announced an accelerated share repurchase program in January and has said it was aiming to buy \$750 million of stock in the first quarter. Even General Electric Co.—which has spent much of the past five years digging out

of a financial hole exacerbated by overly zealous buybacks—authorized a \$3 billion share buyback in March.

Repurchases may be a safer bet right now than takeovers. Industrial acquisition activity has slowed, as it has in most sectors, while companies parse geopolitical shocks and the prospect of rising interest rates makes debt-fueled dealmaking more expensive. U.S. companies have been involved in more than \$40 billion of industrial-related deals announced so far this year, down from about \$130 billion at this point in 2021, according to data compiled by Bloomberg.

The recent equity market selloff may help tame takeover valuations that had gotten too hot for some buyers.
Still, the downturn is "fairly recent, so it's got to soak in
for a while," says Darius Adamczyk of Honeywell. "It's not
as if people look at the market value and say, 'OK, now
my company is worth 20% less than it was two months
ago.' Nobody thinks of it that way."

—Sutherland is a
columnist for Bloomberg Opinion





What if ->

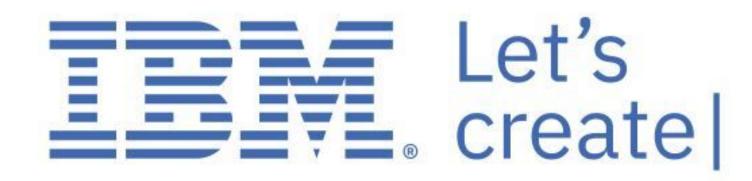


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