Bloomberg Businessweek
February 15, 2021 ● DOUBLE ISSUE

Here's to the sensible ones, the team players, the problem solvers, the round pegs in the round holes...

black owned restaurants

The Four Way

4.5

Identifies as Black-owned

Nos Casa Cafe

4.2

Identifies as Black-owned

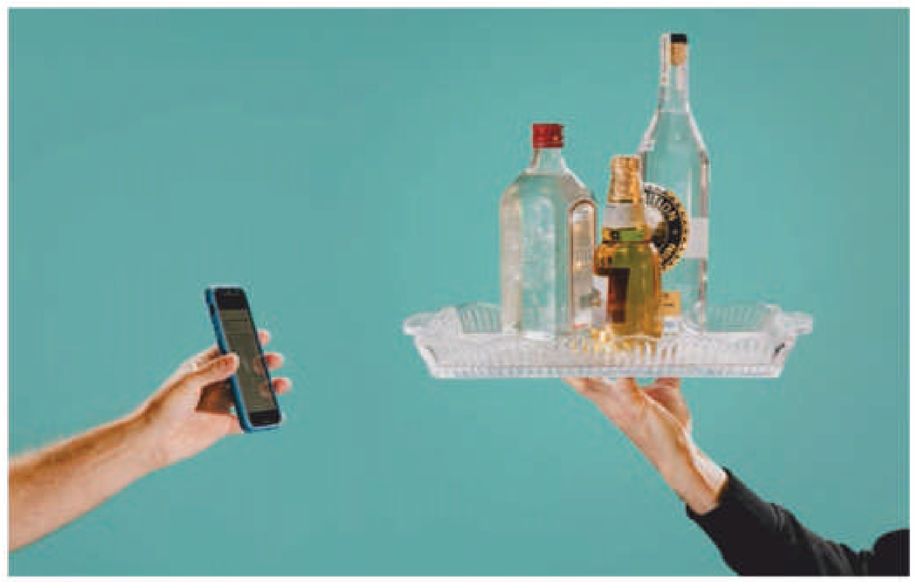
Bloomberg Businessweek

February 15, 2021

◀ A private equity firm took over the company Shirley Smith worked for. Bankruptcy followed, and now she wants what was promised

PHOTOGRAPH BY ERIN KIRKLAND FOR BLOOMBERG BUSINESSWEEK

FEATURES



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■ COVER TRAIL

How the cover gets made

❶

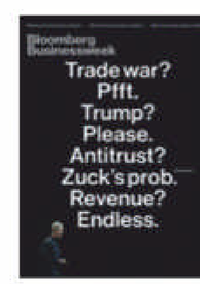
"So this week we're doing a story about Apple under Tim Cook."

"Hard to believe it's been a decade, huh?"

"And what a journey it's been. He's made a profitable company even more profitable, while navigating a geopolitical maelstrom and managing Trump."

"It's sort of like he's spent a decade in red shorts and a white T-shirt running through a gray dystopian underworld of corporate zombies to smash the information overlord to pieces—except the overlord is… earnings projections?"

"Your mind is a wonderland."



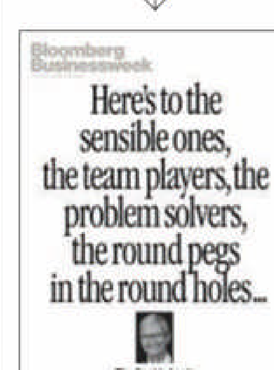
❷

"I like it, but let's think *more* different."

"Just like Cook!"

"Well, ironically, he's made the company grow with steady leadership and cooperation."

"Business loves an anti-iconoclast. By the way, have you ever seen *Mr. Holland's Opus*? Richard Dreyfuss is a national treasure."



Cover: The Photo Access/ Alamy

BUSINESS: PHOTOGRAPH BY BRA TRONE FOR BLOOMBERG BUSINESSWEEK. BEZOS: DAVID PAUL/BLOOMBERG

IN BRIEF

● Global coronavirus cases have exceeded

107m

and almost 2.4 million people have died. The pace of vaccinations is picking up, with more than 138 million shots given. The WHO has recommended AstraZeneca's new vaccine for all adults, but South Africa is pausing its rollout after a trial showed it had limited efficacy against a new variant.

● Daimler is separating its luxury car and commercial vehicle operations by distributing a majority of its Daimler Truck unit to shareholders.

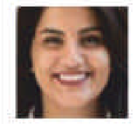
As part of the move, to be completed by yearend, the company will change its name to that of its most iconic brand: Mercedes-Benz.

● The family behind German sandal maker Birkenstock is looking to sell the company for at least

€4b

($4.9 billion). Suitors include private equity firms CVC Capital and L Catterton, according to people familiar with the plan.

● One of Saudi Arabia's



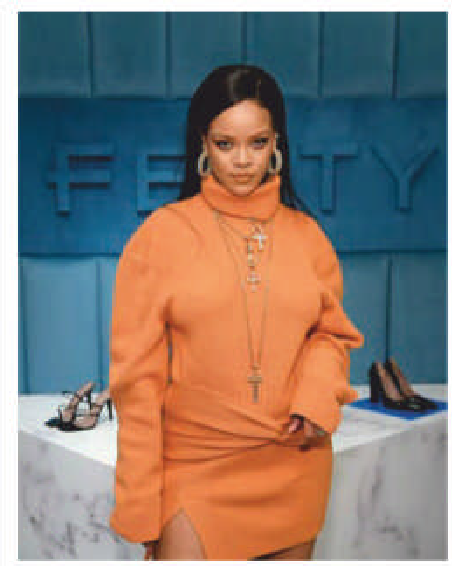
most prominent political activists, Loujain al-Hathloul, who pushed to end the kingdom's ban on women driving, was released from prison on Feb. 10. She'd served almost three years on charges that sparked an international uproar over Saudi Arabia's human-rights record.

● The impeachment managers pass through the Capitol Rotunda from the House to the Senate as the second impeachment trial of Donald Trump begins on Feb. 9.

● Bitcoin surged to a record on Feb. 9, topping

$47k

after an endorsement from Tesla, which announced a $1.5 billion investment in the cryptocurrency. The company said it would begin accepting the digital token in payment for its EVs.



● Less than two years after a euphoric debut, LVMH and Rihanna are putting her Fenty ready-to-wear operation on hold in the hope of "better conditions." Attempting to build a celebrity-backed brand from scratch had marked a strategic shift for the luxury emporium.

● "He didn't just tell them to fight like hell. He told them how, when, and where."

Representative Joe Neguse of Colorado, one of the Democratic impeachment managers, describes on Feb. 10 President Trump's incitement of the Jan. 6 Capitol insurrection.

● European chipmaker Dialog Semiconductor, a major supplier to Apple, agreed to an all-cash offer of about

€4.9b

The buyer, Renesas Electronics of Japan, outbid other suitors, including Franco-Italian semiconductor company STMicroelectronics.

● George Shultz died on Feb. 6 at the age of 100. As Treasury secretary under Richard Nixon, Shultz oversaw the decoupling of the dollar from the gold standard in the early 1970s. A decade later, as Ronald Reagan's secretary of state, he navigated the U.S. through the last years of the Cold War.

AL-HATHLOUL: MARIEKE WIJNTJES/REUTERS. CAPITOL: WIN MCNAMEE/REUTERS. RIHANNA: DIMITRIOS KAMBOURIS/GETTY IMAGES. SHULTZ: JIM WATSON/GETTY IMAGES

Immigration Reform Shouldn't Ignore Enforcement

President Biden's early efforts on immigration have focused on quickly mending the damage done by his predecessor. Quite right. President Trump was especially active–and especially foolish–on immigration, so there's plenty to undo. But Biden is also looking ahead and has proposed a comprehensive reform that's meant to resolve the issue for the foreseeable future. This part of his thinking is harder to endorse.

Trump issued a blizzard of executive orders on immigration, most of them ill-conceived. Courts rejected many as illegal. Biden's early orders on the issue are mostly an effort to pick up the pieces. He's rescinded the travel ban imposed on some Muslim-majority countries, stopped work on Trump's wall along the southern border, moved to restore the Deferred Action for Childhood Arrivals program that Trump tried to hobble, and withdrawn the "zero tolerance" instruction on border enforcement that separated thousands of families.

Long-term immigration reform is a different matter. The challenge here is to strike a difficult balance–one that resolves the status of the millions of people living in the country illegally, builds a system to promote the additional immigration the country needs, and ensures that future illegal immigration is curbed. Biden's proposal rightly provides an eight-year pathway to citizenship for most of the 11 million people thought to be living in the U.S. without legal status, but it lacks an effective plan to strengthen enforcement alongside it. Critics who deride the plan as "amnesty first, enforcement never" have a point. The proposal risks aggravating the problem of illegal immigration, and its prospects of becoming law look minimal.

Biden and his team need to start over. Since the last big immigration reform, the two parties have moved farther apart. Nonetheless, a plan that combines amnesty with better enforcement is capable of commanding bipartisan support.

The best way to strengthen immigration law enforcement is to require employers to vouch for the legal status of their hires, which many do voluntarily. The federal government maintains an E-Verify service that lets employers check job applicants' legal status. If the checks fail, the system allows for appeals and redress. In most cases, knowing the information will be verified is enough to encourage compliance. Some employers, such as federal contractors, are required to use the system. Most aren't. A lot of Democrats are open to the idea of obligatory E-Verify as part of comprehensive immigration reform.

Biden should also pledge to speed the completion of an entry-exit tracking system that Congress mandated all of 25 years ago. In recent years, visa "overstays" have greatly outnumbered unauthorized border crossers–one more reason Trump's wall made little sense. No nation can ensure its border security unless it can reliably track the coming and going of foreign visitors.

Adding these proposals to the Biden plan would refute the charge of "enforcement never." And they would stand a good chance of bringing moderate Republicans to support reform.

Many other issues would still need to be resolved. These include the extent to which needed skills, on the one hand, and family connections, on the other, should be criteria in immigrant applications. What role should temporary work visas play? What about refugees and asylum-seekers? How can a notoriously slow and inefficient system be streamlined and modernized? None of that is easy, but a smaller, well-balanced, politically feasible bill would be a good start. Biden should take another look at his plan. Ⓑ *For more commentary, go to bloomberg.com/opinion*

AGENDA

ILLUSTRATION BY CRISTINA SPANÒ

▶ Farewell, King of Coal

Ivan Glasenberg presides over Glencore's earnings one last time on Feb. 16 before stepping down after almost two decades as CEO. Glasenberg built the commodities company into the world's biggest shipper of coal.

▶ The Federal Reserve releases the minutes of its Jan. 26-27 meeting on Feb. 17. The Fed has said it will remain supportive for a long time to help the economy recover.

▶ Singapore presents its annual budget on Feb. 16. The city-state, hoping for a continued economic recovery, is seeking to reopen its borders to tourism and trade.

▶ Credit Suisse reports fourth-quarter earnings on Feb. 18. The bank has warned that it incurred a loss in the quarter after setting aside $850 million for legal costs in the U.S.

▶ Hedge funds must disclose their U.S. equity investments in the most recent quarter by Feb. 16, providing insights into their strategies in the final stretch of a volatile year.

▶ French President Emmanuel Macron participates in a Feb. 16 summit in Chad with countries from the African Sahel zone that have been engulfed in sectarian violence.

▶ The *Perseverance* descends to Mars on Feb. 18. Roughly the size of an SUV, NASA's largest rover yet will scout the red planet for traces of microbial life.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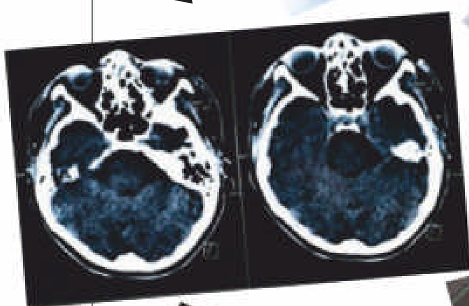
A Crisis of Cancellations

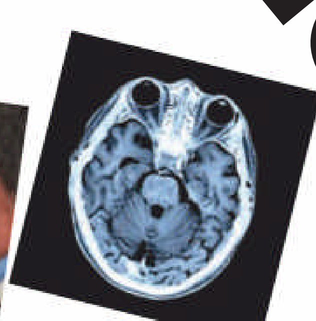










● The delay of medical checkups and procedures due to Covid has led to a shadow health crisis

● By Emma Court

During a year when many hospitals in the U.S. saw a crush of Covid-19 patients, other kinds of medical care dropped off sharply. Insulin prescriptions went unwritten, and HIV tests were untaken. Cancer care was pushed off or canceled. People having heart attacks didn't go to the emergency room.

The cause was the pandemic: People had been told to stay home and were afraid of becoming infected. Even if they wanted to go to the doctor, in-person slots were scarce as waiting rooms were thinned out to allow for social distancing.

These disruptions, compounded by job losses that added to the ranks of uninsured Americans, have created a shadow health crisis. Although the implications will take time to understand, experts say that medical care that was deferred or avoided in 2020 could worsen many Americans' health in the longer term and inflate medical costs for years to come. While Covid has taken a heavy toll on communities of color, the secondary crisis also risks exacerbating racial health disparities.

In March and April 2020, U.S. consumer spending on health care dropped year over year for the first time in 60 years, according to the nonprofit Kaiser Family Foundation. At least $2.7 billion a week in run-of-the-mill health spending evaporated. "The size of the reduction in use of medical care, particularly early in the pandemic, was so great that there's no way it could not have been harmful," says J. Michael McWilliams, a professor of medicine at Harvard Medical School.

Routine non-Covid care later rebounded, but those early months left a deficit that's persisted, says Brian Harvey, executive director of research and analytics at the Blue Cross Blue Shield Association.

Deaths from two kinds of heart disease increased in several states in the months after the pandemic began relative to 2019, according to a study by researchers at Beth Israel Deaconess Medical Center and Harvard Medical School. The rise suggests people who needed emergency care avoided hospitals because of Covid. It could also be a consequence of delayed medical visits and procedures, the authors wrote.

Dennis Kosuth, a former emergency room nurse at a facility run by Provident Hospital in Chicago, says he thinks patients who used to visit for basic needs such as prescription refills started avoiding the facility out of fear. "Who knows what happened to those people," he says. "They didn't stop needing health care." In November he saw a diabetic patient who couldn't afford insulin after being laid off and ended up requiring intensive care.

PHOTO ILLUSTRATION BY 731; PHOTOS: GETTY IMAGES (12)

Even for adults without chronic conditions, skipping a primary-care appointment might mean missing a cancer screening or detection of high blood pressure. Seemingly minor delays can have serious repercussions.

Sarrah Strimel, the 39-year-old owner of a New York yoga studio, noticed a lump on her breast in late August and had a virtual visit with her doctor. Referred for imaging, she was told the soonest available appointment was more than three months away. She paid out of pocket for a private company to perform the scans and was diagnosed with stage 2 breast cancer days later. “My doctor told me I had saved my own life, because if I had waited until December it could have been much more advanced,” Strimel says.

Deferred care of every stripe could also hike future health-care costs, though it’s not yet clear what the overall effect will be, experts say. “Cancer comes to mind, because cancer care is very expensive,” says Susan Pantely, who serves on the American Academy of Actuaries’ Health Practice Council. “If people miss their preventative care in 2020, how many of those are going to go into a cancer case in 2021?”

Researchers typically look for the effects of missed care in hospital admissions, because people can end up in the ER with more serious problems. But since Americans were avoiding the hospital during the pandemic, particularly early on, it’s hard to figure out where or whether they were getting treated last year.

Instead, researchers have relied on a measure known as excess deaths, or the number of deaths above the historical trend over a given period. One analysis, by Virginia Commonwealth University School of Medicine professor Steven Woolf and colleagues, finds that more than 100,000 excess deaths not attributable to Covid occurred in the pandemic as of December.

Black and Hispanic Americans have suffered disproportionate sickness and death from Covid. Woolf says that the line between Covid and non-Covid deaths isn’t always clear—deaths from the virus have been undercounted—but the racial and ethnic disparities probably extend to non-Covid mortality, too. Data from the Centers for Disease Control and Prevention show that almost 12% more Black and Hispanic individuals died from non-Covid causes in 2020 than in 2019, compared with just 4% more White people.

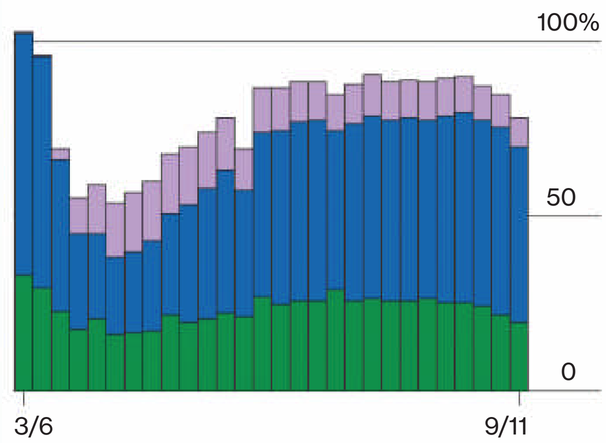
The problem has sparked efforts to reconnect patients to routine medical care. During New York City’s outbreak last spring, health department employees did outreach in 27 hard-hit neighborhoods that already had high rates of illnesses such as hypertension and diabetes, says Torian Easterling, the department’s first deputy commissioner and chief equity officer.

They found that several local medical offices had closed. Providers reported that they lacked personal protective equipment or had been forced to furlough employees. Many didn’t have the technology to conduct virtual appointments or didn’t know how. Health officials encouraged them to use telephones for remote care, gave them PPE, and linked

Use of the U.S. Health-Care System

Insurance claims for visits as a share of the weekly baseline,* by service type

■ Institutional ■ Office ■ Telehealth



Health services spending through Q3, change from 2019 to 2020

Nursing homes	▲ 4.5%
Labs	▲ 1.4
Hospitals	▼ 1.7
Physicians’ offices	▼ 4.0
Outpatient care centers	▼ 4.7

*WEEKS ENDED JAN. 10, 2020, THROUGH FEB. 28, 2020. DATA: IQVIA, KAISER FAMILY FOUNDATION

their patients with an emergency food delivery program the city had set up.

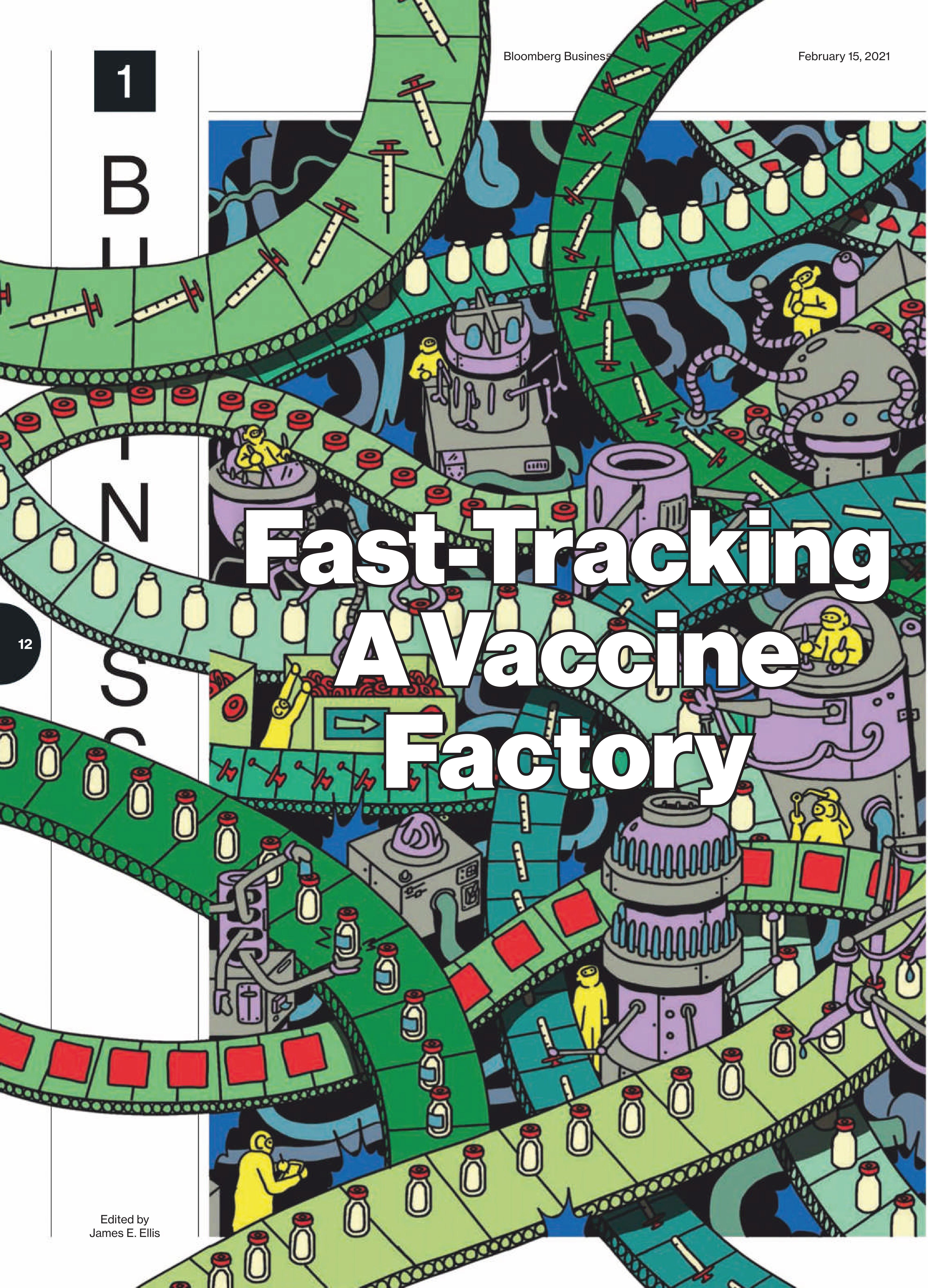
Employers and health insurers have broadened access to digital medical visits, or telemedicine, which alleviates the risk of viral exposure. But it doesn’t work for everyone. At a clinic in Baltimore that cares for almost 3,000 individuals living with HIV each year, “telemedicine’s not really working,” says Joyce Jones, an assistant professor of medicine at the Johns Hopkins University School of Medicine.

Many patients don’t have cellphones, computers, or reliable internet access, she says. The clinic has been working to increase space for conventional visits and can also lend about 70 phones to patients on a short-term basis, thanks to government grant funding. Health insurer Humana Inc. has taken a similar approach, sending iPads to members as part of a pilot program started during the pandemic.

Covid has raised the barriers to health care for many Americans, and both the private and public sectors will need to use creative means to address the other crisis building in its shadow. Woolf says government officials should think carefully about how to prioritize disadvantaged neighborhoods and individuals, through both Covid-19 programs like testing and vaccination and social programs to assist with rent payment and evictions.

Some researchers hope to prevent a repeat when the next pandemic arrives. The past year has at least provided conditions for an experiment into the cost-effectiveness of American medical care, which has never returned outcomes on par with the outsize spending, says Engy Ziedan, an assistant professor of economics at Tulane University. The pandemic made it possible to see what happens when a person doesn’t get a colorectal cancer screening or skips physical therapy.

Ziedan and her colleagues are studying the subject, seeing “a real opportunity here to identify what care is quality and what’s not,” she says. “We don’t really want to be losing the war on cancer or heart disease.” Ⓑ



Fast-Tracking A Vaccine Factory

Edited by
James E. Ellis

● With demand for shots soaring, BioNTech rushes to add mRNA production capacity

On the outskirts of Marburg, a small college town in Germany, a handful of hazmat-clad workers from coronavirus vaccine manufacturer BioNTech SE anxiously huddled around a clean-room lab bench on Feb. 9, as a chain of chemical reactions silently unfolded inside a giant plastic bioreactor bag. This was the moment of truth for the company's new factory, hastily retrofitted to produce 750 million doses a year of one of the most sought-after products in the world: the active ingredient for the messenger RNA vaccine sold by BioNTech and its partner Pfizer Inc.

Demand for the vaccine, which BioNTech initially created, has been so massive that the partnership's manufacturing facilities—a BioNTech mRNA plant in Mainz, Germany, three Pfizer factories in the U.S., facilities belonging to several other production partners across Europe, and Pfizer's formulation and vial-filling operation in Belgium—can't meet it. So the German company has spent five frantic months navigating paperwork, retraining workers, and renovating the Marburg site to get it ready to produce more mRNA.

Success would mean being able to vaccinate about 375 million more people per year and help bring the pandemic under control. But a setback could force the partners to revise their goal of making 2 billion shots this year, leaving many countries without the much-needed medicine.

Vaccine shortages have turned into a political issue in BioNTech's European home. "Many citizens will have to have patience in this difficult phase of the pandemic," says German Health Minister Jens Spahn. "Vaccine doses are very, very tight." Some of Spahn's colleagues in parliament have suggested that drugmakers should convert other factory lines to boost vaccine supply, but the long path from plan to production at Marburg shows why that's not such a simple solution.

Months before BioNTech started knocking down walls at the facility last fall, it had to line up some crucial components that aren't on drugmakers' usual supply list. They include a high-pressure pump used to mix the mRNA with fatty lipids, which can take up to six months to obtain because they're only made to order.

The lipids themselves are another material the industry seldom uses that are challenging to suddenly produce in large quantities. Yet these particles are essential to the process: They encapsulate the mRNA, ensuring it doesn't break down in the body. Sierk Poetting, BioNTech's chief financial officer and operations head, says he ordered as much of them as he could last March, about the time that BioNTech and Pfizer signed their development deal.

When BioNTech started working on the novel coronavirus a little more than a year ago, mRNA vaccines had been produced for only a handful of people in medical studies. Unlike conventional inoculations, which introduce a dead or weakened virus into the body, mRNA shots encode instructions for the body itself to produce a harmless copy of a key portion of the virus—essentially turning the body into its own vaccine factory.

Poetting started thinking about where to make the vaccine in April, while BioNTech and Pfizer's researchers labored on development. He started by expanding the existing production line at BioNTech's Mainz headquarters, but he knew more space would be required if the vaccine proved effective.

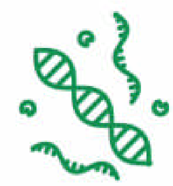
By summer, as Europe emerged from the pandemic's first wave, Poetting heard that his former employer Novartis AG might be ready to sell its factory in Marburg. He did a bit of scouting and realized he'd hit a jackpot: Once used to produce rabies, swine flu, and tetanus vaccines, the site, which came with 300 trained workers, was making complex biological medicines. Crucially, it also had two bioreactors—industrial-size pots for brewing drug materials. It would still need retrofitting, but that would be far easier than starting from scratch.

In September, flush with a €375 million ($453 million) grant from the German government, BioNTech announced the factory deal. Although the vaccine hadn't yet been proven to work, Poetting's team started measuring, making plans, and teaching the workers how to produce it. In November, BioNTech and Pfizer had to cut their estimate for how many doses they could produce in 2020 in half, to 50 million. And to hit their target for 2021, they knew they had to bring Marburg online fast.

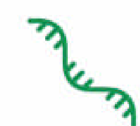
Other drugmakers enlisted in recent weeks to throw their manufacturing weight behind mRNA vaccine production also seem to anticipate challenges. French drug giant Sanofi agreed in late January to handle the last step of production for BioNTech—filling vials with vaccine—but said it wouldn't have doses ready to ship until summer. BioNTech's similar production deal with Novartis also won't start yielding supplies until July at the earliest. The issue isn't unique to BioNTech. When Bayer AG joined forces with BioNTech rival CureVac NV on production of a different mRNA vaccine this month, it stipulated that deliveries won't start until the end of the year. ▶

▼ How mRNA vaccines are made

❶ Messenger RNA is transcribed from a DNA template in a bioreactor



❷ Strands of mRNA are separated from the DNA templates and process-related impurities



❸ The strands are encapsulated in lipid nanoparticles

❹ The encapsulated mRNA is filtered and put into vials

ILLUSTRATION BY PATRICK EDELL

◀ Those lead times might sound long, but by industry standards, the companies are moving at lightning speed. Setting up an outside production partner normally takes 12 to 18 months, says Florian von der Mülbe, CureVac's chief production officer, but "we are in the course of establishing it... within four to five months."

BioNTech closed on the Marburg factory in November. Later that month, clinical trial results showed its vaccine was 95% effective against Covid-19, stunning the world and prompting customers to start demanding even more doses.

Although the technology is new, making the vaccine is simpler than for some drugs, because there's no need to cultivate or feed living cells, says Poetting, a physicist by training who previously worked at Novartis's generic-drugs business. "It boils down to please add the plasmid, now please add the buffer, now stir it for X minutes [at] X degrees, now lower the temperature, and add some enzymes," he says. "It took 20 years to optimize the recipe and find the ingredients, but now it's really cooking."

Scaling up production of an mRNA vaccine still takes some finesse. "If you want to make 10 times the sauce for Thanksgiving, it might not work, because then everything is a little different," Poetting says. "The consistency is different. The way you have to put in your ingredients is a little bit different. It's not only everything times 10, it's a little bit more difficult."

Poetting's team used some of its limited stock of lipids to conduct the test run at Marburg, required to prove to Europe's medicines regulator that the quality of the substance produced at the site is up to snuff. The first batch, about 50 liters of mRNA material, should be enough to make 8 million doses of vaccine. If the process succeeds, BioNTech should be able to stockpile the test batches and ship them to customers, after a validation process, by April. If something goes wrong—even something as small as contamination caused by a puncture in a sterile glove wrapper—they'll have to try again. Says Poetting: "It's not a slam dunk that this works." *—Naomi Kresge, with Tim Loh and Chris Reiter*

THE BOTTOM LINE The world wants more Covid vaccines yesterday. But BioNTech's new plant, capable of making enough medicine for 750 million shots, took many months to get rolling.

▼ Vaccine doses covered in pre-purchase agreements

AstraZeneca/Oxford	3.0b
Novavax	1.3b
Pfizer/BioNTech	838m
Gamaleya	760m
Sanofi/GSK	712m
Moderna	471m
Johnson & Johnson	355m
Other	1.1b

Online Booze Gets a Covid Boost

● Liquor e-commerce never took off in the U.S. Then pandemic lockdowns came along

The lockdowns early last year were like a cruel reversal of "a guy walks into a bar" jokes for the alcohol industry. Instead of fun scenarios where anything could happen, people were stuck at home, bars were closed, and in the U.S. most consumers had no idea how to buy booze online. Financial results for alcohol companies were constrained, and their supply chains had to be redirected away from bars, sporting events, and concerts to whatever homebound consumers they could reach. There was even a shortage of the aluminum cans needed for some beers as they scrambled to adjust.

Then, something funny did happen: Alcohol producers, held back from the e-commerce revolution in the U.S. by laws that date to the 1930s, suddenly saw online sales skyrocket. Beverage makers started to open up to technology platforms rolled out by startups such as Thirstie Inc. and Speakeasy Co., and consumers began to catch on that they could get alcohol without venturing out of lockdown. On Feb. 2 one of those upstarts, Drizly Inc., agreed to sell itself to Uber Technologies Inc.—the ride-hailing company that's ventured into food delivery—for $1.1 billion.

After years of lagging behind other countries in adopting online liquor sales, the U.S. is now expected to overtake China as the largest alcohol e-commerce market in the world by the end of 2021, according to analyst IWSR. Boston-based Drizly predicts that the online share of the $120 billion U.S. market for alcohol will climb to 20% within five years, from about 5% today. "There's nothing holding this category back now," Drizly Chief Executive Officer Cory Rellas says. "We know what the interaction of technology and regulation looks like for this industry. Figuring that out was the hardest part."

For new or little-known liquor brands, online sales provide an opportunity to get in front of

PHOTOGRAPH BY BRAD TRONE FOR BLOOMBERG BUSINESSWEEK. VACCINE DATA: BLOOMBERG COVID-19 VACCINE TRACKER. E-COMMERCE DATA: IWSR DRINKS MARKET ANALYSIS

consumers in a year when corporate events and bars can't be marketing vehicles. And for familiar players such as Molson Coors Beverage Co., it's a chance to get products to consumers at a time when many are still skittish about even going to grocery stores.

"I think our business has moved several years into the future because of a few months last year," says Sara Goucher, who runs Molson Coors's e-commerce operation in North America. The company's 2020 online sales had grown 230% by November over the same 11-month period in the previous year, and by Thanksgiving about 50% of U.S. consumers were aware they could buy beer online. While that figure may seem low, only 20% of consumers were aware of digital brew sales before the pandemic, she says.

Molson Coors plans to triple or even quadruple spending on its e-commerce initiatives in 2021, anticipating that consumer behavior has been permanently reshaped by the pandemic. "People had the necessity of ordering alcohol online, and now they're starting to wake up to how convenient it is," Goucher says.

Alcohol may be a more natural fit for online sales than many consumer products. The weight of bottles, cans, and cartons means that some people would rather not carry them home themselves. And the large variety of products and packaging types—more than 1 million—means an online store can offer the kind of inventory a typical retailer can't. "It's like books with Amazon; you can build a store that can only exist on the internet," Drizly CEO Rellas says.

Yet for years, the ability to buy alcohol online in the U.S. has been constrained. In 1933, when Prohibition was repealed, the 21st Amendment broke up the power of bootleggers by dictating that no one party would control producers, distributors, and retailers of alcohol. To complicate matters further, each state adopted its own version of the so-called three-tier system. To this day—with minor exceptions such as small breweries, distillers, and vineyards—alcohol producers can't connect directly with U.S. consumers but must send their products through separately owned distributors and retailers. That's caused the industry to miss out on the entire direct-to-consumer revolution that's changed the way many brands connect to their customers.

"For the most part there's no such thing as DTC alcohol," says Franklin Isacson, founding partner of Coefficient Capital, a consumer-goods-focused venture capital firm. "Warby Parker can cut out the middleman and the distributor and give you a better price. But if you go to smirnoff.com, the sale still goes to a distributor, who takes it to a liquor store, who delivers it to you."

Isacson says some startups are trying to use this complex setup to their advantage, including San Francisco-based Haus, one of the fund's investments, which can sell aperitifs in such flavors as lemon and elderflower directly to consumers because it's wine-based and less than 24% alcohol, meaning it isn't bound by the three-tier system.

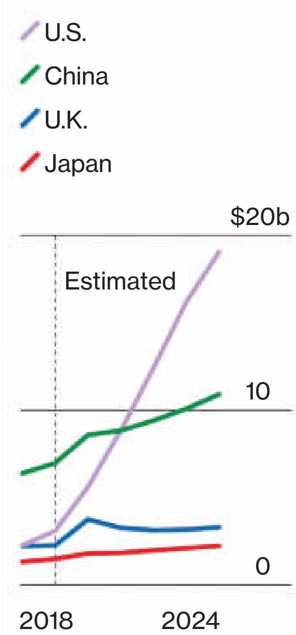
Lower costs aren't the only advantage. The direct-to-consumer model has helped create a generation of startups that no longer need to elbow a giant boozemaker out of the way to get on retail shelves. And e-commerce technology gives brands an almost real-time view of who's buying what and where—something that would have helped them avoid hiccups like last year's beer can shortage.

Still, brands such as Haus that can get around the three-tier system are the exception. So digital middlemen have cropped up to try to deliver those kinds of advantages without destroying the three-tier status quo. Aside from Drizly, Speakeasy, and Thirstie, there's also Bevshop, Cask & Barrel Club, and Passion Spirits.

These companies have to jump through intricate legal hoops to comply with the three-tier regulations. With Drizly (referred to as "Uber for booze," even before Uber bought it), consumers download its app and add products to a shopping cart, and Drizly appears to deliver them. But Drizly never touches the alcohol, because the drivers are mostly employed by the liquor stores. About 20% of Drizly's deliveries are by third-party couriers, and Uber will now be one of them, Rellas says. Drizly operates in 32 states with legalized alcohol e-commerce and doesn't deliver across state lines. ▶

"We know what the interaction of technology and regulation looks like for this industry. Figuring that out was the hardest part"

▼ E-commerce sales of alcohol



◀ Thirstie, which works with major brands including Bacardi, Jagermeister, Macallan, and those owned by drinks giant Constellation Brands Inc., is known as the "Shopify for booze," as it uses a model that allows a consumer to look up his favorite brands and creates the illusion that he's buying from their websites. Instead, the customer is moved to a technology platform powered by Thirstie that orders the bottle from the supplier, which sends it to a distributor, which then sends it to a licensed retailer who makes the delivery to the consumer.

"The brand partners we have don't want to be just another bottle on the shelf," says Devaraj Southworth, CEO of Thirstie. "They're not going to be in a situation where they're alongside a competitors' brand."

Speakeasy has a slightly different model, which moves the consumer from a brand's website onto a shopping cart that it maintains on a supplier's network, then triggers a retailer to ship to the customer. The startup tries to add efficiency by operating out of warehouses where distributors and retailers can rent space together, bringing the tiers together while not doing away with them.

Such companies say they're not a fourth layer or a challenge to the traditional system. "We like to say we're not another tier," Speakeasy co-founder Josh Jacobs says. "We're the glue that binds all the tiers together." —*Tiffany Kary*

THE BOTTOM LINE Post-Prohibition restrictions on alcohol sales in the U.S. helped keep the share of online liquor sales to about 5%. A Covid-inspired demand boom could lift that to 20% in five years.

Things Go Better With Recycled Plastic

● Coca-Cola's shift to sustainable bottles will drop its use of new plastic in the U.S. by 20%

Coca-Cola, the company whose products are responsible for more plastic pollution than any other, according to the Break Free From Plastic Campaign, made headlines in 2009 when it announced it would begin using plant-based bottles that don't require fossil-fuel inputs. Now the company says it will take a different approach to address the global problem of plastic waste: using bottles made of 100% recycled plastic for many of the drinks it sells in the U.S. According to the company, these sustainable containers will reduce Coca-Cola Co.'s use of new plastic from 2018 levels by more than 20% across its North American brands portfolio, cutting its greenhouse gas emissions by 10,000 metric tons annually.

▲ Sutaria

Alpa Sutaria, Coca-Cola's general manager for sustainability, says this is a change in the way the company is working to reduce waste. "The reality is that that plant-based material, as it's turned into plastic, is really still a virgin plastic," she says. That's not something consumers will stand for anymore, Sutaria says, instead telling companies they want reusable and recycled options.

Coca-Cola pledged in 2018 to make 100% of its packaging recyclable by 2025, and to use 50% recycled material in bottles and cans by 2030. The next year, it announced that Sweden would become the first market where all its products are sold in fully recycled plastic bottles.

The company is introducing a 13.2-ounce bottle made of 100% recycled PET, or rPET. Sutaria says the size change is partly a reaction to consumer feedback that 20-ounce bottles are often too large, but 12-ounce cans too small. The new bottles will roll out in parts of the U.S. this month before expanding nationwide later in the year.

A 13.2-ounce bottle of soda will cost \$1.59; the price for a 20-ounce drink will stay at \$1.99 regardless of its bottle material, Sutaria said. The company is also moving Sprite—which has been traditionally packaged in deep-green bottles—to all-clear ones by the end of 2022 to make them easier to recycle.

▲ Coke's new bottles also have a smaller carbon footprint

Coke's move to use plant-based bottles a decade ago was pioneering, says Julia Attwood, leader of BloombergNEF's advanced materials research. Now its move away from plant-based plastic could spell a big change for the entire beverage industry. "For the champion of the bio-based bottle to essentially be abandoning it is a big sign for how the circular economy is going to move first," she says.

From an emissions standpoint, bio-based bottles are better than recycled ones, as the latter are still derived from oil, Attwood says. But the carbon impact of 100%-rPET bottles is much lower than that of regular plastic. "You basically cut the carbon footprint in more than half by using 100% recycled," she says, "and the cost isn't significantly higher." —*Elizabeth Elkin*

THE BOTTOM LINE Coca-Cola says it will shift to bottles made of 100% recycled plastic in the U.S., saying its previous goal to use plant-based containers still produced too much virgin plastic.

COURTESY COCA-COLA (2)


Science for a better life
Can biology reverse disease and slow climate change?
Science is unlocking big ideas in tiny places, like genes that can help stop disease and crop DNA that helps farmers fight climate change. It's the Bio Revolution, one of the megatrends we're investing in to help treat chronic human conditions, like a warming planet. To us, there's nothing more valuable.
Gain more insights that matter at
Bayer.com/megatrends
BAYER

A Substack of One's Own

● Writers are relying on direct payments from readers, raising questions about the economics of news

The idea behind Hamish McKenzie's startup, Substack Inc., seems pretty modest. The company makes tools to help writers publish email newsletters, earning money by taking a 10% cut from those who charge their subscribers.

The company has been around since 2017, but it's gained momentum in the past year. The number of paid subscriptions is more than 500,000, and the top writers make well over $1 million annually. As big-name journalists including *Vox* co-founder Matthew Yglesias and tech writer Casey Newton have abandoned their jobs to start Substack newsletters, the tiny company has turned into a real-world illustration of a venture capitalist's fantasy about the future of media. In that dream, creators become little industries to themselves, using new tech platforms to outmaneuver the sluggish companies they once had to rely on for paychecks. "Absolutely amazing that 15 people with a vision and a clean, thoughtful product fundamentally altered the way we think about media," Mike Solana, a vice president at the investment ▶

Edited by Joshua Brustein and Anne VanderMey

PHOTO ILLUSTRATION BY 731; PHOTO: GETTY IMAGES (2)

◀ company Founders Fund, tweeted in September.

The unbridled enthusiasm has led to a predictable backlash. What happens to already weakened newspapers and magazines if their staff is unbundled into individual writers? Are newsletters threatening to undercut journalism—and democracy—as we know it?

McKenzie says his company shouldn't be at the center of this fight. "We're too early on in the transition for everyone to have such strong heated opinions," he says. "The kind of hype around it is so much greater than we have sought to stoke."

But the debate seems likely to continue, and not only because the media industry is always eager to go public with its existential dread. Substack is part of a broader wave of services where creators receive direct payment from audiences, whether that means using Patreon to connect with people who want to hear music or OnlyFans to interact with admirers who want something more intimate. For those who believe the future is subscribing to people and not to newspapers, Substack is onto something big.

As with the YouTube stars and Instagram influencers before them, people hoping to make a living from newsletters will likely land somewhere along an unforgiving distribution curve. The top writers will earn large amounts of money, the same way a few people have gotten rich from dog-toy testimonial videos or ice skating TikToks. Then there will likely be a much larger group of writers who languish, making almost nothing.

Substack isn't the only one seeking to attract newsletter writers. On Jan. 26, Twitter Inc. announced it had bought Revue, a rival startup, and said it was cutting its commission to 5%. Facebook Inc. is also working on newsletter tools, according to the *New York Times*. McKenzie has compared the social media companies' efforts to those of carmakers and oil companies trying to be more environmentally friendly, but also says he welcomes the competition.

Substack's other co-founders, Chief Executive Officer Chris Best and Chief Technology Officer Jairaj Sethi, handle operations and engineering. But McKenzie—a former tech reporter and freelance writer—has usually been the public face. His experience freelancing shaped the company's vision as a way to serve those who toil alone in precarity, hassling editors to send assignments or put late checks in the mail. "I wanted to make a better world for independent writers," he says.

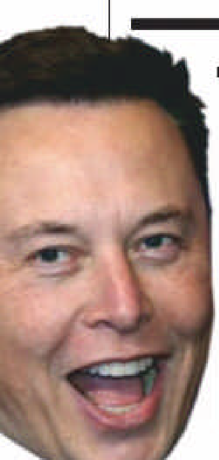
McKenzie's appeal to writers is that he understands how they suffer. He covered Tesla Inc. and Elon Musk for the tech site *PandoDaily*, and Musk hired him in January 2014 as the carmaker's "lead writer." McKenzie left after a year and began cranking out a manuscript about the electric car industry, working in a one-bedroom apartment in San Francisco, in a small space accessible only by ladder.

As the publication date neared, legal concerns reshaped the project and delayed its release significantly. "It's a lonely, isolating, tortuous journey being an author," McKenzie says, "writing about tricky subjects and feeling legally exposed." The grueling process contributed to one of the nontechnical aspects of Substack's platform: a legal defense fund for its writers.

The company is modeled on *Stratechery*, a tech analysis blog and newsletter where most content is available only to paying subscribers. For his part, Ben Thompson, *Stratechery*'s creator, says he has no need for its services. "I value

● McKenzie

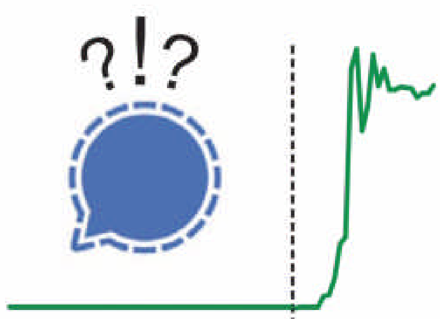
"It's a lonely, isolating, tortuous journey being an author, writing about tricky subjects and feeling legally exposed"



To the Moon, Elon!

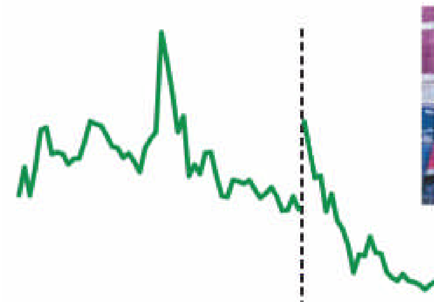
Elon Musk's tweets have created billions in market value in recent weeks. After jacking up Dogecoin's price, he added: "Ur welcome."

Jan. 7 ▷ Musk tweeted "Use Signal," referencing a chat app, and sent shares of unrelated biotech Signal Advance Inc. skyward.



Jan. 26 ▷ After Musk professed his love for Etsy Inc., the company's value jumped by more than

$2b



Jan. 26 ▷ Musk propelled GameStop Corp. mania with one word: "Gamestonk!!" Shares that day closed up

92%

GAMESTOP: GETTY IMAGES. MCKENZIE: COURTESY HAMISH MCKENZIE. MUSK: LIESA JOHANNSSEN-KOPPITZ/BLOOMBERG. DATA: COMPILED BY BLOOMBERG, COINMARKETCAP, ALL TIMES EST independence and would personally never be interested in a Substack-type solution," he writes in an email. Thompson's dismissal points to one of Substack's biggest challenges: persuading writers to continue splitting the revenue when there are other, cheaper ways to do the same things.

Recruitment falls to McKenzie, who plies his top targets with charm offensives and large advances. Anne Helen Petersen, who left *BuzzFeed* last summer to run a newsletter called *Culture Study*, says McKenzie reached out to her every six months for several years and offered to fly to visit her in Missoula, Mont., before she finally agreed to take an advance and start a paid newsletter.

As it poaches writers from other jobs and chooses which ones to feature on its homepage, Substack seems to be moving steadily toward becoming a publication in its own right. McKenzie rejects this characterization. "We're not commissioning editorials, or having people write for Substack the brand, or editing or employing writers," he says. "We're helping people with their writing businesses."

Petersen says she does feel as if she's working for herself rather than Substack. In addition to her newsletter, she wonders how to offer her subscribers occasional long-form pieces with magazine-style photography and editing. "The dream would be for me to be able to then pay that editor, for me to be able to pay a copy editor, for me to pay freelancers to write pieces on the newsletter," Petersen says. "But I start to laugh when I think about that. Because then you're just an editor-in-chief of a publication." —*Ellen Huet*

THE BOTTOM LINE Substack has provided a tempting platform for writers with newsletter subscribers willing to support them, a development that echoes other tech-fueled trends in media.

How Hackers Took Down New Zealand's Stock Exchange

● The "dumbest" kind of cyberattack is now more common than ever

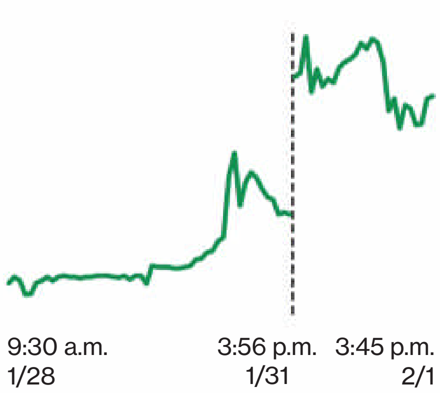
The website of New Zealand's stock exchange slowed to a crawl on a Tuesday afternoon in August. It quickly got so bad that the exchange couldn't post market announcements to the site, a regulatory requirement. With an hour left of trading, management shut down the entire operation.

It didn't take long to figure out what happened: The website had been overwhelmed by a tsunami of offshore digital traffic. An email from the perpetrators made clear that it was an attack.

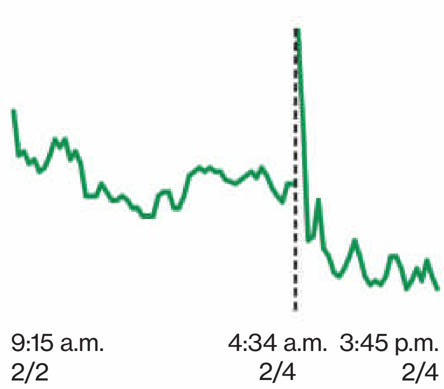
The New Zealand exchange had been hit by the digital equivalent of a mugging, a style of hack that internet security company Cloudflare Inc.'s Chief Technology Officer John Graham-Cumming describes as "the simplest, dumbest attack you can do." Known as a distributed denial of service, or DDoS, such attacks inundate a computer network or server with so much data that its systems cease to function under the load.

DDoS attacks have been around for decades, and the cybersecurity industry has largely figured out how to thwart them. Nevertheless, the past few years have produced a kind of DDoS renaissance. In 2020 the number of these attacks exceeded 10 million for the first time, according to cybersecurity ▶

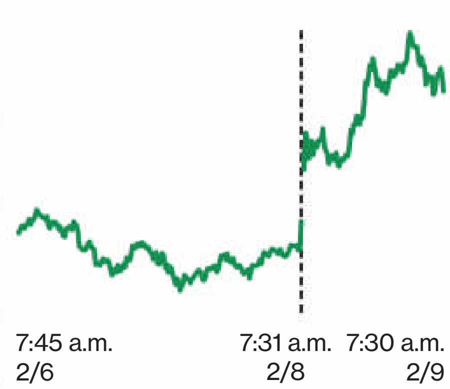
Jan. 31 ▷ A tweet announcing Musk would be on social app Clubhouse boosted shares of Clubhouse Media Group—no relation to the app.



Feb. 4 ▷ Sandstorm Gold Ltd.'s stock spiked when Musk tweeted "Sandstorm is a masterpiece." (He probably meant the song by Darude.)

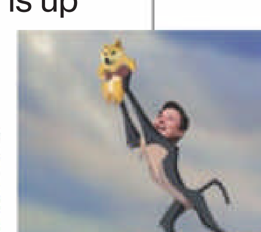


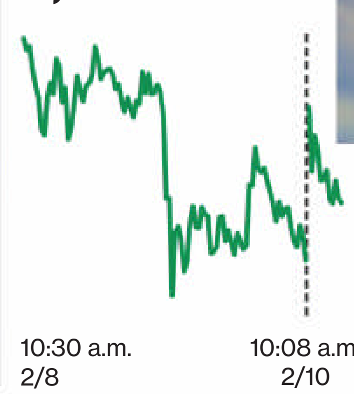
Feb. 8 ▷ Musk's Tesla Inc. said it bought $1.5 billlion in Bitcoin and might accept it as payment, launching the cryptocurrency to new record highs.



Feb. 10 ▷ A vocal Dogecoin fan in 2021, Musk even bought some for his son. The cryptocurrency is up

1,500%





◀ firm NetScout Systems Inc. In the second half of the year they were up about 22% from the same period in 2019.

This account, based on more than a dozen interviews with cybersecurity experts in New Zealand and elsewhere, shows how major institutions can be vulnerable to even relatively crude hacking attempts. That's particularly true as businesses have moved increasingly online during the coronavirus pandemic, and attacks of all kinds are trending higher.

After trading in New Zealand was halted, the security team at stock exchange operator NZX Ltd. managed to restore connectivity before the next trading day, but the attacks resumed as soon as the market reopened.

Over the next 48 hours, NZX finally moved its systems out of the reach of the digital bombardment—transferring its operations to cloud-based servers. That prompted the attackers to begin targeting companies listed on the exchange. In the end, trading at the exchange was stopped for four days, with "only intermittent periods of availability," according to a recent government report.

"You wouldn't wish this on your worst enemy," NZX Chief Executive Officer Mark Peterson later told a local newspaper.

A DDoS attack isn't like a traditional hack, in which an attacker finds a way into a computer network to steal information or lock up files and demand payment. It's more akin to a blunt-force assault. A common type of DDoS hack involves deploying a network of internet-connected devices—from laptops to DVRs to baby monitors—that have been infected with malware. As the number of such devices has exploded in recent years, so has the number of targets.

The group of infected machines is known as a "botnet," effectively a robot army that the attacker can control. When the hundreds of thousands of devices focus on a single target, such as a server or network, they can overwhelm the systems' capabilities.

The NZX hack was particularly devastating because the exchange relied completely on two local servers that didn't have nearly enough bandwidth to handle a major attack. The exchange had been in the process of shifting its systems to the cloud as part of a long-planned update when the hackers struck. The company's servers went down, and as a result NZX essentially ceased "to exist on the internet," says Daniel Ayers, a New Zealand-based IT security and cloud consultant.

Officials at the stock exchange declined to comment but have told financial regulators that the magnitude of the attack was unprecedented and couldn't have been foreseen. Jeremy Sullivan, an investment adviser in Christchurch, New Zealand, says that response is unsatisfying. "A DDoS attack is the equivalent of walking into a bank with a hammer and demanding money," he says. "The fact that they didn't have defenses against that was obviously disappointing."

The hack was likely perpetrated by members of a larger group in Eastern Europe, according to emails reviewed by Bloomberg and cybersecurity experts. They've variously identified themselves in emails as members of Lazarus, Fancy Bear, and the Armada Collective—all names of infamous hacking groups. For them, the summer's New Zealand attack was just the beginning.

In the following months the hackers went on to target more than 100 other companies and organizations around the world, researchers say, often using their success in New Zealand to establish credibility. Most of the hacks followed a similar pattern—a DDoS attack and a ransom email demanding $200,000 paid in Bitcoin. Emails delivered in the ensuing weeks and months contained some variation of this warning: "Perform a search for NZX or New Zealand Stock Exchange in the news, you don't want to be like them, do you?"

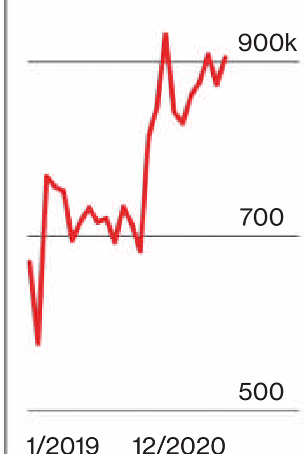
Not every company targeted was as badly damaged as NZX. This fall the group turned its attention to Telenor Norway, a telecommunications company whose security operations center is nestled in the seaside town of Arendal, the inspiration for the magical village of Arendelle in the Disney film *Frozen*. About 80% of internet usage in Norway comes through Telenor Norway's infrastructure, and its security team normally bats away 5 to 30 DDoS attacks a day.

In October, Telenor Norway was hit with a DDoS attack bearing telltale similarities to the NZX hack, firing as much as 400 gigabits of data per second at the network. It managed to disrupt service for about an hour, though the attack lasted for three, says Andre Arnes, the chief security officer of Telenor Group, the business's parent company.

Telenor Norway was able to handle the disruption relatively easily thanks to years of preparation, says Gunnar Ugland, head of the Arendal security operations center. Others won't be so lucky. Says Ugland: "There's a lot of companies that do not have DDoS-specific defenses and will probably have a bigger problem for a much longer time." —*Jamie Tarabay*

THE BOTTOM LINE Hackers disrupted trading on New Zealand's stock exchange for four days using a distributed denial-of-service attack—a dated, crude hack that's getting more popular.

▼ Number of DDoS attacks



Big Bets

It's Andy Jassy's Amazon Now

When Jeff Bezos steps down as chief executive officer of Amazon.com Inc., he'll leave his successor, Andy Jassy, a sprawling empire of giant businesses and moonshot experiments. Here are some of the $1.7 trillion company's most ambitious projects. ——*Matt Day*

Video games

Amazon Game Studios has been churning through almost $500 million a year trying to develop blockbuster games. So far, none has been a hit, Bloomberg reported in January. In early February, Jassy said he's still committed to the gaming business.

Groceries

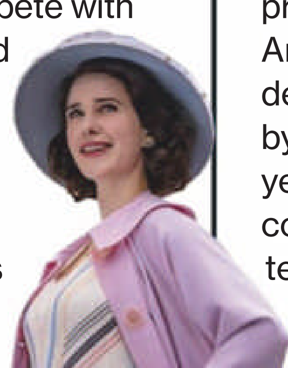
Not content after acquiring Whole Foods Market, Amazon launched a lower-cost grocer, Amazon Fresh, opening its first stores in California and Illinois last year. The company is also scaling up its already-booming food delivery operation.

HQ2

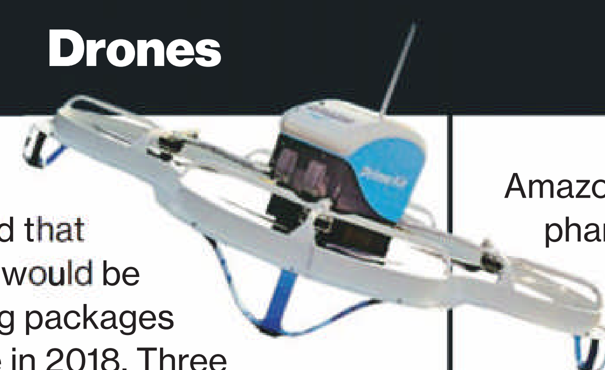
Amazon is building its second headquarters in Arlington, Va., centered on an ice-cream-cone-shaped, plant-filled workspace. It's a region Jassy knows well: The cloud unit he ran has a cluster of data centers and corporate offices in Northern Virginia.

Amazon Studios

Amazon has gone Hollywood, spending billions to compete with Netflix Inc. for shows and movies. Unlike Bezos, Jassy isn't known for frequenting industry galas, but like his boss, he recently bought a Los Angeles-area mansion.



Drones



Bezos predicted that Amazon would be delivering packages by drone in 2018. Three years after that deadline, the company has advanced its drone technology, but the flotilla isn't operational yet.

Health care

Amazon started an online pharmacy and has opened neighborhood clinics for employees. Analysts expect even bigger moves. CNBC reported that a skunk works R&D team under Jassy even set a goal of curing the common cold.

E-commerce

Amazon's warehouse footprint, formerly relegated to the exurbs and transportation hot spots, is growing. The company is said to have plans to add more than 1,000 delivery hubs, stitched together by cargo jets and thousands of trucks.

Digital helpers

Amazon is working to shore up its position in the market for home technology devices, rolling out flying home-security cameras, a proprietary low-power wireless network, and, perhaps someday, a home robot.

The cloud

$58b

Amazon's cloud division, the source of most of the company's profit, is expected to rake in almost $58 billion in revenue this year, more than four times the total in 2016. Jassy has led the unit since its founding.

The Global King of Supply-Chain Debt

Greeensill Capital arranges loans that speed up business payments. That's riskier than it sounds

Lex Greensill rose from working on his family's melon and sugar cane farm in Australia to roaming the skies in a private jet. The ascent has been far from smooth.

His London-based Greensill Capital has revamped the humdrum business of supply-chain finance, a kind of lending that speeds up payments between companies. The 44-year-old financier says the firm provided $150 billion to businesses and customers in 175 countries last year. But some view him as an aggressive risk taker who's often pushing the boundaries in an area of finance less regulated than traditional banking. Now he's considering a round of fundraising that would value his company at about $7 billion and his stake at more than $1.5 billion. That's just a steppingstone to his ultimate aim: going public and rivaling the world's biggest financial companies as a short-term lender.

Greensill Capital has been embroiled in scandals involving some of the biggest names in global finance. Loans it helped to arrange were the focus of conflict-of-interest accusations last year involving Credit Suisse Group AG and Masayoshi Son's SoftBank Group Corp. Others were at the center of a 2018 crisis at Swiss asset manager GAM Holding AG that brought down a star trader. And Germany's financial regulator is scrutinizing a bank Greensill owns for its heavy concentration of loans to British metals tycoon Sanjeev Gupta.

Greensill, who hasn't been accused of wrongdoing, says his company has ongoing discussions with all of its regulators. A spokesman says the bank has reduced its concentration of loans to Gupta but declined to comment about SoftBank, GAM, or Credit Suisse. "We're doing things a little different to what's been done before, and that's always going to kind of garner attention and commentary," Greensill says from his home in northwest England. "I recognize by doing that, it does from time to time make us a target."

Supply-chain finance is also known as reverse factoring. In traditional factoring, a supplier that wants to be paid faster can sell its receivables at a discount to a third party. The reverse process Greensill specializes in effectively enables the ordering company to do the borrowing. Not only does the supplier get paid more quickly, but it gets better terms because it's relying on the credit rating of the bigger company. And the process frees up cash for the ordering company, which can negotiate a longer period to pay back the loan.

For corporations, part of the appeal of reverse factoring is in the accounting: It doesn't contribute to an ordering company's net debt. Fitch Ratings Inc. has called for such financing to be reclassified as debt, suggesting the growth of reverse factoring enables a company to increase leverage without having to say so in its financial reports. Supply-chain finance was partly to blame for the demise in 2018 of Carillion Plc, the U.K.'s largest bankruptcy. It had put off paying suppliers hundreds of millions of dollars, helping to mask its parlous finances prior to its collapse. The lenders in that case were big banks, and Greensill wasn't involved.

Greensill says his interest in the business was spurred by his experiences as a teenager. His family had a difficult harvest the year he graduated from high school, and his parents weren't paid for the crops they grew on their farm in eastern Australia. Things were so bad, he says, they didn't have money to send him to university, so he had to get his law degree by taking a correspondence course, receiving cassette tapes in the mail. Greensill later built a business at Morgan Stanley in London financing corporate supply chains, and then worked at Citigroup Inc. before starting his own company in 2011.

Greensill's innovation is in how the loans are funded: not by big banks, but by a growing army of investors thirsty for yield as interest rates around the world hover close to zero. Greensill acts as a ▶

Edited by Pat Regnier and David Rocks

GREENSILL: IAN TUTTLE

▼ An example of how supply-chain financing works:

❶ A supplier sells goods to a buyer such as a big retail chain and agrees to be paid within 90 days.

❷ If the supplier wants to be paid earlier, the buyer can send the invoice to a lender.

❸ The lender pays the supplier early, on Day 30, but at a discount.

❹ Sixty days later, the buyer pays the lender the full amount. The lender profits because it paid the supplier a little less.

◀ Greensill

◀ matchmaker, packaging the loans into short-term notes and placing them into funds run by financial companies such as Credit Suisse and GAM. These funds are mainly marketed to corporate treasurers, who look after cash flows and balances at large global companies. They offer steady yield with low risk. In 2019 the biggest of the Credit Suisse funds returned 3.9% while more than doubling in size.

Last year proved more difficult. Several companies that borrowed through Greensill-backed Credit Suisse funds collapsed, including Agritrade International, BrightHouse, and NMC Health. As markets fell into a virus-induced tailspin, investors withdrew money. Assets in three of the Credit Suisse funds shrunk in April, to $7.5 billion from $9.1 billion.

SoftBank, which has invested about $1.5 billion in Greensill, helped soften the blow. The Japanese company put about $600 million into one of the Credit Suisse vehicles, which had helped finance several tech startups that SoftBank backs through its Vision Fund. That meant SoftBank was effectively financing its own bets through a pool with other investors. In December, Greensill forgave hundreds of millions of dollars in debt in Vision Fund portfolio company Katerra Inc., a struggling modular construction startup, according to a person familiar with the matter. Greensill no longer holds an interest in Katerra.

The overlapping financial relationships raised questions about whether SoftBank was using the Credit Suisse funds to prop up investments in its Vision Fund, and SoftBank later withdrew the money. The episode prompted Credit Suisse to overhaul the fund's rules. Bloomberg News reported in January that Colin Fan, the Vision Fund managing partner who oversaw SoftBank's investments in Greensill, would be leaving. A spokesperson for Credit Suisse declined to comment, as did a spokeswoman for SoftBank.

Greensill says that his company still enjoys a good relationship with SoftBank and that the biggest of the Credit Suisse funds has since recovered from the outflows. Total assets under management for all the funds have returned to pre-pandemic levels of $9.1 billion, and investors didn't suffer losses as a result of the defaults, according to a spokesman.

Separately, Germany's finance watchdog is examining whether a Bremen-based bank that Greensill bought in 2014 was tied too closely to Gupta's GFG Alliance Ltd., according to people familiar with the matter who asked not to be identified because they weren't authorized to talk. Loans to Gupta, who was briefly an investor in Greensill, made up about two-thirds of the bank's assets in 2019. Greensill won't say whether the Federal Financial Supervisory Authority is investigating, and BaFin, as it's known, declined to comment.

Greensill and Gupta were earlier linked to the drama surrounding the downfall of GAM fund manager Tim Haywood. Funds that Haywood ran held large amounts of notes tied to companies controlled by Gupta that Greensill sourced. GAM suspended Haywood after an internal probe, saying he didn't do sufficient due diligence on some holdings and broke the company's gift policy. Haywood often took flights on one of Greensill's private jets, according to the *Financial Times*.

Greensill's spokesman declined to comment about Haywood or the jet. A spokesman for GFG says the company has diversified its financial support and has the backing of more than 30 banks and other institutions. Greensill says Gupta remains an important client.

Greensill predicts a growing demand for the type of financing in which he specializes. Aon Plc, a professional-services giant, recommends Greensill's notes to pension fund clients, and bond investor Pimco has invested in assets the company has packaged, according to fund documents. "I welcome the debate, the conversation," Greensill says. "The truth is, when you do things new, there are going to be things that seem controversial or potentially risky to bring a new model to bear in the market." *—Lucca de Paoli, with Ben Stupples*

THE BOTTOM LINE Greensill is a matchmaker for a type of short-term loan that doesn't contribute to a company's net debt, based on current accounting rules.

The Greatly Exaggerated Death of (Some) Cities

● Anticipating the end of the pandemic, U.S. homebuyers are looking to denser neighborhoods in smaller urban areas

Maybe you've heard: The pandemic is killing cities, fueling a rush to spacious digs in the suburbs. That's largely true of pricey New York and San Francisco, but in downtowns across much of the rest of the country, real estate demand is booming. From Pittsburgh to Phoenix, condos and townhouses within stumbling distance of bars and restaurants are hot. Like families upgrading to bigger suburban homes, young white-collar workers are taking advantage of record-low mortgage rates and flexible remote-work policies to move to desirable cities they find more affordable.

In denser, more urban neighborhoods, home prices jumped 15% in the three months through January, slightly ahead of the pace in suburbia, brokerage Redfin Corp. says. That marks a shift from early in the pandemic, when downtown prices lagged outer areas or even fell, a sign that Covid-19 vaccines are helping fuel demand as nightlife returns. "People are anticipating that now is a great time to buy," says Daryl Fairweather, chief economist at Redfin. "They're not thinking about the short term. They're looking forward to eating inside restaurants and going to concerts."

Few parts of the U.S. economy have been as buoyed by the Federal Reserve's sustained easy-money policies as housing, and with city centers joining the suburbs and exurbs in the boom, the impact on growth appears to be broadening. In some regions, urban areas are substantially outperforming. In Louisville, values for properties in denser neighborhoods surged at more than twice the rate they did in suburbs over the past three months. Detroit, plagued by poverty but home to a downtown packed with new condo towers, saw urban prices soar 43%, almost quadruple the rate of less dense areas.

In urban Baltimore, prices jumped 34%, vs. 10% in nearby suburbs. "My lifestyle's a little more active than it used to be," says Alec Studstill, a recently divorced financial industry manager who moved to Baltimore from a suburb of Washington, D.C., during the pandemic. After losing out on other homes with offers that came in too low, Studstill paid about $500,000—roughly the asking price—for a row house in Canton, a bustling waterfront neighborhood with multiple bars and restaurants. "I wanted that city and urban lifestyle," he says, "but real estate in D.C. was ridiculous."

Traditional hot spots such as New York, San Francisco, and Boston have done less well. Buyers there no longer feel it's worth paying top dollar for a tiny space when theaters and pubs are closed, and those denser cities depend on public transit that's unappealing during a pandemic. And the option to work remotely means there's little need for some people to stay close to industry hubs.

Transplants from those places are flocking to the likes of Austin; Boise, Idaho; Columbus, Ohio; or Nashville—cities that offer many perks of urban living without the sky-high housing prices. "One of the things I didn't want to give up when I was leaving New York was urban walkability," says Nick Kraus, a 25-year-old who left a tiny apartment in Manhattan he shared with three roommates and moved to Nashville, where he knew almost no one. As a management consultant, he can work from more or less anywhere, so he paid $550,000 for a three-bedroom house within walking distance of 10 bars and restaurants. "I don't own a car and I don't plan to," he says.

In some cities, buyers are passing on residential properties in the central business district but snapping up homes in adjacent areas. In Louisville, there's scant interest in high-rise condos downtown, but prices are rapidly rising in nearby Butchertown, Crescent Hill, the Highlands, and St. Matthews, artsy neighborhoods dotted with murals, ethnic restaurants, and independent coffee shops, says real estate agent Libby Loeser. "You can list a house two minutes from downtown and will probably have five offers in the first 24 hours," says Loeser, who had her best year in 2020, with her team selling homes worth $15 million, up 25% from the year before. "There is a younger contingent that is happy to be in those urban areas." —*Prashant Gopal and Alex Wittenberg*

PHOTO ILLUSTRATION BY 731. PHOTO: RAYMOND BOYD/GETTY IMAGES

THE BOTTOM LINE Home prices in more urban districts have jumped 15% in the past three months, outpacing suburbia—a shift from early in the outbreak, when downtowns lagged outer areas.

4 ECONOMICS

Divvy the Stimmy

How respondents in a Bloomberg/Morning Consult survey said they would mostly spend a third stimulus check

ILLUSTRATION BY MARIA CHIMISHKYAN. SURVEY OF 2191 ADULTS, FEBRUARY 3-6, 2021. RESPONDENTS WERE ASKED TO SELECT ALL THAT APPLY. DATA: BLOOMBERG/MORNING CONSULT

● A new survey sheds lights on what Americans plan to do with their next relief payment

President Joe Biden has promised to "act fast" in delivering another dose of pandemic relief, including $1,400 checks for millions of Americans. That doesn't mean all the recipients will be in a hurry to spend the money.

By comparison with the first round of stimulus checks that went out last spring, the payments from Biden's $1.9 trillion aid bill are much more likely to be saved rather than spent, according to a new survey by Morning Consult commissioned by Bloomberg News.

The survey results are fodder for an intensifying debate about whether government money is going to people who don't immediately need it. Some of Biden's Democratic allies are making that case and calling for a more targeted approach as the administration steers its bill through Congress. They want to lower the income ceiling for people to qualify for the full $1,400, currently set at $75,000 for individuals and $150,000 for couples.

But there are potential advantages to a slow-burn stimulus. It could spread out government support over time and avoid the kind of consumer spending stampede that's led some economists to warn

Edited by Cristina Lindblad

that U.S. policymakers will have to contend with a bout of inflation once vaccines become widespread.

More than one-third of respondents in the Morning Consult survey said they will save a significant amount of the money if they get another stimulus check. That compares with 23% who said they did so in April last year, when the government sent out $1,200 checks under the Cares Act, and 26% of those who got the $600 checks Congress approved in late December.

While the proportion of people intending to save their third stimulus check was higher among wealthier respondents, topping out at 41% for households earning $100,000 or more, the trend was the same across the income distribution. In households earning less than $50,000 a year, only 17% of respondents said they saved money from the checks last spring—but 29% expect they'll be able to do so this time.

Any further savings will add to those that households already accumulated last year. The combination of beefed-up government benefits and a shortage of spending options added some $1.6 trillion to balances over the year, according to the Peterson Institute for International Economics. "A big question is how much, if any, of this dry powder gets spent in 2021," says Jason Furman, a Harvard professor who headed President Obama's Council of Economic Advisers. "We have no historic parallel with anything like this level of excess saving."

Furman expects there'll be some boost to the economy this year, while part of the powder might also carry over into 2022 and beyond. The economy is on track to expand more slowly than its potential rate through the end of 2021, he says, bolstering the Biden administration's case for additional aid, but there's probably room to trim the $1.9 trillion bill without jeopardizing the recovery.

Another way the checks have shored up household balance sheets is by lowering debt. Some 18% of respondents said they'd use money from the next stimulus check to pay off credit card bills, while others cited student loans or other kinds of debt. The figure was broadly similar for the April and December payments, which is why fewer loans have been turning bad across most of the categories tracked by the American Bankers Association. "Federal stimulus payments have been immensely helpful to people trying to meet their financial obligations," says Rob Strand, senior economist for the ABA. "The low delinquencies we've seen since the onset of Covid-19 reflect that." It's a contrast with the aftermath of the 2008 crisis, when unpayable mortgage debt weighed on household finances and held back the recovery.

Even with the trend toward higher saving, most of the money is likely be spent fairly quickly. About 30% of respondents in the Morning Consult poll said they would use it to buy food and 22% to pay rent or mortgages. Those numbers haven't changed much from last year's initial round of payments—and both are several percentage points higher in the households with earnings of $50,000 or less.

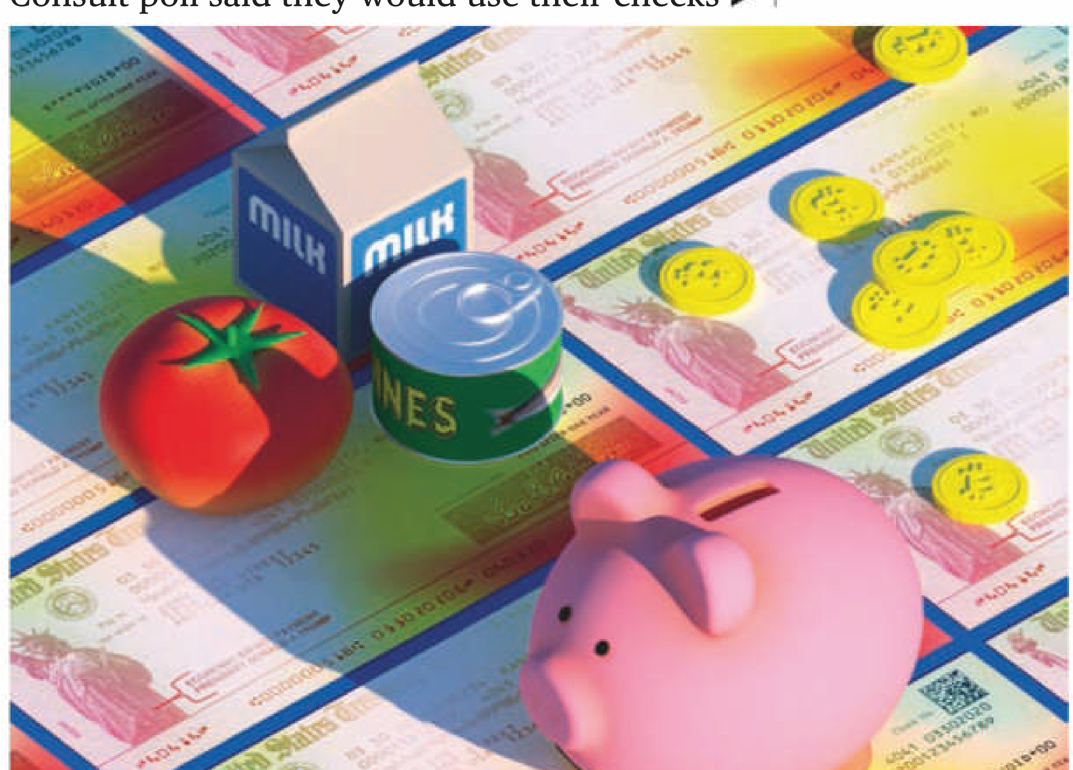
The share who said they would invest in home improvements, a pandemic shopping trend that helped boost the shares of retailers like Home Depot Inc. last spring, held steady at 11%, while those planning to buy clothes dropped to 8% from 11%.

Traditionally, it's been these kinds of spending, which pump money straight into the economy and stimulate growth in the short term, that politicians have sought as a return on outlays of public cash. But the Biden administration has made it clear that what's needed in a pandemic is different—better described as relief than stimulus and designed with the longer run in mind.

"We have to make sure we finally get a package through that has the persistence to beat this," said Jared Bernstein, a member of Biden's Council of Economic Advisers, speaking at Bloomberg's The Year Ahead conference in January. "To provide people, not just at the bottom but people at the middle of the income scale, the resources they are going to need in a more lasting sense. And if they save for a few months and then spend later, that's a feature not a bug."

Something that might qualify as a bug, and that's gotten some economists flagging trouble ahead, is if a big chunk of the money gets pumped into speculative investments and contributes to market mania of the type that blew a bubble in GameStop Corp. shares.

Some 6% of respondents in the Morning Consult poll said they would use their checks ▶



◀ to invest in the stock market, up from 4% last spring; the figure rose to 11% among the higher-income households.

Financial data-aggregator Envestnet Yodlee has undertaken a more detailed analysis of investment habits driven by the stimulus checks. It found a 51% jump in securities deposits at brokerages among people who got the December round of payments. And in the lowest-income group in the firm's survey, those earning less than $35,000, the number of new trading accounts more than doubled. *—Misyrlena Egkolfopoulou and Julia Fanzeres*

THE BOTTOM LINE In a survey commissioned by Bloomberg News, more than one-third of respondents said they'd save a portion of their stimulus check. That's not necessarily a bad thing.

Super Mario to the Rescue

● Mario Draghi has prestige to spare and money to spend as he battles to revive Italy's economy

After being asked to run Italy, Mario Draghi took less than a week to turn the political system on its head and boost the country's standing in financial markets. In many ways, that's more than outgoing Prime Minister Giuseppe Conte managed in better than two years on the job.

How has he pulled it off? "He's Draghi," says one official involved in talks to cement a governing coalition who asked not to be named. The former head of the European Central Bank enjoys such prestige that no politician dares to challenge him openly—at least not for now.

Dubbed Super Mario by the media for his no-holds-barred defense of the euro during his eight years at the helm of the ECB, Draghi is helping to forge a rare political consensus in Italy, where the average duration of a government is less than 14 months. Here are two reasons politicians are making nice: Draghi has €209 billion ($254 billion) in European Union stimulus funds to turn around the country's ailing economy and he won't be running for office in the next general election.

That's an appealing combination for markets, too. Italian stocks and bonds have rallied since Draghi accepted a mandate from President Sergio Mattarella to form a new government on Feb. 3. The spread between yields on 10-year Italian government bonds and comparable German debt, a key measure of sovereign risk, narrowed to its lowest level in more than five years, while the benchmark stock index recently touched a one-year high.

The stakes couldn't be higher for Italy. The coronavirus pandemic has left more than 90,000 dead and caused the economy to shrink almost 9% last year. The ratio of government debt to gross domestic product is approaching 160%, among the highest in the world. The ECB's bond-buying program has kept a lid on Italy's borrowing costs so far, but that support won't last forever, particularly if the rest of Europe rebounds strongly.

● Draghi

Few people know better than Draghi that the woes of the Italian economy go far beyond the ravages of Covid-19. The country was already headed for a recession before the pandemic, after a quarter century of stagnation that saw it constantly lose ground against its peers in the region. The list of culprits is by now familiar: a byzantine bureaucracy, endemic corruption, lack of innovation, and companies that almost never grow big enough to compete on the world stage. A dwindling population, the second-lowest share of working women in Europe, and a lack of skilled immigration have only compounded the country's decline.

For decades, fragile governing coalitions refused to tackle the deep roots of this economic failure. So whenever the country finds itself on the verge of collapse, the solution has always been the same: Call in the technocrat.

It happened in the early 1990s when Bank of Italy Governor Carlo Azeglio Ciampi was drafted as prime minister, and again at the height of the sovereign debt crisis in 2011 with Mario Monti, who'd spent a decade at the European Commission. Then in 2018 rival populist parties tapped Conte, a law professor at a university in Florence, to reconcile their agendas.

Draghi is especially wary of the precedent set by Monti, who had to raise taxes and reform the pension system to stabilize the country's wobbly finances. The measures proved deeply unpopular, and Italy's politicians, who'd initially welcomed him as a savior much like they are now doing with Draghi, soon turned on him.

The former ECB president has a very different hand to play, though. Austerity is no longer in fashion, and EU budget rules have been suspended because of the pandemic. Draghi has said his main

ROBERTO MONALDO/LAPRESSE/BLOOMBERG. *FOR SINGLE-FAMILY DETACHED HOMES. DATA: DEMOGRAPHIA, HOUSING STUDIES priorities will be the fight against Covid, ramping up Italy's halting vaccination program, and revising the list of investments to be paid for with EU recovery funds. One question mark is to what degree, if at all, he will continue Conte's policy of state intervention in the economy.

Draghi has also promised to pay close attention to Italy's schools. The country regularly trails other developed countries in international education rankings. Italian children have lost more school days than any others in Europe because of lockdowns.

As prime minister, Draghi will also be able to pursue a longtime goal of his: a common budget for the euro area. That would make Italy more attractive in the eyes of investors, who would take comfort from the knowledge that its public finances were backstopped. But it will be a tough sell with better-off European countries that don't want to end up having to pick up the tab for Italy's problems.

In a way, Draghi has already saved Italy once. His 2012 assurance that the ECB would do "whatever it takes" to protect the euro from investors betting on the common currency's imminent breakup is the stuff of legend in finance circles. It also cemented his image as an effective, sometimes even ruthless, leader capable of steamrolling opposition to his policies.

What remains to be seen is whether the powers of persuasion he displayed in hushed conference rooms will translate to the often rambunctious Italian Parliament—not to mention the public. Is Draghi, who has no social media presence, going to take his message directly to Italians using Twitter or live videos on Facebook as his predecessor did?

In Rome, many of the political leaders who've met Draghi have gone out of their way to strike an accommodating tone and soft-pedal the issues that caused clashes during Conte's two tumultuous administrations.

The Five Star Movement, which swept elections three years ago with a left-wing populist agenda, signaled grudging support for Draghi. Matteo Salvini, the leader of the right-wing League who once wanted to take Italy out of the euro zone, tried to charm the former central banker with jokes and soccer banter.

You've sat through all these talks, he told Draghi. You're not thinking of giving up the mandate now, are you? Draghi just smiled. Then Salvini went out and publicly announced his support for the ex-ECB chief. —*Alessandro Speciale, John Follain, and Chiara Albanese*

THE BOTTOM LINE Former ECB President Mario Draghi will have to deploy all his negotiating skills to form a government that can move Italy forward.

Forcing Foreign Money Out of Housing

● A Canadian academic's controversial tax proposal could influence national policy

In recent years, Vancouver, on Canada's scenic Pacific coast, has made itself into a laboratory for government policy to tame surging housing costs. Tackling the affordability crisis has become a citywide obsession, with often-academic debates spilling into newspaper op-eds, talk radio, and coffee shop banter.

Among the most controversial positions to emerge is one staked out by Josh Gordon, an assistant professor of political science at Simon Fraser University in the Vancouver suburb of Burnaby. Gordon attributes much of the runup in Vancouver's home prices to foreign buyers and proposes taxing them at a high enough rate to encourage them to sell.

Even he admits the idea seems radical. That's why it was a surprise to hear something like it proposed by the government of Prime Minister Justin Trudeau, which in November announced a plan for a national tax on foreign, nonresident homeowners as a way to help first-time buyers break into the housing market.

Gordon's academic output and increasing media profile seem to have caught policymakers' attention. He was among those thanked in a 2018 government report on housing costs, and two years earlier appeared in a roundtable on the subject with Trudeau himself. Yet the government has given no indication that it's drawing on his research as it crafts its new policy.

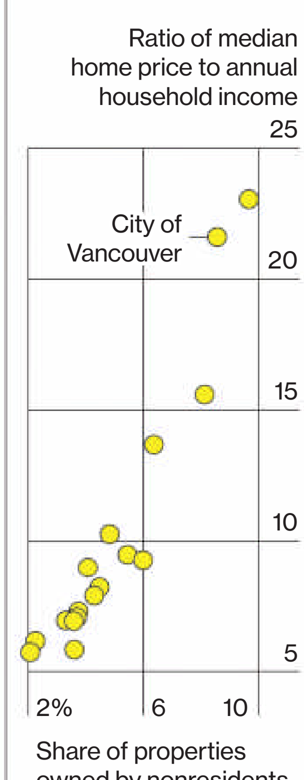
Nevertheless, for anyone curious to see a detailed and up-to-date rationale for a tax designed to achieve the government's stated aim, Gordon's work is probably the best place to look. And with housing affordability problems spreading throughout the developed world, just as governments have grown desperate for new sources of revenue to offset the costs of battling Covid-19, Trudeau may not be the only leader starting to find similar ideas appealing.

"I think there is probably a policy window opening at the federal level for something," Gordon, 38, said in a video interview from his campus office, where he'd been given special permission to work during the pandemic because the apartment he ▶

▼ Ratio of median home price to annual household income, by metro area, Q3 2019

Hong Kong	20.8
Vancouver	11.9
Sydney	11.0
Melbourne	9.5
Los Angeles	9.0
Toronto	8.6
Auckland	8.6
San Jose	8.5
San Francisco	8.4
London	8.2

▼ Municipalities in Vancouver metro area*



◀ rents is too small. "We have to see to what extent this is a ploy to kind of quell discontent and have something to run on, vs. a policy that's actually designed to make a substantive impact."

That Canada has a housing affordability problem is one point where there is no longer much debate: Vancouver and Toronto regularly feature near the top of rankings of the world's most expensive cities, including one compiled by urban planning consultant Demographia.

Trudeau's government hasn't yet given any details on its proposed policy, but a likely starting point will be the same one Gordon uses: the province of British Columbia's speculation and vacancy tax. Introduced in 2018, it's a 2% annual levy on the assessed value of properties whose owners are nonresidents or derive at least 51% of their income from abroad. Because it was designed to help renters as opposed to buyers, the tax doesn't apply to properties that are rented out, even in part. One study found that the year after the policy came into effect, almost 9,000 Vancouver condo units were put on the rental market. There's some evidence the tax has also benefited buyers, because home values dipped after it made its debut, though they've largely recovered since.

The Trudeau government has specified its proposed national tax would target residential real estate owned by foreigners that is "unproductive." Many have taken that to mean "vacant" and there is an expectation that it will include a rental exemption as well. Gordon says this would be a mistake and keep the policy from achieving the government's stated goal of helping young Canadians buy their first home. He argues the only way to get house prices in line with what locals can afford is to force them down, and the best way to do that is with a tax like British Columbia's, but at double the rate and with the rental exemption removed.

Gordon attributes almost all of Vancouver's, and to a lesser degree Toronto's, runup in house prices to foreign money. In two papers published last year, he showed that high rates of nonresident ownership across various parts of both metro areas correlate almost exactly with a peculiar pattern of low incomes paired with very high average home values. This, he concluded, suggests prices in those neighborhoods are being inflated by people who can only afford their homes because of income from abroad.

Gordon's conclusions run counter to those in a 2018 report from Canada's national housing agency, which found that the fundamental cause of housing price increases was a mismatch between low supply and the high demand spurred by very low interest rates and robust immigration.

Jens von Bergmann, a Vancouver-based mathematician who runs his own data analysis firm, published a blistering critique of a working version of one of Gordon's papers on his blog, focusing on methodological issues. He says the relatively small number of people affected by the British Columbia tax, about 12,000, is proof that there isn't as much foreign money in the housing market as Gordon makes out.

Von Bergmann, who is German and moved to Canada in 2006, believes a policy like the one Gordon advocates would be inherently discriminatory in a country where almost 22% of the population is foreign born, according to the latest census. (That figure is less than 14% in the U.S.) "When you

▲ Gordon

PHOTOGRAPH BY RACHEL PICK FOR BLOOMBERG BUSINESSWEEK

immigrate you bring your money, that's just part of the deal," says von Bergmann, explaining that he and his wife used savings accumulated during years working overseas to buy their first home in Canada.

Gordon says his goal is to make the housing market more fair. Money earned abroad is not subject to the same taxes as money earned in Canada, so buyers with foreign income often enjoy an advantage. "We have a very attractive situation for wealthy individuals from abroad, where they can buy property and place their families in Canada," he says. "Making sure that the people who wanted to bid on that would pay their fair share in taxes would change the nature of the market and change the nature of competition, such that local working folks would have an easier time." —*Ari Altstedter*

THE BOTTOM LINE To tame home prices in Toronto and Vancouver, Josh Gordon is advocating a high tax on nonresident owners of property without exemptions for rentals.

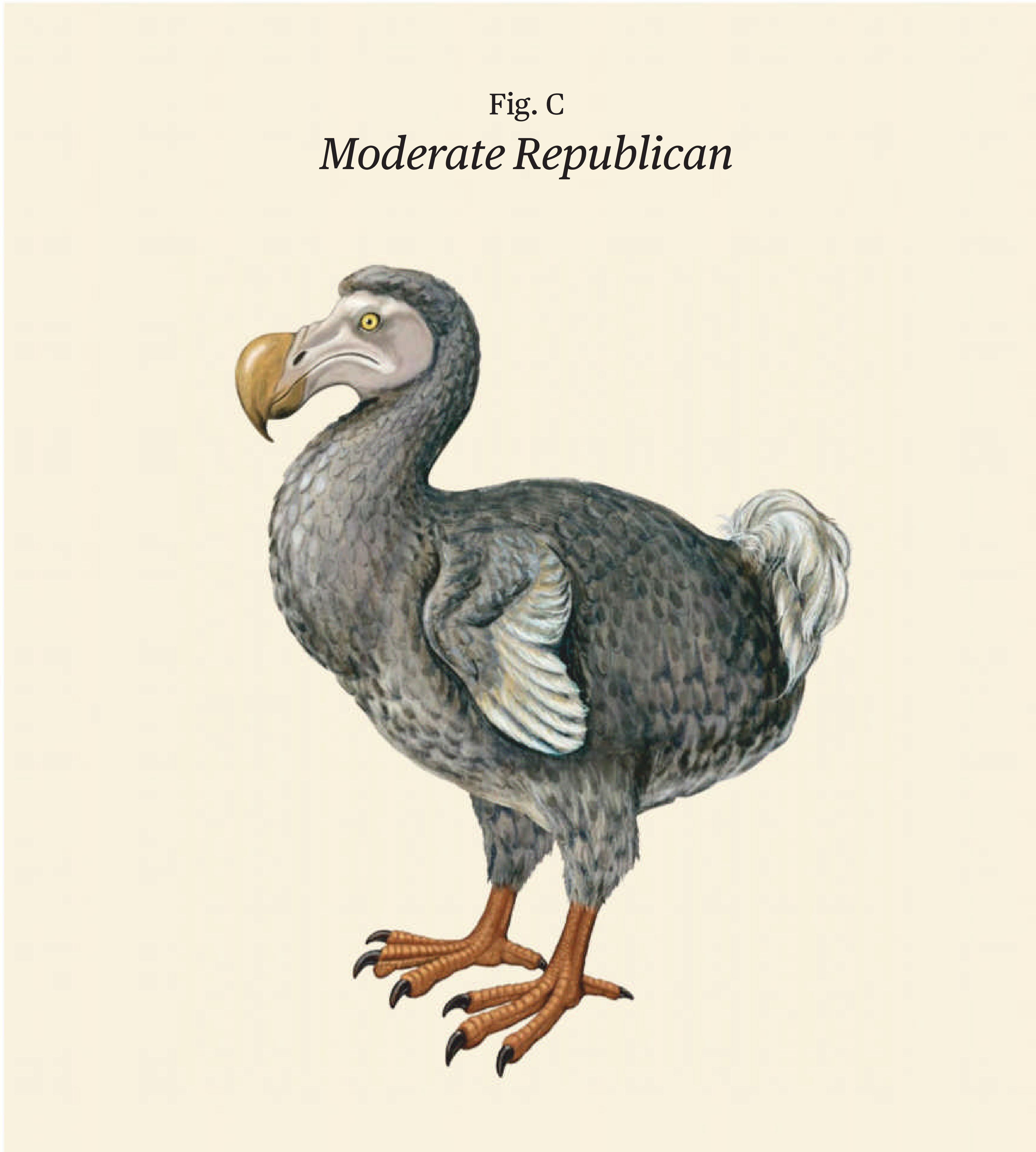


ILLUSTRATION BY 731; ILLUSTRATION: ENCYCLOPEDIA BRITANNICA/UIG/BRIDGMAN IMAGES

For Biden, Only the Left Is Left

● Instead of wooing the centrist rump of the GOP, the president turns the other way

Edited by
Amanda Kolson Hurley

The start of Donald Trump's second Senate impeachment trial is the latest reminder that although he's left the White House, the former president hasn't vacated his role as the dominant figure in the Republican Party—and the most divisive one. Republicans had hoped to spend the Biden era stoking tensions between moderate Democrats like the new president and the rising faction to his left. Instead, it's the GOP that's quickly fractured over the question of whether its members should remain in thrall to Trump or seek to move on from him.

As the two Republican factions wrestle for control of their party, Democrats have emerged as the major beneficiaries—especially those on the left.

Trump's role in the Jan. 6 insurrection led some Republicans to step up and advocate for a clean break. But they were met with an angry backlash. After voting to impeach Trump, Representative Liz Cheney of Wyoming, the third-ranking House Republican, faced a caucus vote to strip her of her leadership position (she survived). Other Trump critics were censured by state and county GOP groups or threatened with primary challenges.

"Many of you are hacked off that I condemned his lies," Senator Ben Sasse of Nebraska, whose state party plans to censure him, said in a video defending his criticism of Trump. "Let's be clear: The anger in this state party has never been about me violating principle or abandoning conservative policy. I'm one of the most conservative voters in the Senate. The anger's always been simply about me not bending the knee to … one guy."

It's always difficult for a party that loses a presidential election to regroup and move ahead. But it's especially hard for Republicans right now. A HuffPost/YouGov survey of Republican voters finds that 74% think the GOP should follow Trump going forward. Forty percent of them said their primary allegiance is to Trump, not to the GOP. By contrast, just 14% of Democratic voters feel that way about Joe Biden.

Even as Trump fades from the headlines, there's little doubt about which group has the upper hand in the Republicans' intraparty struggle. Only 10 House members voted to impeach Trump, and no one expects the current Senate trial to persuade the 17 Republican senators needed to convict him. Although she was stripped of her committee assignments this month for spreading QAnon-related falsehoods, new Georgia Representative Marjorie Taylor Greene accurately described her party's relationship with Trump at a news conference afterward: "The party is his—it doesn't belong to anybody else."

Yet it would be wrong to describe the pro-Trump faction as winning, and not only because polls show a majority of U.S. voters would like to see Trump convicted and barred from running for office again.

After running as a unifier, Biden's central challenge as president looked as if it would be assembling legislative coalitions that could draw Republican support without alienating the growing contingent of progressives and democratic socialists in the Democratic Party. Navigating such a middle course consumed the last two Democratic presidents, Barack Obama and Bill Clinton, and often ended in frustration and defeat.

So far, it's been surprisingly easy for Biden. By morphing into a party that's chiefly consumed with defending Trump and aligning itself with his supporters' interests—a trend likely to deepen as Senate Democrats move to convict him—Republicans have all but abandoned the center-right policy terrain that was a preoccupying concern of recent Democratic presidents.

Without a meaningful group of Republican moderates to court, as there was for Obama 12 years ago, Biden hasn't faced anything like the pressure many expected to trim his policies. Instead, he's concentrated on what looks to be his only legislative path forward: unifying Democrats.

Biden's $1.9 trillion Covid-19 relief plan is a case in point. Originally, it was thought to be an opening bid in a tough negotiation with Republicans who would whittle down its price tag. But no serious counteroffer emerged to tempt Biden away from the left (a group of Republicans offered a package less than one-third the size, which he quickly rejected). As it's become clearer that Republicans won't exert influence on the bill, expectations for its eventual size have shifted drastically.

● Republican voters in a HuffPost/YouGov survey who think the party should follow Trump going forward

74%

In early January, Goldman Sachs estimated that the final package would come in at $750 billion. A few weeks later, as Democrats coalesced behind Biden, Goldman's analysts upped that to $1.1 trillion. In a Feb. 8 client note, Goldman boosted its estimate one more time to $1.5 trillion, twice what was expected a month ago.

It helps, of course, that Biden's Covid plan is widely popular. In recent days, his advisers have circulated a Quinnipiac University poll showing that 68% of U.S. adults favor it, while only 24% oppose it. Other surveys echo this finding.

Polling alone doesn't account for the unexpected unity among Democrats. It's also the Republican recriminations over Trump that have given Democrats the leeway to shift policy to the left. That won't be true for every issue. But with Republicans barely focused on Biden's agenda, even conservative Democrats such as West Virginia Senator Joe Manchin, ordinarily highly attuned to GOP sentiment, appear willing to line up behind a relief package much larger than anyone expected.

If Biden's Covid plan prevails, Democrats on the left will celebrate their new influence. But the decisive variable may be Republicans more consumed with Trump than with the public's desire for more help. By declining to engage with Biden, they're ensuring that liberals are the only dance partner he has left. —*Joshua Green*

THE BOTTOM LINE With Republicans wrangling over Trump and the party's few moderates embattled, Biden has directed his coalition-building inward—and Democrats have united behind him.

Stumbling Back to Class

● Biden wants to reopen schools fast. Teacher pushback and new virus strains mean progress will be bumpy

Joe Biden pledged in early December to reopen most U.S. school buildings within his first 100 days as president: "It should be a national priority to get our kids back into school and keep them in school," he said. Soon after, however, he narrowed that goal to a majority of elementary and middle–rather than all K-12–schools. And on Jan. 28, Anthony Fauci, Biden's chief medical adviser, warned that meeting even the lower target "may not happen."

In fact, it may have happened already. There's no comprehensive list of nationwide school reopenings. But according to a tracker by Burbio, a company that specializes in aggregating school calendars, more than half of the 53 million K-12 students in the U.S. had access to some in-person learning during the first week of February, and the number of students attending virtual-only schools trended down throughout January.

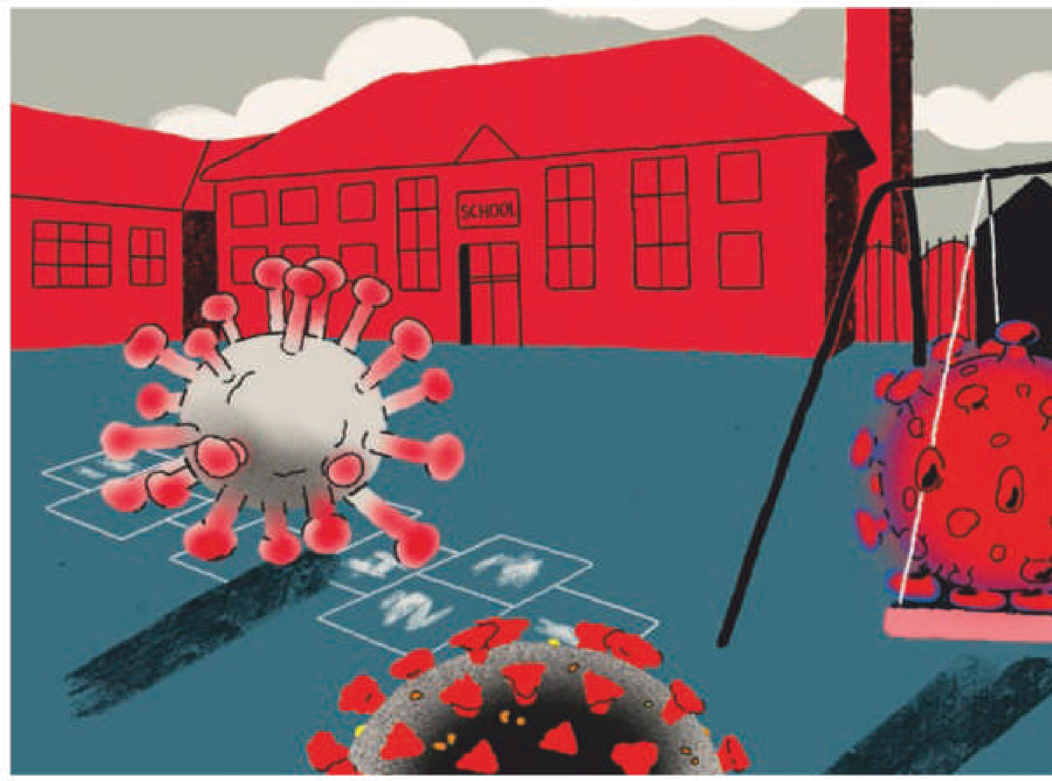
A reopened school isn't necessarily one where all students learn in person five days a week; millions of kids so far have a hybrid schedule with a mix of online and in-person learning. The arrangement is often necessary to keep class sizes small enough to meet social distancing requirements and prevent the coronavirus's spread. Other students could opt to stay virtual full time if their families have the choice.

Although the White House can work with industry to ramp up vaccine production and mobilize federal agencies such as the Federal Emergency Management Agency to help distribute it, school decisions ultimately rest at the state and local level.

Political leaders want more schools reopened not just to aid the economic recovery but also to provide much-needed relief to students and families. Douglas Harris, director of the National Center for Research on Education Access and Choice at Tulane University, warns of learning loss, mental illness, child abuse, and malnutrition resulting from keeping schools closed.

"Aside from their parents, there's nothing children depend on more than their schools," Harris says. Where it's safe to do so, he adds, "it's important to give students the option of in-person instruction as soon as possible."

Recent research indicates it's safe to reopen schools where community spread of the virus is low. There's less agreement on whether that's the case where spread is higher. Some experts say it could still be safe to reopen as long as infection controls are in place. Rates of spread tend to be lower in younger grades than in high school, possibly because it's harder to enforce social distancing with teens.



The vaccine rollout should help hasten reopenings, but supply chain challenges suggest it will take weeks, if not months, to inoculate educators. (There are no vaccines approved for children under 16 yet.) Districts are grappling with whether to require staff to return before they're vaccinated and are sometimes meeting opposition from teachers unions. Chicago, the nation's third-largest district, narrowly avoided a teachers strike in the first days of February before a tentative agreement was reached on Feb. 7.

In Ohio, teacher vaccinations have begun, but Republican Governor Mike DeWine acknowledged it's unlikely that staff will have been fully vaccinated by March 1, the statewide reopening deadline he's set for all schools. (Forty-six percent of Ohio students were already attending school in person full time as of Jan. 28, according to data DeWine shared.) The presidents of teachers unions for Ohio's eight urban school districts protested that DeWine has pegged teacher vaccinations to schools committing to reopen, accusing him of using vaccines as a "bargaining chip."

ILLUSTRATION BY HEL COVELL; DATA: BURBIO

In California, Democratic Governor Gavin Newsom's plan to give money to schools to reopen has sparked opposition from administrators as well as teachers. Los Angeles Unified School District Superintendent Austin Beutner said in a statement that it "falls well short of what's needed to help our schools" and that local case numbers remain "dangerously high." Beutner reiterated that infection rates were too high for reopening after an L.A. councilman threatened to bring a lawsuit on Feb. 4.

Randi Weingarten, president of the American Federation of Teachers, a national union, wouldn't directly say if all teachers should be fully vaccinated before schools reopen but says the AFT is pushing to "align vaccine availability with school openings."

Biden has suggested educators could return to classrooms without the vaccine if schools do regular on-site testing, take sufficient sanitation measures, and upgrade their ventilation systems. That position is endorsed by some public-health experts, including those at the Children's Hospital of Philadelphia (CHOP), which has been advising school districts in southeastern Pennsylvania through the pandemic. Amid a virus surge in November, CHOP urged all schools to remain virtual; it now says reopenings can be done safely, particularly with rapid testing regimes in place.

On his second day in office, Biden signed an executive order directing the U.S. Department of Education and the U.S. Department of Health and Human Services to provide clear guidance on masks, testing, and cleaning and to create a clearinghouse of best practices from schools across the country. The president's Covid-19 relief plan calls on Congress to allocate at least $130 billion in dedicated funding for schools, and $350 billion in flexible state and local funding could help school districts avoid layoffs and plug budget holes that might hobble their reopening efforts. Republicans in Congress offered $20 billion to schools in a recent counterproposal.

Experts predict that the negative academic effects of closures will fall disproportionately on low-income Black and Latino children. But racial disparities are also likely to persist in the return to the classroom. A recent survey found that parents of Black students were 19 percentage points less likely than White parents to choose a fully in-person option when it was available to them and that parents of Hispanic students were 8 percentage points less likely. Among communities where the virus has taken a heavy toll, where schools have the fewest resources, and where access to high-quality health care is least guaranteed, many families think the risk of infection is just too great.

Among schools that have reopened, some, like New York City's, are randomly testing staff and students weekly to monitor asymptomatic spread; other schools are prioritizing tests for those more likely to have been exposed to the virus, such as students participating in indoor sports. Some are finding that staffing is a challenge. Substitute teachers are in short supply, and educators who quarantine because of exposure or sickness can leave schools in the lurch, increasing student-teacher ratios and making social distancing more difficult.

Success Academy, New York City's largest charter school network, announced in January it will remain remote for the rest of the school year, primarily to avoid the disruption of closing and reopening buildings, often on short notice. At the time of the charter network's announcement, more than 300 public schools in New York City that had reopened were shuttered again because of Covid cases.

Even if Biden makes good on his 100-day pledge, reopenings are likely to be fairly bumpy through the spring—especially if more contagious strains of the virus take hold. For many American families, it's unlikely to feel like success. —*Rachel M. Cohen, with Christopher Palmeri*

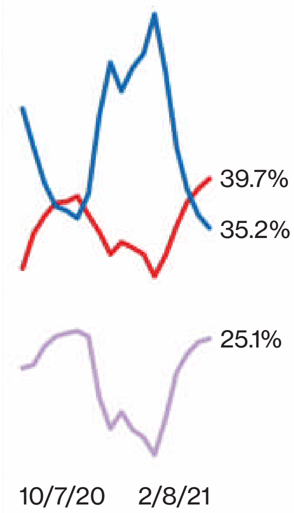
THE BOTTOM LINE Biden's goal—to have most K-8 schools open in 100 days—isn't a long shot. But meeting it won't change the erratic course of reopenings until vaccination is widespread.

▼ U.S. K-12 public school students

Virtual

Hybrid

Traditional



When the Signal Goes Out

● Government-ordered internet shutdowns are becoming more frequent

So far in 2021, three major political events—mass protests by farmers in India, a military coup in Myanmar, and a presidential election in Uganda—have had at least one thing in common: government-imposed internet blackouts.

For the past several years, authorities around the world have periodically stopped the flow of digital information to curb popular discontent and tighten their hold on power. There were at least 213 such shutdowns in 2019, an increase from 2018, according to the digital rights group Access Now.

● INDIA

The worst offender is not an authoritarian regime but the world's largest democracy. In 2020, India ▶

◀ restricted internet use more than any other nation—and suffered the highest economic cost as a result, according to a report by Top10VPN.com, a company that reviews virtual private networks.

Indian farmers have camped outside of New Delhi for months, demanding a repeal of agriculture laws passed last year that they claim favor big companies over small landholders. Prime Minister Narendra Modi's government toughened its stance against the protesters after violent clashes broke out in January. The government cut internet, water, and phone service at protest sites.

On Feb. 5 the farmers demanded an "immediate reinstatement" of the internet. (Ironically, the blackout went viral when the singer Rihanna tweeted a story about it to her more than 100 million Twitter followers.) The Biden administration backed the farmers: "We recognize that unhindered access to information, including the internet, is fundamental to the freedom of expression and a hallmark of a thriving democracy," it said in a statement.

Indian authorities had previously resorted to more widespread internet shutdowns to stem protests, most notably by shutting off local communications networks for months to forestall demonstrations in Kashmir in 2019, after the government revoked the Muslim-majority region's special status. A group of United Nations human-rights experts condemned that blackout as a "collective punishment" of Kashmiris.

"That the world's largest democracy can carry out such sweeping abrogations with little or no pushback from other countries has just allowed the curbs to be normalized," says Allie Funk, a senior research analyst at Freedom House, a U.S. human-rights organization.

● MYANMAR

Shortly after the Indian government switched off parts of the internet to stop farmers' protests from getting out of hand, Myanmar's military generals did much the same. Just days after seizing power in a Feb. 1 coup and detaining the country's civilian leaders, including Aung San Suu Kyi, the military-run government ordered internet service providers to temporarily block access to Facebook, Instagram, Twitter, and other social media platforms.

Myanmar's Ministry of Transport and Communication cited the need to maintain "stability" in the notices it issued to telecommunications companies. Telenor Myanmar, one of two wholly foreign-owned mobile operators in the country, said it would comply with the directive, but expressed "grave concerns" over its impact on human rights.

▲ Protesters shield themselves from a police water cannon on Feb. 9 in Yangon

HKUN LAT/GETTY IMAGES

As the protests escalated on Feb. 5-6, the government temporarily blacked out all communications. That made it almost impossible to find out what was happening on the ground until service was restored. When the internet came back online on Feb. 7, the images and videos flowing out of the country revealed the biggest protests in more than a decade, with tens of thousands of people flooding the streets of cities. On Feb. 9, some protesters livestreamed—using VPN technology to access social media—as security forces tried to disperse crowds with water cannons and rubber bullets.

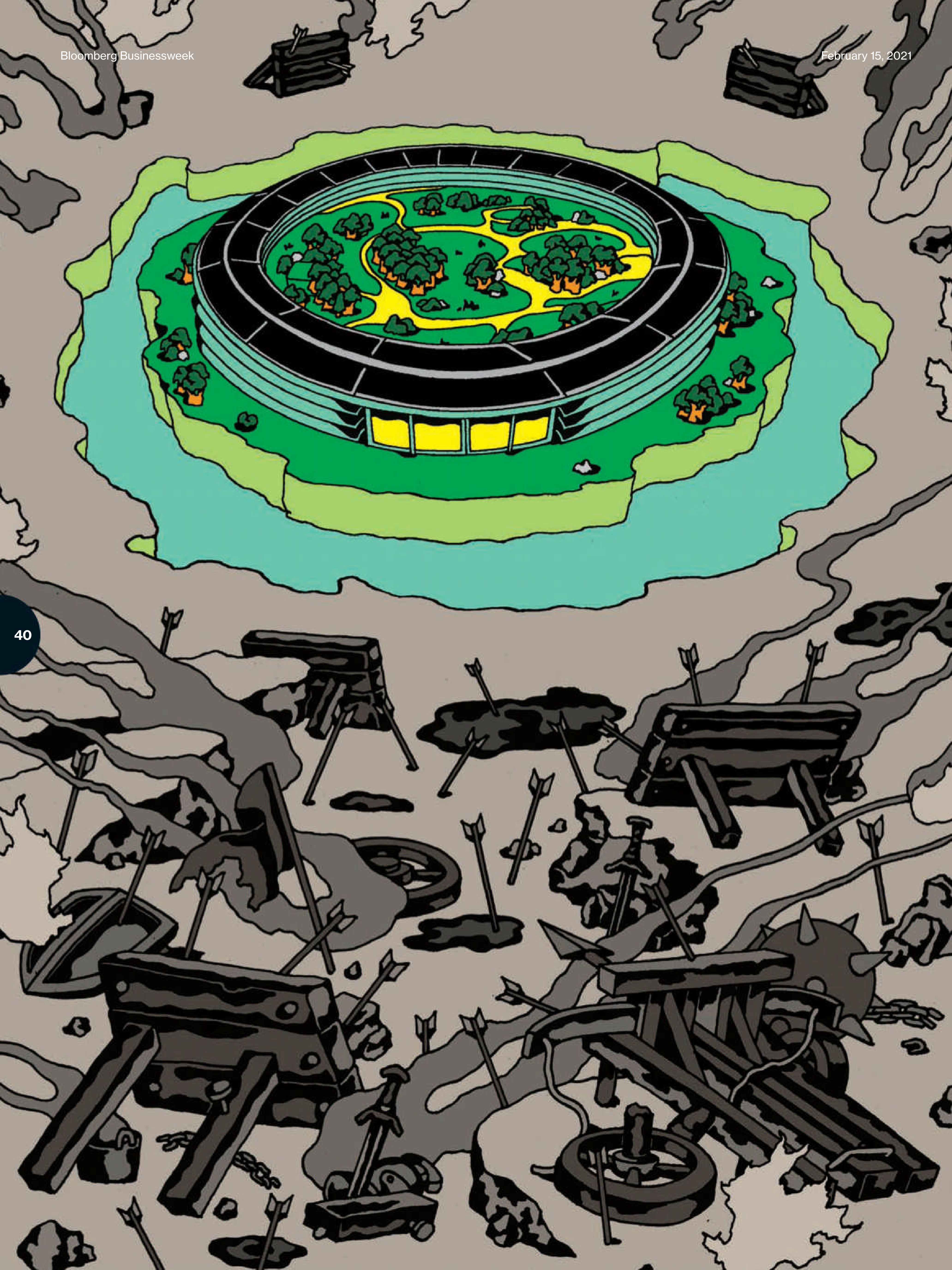
● UGANDA

Yoweri Museveni, Uganda's longtime leader, blocked networks as he secured a sixth term as president in Uganda's election on Jan. 14. Ahead of the vote, his government's suppression of social media sites—including Facebook Inc.'s popular WhatsApp messaging service—left opponent Bobi Wine, a 39-year-old reggae-star-turned-politician, without his main mode of communicating with supporters.

Wine contends the vote was rigged. The U.S. and the European Union canceled plans to send election monitors, citing a lack of cooperation from Uganda's Electoral Commission.

The blackout prevented Wine's National Unity Platform party from using an app to cross-check the official vote count. "The internet blackout means there is an absolute lack of transparency," says Godber Tumushabe, an associate director at the Kampala-based Great Lakes Institute for Strategic Studies. —*Archana Chaudhary, Iain Marlow, and Fred Ojambo, with Kurt Wagner, Khine Lin Kyaw, and Philip Heijmans*

THE BOTTOM LINE Almost back-to-back internet and social media blackouts in Uganda, India, and Myanmar show the growing use of this means of political suppression.



TIM COOK'S $2.3 TRILLION FORTRESS

Trade war? Pfft. Trump? Please. Antitrust? Zuck's problem. (Ditto privacy.) Revenue? Endless

By Austin Carr and Mark Gurman
Illustration by Félix Decombat

JOE BIDEN HAD A QUESTION FOR TIM COOK: WHY, THE then-vice president wanted to know, couldn't Apple make the iPhone in the U.S.? It was January 2012, during President Barack Obama's reelection campaign and three months after the death of Cook's predecessor, Steve Jobs. Biden was in Palo Alto for a dinner meeting with Cook and a group of tech leaders that included Netflix Chief Executive Officer Reed Hastings, Google Executive Chairman Eric Schmidt, and Facebook Chief Operating Officer Sheryl Sandberg.

As everyone at the dinner well knew, the idea of mass-producing an iPhone, or any advanced consumer electronics, in a domestic factory was an exceptionally tall order. The big Asian contract manufacturers, especially Apple Inc.'s main partner, Foxconn, had built city-size factories in China with armies of hundreds of thousands of skilled laborers. None of that scale existed in the U.S. Chinese factory employees generally worked much longer hours, for a fraction of what even the lowest-paid American workers make. "I'm not sure, short of dictatorial practices, that you could ever make that work," says John Riccitiello, another Silicon Valley executive who witnessed the exchange between Cook and Biden.

Biden's question put Cook, who'd become Apple's CEO the previous August, in an awkward position. He was the architect of the strategy to outsource Apple's production to China, a trend of increasing concern for the Obama administration. But Cook was also, as it turned out, extremely effective at deflecting political pressure. He was certainly more diplomatic than his old boss. Obama once asked Jobs the same question, and Jobs's characteristically blunt reply landed on the front page of the *New York Times*: "Those jobs aren't coming back." Cook, though, was smooth and noncombative—so much so, in fact, that Riccitiello can't recall exactly what he said to Biden. By the end of that year, Cook announced a small yet politically significant shift. Apple, he said, would start making some Macs in the U.S.

And then, Apple's reliance on China only grew. You might think its ever-tighter embrace with the country would have put Cook in a worse political position after Donald Trump was elected president in 2016 based on a campaign marked by anti-China rhetoric, threats of a trade war, and promises to bring jobs lost to Shenzhen back to American shores—not to mention the challenges of the coronavirus pandemic and rising antitrust fervor during his term in office. Strangely, though, Apple thrived under Trump. In August 2018, the company's market value reached $1 trillion; 24 months later, even as Trump bellowed on the campaign trail that "these stupid supply chains" in China should move home, it surpassed $2 trillion.

Current and former employees, executives at rival companies, and Washington insiders credit this to Cook's shrewd management, equally shrewd politicking, and zero reluctance to wield Apple's market power. "Tim Apple," as Trump once called him, charmed and cajoled his way into the former president's good graces, while keeping Beijing happy and finding ways to squeeze more revenue from the iPhone.

Cook's handling of Trump suggests how Apple, which declined to comment for this story, might approach now-President Biden. Over the next four years his White House will continue pushing to increase U.S. manufacturing and may support congressional scrutiny of potentially anticompetitive practices, egged on by Facebook Inc. and other companies that say Apple exercises too much power. But Cook has been counterpunching, broadening his influence over the mobile phone industry while marketing Apple's commitment to privacy as the antidote to the practices of social media companies. Moreover, Cook's unflappable temperament makes him well suited to the polarized political climate. Allies praise his operational skills and diplomatic instincts. "Tim may not be able to design a product like Steve," says Warren Buffett, who knows Cook well and whose Berkshire Hathaway Inc. has ▶

◀ a stake in Apple worth $111 billion, as of a September filing. "But Tim understands the world to a degree that very, very few CEOs I've met over the past 60 years could match."

COOK CAME TO APPLE IN 1998 AFTER A DOZEN YEARS at IBM Corp. and a six-month stint at Compaq and seemed, at least to old Apple hands, devoid of any obvious personality. He'd work 18-hour days and send emails all through the night. When he wasn't at the office he seemed to live at the gym. Unlike Jobs, he had no pretensions to being an artist. "Tim was always pure work: grind, grind, grind, grind," says one former Apple executive who worked with Cook in his early years at the company and who, as with other sources in this story, spoke on the condition of anonymity because of nondisclosure agreements and fear of corporate reprisals. "I always found him exceptionally boring."

Apple's turnaround in the ensuing years has generally been attributed to Jobs's product genius, beginning with the candy-colored iMacs that turned once-beige appliances into objets d'office. But equally important in Apple's transformation into the economic and cultural force it is today was Cook's ability to manufacture those computers, and the iPods, iPhones, and iPads that followed, in massive quantities. For that he adopted strategies similar to those used by HP, Compaq, and Dell, companies that were derided by Jobs but had helped usher in an era of outsourced manufacturing and made-to-order products.

Back when Cook was managing Compaq's hardware inventory, he became friendly with Foxconn founder Terry Gou, according to two people who've worked closely with Cook. The Taiwanese company had started as a lower-end manufacturer: Early products included the plastic channel-changing knobs for televisions and connectors for Atari joysticks. But by the late 1990s, Foxconn had graduated to more complex manufacturing, such as making computer chassis for Compaq. Foxconn eventually moved on to other PC parts, which it produced in sprawling factories around Shenzhen, near component suppliers. By the time Cook joined Apple, these centralized factory hubs were far more efficient than anything in the U.S. Apple sold off a huge Colorado plant in 1996, and after Cook arrived, he temporarily cut its Ireland-based manufacturing workforce, closed what was then its only remaining American production line, in Elk Grove, Calif., and outsourced more and more production to China, starting with laptops and webcams. (The Elk Grove facility is now used for refurbishing and repairs.)

Cook's global supply chain greatly improved upon the fabrication approaches that Dell and Compaq had developed. The big PC brands often outsourced both manufacturing and significant design decisions, resulting in computers that were cheap but not distinctive. Cook's innovation was to force Foxconn and others to adapt to the extravagant aesthetic and quality specifications demanded by Jobs and industrial design head Jony Ive. Apple engineers crafted specialized manufacturing equipment and traveled frequently to China, spending long hours not in conference rooms as their PC counterparts did but on production floors hunting for hardware refinements and bottlenecks on the line.

Contract manufacturers worked with all the big electronics companies, but Cook set Apple apart by spending big to buy up next-generation parts years in advance and striking exclusivity deals on key components to ensure Apple would get them ahead of rivals. At the same time he was obsessed with controlling Apple's costs. Daniel Vidaña, then a supply management director, says Cook particularly fussed over fulfillment times. Faster turnarounds made customers happier and also reduced the financial strain of storing unsold inventory. Vidaña remembers him saying that Apple couldn't afford to have "spoiled milk." Cook lowered the company's month's worth of stockpiles to days' and touted, according to a former longtime operations leader, that Apple was "out-Dell-ing Dell" in supply chain efficiencies.

Gou always seemed happy to accommodate, often building entire factories to handle whatever minimalist-chic design specs Apple threw at Foxconn. Jon Rubinstein, a senior vice president for hardware engineering during Jobs's second tour at Apple, recalls almost having a heart attack in 2005 when he went with Gou to see a new factory in Shenzhen for the iPod Nano—a tiny device 80% smaller than Apple's original MP3 player—only to find an empty field. Within months, though, a large structure and production line were in place. "In the U.S. you couldn't even get the permits approved in that time frame," he says.

Jobs and Ive had expensive tastes, which made it all the more crucial for Cook's team to be unforgiving when negotiating with suppliers. For a custom enclosure designed by Ive's team to elegantly hold the USB ports on a Mac laptop, the former longtime operations leader recalls the company paying roughly triple the 5¢ or so that PC rivals were spending for a generic version of the same basic part. This person remembers "literally negotiating down to four decimal points" to make it economic. A former product operations manager says even if a supplier promised something as simple as a delivery date for a part, it was normal to press for the tracking number of each individual shipment, as part of a litany of detailed logistics and pricing demands.

Apple's power over suppliers grew after the release of the iPhone, which Foxconn manufactured and which sold 4 million units in its first 200 days. By 2009, an iPhone supply manager says, Apple increasingly took on a "brute-force" approach to dealing with suppliers in Asia. "I could say, 'You do it this way or you're toast,'" this manager says, adding that Apple started to "just beat the crap out of its vendors."

Jobs's death two years later caused skeptics to predict Apple would stagnate without a steady stream of his inventions;

"TIM WAS VERY GOOD AT GIVING THE PRESIDENT OPTICS"

Cook in 2019 showing Trump around the Mac Pro factory in Austin

EVAN VUCCI/AP PHOTOS

in fact, the real challenge was keeping supply up in China. Operations managers were scrambling to buy enough computer-controlled milling machines and laser cutters. Every millimeter was scrutinized for savings—as were even the seemingly least consequential parts. Three people familiar with the company's supply chain say there was an Apple employee whose job consisted of negotiating the cost of glue.

In the post-Jobs Apple, Ive's influence began to wane, while Cook asserted a more cost-conscious approach to new products. He ordered his operations team to work closely with the industrial design group from the earliest stages of the development process, rather than joining months in, as had been the norm under Jobs. The 2014 iPhone 6 was "the poster child" of this transformation, according to a person involved in the product's development. While the device had complex internal components and a larger screen, it dropped the diamond-polished edges and the precisely cut glass parts of the back of the iPhone 5 and 5s, which had been difficult to produce. Even the company's spaceship-esque headquarters, the design of which Jobs had micromanaged, didn't escape the new financial discipline, according to a person familiar with its construction. Cook's allies tried to aggressively drive down extravagant expenses, including for the curved glass now surrounding the building, which the *Wall Street Journal* reported was originally expected to cost as much as $1 billion. Meanwhile, Cook expanded the business in ways Jobs used to resist. Jobs loved to point out that Apple's product lineup was so unrelentingly spare it could fit on a small table. At the time of his death, Apple sold two iPhones and one iPad; today it offers seven iPhones and five iPads. Cook also added high-priced products that amounted to accessories for the flagship mobile devices, such as AirPods and the Apple Watch.

And yet, even as Cook transformed Apple into a more diversified company, its dependence on China grew. The only way to drive economies of scale and manufacturing consistency was to concentrate more and more of Apple's output in areas such as Shenzhen. "If you're talking about making a million a day of something, launching on a dime, and having the capacity to do that, every machine has to be precise—and to have that happening in multiple countries is challenging," says a former top executive. "The question becomes: Are you relying too much on one place?"

IN NOVEMBER 2019, A YEAR BEFORE THE presidential election, Trump flew to Austin to meet Cook and tour Apple's Mac Pro factory. In front of a gaggle of White House press, Cook called the Mac Pro, a $5,999 computer aimed at creative professionals, "an example of American design, American manufacturing, and American ingenuity." At another point the pair leaned close together so Cook could show off the computer's components as Trump nodded approvingly. Many of the parts, Cook noted, came from places such as Arizona and Pennsylvania—key swing states where Trump had promised to bring more manufacturing jobs.

Trump touted the plant as a campaign pledge fulfilled. "I said someday we're going to see Apple building plants in our country, not in China," he told reporters. "And that's what's happening. It's all happening. It's all the American dream." Cook looked on soberly and didn't mention what was obvious to factory employees: Trump was lying. The facility had been in operation for Apple for six years.

During Trump's time in office, he and Cook forged an unlikely friendship that upset liberal-leaning Apple veterans, who couldn't imagine Cook's infamously temperamental predecessor tolerating any co-option of Apple's brand name by someone as boorish as Trump. Cook, who supported Hillary Clinton in the 2016 presidential campaign, voiced disagreement over Trump's approach to immigration, racial unrest, and climate change. But he also attended the president's CEO summits, as well as dinners at the White House and at the president's golf club in Bedminster, N.J., and bonded with his daughter Ivanka and his son-in-law, Jared Kushner. Gary Cohn, Trump's chief economic adviser until 2018, estimates Cook came to Washington every four to six weeks, far more frequently than other tech CEOs. "He made it part of his agenda to figure out where we could work together," says Cohn. "Our dinners weren't talking all about Apple tariffs and technology. I'd say 75% was talking about life. To be a good CEO, to get things accomplished, you have to be personable, you have to be a good communicator and a good listener, and Tim was all of those things."

Cook was willing to do what was necessary to protect Apple's China-centric supply chain, even if that meant letting Trump spin falsehoods. Trump told the *Wall Street Journal* in mid-2017 that Cook personally promised to build "three big plants, beautiful plants" in the U.S., which was false as well, and which Apple declined to correct. After the photo op in Austin, Trump tweeted, "Today I opened a major Apple Manufacturing plant in Texas that will bring high paying jobs back to America." Apple let that one slide, too.

Current and former employees familiar with the Mac Pro's development say the Texas event was an embarrassment. ▶

◀ The factory had undergone some remodeling since it was first used to assemble the Mac Pro in 2013, but—again—it wasn't new. Moreover, Flex Ltd., the contract manufacturer that operates the Austin plant, prepped for the event by manicuring the production floor as if it were a stage set. New computers were put on display to "look like we're selling these things like hotcakes," recalls one engineer. Many employees were given the day off, and the select few allowed to stay were mostly pretending to work in the background in their blue uniforms, according to another staffer. "It was very much a show," this person says.

Cook seemed to understand that though Apple was vulnerable to Trump's anti-China bellicosity, he also could use the company's reputation and his glad-handing as enticement for a president who craved mainstream business validation. "Tim was very good at giving the president optics, because Apple is an iconic consumer brand," says a former senior Trump administration official. "You've got their CEO working with the White House, sitting in meetings, traveling with Ivanka. You always want to attach yourself to a good brand."

The Texas factory itself had long been a disappointment, according to former employees who worked on the project since its Obama-era inception. "It was an experiment to prove that the U.S. supply chain could work as good as China's, and it failed miserably," says a former senior manager. Apple chose to produce the first iteration of its "Assembled in USA" Mac Pro in Austin in 2013 because it was expensive and sold in low volume, which allowed more margin for cost overruns while ensuring that any losses wouldn't be disastrous, according to people familiar with the matter. The Mac Pro is also much bigger than a smartphone, meaning that in theory it should have been easier to make than something as compact and exacting as an iPhone or Apple Watch.

But then supply chain managers saw an early mock-up of the cylindrical design that Ive's team had created, which made the Mac Pro look like something out of *Star Wars*. Apple's partners in Asia had been able to handle such oddball design specs, but employees involved with the U.S. Flex factory, who'd been expecting a boxy shape that resembled previous versions of the device, were alarmed. They initially worried about having to fit square parts in a circular case, according to a former senior-level Apple employee.

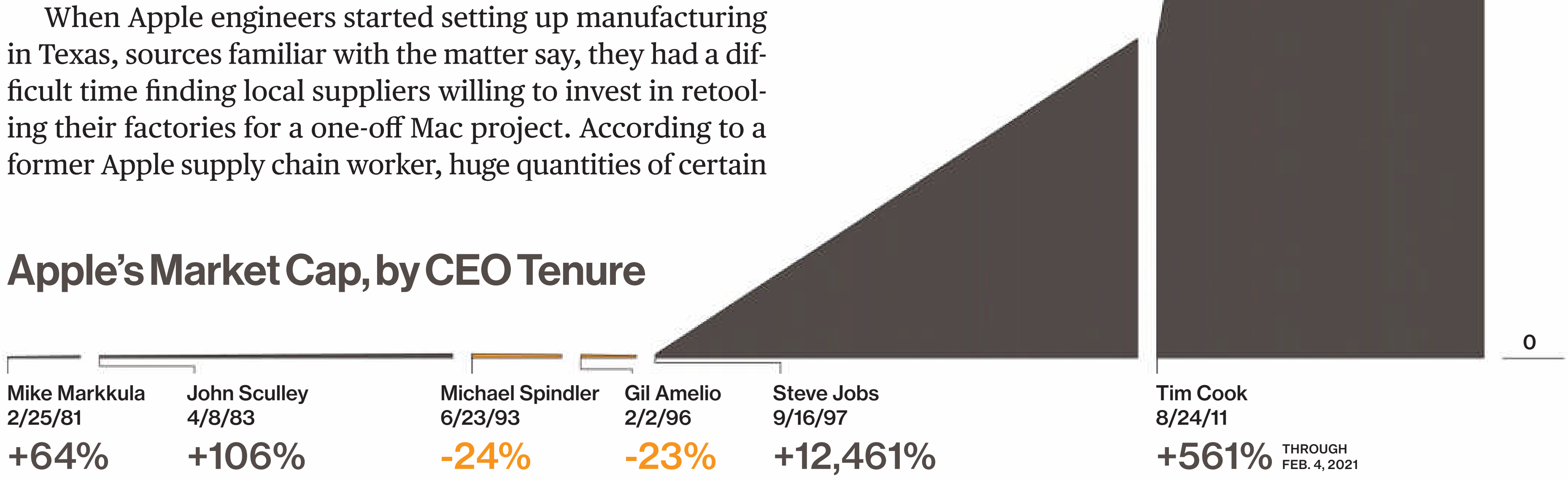
When Apple engineers started setting up manufacturing in Texas, sources familiar with the matter say, they had a difficult time finding local suppliers willing to invest in retooling their factories for a one-off Mac project. According to a former Apple supply chain worker, huge quantities of certain components needed to be imported from Asia, which caused a domino effect of delays and costs. If a shipment arrived with defective parts, for example, the Texas factory had to wait for the next air-cargo delivery; at factories in Shenzhen, supply replacements were a short drive away. It felt like the opposite of Gou's ultra-efficient all-in-one Foxconn hubs. "We really emphasized with the suppliers to triple-check their product before they put it on a plane to Texas," this worker says. "It was a pain."

Recruiting was another challenge. Skills common at Foxconn were harder to find in the U.S., where new hires might have worked previously at a Costco rather than at a different electronics factory. An ex-Apple product engineer remembers the team struggling to determine why circuit boards coming off the assembly line were crooked. They ultimately traced the problem to a single worker who was inexplicably screwing in parts from left to right, instead of by the numbered order Flex provided. Scrap was high at first, and several sources say the teams missed their initial delivery and cost targets.

Once the product's assembly stabilized, Apple employees moved on to other, more pressing supply chain projects, such as manufacturing the Apple Watch—which, inevitably, was made in China. Demand for the cylindrical Mac Pro was weaker than anticipated, and layoffs eventually followed at Flex.

Whatever the Austin plant's problems, its political benefits were tremendous. In September 2019, the U.S. granted exemptions

Apple's Market Cap, by CEO Tenure



TENURES MEASURED FROM CEO ANNOUNCEMENT DATES. DATA: BLOOMBERG, CENTER FOR RESEARCH IN SECURITY PRICES AT THE UNIVERSITY OF CHICAGO'S BOOTH SCHOOL OF BUSINESS

“THERE’S IS NO WAY YOU CAN JUST MOVE AWAY FROM CHINA, ESPECIALLY AT APPLE’S VOLUMES”

on tariffs for importing multiple parts key to the Mac Pro’s future. Days later, Apple said it would make a new version of the computer, which the company redesigned into a simpler boxy case, in Texas. During his November 2019 factory tour, Trump said he’d be looking into more tariff relief for Apple, which it received in subsequent months on the iPhone, iPad, and Apple Watch. Cook later gave Trump the first of the new Mac Pro model produced at the Austin factory, according to a White House disclosure form. Even so, a person familiar with the Austin plant says it struggles even today. In a statement, Flex says it is “very proud of our excellent production capabilities and sustainable innovative supply chain solutions.”

Meanwhile, Apple has moved some production of AirPods to Vietnam and iPhones to India, where the company has run into scale and quality issues, too. More significant manufacturing diversification is likely to take years, even as Cook faces pressure to decouple from China over censorship, human-rights violations, and criticism about labor conditions at mainland factories. In an all-hands meeting last year, an employee asked Dan Riccio, then Apple’s hardware chief, why the company continues to build products in China given these ethical problems. The crowd cheered. “Well, that’s above my pay grade,” he responded, before adding that Apple was still working to expand its manufacturing presence beyond China.

Not even the Covid-19 pandemic, which temporarily shuttered Foxconn factories in early 2020, could loosen China’s grip on the bulk of Apple’s iPhone production. While commercial flights in and out of China were suspended, Apple chartered private jets to fly hundreds of employees to the country to oversee production and testing and ensure the new models hit before the critical holiday season, according to a person familiar with Apple’s logistics. A longtime Apple operations manager also notes that Foxconn was still able to produce early versions of the 2020 iPhone, even at the height of the pandemic. “There is no way you can just move away from China, especially at Apple’s volumes,” this person says.

ON JAN. 27, APPLE ANNOUNCED THERE ARE NOW MORE than 1 billion active iPhones in the world. “It’s a stellar achievement for Cook to have navigated these unprecedented times for Apple’s supply chain with a cold tech war between the U.S. and China. If you look back at the last few years, many investors were betting that it was going to blow up and be a huge black cloud over Apple,” says Wedbush Securities Inc. analyst Dan Ives, who believes the company, which had a market cap of $2.3 trillion as of early February, could hit $3 trillion in the next 12 months. “He’s done a great job being an unofficial ambassador between the Beltway and China.”

Even with Trump out of the White House, Cook’s tightrope tiptoeing isn’t finished. Two days before Apple’s earnings report, Biden announced a “Buy American” initiative to boost U.S. production. “I don’t buy for one second that the vitality of American manufacturing is a thing of the past,” he said.

In many ways, Cook is now applying the lessons Apple learned building its China manufacturing network to other parts of the business. Its operational prowess has enabled it to churn out more product permutations and accessories. And just as Apple uses its awesome buying power to extract concessions from suppliers, it’s now using its control over an equally impressive digital supply chain, which includes the company’s own subscription services, as well as third-party apps, to generate greater revenue from customers and software developers. In an October report on the tech industry, the House antitrust subcommittee said this influence of its App Store amounted to “monopoly power” and recommended that regulators step in.

Apple disputed the characterization, but software developers including Spotify, Epic Games, and Facebook made similar allegations. Facebook CEO Mark Zuckerberg in January accused Apple of using “their dominant platform position to interfere” with apps and targeted advertising. In August, Epic sued Apple, alleging that it maintains a stranglehold on mobile developers by forcing them to use its App Store and billing system, and taking up to a 30% cut of revenue in the process.

Epic CEO Tim Sweeney says that though he’s a fan of Cook and Jobs for disrupting an industry once dominated by the likes of IBM and Microsoft Corp., he believes Apple is behaving like its old arch nemeses. “They do a lot of things that we think are awesome and totally support, and they do some things that we think are just wrong,” he says.

This summer, Epic launched an ad campaign to pressure Apple to let it handle in-app purchases in its popular video game *Fortnite* (and therefore avoid paying Apple sales fees). It included a viral YouTube video riffing on Apple’s famous “1984” ad, with a Cook-like character playing the villainous IBM/Big Brother role. Cook, of course, worked at IBM in 1984.

None of this has seemed to throw Cook or Apple. The company countersued Epic in September, and in late January, Cook went after Facebook, suggesting that those criticizing his company’s privacy policies simply wanted to harvest more personal data and that regulators should scrutinize social media instead of Apple. “If a business is built on misleading users, on data exploitation, on choices that are not choices at all, then it doesn’t deserve our praise, it deserves reform,” he said in a speech delivered over video chat at a privacy conference. Around the same time, amid yet another surge in Covid cases and continued economic uncertainty, the company reported revenue of $111 billion for the previous quarter, a record. B

Payback

JOEY TALLMADGE, SHIRLEY SMITH, AND THEIR FORMER CO-WORKERS ARE BATTLING PRIVATE EQUITY FOR THE SEVERANCE AND HEALTH COVERAGE THEY LOST IN BANKRUPTCY. OTHER LAID-OFF AMERICANS MIGHT DO THE SAME

BY LAUREN COLEMAN-LOCHNER AND ELIZA RONALDS-HANNON
PHOTOGRAPHS BY ERIN KIRKLAND

Art Van Elslander, the son of an immigrant, briefly served in the Army, returned home to Detroit, and started a family and a business. He began in 1959 with one furniture store on the corner of Gratiot Avenue and 10 Mile Road in what was then called East Detroit. By 2015 he owned the biggest and most popular furniture retailer in the Midwest, with almost 100 stores, 3,700 employees, and $725 million in sales. That year, Patti Smith wrote in her memoir about hanging out in Art Van stores for the free coffee and doughnuts. Van Elslander and his wife had 10 children, two of whom worked at the company. He became a community leader and philanthropist. He endowed a foundation focused on children and health. He saved the city's 1990 Thanksgiving Day parade with a last-minute $200,000 check.

His was a classic American story. So is what happened next. Online shopping wasn't a priority at Art Van, and by 2017, Van Elslander knew the company couldn't compete against Wayfair Inc. and Amazon.com Inc. without significant investment. He was 86, ready to step back, and, with 10 heirs, it seemed easier to look for a new owner. Before the year was over, he sold the chain to a private equity firm, Thomas H. Lee Partners LP, for $215 million. "There is still much I want to do," he said in the announcement. "I feel confident knowing the company and its people will be in the very best of hands for continued growth and success." He died the following year.

Continued growth and success failed to materialize. The private equity pitch is that it will help expand business. But when retailers are burdened with new expenses amid industry turmoil, growth is often elusive. Beyond the furniture business, workers frequently report they can trace deteriorating conditions at their companies to leveraged buyouts. Research shows those businesses fare worse financially than public companies. A 2019 paper from California Polytechnic State University professors examined almost 500 companies taken private from 1980 to 2006. It found about 20% filed for bankruptcy—10 times the rate of those that stayed public. Private equity owners and investors, though, can compensate for their losses with one great success. On average, the annual returns for private equity were almost 40% higher than the S&P 500 over the past 20 years, according to Cambridge Associates.

At Art Van, T.H. Lee did nothing unusual, and that may have been the problem. As with many buyouts, T.H. Lee's separated the company from its real estate—which sold for close to $400 million. That meant Art Van had to start paying rent to the properties' buyers. Within a year, Art Van bought two smaller, profitable rivals, Wolf Furniture and Levin Furniture, that employed another 1,900 people. T.H. Lee didn't take dividends from Art Van, as many firms do, but the new rental payments weakened the retailer's finances as competition grew fiercer. While the chain's expenses grew, its same-store revenue declined more than 25% from 2016 to 2020. Art Van filed for bankruptcy on March 8, 2020, only three years after the sale. T.H. Lee planned to close the original Art Van stores and sell back some of the old Wolf and Levin locations. It promised employees continued work and health coverage until it finished shutting down stores in May.

The pandemic ruined those plans. Instead of an orderly process and the preservation of some stores, the entire company closed abruptly. Going-out-of-business sales halted less than two weeks after they began. Also halted: all the pay, severance, and health insurance employees were expecting. They were devastated. One learned her insurance had been canceled while she was hospitalized with Covid-19; another had to undergo emergency surgery a week after losing his job and ended up thousands of dollars in debt. Shirley Smith, a sales manager, lost a month of vacation pay along with expected severance and struggled to cover the cost of her insulin. Joey Tallmadge, a finisher who had worked at the company for about 15 years, couldn't afford to fill his regular prescriptions. "It's unimaginable that this would happen to us," he says.

Yet it's happened to plenty of others, too. The coronavirus pandemic has highlighted with grim precision the inequities of the American workplace, and nowhere are those strains more apparent than in the retail industry. It's the largest private-sector employer, staffed by workers who often have little control over their schedules and don't always receive benefits. In only the past two years, dozens of U.S. retailers have filed for bankruptcy and hundreds of thousands of people have lost their jobs. The workers often receive no warning, though the law requires it. They're the last to get anything, which often means they get nothing. Those failed businesses weren't all owned by private equity firms. But some of the biggest—Toys 'R' Us, Sports Authority, and Gymboree—were.

Here's where this classic American story takes a different turn. The workers fought back. They used the collapse of Art Van to try to force a public accounting of what employees are owed afterward. In letters to T.H. Lee, the company's former employees demanded that the $11.6 billion private equity firm honor its initial promise of pay and health insurance. They aren't alone in their fight. For the past few years, activists have been pushing for workers' rights in bankruptcy proceedings, and politicians have been calling out owners to treat their former employees better. Amid the pandemic, people across the country are acknowledging the vulnerabilities of essential workers. The fight for a $15-an-hour federal minimum wage has gained popular support and some corporate backing, including from Amazon.com, and is central to President Biden's labor agenda. "There's a real thirst in society for more fairness," says Thomas Kochan, a director of the MIT Sloan Institute for Work and Employment Research. That thirst—and that pressure, especially when it comes from public investors—is changing what's happening at some troubled companies, too. Bankruptcy judges, owners, and lenders are beginning to account for employees' losses in their negotiations. It's still possible to ignore workers. But it's not nearly as easy as it used to be.

Just a few days after receiving the first complaint from Art Van workers in April, T.H. Lee offered to set up a hardship fund—the partners' first ever. They would put in $1 million, which would come to about $400 per employee. The workers

"I NO LONGER HAVE ACCESS TO MY SURGEON, MY PROSTHETIC TECHNICIAN, OR MY INSURANCE, AND I'M NOT EVEN FINISHED WITH MY RECOVERY"

▲ TALLMADGE

rejected that offer as "woefully inadequate" and pressed for more. T.H. Lee said it would match additional donations of as much as $1 million, but had come up with only another hundred thousand dollars by the end of January. The Art Van workers are continuing to make their case, not with T.H. Lee but with its investors, to receive an amount closer to $1,500, the equivalent of three months' health insurance. The private equity firm declined to comment for this story. In a document reviewed by *Bloomberg Businessweek*, T.H. Lee told workers: "We care deeply about the impact the liquidation had on the lives of former employees, which is why we proactively initiated the hardship relief fund."

That relief fund is much smaller than they demanded. But that they received one at all has to count as a success, however modest. And this was before a new administration more sympathetic to labor concerns took office. While more bankruptcies and store closings loom and millions more jobs remain at risk, this may be the moment when the balance shifts, just the tiniest bit, toward workers. New rules could make it easier to organize and, if their company fails, to be protected. Workers say they want only what they're owed: fair wages, safe conditions, and the severance, vacation, and other benefits they earned.

When Van Elslander sold Art Van, former executives say, the company was stable, at a growth plateau after years of expansion. T.H. Lee saw an opportunity to acquire other independent furniture sellers and build its digital business. Sounds like a simple plan, but the furniture industry is tough. Salespeople have to know enough to make shoppers comfortable spending thousands of dollars; importing and delivering bigger pieces is expensive, and goods are easily damaged in transit. To those former executives, it didn't seem the new owners had any particular enthusiasm for the business.

The longtime chief executive officer left and was replaced by Ron Boire, who'd been a senior executive at three troubled companies: Sears, Toys 'R' Us, and Barnes & Noble, where he lasted only a year. Other top executives who'd helped run Art Van for years left. In came the consultants and East Coast MBAs, well intended but without relevant experience—"battalions" of them, says Diana Sikes, who headed Art Van's marketing from 2009 to 2018. They were data obsessed, creating new analytics targets that distracted attention from the stores themselves. Sikes says they called a lot more meetings. "The focus shifted to pleasing the investors and owners and away from pleasing the customers." Boire, who left in the fall of 2019, declined to comment.

Soon there were fewer people at Art Van to object. The company cut sales staff and ousted seasoned managers in favor of cheaper substitutes with less expertise. A longtime buyer in the bedding department was replaced with someone who'd worked in lingerie, says Smith, the sales manager. Smith had worked at Art Van for 23 years and says, "The last three years were my worst with the company."

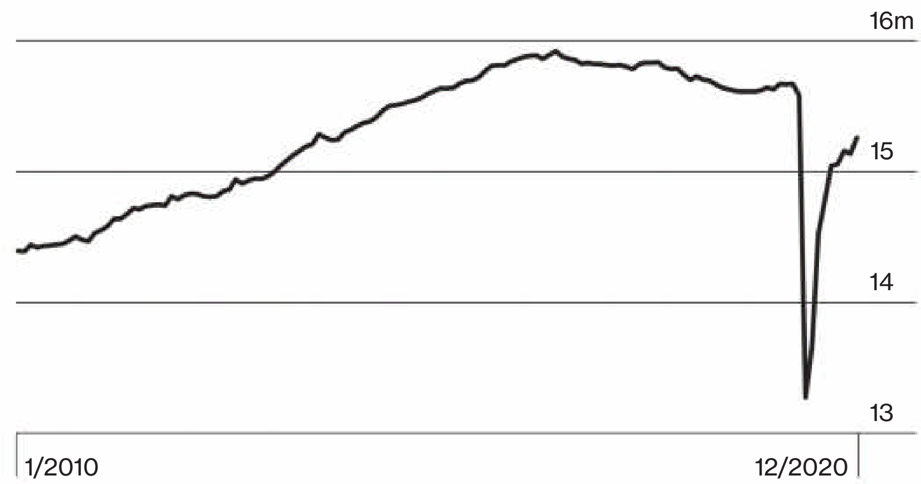
Tallmadge wasn't any happier. He'd been rehired in 2017 as a finisher, working on wood, upholstery, and leather, after having been let go more than a decade earlier. His second time around, he noticed the company wasn't as interested in craftsmanship, or even quality control. Items arrived without crucial components, such as sofa recliners missing their power cords. Part of his group's job had been to repair pieces for customers or for resale. Instead, the new managers "kept throwing things out that normally, over the last 60 years, we could have fixed," Tallmadge says. "Quality, perfection were no longer required. They just wanted to rush things through the [repair] shop and get it back out to stock." New sofas arrived sporting plastic frames that Art Van used to avoid. "It's throwaway furniture," Tallmadge says.

Then the company bungled its digital strategy. The website became a standalone business, with separate merchandise, management, even office space. Rather than generating new revenue, this two-tiered system cannibalized the chain's retail sales, Sikes and other former executives say. Meanwhile, the new leasing costs burdened the company, which otherwise had modest debt. Retailers often lease their stores, but owning its real estate had been one of Art Van's competitive advantages. Suddenly it had to pay rent for more than 100 stores.

Signs that Art Van was struggling mounted in the months before it filed for bankruptcy, Smith says. In fall 2019, deliveries of special orders took weeks or months longer than before, and new vendors began to appear as some old ones gave up on getting paid. What workers didn't know was that as cash ▶

TOTAL U.S. RETAIL EMPLOYEES

Seasonally adjusted



DATA: BUREAU OF LABOR STATISTICS. 11/2020 AND 12/2020 NUMBERS ARE PRELIMINARY

◀ dwindled in late 2019, T.H. Lee was scrambling to try to sell Art Van, secure new financing, or renegotiate store leases.

In late April, Tallmadge and several other employees held the first in a series of virtual meetings with T.H. Lee. They said the private equity firm needed to do better and could afford to. They demanded that each employee receive $1,500, the equivalent of three months of health coverage. That would have come to about $7 million. The workers say T.H. Lee repeated its offer of $1 million. At a second virtual meeting, the workers again asked for more—if not $7 million, then at least $5 million—and the executives again insisted that wouldn't be possible: T.H. Lee had lost its entire investment in Art Van.

After that, Tallmadge and the others wrote more letters and extended more invitations to talk. They held two more meetings, and then T.H. Lee went silent. That's when the former employees decided, on the advice of labor activist group United for Respect, to appeal to the firm's investors.

The Art Van workers sent a dozen letters and attended three virtual board meetings at pension funds and state investment funds over the next three months. They asked that the organizations halt further investments in T.H. Lee funds until the private equity firm publicly committed to adopt responsible labor practices for all of their portfolio companies, including severance pay for employees who lose their jobs in a bankruptcy. Julie Ford, who had worked at Art Van for 28 years, most recently in human resources, testified at a meeting of the Board of Trustees of the Employees' Retirement System of the State of Hawaii in September. "We can't get our jobs back, but THL shouldn't have left us with nothing," she said. "The loss of our family health-care coverage is particularly difficult during the pandemic and recession."

Later that month, T.H. Lee sent an email to every former employee announcing the establishment of the Art Van Employee Covid-19 Short-Term Disaster Relief Fund. T.H. Lee said it would aim to as much as triple the initial $1 million fund by soliciting another $1 million in donations from its own lenders and matching those amounts. It came up with only another $100,000 in total. The company said that was its final offer. In late January, right before the deadline for workers to sign up for the fund, several of them got online one more time to ask for an extension. The firm agreed to a new date in late February.

It wasn't all that the workers wanted. It wasn't even all that much. But it was still more than they could have expected only a couple of years ago. For that, they have Toys 'R' Us to thank. Its bankruptcy in 2018 was the biggest in retail, and its decision to leave more than 30,000 workers without expected severance payments proved to be a turning point.

Toys 'R' Us employees, backed by United for Respect, called on the company's former owners, which included the private equity firms Bain & Co. and KKR & Co., to create a relief fund. Then they met with lawmakers in Washington and the company's home state of New Jersey and appealed to pension fund investors. "Did anyone at KKR lose their job over the failure of Toys 'R' Us? Did anyone have their bonuses cut; did anyone have their compensation cut significantly? Because that's one of the consequences of free-market capitalism," Washington State Investment Board member Stephen Miller said to KKR partners at the fund's June 2018 board meeting, according to a recording heard by *Businessweek*. In Minnesota, state investment board members temporarily held back on other potential investments. Just a few months later, KKR and Bain announced a $20 million hardship fund. "Private equity now must think twice about leaving workers with nothing after a bankruptcy," says Maria Garza Romay, a senior organizer at United for Respect.

Although the fund amounted to less than $700 per worker, it was considered a victory and provided a template for Tallmadge and many more fired retail workers, who have since organized at Shopko Stores Inc., Sears, and other collapsing merchants. Joseph McCartin, a history professor at Georgetown University, compares the present moment to the dawn of the U.S. labor movement in the 19th century, when early unions fought for the creation of laws guaranteeing that workers would be first to receive payouts if a company went bankrupt. "What you are seeing around these kinds of struggles is a kind of contemporary revival of that thought, which is 'What about the workers?' Everybody else was walking away with their share."

Executives at private equity firms and at lenders are also being urged or admonished to keep troubled companies alive, though the pandemic has made that all the more difficult. After J.C. Penney Co. filed for bankruptcy in May, U.S. Bankruptcy Judge David Jones ordered everyone involved to reach a deal quickly to keep the chain alive. "Thousands of jobs and the very essence of the country's infrastructure are at risk," he said. Eventually the two mall owners with the most J.C. Penney locations took over the company, preserving, at least for the moment, more than 600 stores and 70,000 jobs. But it has no permanent CEO yet and $1.5 billion in financing.

Back in 2018, Sears Holding Corp. owner Eddie Lampert, who presided over so much of the department-store chain's decline, made a case that he should be allowed to buy Sears out of bankruptcy to save jobs. U.S. Bankruptcy Judge

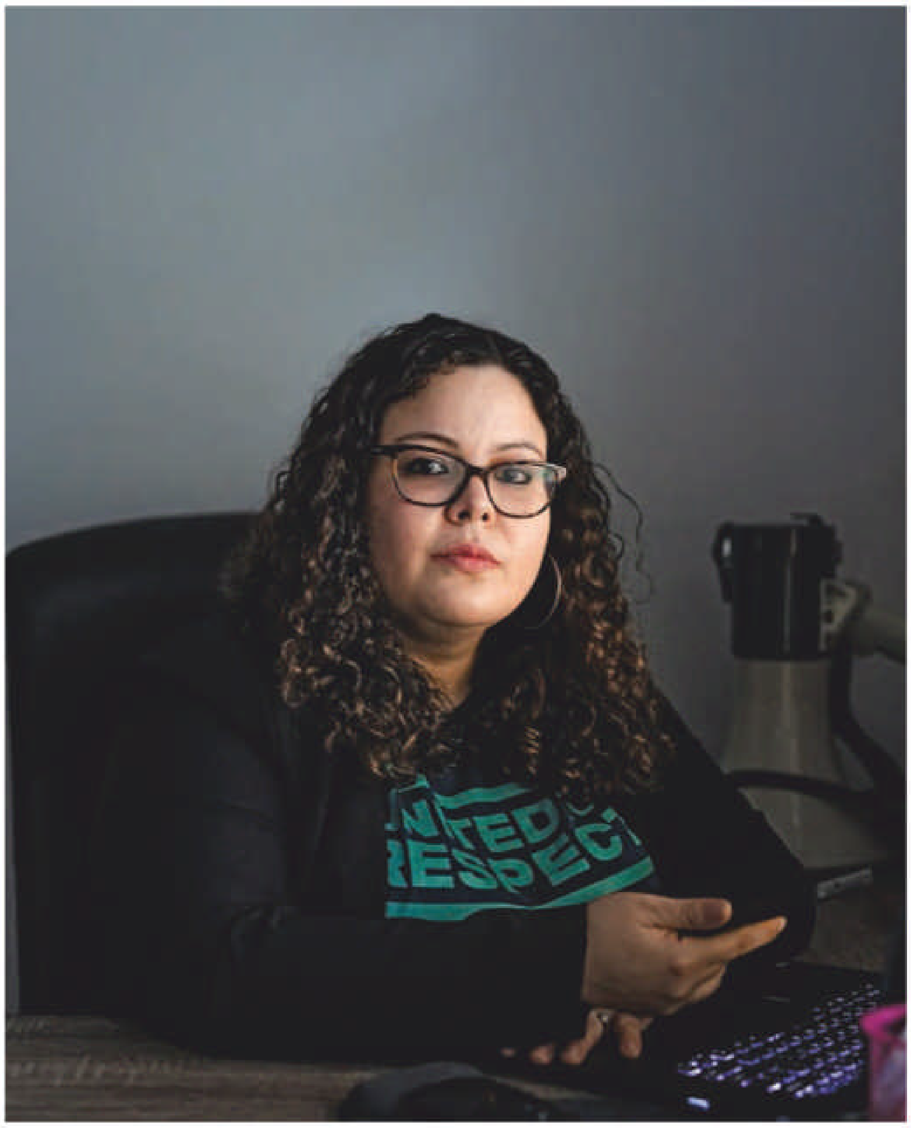
Robert Drain urged those involved to find a way to accept the company's only chance at survival. They did, and Lampert reacquired it in early 2019. Since then Sears has closed more than 200 of its 425 locations.

"In large situations, the impact of labor, politics, and PR certainly plays a role," says Saul Burian, a managing director for the investment bank Houlihan Lokey Inc.'s financial restructuring group. "The outcome in Sears was all about saving jobs—even at the expense of other creditors—and the J.C. Penney case was animated by a strong desire not to repeat the mistakes of, and the mass layoffs experienced in, Toys 'R' Us," he says.

A couple of years after the Toys 'R' Us bankruptcy, New Jersey became the first state to pass a law guaranteeing severance to workers who lose their job in layoffs of groups larger than 50. California, Colorado, Illinois, New York, and Wisconsin could follow, Kochan says. Last spring, Representatives Bobby Scott (D-Va.), Debbie Dingell (D-Mich.), and Steven Horsford (D-Nev.) introduced a bill to guarantee health coverage for workers who lose their jobs, are furloughed, or have hours cut. Massachusetts Senator Elizabeth Warren introduced the Stop Wall Street Looting Act in July 2019, and it's been with the Senate Finance Committee ever since. The bill would make private equity owners responsible for the debt their portfolio companies take on, ban them from taking out dividend payments for two years after an acquisition, and elevate worker claims for severance and back payments in bankruptcy. "For years, private equity has bought up American retail and sold off the parts to the highest bidders, leaving workers worse off or out of work altogether," Warren said in a statement to *Businessweek*. "Seeing those workers raise their voices and fight back has given me hope that if we keep fighting, we can make real change to rein in private equity abuse and improve the lives of so many hardworking Americans."

With Democrats in control of Congress and the White House and workers speaking out about the risks they face, the bills could soon find widespread support. For some, though, these battles come at a cost. After months of negotiating for a better deal for Art Van employees, Tallmadge stepped back to care for his health and finances. He suffered a personal tragedy in November, the death of his 27-year-old son, Alex, from leukemia. Before that, "this fight with T.H. Lee consumed my whole life," he says. Tallmadge hasn't had health insurance since March and hasn't been able to undergo a planned surgery for a prosthetic leg after work injuries and diabetes required an amputation. "I no longer have access to my surgeon, my prosthetic technician, or my insurance, and I'm not even finished with my recovery." He's skipping medications to save money. Tallmadge says he wasn't accepted into Medicaid. In October he received the $400 check from T.H. Lee and used it to pay his utility bill. His application for disability is pending. Now he's preparing to file for bankruptcy, a process he began shortly before the pandemic.

When Art Van folded and Smith lost her insurance, her monthly costs for insulin jumped from a $40 copay to $1,500



▲ GARZA ROMAY

PHOTOGRAPH BY JOANNA KULESZA FOR BLOOMBERG BUSINESSWEEK

and then to $480 after she enrolled in Obamacare. She also lost some health-savings account money and an expected retention bonus. For several months she had to pay her bills out of her savings. Then she found a new job—working for another private equity-owned company.

Jeff Love, who founded a company in Dallas called US Assets Inc., had bought about two dozen former Art Van stores and opened a new chain called Loves Furniture & Mattresses. Smith was hired as a store manager in August, and many Art Van colleagues found a job there, too. Smith says her pay was almost as much as in her old job, and the benefits were great. At the grand opening of the new Loves store in Canton, Mich., customers asked if it was affiliated with Art Van. No, the workers said, but lots of us used to be.

Loves filed for bankruptcy in early January. In court papers, its interim CEO said disastrous logistical problems cost it sales after a strong start. It tried to sell off its inventory in hopes of raising enough money to reorganize and keep some stores open. But it couldn't. By the middle of the month, Smith was out of a job again. She could be bitter, but isn't. "It's unfortunate that the effort failed, but a great many new businesses do," she says. "I knew that going in."

Then came one more twist at Art Van: In early February the founder's heirs won bankruptcy court approval to buy the brand for $6 million. They declined to speak about their plans. But after thousands of employees were fired and all its stores closed, Art Van will soon be back in the family's hands. Ⓑ

How Fast Can You Give Away Billions?

Jeff Bezos' decision on Feb. 2 to step down as chief executive officer of Amazon.com Inc. could shake loose a lot of money. The second-richest person in the world—he's worth almost $200 billion—says he plans to spend more of his time on philanthropy. If he does so, he'll be following the model of John D. Rockefeller, Andrew Carnegie, and Bill Gates, all of whom got serious about their giving only after they stepped back from their businesses.

Bezos has been a billionaire since the late 1990s, and people have been asking for almost as long how he'd give some of that wealth away. "Long term, I have a responsibility to be a philanthropist," he said on the *Charlie Rose* show in 2000. "Assuming we can make Amazon.com a lasting company, which we're not done with yet." He was in no hurry: His first public gift was in 2011, when he opened a trickle of philanthropy from what was starting to look like a bottomless fortune.

Now about $7.2 billion of the Amazon fortune has been given away, but the largest chunk of that has come from Bezos' ex-wife, MacKenzie Scott. Since their divorce in 2019, she's become one of the most consequential philanthropists of her generation. Scott, who now controls one-quarter of the former couple's combined wealth of more than $250 billion, gave away almost $6 billion last year to working charities—organizations that do good on a daily basis, rather than just steward philanthropic money.

That's probably a record annual distribution for a living person, says Melissa Berman of Rockefeller Philanthropy Advisors. As notable as the size of that pile was where it went: to small charities and institutions such as historically Black colleges that are often passed over by big givers. Meanwhile, Bezos made a commitment in 2020 to give away $10 billion to fight climate change. There's no particular deadline for spending that money, but in November he announced the first $791 million worth of grants to outside organizations. Over his lifetime he's distributed about $1.4 billion, including about $200 million donated as a couple with Scott. Bezos has indicated that he wants to give the money away thoughtfully to maximize the impact, though one could argue, and many do, that the problems his billions could help to address leave no time to waste.

Bezos and Scott's split shows how the personalities and priorities of the very rich affect how charities work and who gets help. Complicating it all is the source of their wealth. Amazon's labor and environmental record has been harshly criticized by some of the same activists Bezos and Scott have funded. And their wealth is compounding even faster than they're giving it away: Last year the combined Bezos and Scott fortune, held largely in Amazon stock, grew by $97 billion as the world reeled from the coronavirus pandemic and lockdowns threw millions out of work.

Here's a look at how Bezos and Scott have approached their philanthropy as they've gone from mere billionaires to owners of one of history's great fortunes. The annual tally of public gifts is based on money distributed and does not include larger multiyear commitments.

MacKenzie Scott's gifts upended philanthropy—and may inspire her ex-husband Jeff Bezos

By Sophie Alexander and Ben Steverman

2010

July

Bezos tells a television interviewer what he thinks about the Giving Pledge, a commitment by billionaires to give away the majority of their fortunes. He says he's not ready to share his ideas on charity. "The pledge is an interesting idea. For me the most important thing is to figure out where—which models work the best. So for one thing, I'm convinced that in many cases for-profit models improve the world more than philanthropy models if they can be made to work."

One world-changing for-profit project on his mind: space exploration and colonization. He's spent years building private rocket maker Blue Origin LLC.

2011

August

Bezos donates **$10 million** to the Museum of History and Industry in Seattle, creating the Bezos Center for Innovation.

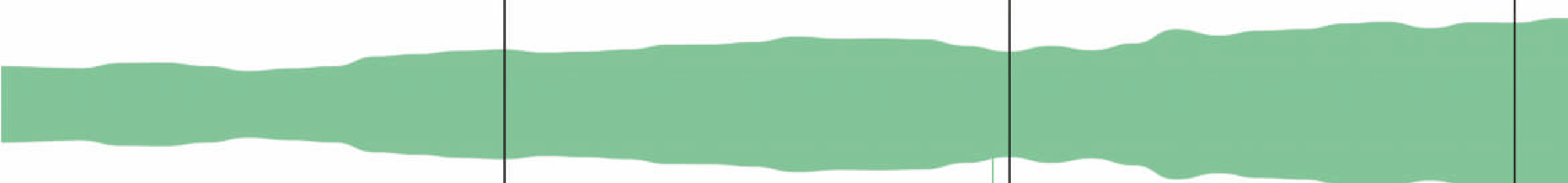
December

A **$15 million** gift to the Princeton Neuroscience Institute establishes the Bezos Center for Neural Circuit Dynamics. Both Bezos and Scott went to Princeton. It's the first major donation in both their names. (She's MacKenzie Bezos at this time.) It's unclear through the years of their marriage how much Scott was involved in giving decisions, says Elizabeth Dale, assistant professor of nonprofit leadership at Seattle University: "We really don't know a lot about what their philanthropic conversations might have been together."

2012

July

Some **$2.5 million** goes to Washington United for Marriage, a group working to uphold the state's law allowing same-sex marriage.



These lines representing donations are to the same scale as the Bezoses' wealth. Those representing donations from 2010 to 2019 were increased in size for visibility.

	2010	2011	2012
Fortune	$15.9b	$15.2b	$23.6b
Public gifts	$0	$25m	$2.5m

PHOTO: MATTHEW STAVER/BLOOMBERG. DATA: BLOOMBERG BILLIONAIRES INDEX. DATA PRIOR TO 4/2012 IS BASED ON THE VALUE OF JEFF BEZOS' AMAZON HOLDINGS

2013

January

Bezos gives **$500,000** to Worldreader, an organization co-founded by former Amazon executive David Risher that provides e-readers, including the company's Kindle devices, to schoolchildren in developing countries.

August

Bezos buys the then-struggling *Washington Post*. As with the space venture, it shows he has passion projects beyond philanthropy.

2014

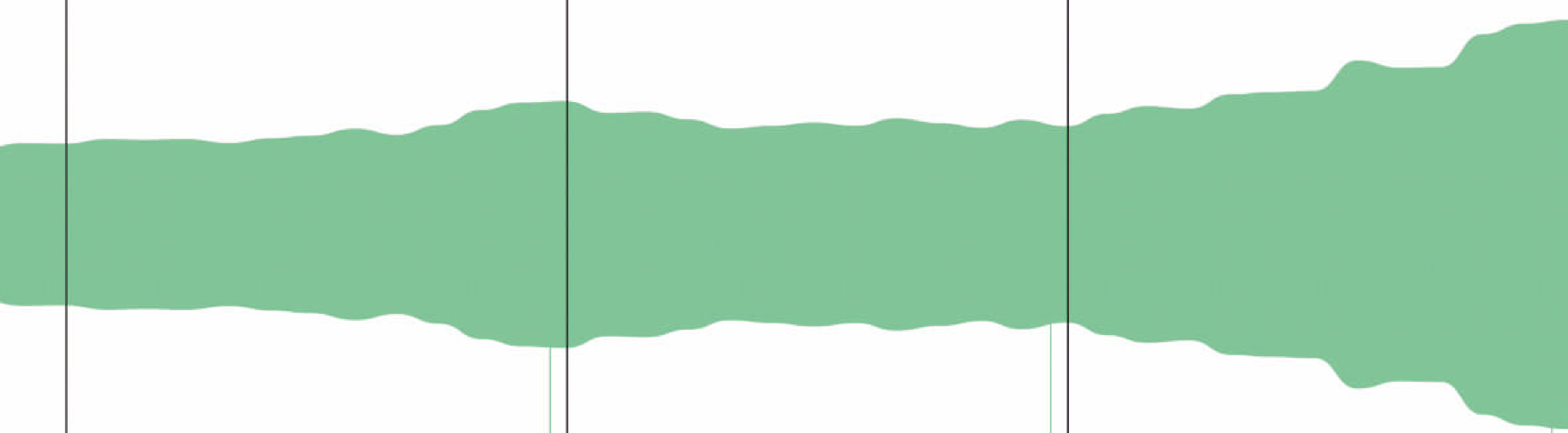
August

The couple donates **$2.25 million** to fund clinical food allergy research at Stanford.

2015

March

An unspecified amount goes to the Institute for Systems Biology. Bezos and Scott are among a group of donors who gave a total of **$2.13 million**.



	2013	2014	2015
Fortune	$36.0b	$28.6b	$59.7b
Public gifts	$0.5m	$2.25m	<$2.13m

2016

May

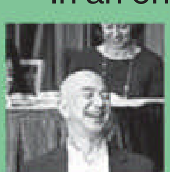
Bezos pledges **$1 million** to match donations to Mary's Place, which operates shelters in the Seattle area for homeless women, children, and families. It's the beginning of a long relationship between Mary's Place and Bezos and Amazon. The donation started with conversations between the organization and John Schoettler, Amazon's vice president for global real estate, about housing people temporarily in unused Amazon-owned buildings.

May

Bezos donates an unspecified amount to Code.org, which is dedicated to helping kids learn computer programming. He's given **$1 million** to **$3 million**, based on his status as a "Gold Supporter" on Code.org's website.

October

In an onstage interview, Bezos is



asked again if he'll become a philanthropist. "Well, yeah. If there is anything left after I finish building Blue Origin," he responds, drawing laughter and cheers from the audience.

October

Bezos gives an unspecified amount to the Statue of Liberty Ellis Island Foundation.

2017

March

Bezos and his family donate **$35 million** to the Fred Hutchinson Cancer Research Center.

May

Bezos donates **$1 million** to the Reporters Committee for Freedom of the Press.

June

Bezos tweets a solicitation for donation ideas: "I'm thinking about a philanthropy strategy that is the opposite of how I mostly spend my time—working on the long term. For philanthropy, I find I'm drawn to the other end of the spectrum: the right now." He cites Mary's Place as an example of the work that inspires him.

October

Bezos overtakes Gates to become the richest person in the world. He'll hold that distinction until January 2021, when Elon Musk surpasses him.

2018

January

Bezos and Scott donate **$33 million** to TheDream.Us, a group that offers scholarships to so-called Dreamers, undocumented people who were brought to the U.S. at a young age. It's the largest single donation the organization has ever received.

September

The couple donates **$10 million** to With Honor, an organization that supports the election of veterans to Congress.

September

In the first Bezos giving promise that's in the billions, Bezos and Scott make a $2 billion commitment for the Bezos Day One Fund, devoted to reducing family homelessness and setting up a network of preschools in low-income communities. They also announce they've chosen organizations to share **$97.5 million** with as one part of the pledge, via the Day 1 Families Fund. Bezos soon becomes No. 1 on the *Chronicle of Philanthropy*'s annual list of the 50 biggest donors. It's his first time on the list.

	2016	2017	2018
Fortune	$65.4b	$99.0b	$124.9b
	>$2m	$36m	$140.5m

PHOTOS: ANDREW HARRER/BLOOMBERG; GETTY IMAGES

2019

January

Bezos and Scott say they're ending their 25-year marriage. "After a long period of loving exploration and trial separation, we have decided to divorce and continue our shared lives as friends," they say in a tweet.

April

Bezos and Scott donate an unspecified amount to the Alzheimer's Drug Discovery Foundation.

May

Scott signs the Giving Pledge to disburse the majority of her fortune, which at the time means she'd have to give away at least $18 billion.

July

Almost 20 million shares of Amazon are transferred to Scott as part of the split, establishing her as one of the richest people on the planet in her own right. "Now that they're divorced, we've gone from having one high-net-worth philanthropic household to two, so we can kind of see maybe where some of their different interests lie," says Dale.

July

Morgan Paulett, a student at University College London, creates a Twitter account called Has Jeff Bezos Decided to End World Hunger? Every day it tweets, "Jeff Bezos has decided he will not end world hunger today." The account quickly garners more than 100,000 followers.

November

Bezos donates an additional **$98.5 million** as part of the 2018 Day One Fund commitment.

Fortune (combined) $152.0b

Public gifts >$98.5m

2020

February

"Climate change is the biggest threat to our planet," Bezos says in an Instagram post, promising $10 billion to start what he's calling the Bezos Earth Fund. Without elaborating on details, he says he'll fund scientists, activists, and nongovernmental organizations. At the time of the announcement, none of the money had been put to work yet.

Compared with other environmental gifts, Bezos' commitment is huge. The ClimateWorks Foundation estimates that less than 2% of global giving, about $5 billion to $9 billion, goes to climate-related causes each year. Nonetheless, "$10 billion is not going to solve climate change," says Bruce Usher, a Columbia business professor who's co-director of the Tamer Center for Social Enterprise. Bezos "is going to have to focus on specific barriers that he thinks he can unlock."

Many on the left of the environmental movement are wary. "The Earth Fund announcement is a pretty clear attempt at greenwashing—a way of distracting from what he's actually accountable for, " says Matthew Miles Goodrich, fundraising director for the Sunrise Movement. Critics and employees alike often point to Amazon's high-speed delivery and excessive packaging as major contributions to climate change. (The company has made a commitment to go carbon neutral by 2040.) Others point to the tangled issues of inequality and climate change. Despite Amazon having a relatively high starting wage, many warehouse employees depend on food stamps or are even homeless. "We encourage anyone to compare our median pay and benefits to other retailers," says an Amazon spokeswoman, citing the company's health and retirement benefits. Labor groups are pushing, so far without success, to unionize its workers.

April

Bezos gives **$100 million** to Feeding America, the largest single gift in the organization's history.

May

Bezos makes a **$25 million** matching pledge to All in WA, a statewide Covid-19 relief effort.

July

Scott announces that over the past several months she's given away a total of **$1.7 billion** to 116 different organizations with a wide range of focus areas, from racial equity to LGBTQ rights. Scott initially intended to keep her giving private, according to two people whose organizations received gifts. "I was completely prohibited from telling anybody who the donor was," says Eliza Byard, executive director of GLSEN, an organization that supports LGBTQ students. "I wasn't even in a position to tell my board who this person was."

According to her blog post on Medium, Scott decided to share what work she'd been doing in part as a response to the events of "the first half of 2020," an apparent reference to both Covid and police violence against Black people that inspired nationwide protests. "My own reflection after recent events revealed a dividend of privilege I'd been overlooking: the attention I can call to organizations and leaders driving change," she wrote.

Philanthropy experts are impressed. Chuck Collins, director of the Program on Inequality and the Common Good at the Institute for Policy Studies, notes that cash went directly to charities, rather than sitting in a foundation. "The money hit the street," he says.

Scott also seems to have absorbed a common critique of philanthropy, that it often involves a few wealthy White donors telling the rest of the world what to do and taking their time to decide where to give. "You've got to trust people who are on the ground doing this work," says Edgar Villanueva, founder of the Decolonizing Wealth Project, whose Liberated Capital fund tries to steer dollars to promoting racial equity. "People often say it's hard to give billions of dollars," Villanueva says. Scott's donation "weakens the case that giving away billions of dollars is difficult. It shows it can be done."

Her gifts were unrestricted. "That says, 'We trust in the leadership of the organization, and we believe in your programs and know that you will use this support to continue fulfilling your mission,'" says Jorge Valencia, executive director and CEO of the Point Foundation, an organization that supports LGBTQ students and received money from Scott in June.

September

Bezos makes an unspecified gift to the American Heart Association's Bernard J. Tyson Impact Fund.

October

Bezos holds calls with environmental leaders, often joined on the phone by his girlfriend, Lauren Sanchez. "He told me he was just learning, and he was very humble," says Fred Krupp, president of the Environmental Defense Fund. But it's clear, based on his questions, that "he knew a lot" about climate change, Krupp says.

Bezos and Sanchez also speak to Gloria Walton, the CEO and president of the Solutions Project, an environmental justice group that funds community activism led mostly by women of color. "He said he didn't know much about climate and said he wanted to listen and hear what I wanted to say—and I had a lot to say," Walton says. She tries to persuade him to expand his giving beyond the large environmental organizations that "always get funded" and think about other nonprofits that represent disadvantaged groups.

One more issue, she tells Bezos: Many of the communities she works with have a "complex relationship with him and Amazon," so any funding couldn't come with strings attached that might limit activists' work.

November

Bezos announces the first round of grants from his Earth Fund, spreading **$791 million** across 16 organizations. Most recipients are traditional environmental charities.

The ClimateWorks Foundation will use $50 million to push for zero-emission trucks and shipping and climate-friendly cement and steel. The Environmental Defense Fund gets money for projects including a satellite to monitor methane emissions. The Nature Conservancy, Natural Resources Defense Council, World Resources Institute, and World Wildlife Fund also get donations.

A fifth of the total, $151 million, goes to five environmental justice groups, including $43 million to the Climate and Clean Energy Equity Fund, which gives aid to community organizations serving people of color, and $12 million to NDN Collective, a South Dakota-based group focused on indigenous people.

Walton's nonprofit, the Solutions Project, gets $43 million to redistribute to front-line organizations across the country, a huge haul for a group that gave just $700,000 in grants in 2019. Bezos places no restrictions on the money, as she requested.

The grants mean Bezos is effectively funding some of his critics. "We give a nod to Bezos Earth Fund for rightfully shifting power and investing into sustainable solutions," NDN President and CEO Nick Tilsen wrote in a blog post. But he added that "we will not tiptoe around" the fact that Amazon and Bezos have been criticized for their labor and climate records.

At the time Bezos first announced his $10 billion commitment, his net worth was $132 billion. As of Nov. 30, around the time these first grants are announced, his net worth is $186 billion. He made $54 billion in the time it took him to donate this $791 million.

December

Bezos announces 42 recipients of a third round of grants from the Day 1 Families Fund, a part of the Day One Fund. This time around he gives away almost **$106 million**, bringing the total amount donated via the families fund to about $300 million.

December

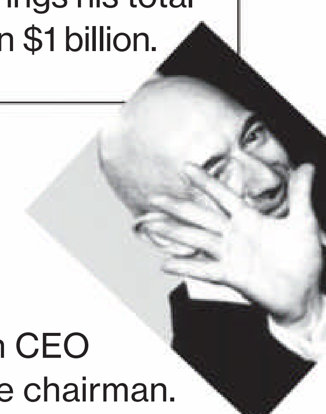
Scott announces that over the past four months she's given away about **$4.2 billion**. On Medium, Scott says she asked her team to figure out how to give away her money faster. Since she signed the Giving Pledge, her fortune has grown so fast that the goal posts have shifted: To give away half her fortune, she now needs to donate about $30 billion.

Seventeen historically Black colleges receive a total of $410 million from Scott, on top of $150 million she gave to six such schools in July. Her surprise gifts in December were the largest individual donation in each of the recipients' histories. "This gift is transformational," says Dwaun Warmack, president of 151-year-old Claflin University.

December

Bezos pledges **$25 million** more in matching donations to All in WA, the Covid relief project. This brings his total giving in 2020 to more than $1 billion.

2021



February

Bezos announces he's appointing a new Amazon CEO and will become executive chairman.

He hasn't said when the next round of climate funding would arrive—despite the urgency of the problem. "It's really a race against time," Columbia's Usher says. "That's where Jeff Bezos' money can make a difference. That kind of funding can be focused on buying us time." Scott also hasn't made clear what she'll be doing next. "What they share is a disinclination to be transparent," says Rob Reich, a political science professor at Stanford who studies philanthropy. "We deserve some transparency into their plans, so we can scrutinize the exercise of their power."

PHOTOS: DIA DIPASUPIL/GETTY IMAGES; JAVIER ROJAS/ZUMA PRESS

Bezos fortune **$190.3b**

Bezos gifts **$1.05b**

Scott fortune **$58.5b**

Scott gifts **$5.8b**

The Invest-in-Yourself Portfolio

Tools, trips, and techniques to set you on the path of self-improvement
By Matthew Kronsberg

PURSUITS

February 15, 2021

Edited by James Gaddy

Businessweek.com

Eating quinoa won't make you a better person, and you don't have to sludge through coding classes to sharpen your mind. In his new book, *Beginners: The Joy and Transformative Power of Lifelong Learning*, Tom Vanderbilt takes up pursuits that are actually fun—surfing, chess, even juggling—and finds power in being a novice. "You're freed from the worries of impostor syndrome—that anxiety of not being the expert," he writes, "because no one expects you to be any good." Here, we celebrate enjoyable investments in your mind, body, and spirit with a pick-and-choose portfolio.

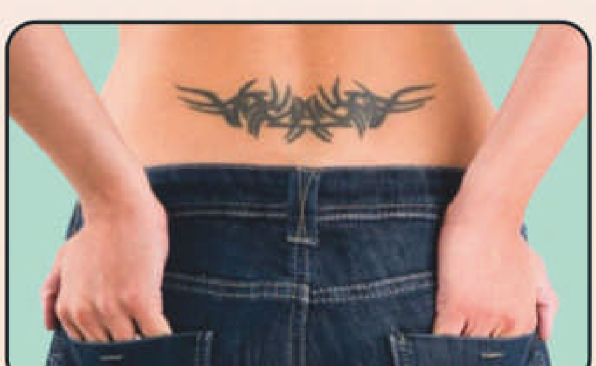
Your Body

High Risk, High Reward

TIGHTEN YOUR "ABS," LAZILY

It's going to take a little while to dial back a year's worth of lockdown snacks and stasis. Until then, Spanx's just-introduced men's line will keep your belly in check, with a quick-dry fabric blended from nylon and elastane that can streamline your abs and chest while providing lower-back support. Its $65 Ultra Sculpt seamless tank disappears under a date-night shirt—but remember, eventually it has to come off.

Immediate Dividends



REMOVE EMBARRASSING INK

Whether you've adorned yourself with a simple stick-and-poke or a giant Ben Affleck-style back tat, return your skin to a blessedly blank canvas at the Laser & Skin Surgery Center of New York, where celebrities such as 50 Cent have come clean. Dr. Roy Geronemus can get basic ink out for a few hundred dollars.

ENHANCE YOUR HEARING

The $399 IQbuds² MAX earbuds don't only play music or podcasts; they'll also focus your listening for conversations in noisy, crowded spaces, which will presumably be a thing again soon.

Medium Risk

TAKE CARDIO CONTROL

Boxing can provide a balanced blend of strengthening, sweating, and stress relief. The $1,219 FightCamp—including a mat, a freestanding bag, and sensor-packed gloves—won't punch back, but you'll end up sore anyway. Add on $39 a month for classes and coaching.

SWING YOUR WAY INTO SHAPE

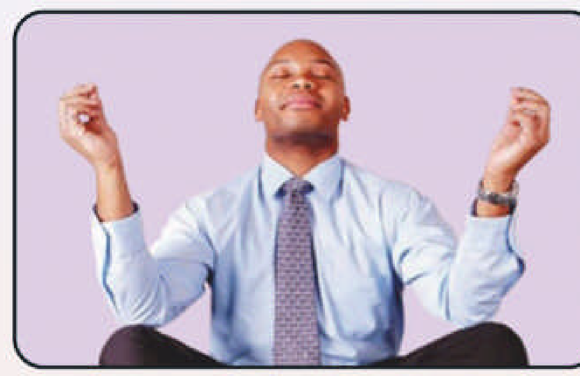
Tennis greats like Andre Agassi and the Williams sisters trained with Nick Bollettieri in Bradenton, Fla. His program is now part of the IMG Academy, where you can get whipped into top form on the court at a six-day performance camp, which starts from about $2,689, including lodging at the academy's hotel.

RUN BEAUTIFULLY

The $6,800 Sprintbok is a refreshingly analog antidote to the Peloton cult. Its sculptural wood-framed treadmill is powered purely by the runner.

Your Mind

Emerging Markets



MEDITATE VIRTUALLY

Paired with a virtual-reality headset such as the Oculus Quest 2, the Tripp app can place you in a Bavarian meadow or a Tasmanian rainforest. The $4-per-month exercises are like slow-motion video games in psychedelic landscapes.

DE-STRESS NATURALLY

The $490 Cove headset uses micro-vibrations behind the ears to improve sleep, boost focus, and reduce anxiety.

Long-Term Dividends

GET MORE FARSIGHTED

You know the planet-saving scientist in every action movie? That could be you with the $3,000 Unistellar eVscope, which can find and photograph interstellar bodies with remarkable ease and clarity. Use its Planetary Defense program to help identify and track near-Earth asteroids before it's too late for humanity.

BECOME MORE FLUENT
Learn a language quickly—and luxuriously. Along with in-app lessons, Fluenz offers weeklong Spanish immersion programs starting from $5,220 that include Michelin-starred meals and stays at luxury hotels in Mexico City, Oaxaca, or Barcelona.

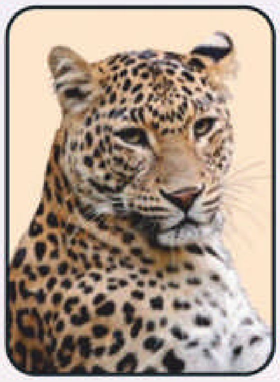
No Risk at All!

SOAK IN A SMARTER TUB
Winston Churchill supposedly did some of his best thinking in the tub. Imagine what you could do with Kohler's $16,000 Stillness bath, which sports a mist generator, full spectrum lights, and a Hinoki wood moat.

PICK A CARD, ANY CARD
Part Oblique Strategies, part Tarot, part co-active coaching, a $28 set of Compass Cards offers prompts to help you find a different approach to the problem that has you flummoxed.

Your Spirit

High Risk, High Reward



COLLAR A LEOPARD
Protecting wildlife often means tracking it, but that's easier said than done. Help fund those efforts on Exploration Co.'s 10-day trip to Uganda. For $25,000 apiece (two person minimum), you'll spend time tagging elusive leopards in Queen Elizabeth National Park with wildlife authority and veterinarian Ludwig Siefert. You'll also get three days of trekking in Bwindi's big ape country.

FORGE A BLADE
Embrace a little bit of danger with a $395, two-day knifemaking course, certified by the American Bladesmith Society, at the Arc & Flame Center in Rochester, N.Y. If you don't burn or cut yourself, were you even there? You might never make another knife, but you'll come away with a new family heirloom.

High Return Potential

BUILD A LABYRINTH
Walking in a tranquil space is an earlier form of meditation: The Labyrinth of Chartres Cathedral dates to the 13th century. Install a 39-foot-wide, 91%-scale replica of it at your home with a $28,900 paver kit from Labyrinth Co. Just don't let the project itself undercut the mental-health benefits before you start strolling.

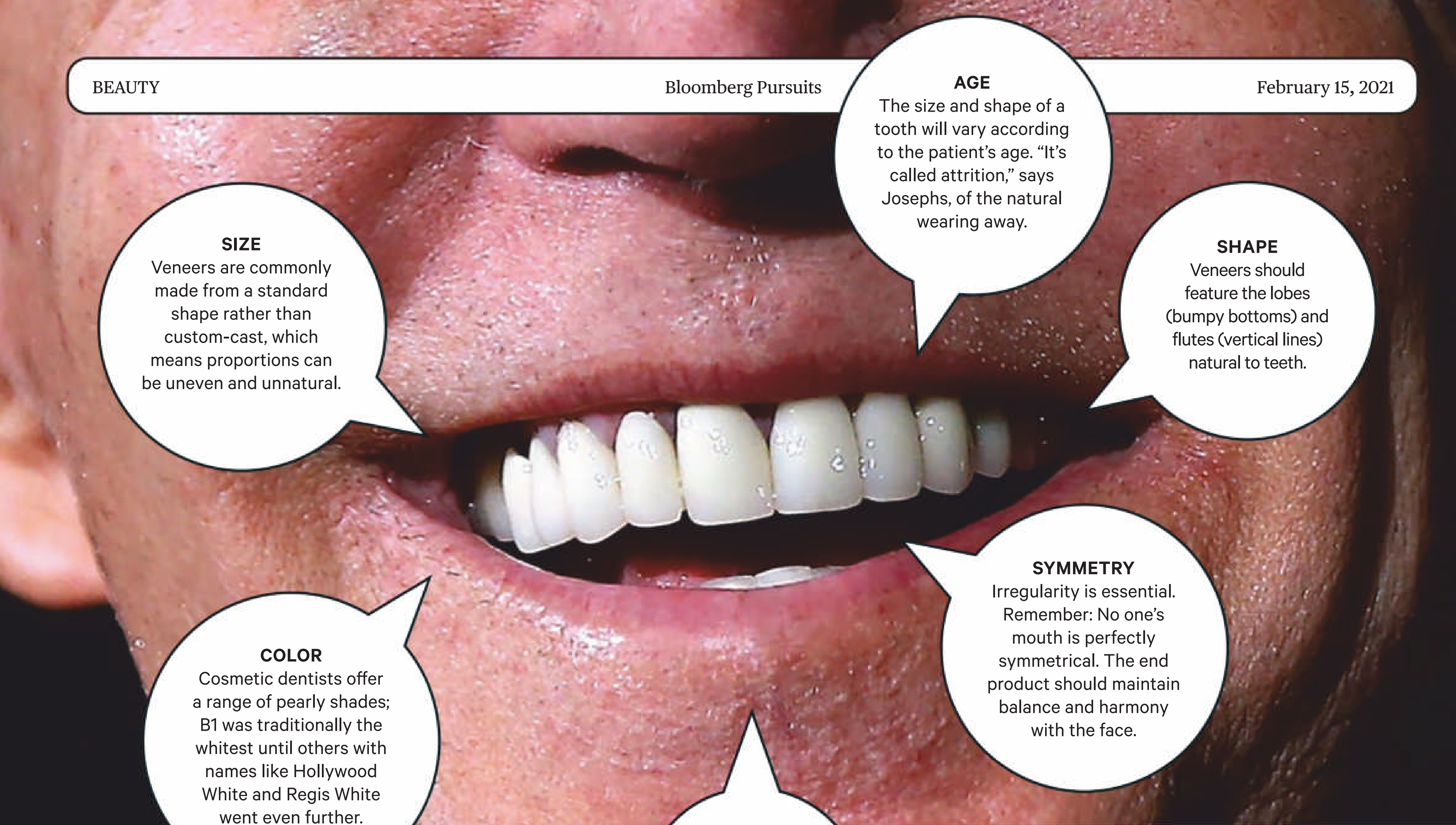
PLAY IT AGAIN
The intellectual and emotional benefits of learning an instrument have been well documented. Teach yourself piano Guitar Hero-style with Lumi, a $300 two-octave keyboard with keys that light up and change color.

Immediate Dividends

COOK UP A GASTRONOMICAL RETREAT
Rani Cheema's boutique travel agency lets serious foodies take a deep dive into a place's culinary culture. For South Korea, the former Food Network employee loads her trips with four-star hotels, close encounters with chefs, and plenty of street food. But the highlight of this nine-day, $7,500 trip is a stay at the austere Baekyangsa Temple, home of Jeong Kwan. You'll participate in the upkeep of the temple and take a cooking lesson with the Buddhist nun, a philosopher-chef who counts Le Bernardin's Eric Ripert among her devotees.

JOIN A BOOK CLUB
For $25 a month, Literati's Luminary book club provides access to titles recommended by public figures such as Richard Branson, Malala, and Stephen Curry, whose past picks have included *Troop 6000* and *The Other Wes Moore*. You receive one book per month and can join discussions and watch videos about it in Literati's app. Ⓑ

PREVIOUS PAGE: GETTY IMAGES (4). THIS SPREAD: TATTOO, MEDITATION, FLAG, LEOPARD, KNIFE: GETTY IMAGES. SPANX, EARBUDS, TELESCOPE, BATHTUB: COURTESY COMPANIES



Scale Back On Perfection

A more natural-looking smile is the dental request du jour

By Mark Ellwood

Think of Dr. Matt Nejad as the mouth's Mr. Fixit. The cosmetic dentist, based in Beverly Hills, estimates 90% of his patients come to him to undo or redo another's work–so-called revision dentistry.

The problem isn't shoddy veneers or implants, though, but cosmetic work that's a little too evident: teeth so perfect, in other words, they don't look natural.

Take the 36-year-old influencer whose plastic surgeon dispatched her to Nejad when her gleaming, tombstonelike smile had become as dated as the wrinkles she'd hired him to keep at bay. "He'd done a lip lift on her and saw her teeth and said, 'You've got to do something more natural,'" Nejad says.

The veneers she sported were simply too big for her face, too shiny, and almost opaque. Nejad recommended reducing their size, sheen, and thickness; her teeth now more closely resemble her original set than the denturelike replacements. She isn't alone. Patients are no longer seeking the identikit, Chiclet-filled smile that defined the dental revolution of the past few decades. Instead, they're gravitating toward less-manufactured-looking chompers that have been subtly refined. The yen for an "imperfect-perfect" smile is a predictable backlash against a world filled with Facetune, Kylie Jenner lip kits, and drive-through Botox clinics. Going semi-naturel has a je-ne-sais-quoi cachet.

Even in California, the spiritual home of million-dollar molars, the tide has turned. Changing camera technology has been one factor since the 1990s, when Regis Philbin-style exaggeration was essential. "Teeth had to be extra white and extra bold, so they caught the limitations of the film quality," Nejad says. Ultra-HD and the like render that moot.

A year of Zoom-based work and socializing has been a catalyst, too, according to Dr. Mitchell Josephs, of Palm Beach, Fla. He says multiple patients have come to him to revise their veneers because they've felt self-conscious about their too-perfect smiles after gazing at them for hours. "Regardless of what the procedure or technique was"–veneers, straightening, whitening–the end product "should look like something that actually was part of them."

A Hollywood smile was once whiter, more pristine and perfect than a Glee Club–even the new president (above) has a set of gleaming gnashers. But a new generation of young and gorgeous actors from overseas (Margot Robbie, Robert Pattinson) are sporting distinctly un-American teeth and changing that look, one slightly wonky tooth at a time.

Starting at the Top

First-time millennial homebuyers are speed-tracking their real estate investments right into luxury. ***By Jacqueline Davalos***

In sharp contrast to the "slacker" stereotype that's defined their generation, millennials aren't living in their parents' basement. They're buying multimillion-dollar houses.

At 38%, millennials—who were born between 1981 and 1996—are the largest share of U.S. homebuyers, according to a survey by the National Association of Realtors released last year. "They're just as interested in owning a home" as older generations, says Bradley Nelson, chief marketing officer of Sotheby's International Realty Inc. "They just waited longer to buy their first one."

Breaking from the notion of a "starter home," and trading up when starting a family, wealthy millennials are going big, Nelson says. They're "finally coming out of the gate, and it's not uncommon for the first purchase as a first-time homebuyer to be a multimillion-dollar luxury home."

As a result, millennials are quickly becoming a dominant force in high-end real estate in the U.S. and abroad, altering what constitutes a good investment. It helps that they're also set to inherit more than any prior generation, according to a May 2020 report by the Brookings Institution.

"Baby boomers are retiring to sunnier locales, while remote work has allowed millennials to ascend the housing ladder in smaller, more affordable cities," says Sotheby's 2021 Luxury Outlook, released on Feb. 1. "An emphasis on things like sustainability will certainly go into overdrive with the aging of millennials, who, at 72.1 million, are the largest adult generation, with unique consumer preferences that will profoundly influence the direction of the luxury-housing market."

Tech savvy and environmentally conscious values are coming to the fore. Beginning almost immediately after Covid-19 hit, buyers began to flock to areas that offered walkability, nature, and a well-rounded quality of life, with a food and art scene. Think Aspen, Colo.; Austin; Montecito, Calif.; and in Australia, the Mornington Peninsula outside Melbourne. "It's the difference of choosing where you want to live vs. living where you work," Nelson says. "Millennials are thinking about overall lifestyle. It's propelled these second-tier markets into the top of the interest list."

According to a report from Sotheby's International in December, 63% of affiliates said they expected luxury home prices to rise over the next three years; more than 70% reported heightened demand at the end of 2020.

Developers that integrate high-tech, touchless features into more homes and focus on sustainability credentials in new buildings are likely to benefit more. Energy-saving geothermal systems, solar panels, and green roofs are the most attractive features, Nelson says: "If a home is move-in ready, environmentally conscious, and has a Tesla charger installed in the garage, they are generating a premium." B

Demand These Curves

Jaguar's newest car is 70 years old, a continuation of the famous, almost cartoonlike C-Type the company originally produced from 1951 to 1953, which twice won the 24 Hours of Le Mans.

The Coventry, England, auto brand started developing Lightweight E-Type and XKSS continuation cars as far back as 2014; in 2018 it began building D-Type continuations. Each has virtually sold out before its official announcement—though there are a few of these C-Types left. Prospective buyers can choose from 12 exterior and 8 interior colors. Each build will reflect the specifications of the 1953 Le Mans winner, including a 220-horsepower 3.4-liter inline-six engine with triple Weber 40 DCO3 carburetors and disc brakes. A Fédération Internationale de l'Automobile-approved harness-style seatbelt is optional.

Jaguar isn't the only company to cash in on the continuation business model, which sells uber-expensive, hyperlimited new cars to well-heeled fans. For Aston Martin collectors, there's the DB4 Zagato GT from the 1960s and the DB5, which found fame in *Goldfinger*. Consensus among collectors seems to be that continuation pieces don't nudge vintage values one way or the other—in fact, careful, exact replicas in extremely low batches can help preserve the value of the originals.

The reborn C-Types, with vintage specs but a new string of chassis numbers, will converge on a track day in 2022. They'll be the fourth of their kind for the company. Pricing starts at $1.3 million. *—Hannah Elliott*

BIDEN, MOUNTAIN: GETTY IMAGES. JAGUAR: COURTESY JAGUAR

A Venture In Vintages

How to start a wine collection for pleasure and maybe even make a profit. ***By Elin McCoy***

Maybe last year you wished for a cellar of great wines to see you through the pandemic because, well, having wines on hand to drink is certainly one benefit of collecting.

But here's another. "With interest rates near zero, a wine collection is an investment, a steady, safe haven for capital," says Miles Davis, head of the professional portfolio management service for the U.K. platform Wine Owners.

He's thinking about numbers like this: Since its first release, the value of a case of 2000 Armand Rousseau Chambertin, a *grand cru* Burgundy, has soared 3,002% to its current market price of $38,553 (as of Feb. 5), according to Liv-ex, the global marketplace for the wine trade.

In 2021 it's easier than ever to play this collecting-investing game, whether for pleasure or profit or both. The recent boom in online auctions makes it easier to scoop up collectibles while lounging at home in sweats. Jamie Ritchie, worldwide head of Sotheby's Wine, says the auction house pivoted to digital in a significant way last year, holding 20 online-only sales as well as 21 with live auctioneers. The new format has drawn new buyers, 60% of them in their 30s and 40s. In February, Sotheby's is holding two more digital sales featuring red Burgundies.

For California cabernet lovers, Zachys Wine International LLC in Scarsdale, N.Y., is powering a direct-from-the-cellar sale with Napa Valley Vintners that runs through Feb. 20. The 100 exclusive lots present wines that are almost impossible to obtain, such as a 15-year vertical (vintages 2000-14) of Shafer Hillside Select and 6-liter bottles of Opus One from five vintages.

To help clients research a wine's collecting potential, Acker Wines auctions in New York has created a data-backed digital platform designed with a comprehensive set of market analysis tools like a traditional equities monitor. They allow you to easily evaluate broad wine investment trends and compare and track specific brands' price performance over decades. Best of all? It's free.

So, what to buy?

If you're a traditionalist, start collecting the kind of wines you already love. But for investment-grade bottles there are five considerations: rarity, reputation, vintage, critics' scores, and provenance—its source and storage.

The list of what's hot has expanded beyond blue-chip Bordeaux and top Burgundy reds, the latter of which have been on an extraordinary roll for the past decade.

Liv-ex's Burgundy report on Jan. 27 found that growth is beginning to slow, and white Burgundy is having a moment. The 25% tariffs the U.S. imposed in 2019 on wines from France, Germany, Spain, and the U.K. have had an effect, too. Cult Wines Ltd. Chief Executive Officer Tom Gearing says Champagne (exempt from the tariffs) and wines from the Rhône Valley are undervalued.

The biggest story in 2020 was the rise of Italy as a powerhouse in the collecting market, especially wines from Piedmont and Tuscany. And although Bordeaux's share of trades has dropped, Sotheby's Ritchie says the region still offers the best value, especially wines from properties where recent investments have increased quality. The wines on this list, suggested by experts I've quoted and others, are delicious, will age well long term, and are top performers with a future.

3,002%

Since its first release, the value of a case of **2000 Armand Rousseau Chambertin**, a *grand cru* Burgundy, has soared 3,002% to its valuation of $38,553 as of Feb. 5.

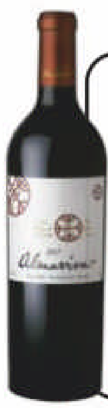
GLASSES: GETTY IMAGES. BOTTLES: COURTESY COMPANIES

Eight Wines to Enhance Any Collection

2015 CHÂTEAU RAUZAN-SÉGLA
The Wertheimers, who own Chanel, have poured millions into this property, and it shows in this rich vintage, which will only get better with age. *$145*

2016 LUCIANO SANDRONE LE VIGNE
This top vintage for a violet-scented classic Barolo has already climbed 116% in value since its release last fall. *$200*

2016 SASSICAIA
Along with Antinori Tignanello ($150), this Super Tuscan from a great vintage is intense, deep, and concentrated, with the structure to age. *$350*



2017 ALMAVIVA
Think of this complex Chilean red from a top vintage as an emerging-markets investment. *$150*

2016 CLOS DES PAPES CHÂTEAUNEUF-DU-PAPE
An investment favorite, this wine from the southern Rhône is dense, spicy, and seamless. *$109*

2008 TAITTINGER COMTES DE CHAMPAGNE
Older vintages of this superelegant sparkler have been climbing in price and trades over the past couple of years. *$190*

2008 POL ROGER CUVÉE SIR WINSTON CHURCHILL
It's a great vintage of this full-bodied bubbly that ages exceptionally well. *$286*

2016 CHÂTEAU DE BEAUCASTEL CHÂTEAUNEUF-DU-PAPE
Dark berry and herb aromas and complex, layered flavors promise a long life for this red that'll age on a constant upward curve. *$125*

PLATFORMS TO GET YOU STARTED

● The least expensive entry point is fractional investment app **Rally**. Shares of the soon-to-be-offered 2009 Domaine Leroy Richebourg will be $25 each, whereas a case retails for $100,000. The drawback? You can't drink your fractional shares—or control a bottle's sale.

● **Vinovest**, which started a little more than a year ago, has a minimum buy-in of $1,000 and a five-minute sign-up process. Co-founder Anthony Zhang says the company selects wines, which you can also drink, via algorithms to fit one of three investing styles: conservative, moderate, or risky. Well-known somms are on hand to give advice.

● U.K.-based **Cult Wines**, which specializes in wine investment, operates in 77 countries and expects to open a New York office this year.

● Lauded London wine merchant **Bordeaux Index** features investment and cellar management departments as well as an addictive live online trading platform.

FIND A FRIDGE

A cool place for your stash, ideally 55F, is a must—whether professional storage, a home cellar, or a wine fridge. High temperatures can make wine taste flat and tired. Lack of humidity shrinks corks and lets in oxygen, which turns valuable wine to vinegar. For the smallest examples that hold roughly 20 bottles, expect to pay about $200, and look to the **Koolatron** brand. For a large one—think 6 feet tall and almost as wide—**EuroCaves start** at about $7,200.

AND WHATEVER YOU DO, DON'T OVERBUY

Your tastes will evolve and change. Ritchie of Sotheby's suggests collecting a balanced selection of red, white, rosé, and sparkling, with some to enjoy today and others for the future—and special occasions. The best reds and some whites improve with age as tannins mellow and flavors and aromas become more complex.

The Space Between Us

Pandemic life has spelled out the limits—and a few joys—of spending time together. ***By Brin-Jonathan Butler***

We had our first date on a frigid Feb. 13 a year ago. It was at a little Spanish restaurant near my place in Washington Heights in Upper Manhattan, 17 days before Governor Andrew Cuomo held a news conference announcing the first case of Covid-19 in New York. By the end of March the state would lose more than 1,000 lives and become the epicenter of a global health crisis.

She drove in from a town in Connecticut that I'd never heard of before. After she arrived and sat down, she told me as an icebreaker that her most serious boyfriend had dumped her on Valentine's Day. She teased that the holiday was canceled as far as she was concerned. I told her an old story about how my father, fresh out of law school, was almost disbarred for taking out an ad in a newspaper on Feb. 14, 1983, with the headline "Happy Valentine's Day! Uncontested divorces $300."

That night she told me about wanting to live in Spain someday. I mentioned I'd lived there for a year, in 2004, landing in Madrid just a few days before the Atocha train station was bombed four blocks from my apartment. My most vivid memory in the aftermath was hearing the eerie chorus of hundreds of cheesy ringtones chiming from cellphones scattered everywhere, blown out of morning commuters' hands. This reminded her of standing and cheering near the finish line of the Boston Marathon in 2013, her last year of college. When the first bomb exploded, followed 12 seconds later by the second, it left her with a concussion.

"Neither of us is very good at small talk, are we?" she said.

When New York City locked down on March 20, I joked with her that things seemed to be going pretty well, but if we wanted to see each other in the foreseeable future we'd probably have to cross our own private Rubicon and quarantine together. "I've never lived with anyone before," she said, pausing for a second. "OK, I'll come into the city to pick up you and Raúl"—my cat—"tomorrow, and you can stay with me in Connecticut as long as you want."

Our fifth date, as it turned out, is still going.

As we neared her small apartment, Raúl and I looked out the passenger-side window in bewilderment at Vince McMahon's WWE headquarters, followed by the theater where Maury Povich and Jerry Springer (still) tape their shows. As we turned off at the Rippowam River, I remembered arriving at JFK a decade ago without a return ticket: I was now feeling the same internal GPS pin dropping, but this time assigned to a relative stranger.

If Jean-Michel Basquiat's work regularly distills New York City to planes, taxis, and emergency sirens, our suburban surroundings are defined by unruly gaggles of Canada geese, the odd rabbit in front yards, families of deer in the nearby woods, and a couple of skittish colonies of feral cats along the shore of the Long Island Sound, where we take our nightly walks.

In 2021's topsy-turvy version of Valentine's Day, several couples we know are offering the merciful gift of making space for each other—a down payment, perhaps, on their own mental health. The calculus of how to navigate the stresses and uncertainties of pandemic life is unique to every relationship. Personally I was terrified about all the obvious risks of suffocating each other.

Instead, something far more unexpected between us got forged in this environment of loss. Last month I received a phone call at 4 a.m. that a childhood friend I hadn't seen in 20 years had died after suffering a massive heart attack. (I attended the funeral via Zoom.) My brother and sister-in-law are among the more than 105 million people who've been infected with Covid; thankfully, they aren't among the almost 2.2 million who've died from it. On a daily basis, I've tried to come to terms with the possibility that, given his age and serious health issues, I might never see my father, who lives 3,000 miles away in Vancouver, alive again.

It's still hard to look at her and consider how easily the pandemic could have separated us, rather than brought us together. If living with someone in isolation during an unprecedented health crisis is supposed to feel claustrophobic, I haven't felt it yet. Even though Valentine's Day remains canceled in our household, I walked through a snowstorm on Feb. 1 to pick up a ring to coincide with our anniversary.

Sure, every day I wake up wishing the horrendous circumstances that brought us together and which have caused so much suffering would end. But at the same time, I never want to leave. Ⓑ

ILLUSTRATION BY BEN LEWIS GILES

Platinum Grade

A superpotent skin-care protocol is a new way to refresh your assets

Photograph by Naila Ruechel

The buzziest beauty products today are "protocols" that offer highly concentrated treatments and are to be used only for a set amount of time. These intensive regimes can be packed with growth factors, which stimulate cell proliferation and collagen production, as well as peptide cocktails, which can minimize the appearance of fine lines and wrinkles. The high levels of active ingredients also make them pricier than a typical serum, and La Prairie's $1,980 Platinum Rare Haute-Rejuvenation protocol is one of the most luxurious of the bunch. It includes two patent-pending complexes and the brand's signature ingredients, caviar and platinum, to counteract the main effects of aging by softening the skin barrier and allowing the treatment to penetrate more deeply. The 30-day regimen is so potent, according to the Swiss brand, it should be applied only four times a year to give the skin time to rebalance.

THE CASE
Some laser treatments—the gold standard in anti-aging—require a week of often painful downtime and can cost many thousands of dollars. Now that it's more difficult to visit a dermatologist for a tuneup, people are looking for at-home products that deliver serious results. La Prairie's formula comes in three 8-milliliter vials and consists of two tissue growth factors, a platinum cocktail containing three peptides, and the brand's signature cellular complex to create new skin tissue and rejuvenate the existing layer. *$1,980; laprairie.com*

THE COMPETITION

• The four-week Sisleÿa L'Intégral Anti-Age La Cure ($1,200) is inspired by a discovery that won the Nobel Prize for medicine in 2016. Each week of La Cure focuses on a different aspect of skin regeneration, including restoring cellular energy, softening, and improving elasticity and radiance.

• Dr. Maryam Zamani, one of London's most sought-after oculoplastic surgeons, knows a thing or two about eye rejuvenation. She designed a $235 eye ampul five-day program full of peptides, antioxidants, and meso-hydrators that brighten the eye area and reduce puffiness and dark circles.

• Bioeffect created the world's first plant-based epidermal growth factor out of Icelandic barley. (Some EGFs are derived from human stem cells.) Its $295 monthlong treatment is fragrance-, alcohol-, and oil-free. It boosts hydration and evens skin tone while minimizing wrinkles, redness, and pore size.

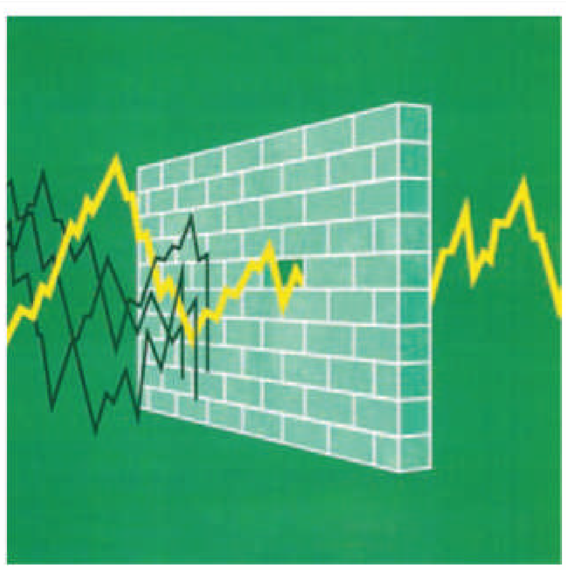
■ LAST THING

With Bloomberg Opinion

What Robinhood and Apple Have in Common

By Alex Webb

There's a curious thread connecting Robinhood, Facebook, Twitter, and Apple this year: The technology companies are starting to take active responsibility for what happens on their platforms.



From Robinhood Markets Inc. deciding to limit trading of meme stocks, to Facebook Inc. and Twitter Inc. banning then-President Trump's accounts, to Apple Inc. rolling out tools that make it harder for app makers to hoover up user data from iPhones, the platform operators have taken steps that extend beyond their legal obligations. It's an effort at accountability they have generally avoided.

Each has its own discrete reasons for doing so, of course. Facebook and Twitter cracked down on Trump after his social media posts riled up the mob that stormed Capitol Hill. Apple, as was chronicled in last week's edition of this magazine, will make iPhone users opt in to sharing data with app makers, rather than make them search for opt-out settings deep in the bowels of the operating system. And Robinhood curtailed trading of GameStop, Express, Fossil Group, and other stocks after its clearinghouse demanded higher cash deposits.

The conceit of an online platform is that it's little more than a catalyst—connecting brands with customers, social media users with one another, and investors with stocks—and does nothing to moderate those interactions. The reality has always been different: Apple since Day 1 has imposed somewhat opaque rules on what's allowed in its App Store, while Facebook and Twitter are constantly scrambling to remove illegal content. The companies' latest steps are far more forthright.

The Robinhood experience is slightly different and therefore instructive. When the Depository Trust & Clearing Corp. demanded that the trading app pony up greater deposits, it forced the company to tamp down on the wild investments emanating from Reddit's WallStreetBets forum. The checks and balances in the financial markets that have evolved over the course of a century still seem to work—so far, at least.

Such structures simply do not exist for the tech platforms. They're instead regulating themselves. Apple is tempering Facebook's data-grabbing excesses, while the social media platforms are stomping down on disinformation propagators. Perhaps the motivation is to preempt legislation that would take these decisions out of their hands. There are real-world impacts: Where Robinhood trading has wiped out some retail investors' savings, social media contributed to the deaths on Capitol Hill.

History shows that self-regulation has seldom proved effective. And overzealous regulation comes with its own array of problems. The events of this still-young year heighten the urgency of finding appropriate solutions. Ⓑ *—Webb is the European tech columnist for Bloomberg Opinion*

ILLUSTRATION BY GEORGE WYLESOL

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