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● Walmart's cheap checkups 10
● The hardest small business 48

Bloomberg Businessweek

March 2, 2020

When The Bull Market Gets Weird

A band of Reddit users is hijacking stocks and defying even the coronavirus sell-off 18

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March 2, 2020

◀ Indiana's Fair Oaks Farms pumps out 300,000 gallons of milk a day from 33,000 cows

FEATURES

36 The Mega-Milkers
Factory farms are taking out family farms by the thousands

44 Print Lives!
The HP-Xerox battle shows there's life in the old ink-stained wretch

48 What's Really Closing Abortion Clinics
Legal challenges. Budget woes. Reluctant landlords. Protests

PHOTOGRAPH BY LUCY HEWETT FOR BLOOMBERG BUSINESSWEEK

Section	Page	Story
■ IN BRIEF	5	The Weinstein verdict ● Boeing orders ● Violence in India
■ AGENDA	6	It's Bernie's to lose ● U.K.-EU trade talks
■ REMARKS	8	Is there a metaphor for this scary financial moment?
1 BUSINESS	10	▼ The doctor is in—at Walmart
	12	China's shut-ins are ravenous for livestreaming
2 TECHNOLOGY	14	Google and other big tech companies are greening up—and getting somebody else to help pay for it
3 FINANCE	18	The little Reddit forum that's making Wall Street sweat
	21	ETrade gets bought, and independent brokers are history
4 ECONOMICS	22	Don't panic yet, but economists are thinking pandemic
	23	Boris bets big on the end of austerity
	25	An indigenous protest is pummeling Canadian industry
5 POLITICS	28	China expands state surveillance to track the coronavirus
	30	Trump, Huawei, and the unmooring of NATO
	32	A Colorado health plan may point the way for Democrats
■ PURSUITS	55	Running a spa is weirder than you ever imagined
	60	From shells to bubbles, hang-ups you'll want to have
	62	*Greed* tries, and fails, to lash out at greed
	63	MB&F's classy new way to watch the hours go by
■ LAST THING	64	SoftBank's problems aren't doing its rivals any favors

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■ COVER TRAIL

How the cover gets made

❶

"So this week's story is about these trolls on Reddit who are actually moving stocks like Virgin Galactic and Lumber Liquidators."

"Wait. Aren't those the guys obsessed with chicken tenders?"

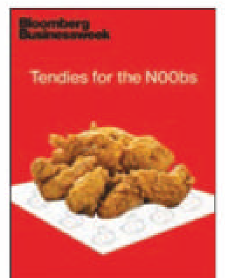
[Emergency art department meeting]

"We need to shoot chicken tenders."

"I've got four orders ready. Say when."

"We should probably order extra, just in case."

❷



"I don't think anyone will understand what this means."

"So ... that's a yes on the tenders?"

❸

"Needs more troll."

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Alphonso David
President, Human Rights Campaign

Lule Demmissie
President, Ally Invest

Ruth Porat
Chief Financial Officer, Alphabet and Google

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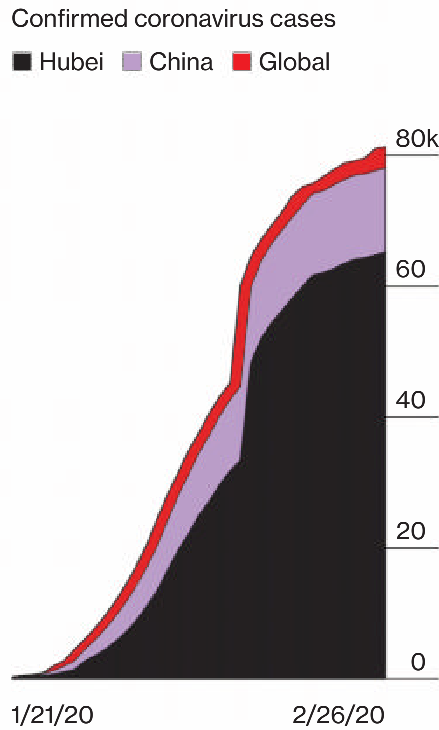
By Benedikt Kammel

● The death toll from the coronavirus outbreak approached

3,000

worldwide, with cases springing up in Iran, Italy, and South Korea. The head of the World Health Organization has called the widening outbreak "deeply concerning."



● Mastercard replaced its longtime CEO, Ajay Banga, with Michael Miebach, the payment company's chief product officer.

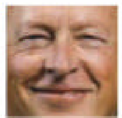
Banga expanded beyond card payments with almost a dozen deals in recent years, including $3.2 billion for the Denmark-based real-time billing platform Nets, the company's largest acquisition to date.

● Morgan Stanley agreed to buy discount brokerage ETrade Financial for

$13b

The biggest acquisition of a Wall Street firm since the financial crisis more than a decade ago will push Morgan deeper into the retail market. ▷ 21

● Bob Iger stepped down as Walt Disney CEO, handing the Magic Kingdom



keys to Bob Chapek, who led theme parks and the consumer-products business. Iger held the top job for 15 years and oversaw major acquisitions, including the $71 billion takeover of Fox's entertainment assets last year, as well as Marvel, Pixar, and Lucasfilm, the *Star Wars* franchise.

● Mallinckrodt will pay $1.6 billion to settle claims arising from the U.S. opioid crisis.

The accord, which would place the company's U.S. generics business under Chapter 11 protection, aims to resolve lawsuits from thousands of plaintiffs who have accused it and other drugmakers of pushing opioid prescriptions on doctors across the country.

● Hindus and Muslims clashed in New Delhi. Violence erupted after a local politician threatened to forcibly remove Muslims who had been blocking a road to protest a divisive citizenship law.

● "This is the new landscape for survivors of sexual assault."

Manhattan District Attorney Cyrus Vance Jr. commented on the conviction of movie producer Harvey Weinstein, who was found guilty of sexual assault. Weinstein, who faces at least five years in prison, plans to appeal.

● Boeing secured a much-needed aircraft order, the first this year for the U.S. planemaker, which continues to suffer from the grounding of its 737 Max airliner. Japanese carrier All Nippon Airways will add 20 787 Dreamliners to its fleet, upping its order book for the popular wide-body to more than 100 airplanes.

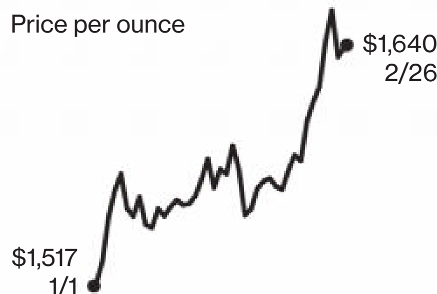
● Hosni Mubarak, who ruled Egypt for 30 years, died at 91.

The man dubbed "the pharaoh" by his detractors was ousted from power when the Arab Spring swept through Cairo in early 2011.

CHAPEK: PATRICK T. FALLON/BLOOMBERG. INDIA: SANCHIT KHANNA/HINDUSTAN TIMES. NIPPON: FABRIZIO GANDOLFO/GETTY IMAGES. DATA: COMPILED BY BLOOMBERG

IN BRIEF

● Gold has risen sharply this year as concerns about the impact of the coronavirus boost demand for safe-haven investments. Prices on Feb. 24 hit $1,689 an ounce, the highest since January 2013.



● Malaysian Prime Minister Mahathir Mohamad, 94, who has ruled the country for almost a quarter century, resigned. Now he and longtime rival Anwar Ibrahim are vying to form a majority in the 222-seat parliament and form the next government.

● Finnish tech giant Nokia is working with advisers to consider potential asset sales and mergers, according to people familiar with the matter. Fierce competition is putting pressure on the network company's earnings.

● A court gave Tesla permission to clear a forest near Berlin where it plans to build a factory.

The electric car pioneer's first European outpost has faced resistance from environmental activists who oppose the felling and fear the giant facility will deplete local water reservoirs.

● Pressure is growing on Angela Merkel to fast-track her search for a successor as chancellor after her party suffered a stinging defeat in regional elections in Hamburg. Her ally Armin Laschet, who heads Germany's most populous federal state, has emerged as a strong contender for the job.

● HSBC's search for a CEO suffered a setback after Jean Pierre Mustier, who leads Italy's UniCredit, said he doesn't want to take the helm. Chairman Mark Tucker is under pressure to reboot the U.K. bank after his first CEO pick lasted just 18 months. Last month, he announced plans to cut 35,000 jobs.

● Prudential Financial has come in the cross hairs of activist investor Dan Loeb.

His Third Point hedge fund, which has built a stake of just under 5%, wants the U.K. insurer to break up by separating its U.S. and Asian businesses.

● Billionaire fund manager Ken Griffin continued his real estate buying binge by snapping up an oceanfront house in the Hamptons owned by fashion designer Calvin Klein, according to the *Wall Street Journal*. The property could be worth as much as $100 million, adding to more than $700 million in high-end property deals over the past few years by the financier.

AGENDA

▶ A Race to Net Delegates

Super Tuesday on March 3 will provide a clearer picture of who might become the Democratic Party's presidential nominee. After early wins in Nevada and New Hampshire, it's Vermont Senator Bernie Sanders's race to lose.

▶ Israel returns to the ballot box on March 2 for its third general election in almost a year after the previous two runs failed to produce a new government.

▶ OPEC meets in Vienna on March 5 to decide whether to cut oil output quotas as the coronavirus batters the global economy and threatens demand for crude.

▶ The Geneva International Motor Show kicks off on March 5 for 10 days. Attendance from Asia is expected to be low because of the virus epidemic.

▶ Australia's reserve bank holds its policy meeting on March 3. Economists see its interest rate dropping to 0.5% by the end of the second quarter amid a slowdown in China.

▶ U.S. unemployment data for February is due on March 6. Economists see the rate holding at 3.6%, still near a half-century low.

▶ The U.K. and the EU are set to officially start trade talks on March 2 in Brussels. French President Emmanuel Macron has already warned a deal may not happen this year.

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■ REMARKS

Knives, Walls, And Other Market Metaphors

● Narratives can help investors get over their worries. Which ones do we use in the coronavirus era?

● By Michael P. Regan

Investors love a good metaphor to explain away what often appear to be unexplainable events in financial markets. So you hear about stocks taking the stairs up and the elevator down to describe how a slow march higher in prices can be followed by a sudden drop. Or "dead-cat bounce" will be offered as a dark explanation for a market that makes a small but ultimately futile rebound after a sharp loss, likening the price chart to the way a cat seems to spring off the ground following a fall from a tree—even though it was killed on impact.

In recent years the metaphor trotted out over and over has been that stocks are "climbing a wall of worry" as investors dismiss threat after threat, be it the European debt crisis, the trade war, or escalating tensions between the U.S. and Iran. Central banks such as the Federal Reserve, entrusted with the power to set interest rates and buy assets, are viewed as the Sherpas who help investors make this climb. The problem at the moment is how to view the potential damage from the novel coronavirus now that the illness is spreading to countries beyond China. Is this just another row of bricks in the wall of worry, just waiting to be scaled by intrepid financial rock climbers? Or are we confronted with an unforeseen layer of razor wire that's insurmountable, even with the help of the strongest Sherpas?

As silly as they sound, these metaphors shape the narratives that influence markets and economics—a phenomenon catching a lot of interest because of Yale economist Robert Shiller's latest book, *Narrative Economics: How Stories Go Viral & Drive Major Economic Events*. "Going viral" is yet another metaphor, but in this case it's pretty spot on: Shiller shows how narratives often spread, and then dissipate, at similar rates of speed as epidemics—and how their importance is grossly underestimated in economics and finance.

Equity markets were jolted out of a sense of complacency as the original narrative surrounding the coronavirus—that it was largely contained to China and would be only a brief headwind to the global economy—went up in smoke. With the Tokyo Marathon canceled and outbreaks reported in such places as Milan, the French Alps, and Spain's Canary Islands, the random spread of the sickness from Wuhan's open-air market to the holiday destinations of the global affluent has clearly alarmed the investor class. Meanwhile, the human toll on countries with weaker health-care infrastructure, such as Iran and Afghanistan, could prove to be even more devastating.

The uncertainty surrounding the virus is creating an information vacuum for investors, as many global companies such as Apple, Nike, and United Airlines warn that their previous financial forecasts won't be met but they can't yet offer a replacement. This adds a layer of fog on top of a dataset of health and economic statistics out of China that many investors view as untrustworthy. Reliable statistics are taking on greater significance, such as an IHS Markit survey of purchasing managers signaling that the U.S.'s dominant services industries had already begun to shrink in February because of the effects of the virus.

Whatever new narrative investors latch onto will be influential, given the shortage of more reliable data points.

Donald Trump, a master when it comes to the self-flattering narrative, has one he'd like to push. He's staked his reelection campaign on taking credit for a strong economy and an elevated stock market—both of which were at risk even before the virus began to spread in the U.S. With the Dow Jones Industrial Average down more than 1,000 points on Feb. 24, Trump took to Twitter to push his chosen narrative: "The Coronavirus is very much under control in the USA," he wrote. "We are in contact with everyone and all relevant countries. CDC & World Health have been working hard and very smart. Stock Market starting to look very good to me!"

Unlike his tweets about the trade war, however, this attempt to shift the narrative failed to lift investors' spirits. The next day the U.S. Centers for Disease Control and Prevention warned that Americans should brace for the likelihood that the virus will spread in the U.S., and the secretary of health and human services, Alex Azar II, told a Senate committee, "This is an unprecedented, potentially severe health challenge globally." The Dow fell more than 3% for a second day.

Meanwhile, investors and analysts, starved of hard data and conclusive estimates for the ultimate human and economic toll of the virus, are wondering if years of scaling the metaphorical wall of worry have left markets complacent to what ultimately could be the most serious risk to the global economy since the financial crisis. They're passing around stories quoting experts such as Harvard epidemiology professor Marc Lipsitch, who says the likely outcome is that the virus won't be contained and somewhere from 40% to 70% of the world's population could be infected within the year.

What, then, can be expected of the market's old friend and wall-of-worry Sherpa, the Federal Reserve? The minutes of the latest Fed policy meeting and remarks from various policymakers signal they're taking the threat of the virus seriously; futures traders are pricing in the probability of two to three 0.25-percentage-point rate cuts before the end of the year. Still, this has done nothing to stop the bleeding in the stock market, with the S&P 500 down 8% on Feb. 26 from a record just seven days earlier. After all, what can central bankers realistically do to stem simultaneous supply and demand shocks as factories close, cross-border trade dwindles, and consumers find themselves in either voluntary or involuntary quarantines?

Regardless of which path the narrative travels in coming weeks, it's clear the reflexive instinct among investors over the past decade to buy stocks aggressively following periods of market weakness—to keep climbing that wall of worry—is being called into question in a big way.

There's an old Wall Street metaphor that comes to mind to describe the inherent risk that such a strategy poses at the moment: trying to catch a falling knife. Ⓑ

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Checkups

● Walmart makes a major move into health clinics and services

The main drag of Calhoun, Ga., a town of about 16,000 an hour's drive north of Atlanta, is dotted with pawnshops, liquor stores, and fast-food joints. Here, as in thousands of other communities across America, the local Walmart fulfills most everyday needs—groceries, car repairs, money transfers, even hairstyling. But now visitors to the Calhoun store can also get a $30 medical checkup or a $25 teeth cleaning, or talk about their anxieties with a counselor for $1 a minute.

Prices for those services and more are clearly listed on bright digital billboards in a cozy waiting room inside a new Walmart Health center. Walk-ins are welcome, but most appointments are booked online beforehand. No insurance? No problem. Need a lab test on a Sunday? Sure thing. Walmart "care hosts" take customers to one of 12 care rooms in the 6,500-square-foot facility. Afterward, they steer patients to the in-store pharmacy. While they wait, they can visit the produce section and grab some veggies recommended by the doctor.

Welcome to health care, Walmart style.

The center in Calhoun, along with one in Dallas, a suburb about 30 miles west of Atlanta, represents the retailer's attempt to grab a bigger slice of the nation's $3.6 trillion in health spending by harnessing its greatest asset—the 150 million people coming through its 4,756 stores each week. While Walmart Inc. hasn't said how many clinics it plans to build, it's signaled that the health center expansion is one of its top growth initiatives. The move pits it against rivals such as CVS Health Corp., which is rolling out its own "HealthHubs," and creates a new front in Walmart's battle against Amazon.com Inc., which also wants to disrupt the U.S. health-care system. "We have an opportunity to help the country and to build a stronger business," Walmart Chief Executive Officer Doug McMillon told investors in December.

It won't be easy to persuade Americans to entrust their health to a big-box discount retailer, especially one that still sells unhealthy items such as cigarettes and guns and has long been criticized for skimping on the health-care needs of its own employees.

McMillon, whose father was a dentist, admits he "just can't imagine being a dentist working at Walmart," and he's not alone. When Dee Artis saw a Walmart Health job listing, she didn't believe it: "I thought it was spam," she says. She's now assistant clinical administrator at the Dallas location, which has been busy since opening in September, drawing patients—many of them uninsured—from towns as far away as a 75-minute drive. "I knew it would be big because, hey, this is Walmart," Artis says.

Edited by James E. Ellis

ILLUSTRATION BY 731

"But I didn't know exactly what it was going to be."

The man responsible for determining that is Sean Slovenski, Walmart's president for U.S. health and wellness, who joined the retailer in 2018 after stints at insurer Humana Inc. and a health-care joint venture between Intel Corp. and General Electric Co. Now he's in charge of a $36 billion division that already fills upwards of 400 million prescriptions annually and operates 3,000 vision centers.

Walmart opened its first pharmacy in 1978, but founder Sam Walton's desire to adapt his low-price retail philosophy to the opaque world of health care kept playing second fiddle to other initiatives. In the 1990s, Walmart focused on building massive Supercenters to break into the grocery sector, which accounted for 56% of its $332 billion in U.S. sales in 2018, the most recent data available. When it came to health care, the company mainly looked to trim its own expenses. Walmart was pilloried after a 2005 internal memo surfaced that said a "significant number" of associates and their children were either on Medicaid or uninsured because the costliness of Walmart's own health plan made enrollment unattractive. Health care, the memo concluded, was a "reputation issue," not a business opportunity.

While Walmart did take steps to bolster its pharmacy sales, such as offering generic drug prescriptions for as little as $4 starting in 2006, other retailers were more aggressive. That year, CVS paid about $22 billion for Caremark, a prescription-benefit management company that acts as a middleman between drugmakers and pharmacies. Another rival, Walgreen Co., acquired New York's Duane Reade in 2010 and European pharmacy chain Alliance Boots in 2014. Amazon, meanwhile, explored using delivery drones—which could allow it to airlift prescriptions to homebound seniors.

A year after McMillon took over as CEO in 2014, the company hired consultant McKinsey & Co. to help determine which wellness areas it should focus on. But again, health care took a back seat to another strategic priority: e-commerce, highlighted by the company's $3.3 billion acquisition of Jet.com in 2016.

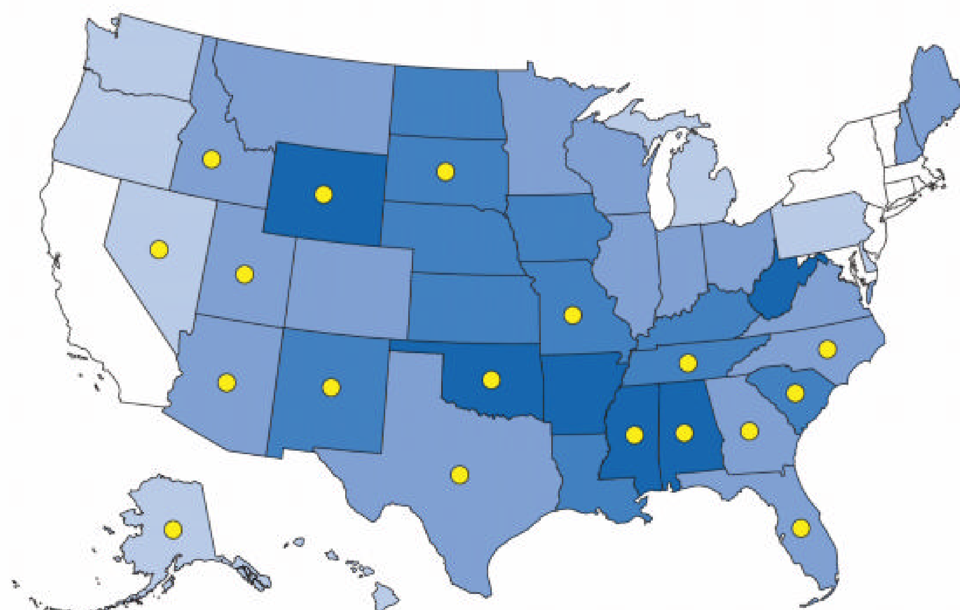
By the time Slovenski arrived, Walmart had finally made progress on its employees' health care by aligning with blue-chip organizations such as the Cleveland Clinic to provide them complex procedures like back surgery at no cost. And it's delivered about 4.4 million free health screenings over the past six years—giving it a window into ailments its shoppers grapple with as well, like diabetes.

Revamping its small group of health clinics was the next step. A decade ago, in-store retail clinics were all the rage, promising to handle less acute situations such as flu shots and sore throats while

Walmart Supercenters per Million Residents

□ Fewer than 5 ■ 5-10 ■ 10-15 ■ 15-20 ■ More than 20

● Uninsured rate higher than the national average*



New York		Georgia	
Supercenters per million residents	Uninsured	Supercenters per million residents	Uninsured
4.1	**5.4%**	**14.5**	**13.7%**

*WALMART SUPERCENTER COUNT FROM OCT. 31, 2019. UNINSURED RATE FROM 2018. DATA: WALMART, AMERICAN COMMUNITY SURVEY

also boosting sales of prescriptions and over-the-counter drugs. But the cramped clinics, staffed by nurse practitioners, never generated enough business to cover their fixed costs. Six years after opening its first "Care Clinic," Walmart has just 19 in three states. "If you have pinkeye, clinics are great. But they don't really do anything to address the broader health-care needs of people in the community," says Marcus Osborne, its vice president for health and wellness transformation. "You're not helping someone who's diabetic. It's a very limited kind of value."

The two health centers opened in Georgia since last summer are a leap forward. Rather than tucked in a corner of a cavernous Supercenter, they have separate entrances visible from the parking lot. They're run by doctors, with plenty of exam rooms to support a steady stream of patients. Paperwork is almost nonexistent because many appointments don't involve insurance, and administrative functions such as scheduling and billing have been outsourced to a back-office specialist called Zotec. (Walmart accepts insurance, but patients are often better off paying the flat fee, since they don't have to pitch in copayments or satisfy plan deductibles.)

In addition to medical, dental, and eye care, the centers provide X-rays, hearing checks, and diagnostic tests for things like blood glucose and lipids. The range of services can improve the quality of care: If a patient comes in to see the dentist only to learn ▶

● Revenue of Walmart's pharmacy, optical, and over-the-counter drug business in 2018

$36b

◀ his toothache is caused by a sinus infection, he can immediately be handed over to a physician.

Whatever a patient needs, she knows the price upfront—a huge departure from how health care usually works. "If you don't know how much something is going to cost, that's scary and intimidating," says Alexandra Drane, a health-care entrepreneur who's worked as a Walmart cashier. "The first thing you see at Walmart Health is the price list." It set those prices by estimating the cost of common services, copays, and deductibles, then coming in well under that. "We have taken advantage of every lever we can to bring the price of doing all of this down more than any hospital or group practice could humanly do," Slovenski says. "Our goal, just like in the stores, is to get the prices as low as we can."

Slovenski won't disclose how many patients have come through the Georgia centers, saying only that volume is "substantially higher than our expectations." He says Walmart's model lowers the cost of delivering service by about 40%, by reducing what he calls "all that administrative baloney." Some physicians like that aspect, too: Dr. Janki Patel, at the Calhoun clinic, says she spends about 25% less time on paperwork than she did working in rural hospitals around the Southeast. "I don't feel rushed and can spend more time with patients," she says.

It's also filling a void for many locals. In Dallas a local nonprofit clinic staffed by volunteers is open only two days a week, from 8:30 a.m. to noon. That's not enough for Joy Ivey-Obeng, a 28-year-old working on her master's degree who's been uninsured since leaving her last job in July. She recently needed some lab work done quickly over a weekend and visited the Walmart clinic on a Saturday, paying $42, about $10 less than other local options. Afterward, she filled her prescription at the store, even though it would have been cheaper at the Kroger supermarket down the road. "I was already there, I didn't want to go elsewhere," she says.

Walmart is counting on that kind of synergy. "The obvious retail implication of Walmart's move is greater traffic to its stores," says Simeon Gutman, an analyst at Morgan Stanley. Foot traffic is the lifeblood of any brick-and-mortar retailer, and health services could give more shoppers a reason to visit stores in an era when shopping is increasingly done online.

"They have the ability to be one of the largest disruptive forces in health care by addressing some of health care's major issues, including access to care in rural communities, price transparency, and even, to some extent, social determinants of health," says Paul Schuhmacher, managing director of the health-care practice at AArete, a global management consulting firm. "We could be seeing as a norm people going into Walmart for their health care in a lot of communities in this country."

▲ The centers offer the look—and services—of a typical medical clinic

Still, Walmart won't become a health-care destination overnight. It will have only a handful of locations by yearend—the third will open this summer in Loganville, about 45 minutes east of Atlanta—and Slovenski won't say how many he envisions. And only 11% of Americans polled by researcher CivicScience in September said they would "likely" visit a Walmart clinic. Still, if Walmart's goal is to be the front door of U.S. health care, one thing in its favor is that it already controls so many doors to American consumers. "Everyone says, 'Look out, Amazon is getting into health care,'" says Chas Roades, co-founder of consultant Gist Healthcare. "But it's way more scary if Walmart really puts these pieces together." —*Matthew Boyle, with Angelica LaVito and Michelle Cortez*

THE BOTTOM LINE Walmart, which already has a $36 billion health and wellness business, is opening full-service health centers. Its 150 million weekly customers could fuel a lucrative market.

Coping With the Coronavirus Blues

● In China, the homebound millions—and businesses—turn to livestreams to fill the void

One Saturday night about a month into the new coronavirus outbreak, Peter Li was going stir crazy. He couldn't bear to read more about the hundreds of deaths it had caused. He'd have liked to go for a drink, but his regular Beijing haunts were closed. So in the middle of the night, Li—like millions of homebound twentysomethings in China—turned to his phone in search of relief. In Li's case, he watched a livestream from One Third, one of the capital's hottest nightspots. It was empty that night but live online with a pair of DJs pumping out

PHOTOGRAPH: PEYTON FULFORD FOR BLOOMBERG BUSINESSWEEK. ILLUSTRATION BY CHARLOTTE POLLET

electronic dance music. During a five-hour set a few weekends ago, viewers like Li left the club 2 million yuan ($285,000) in tips on the short video platform Douyin, ByteDance's Chinese version of TikTok.

"The virus has cut off some essential face-to-face interaction with my friends, even strangers," says Li, 26. "That's something I've really been missing." To make the streaming experience feel more real, he ordered club-style lights from Alibaba's Taobao e-tail site and stocked up on whiskey. With little to do after work, he says, "online clubbing helps kill time."

The outbreak of Covid-19 has cut a deadly swath across China, home to most of the 80,000 recorded cases. Beyond the health concerns and increasingly dire economic repercussions, tens of millions of people are struggling with a different type of fallout: isolation, the result of containment measures that have forced much of China into indefinite quarantine.

The most internet-friendly parts of daily life have moved online quickly. White-collar professionals are working from home, teachers are leading lessons remotely, and shoppers are doing even more buying online. But for nightclubs, gyms, and other consumer businesses that depend on physical interaction and discretionary spending, livestreaming has emerged as an awkward but effective stopgap measure to maintain contact with customers. "People are joining some virtual communities to seek social connection and a sense of love and belonging," says Xing Cai, associate professor of psychology at People's University of China.

Livestreaming, mostly the domain of avid gamers in the U.S. and Europe, is popular as general entertainment in China. Research firm iiMedia estimates 501 million people tuned in this year to watch a wide range of amateur performers share their lives: sometimes just sitting in their bedroom chatting into a camera, often for hours at a time. Increasingly, viewers are comfortable paying to watch or buying things midstream. More than half of China's livestream audience watched a shopping broadcast in the first half of 2019, and 40% made a purchase.

The quarantine only makes streams more attractive. The audience for Douyin, Kuaishou, and other apps surged to 574 million during the Lunar New Year holiday, up 35% from 2019, according to the consultant Questmobile. Users averaged 105 minutes a day watching online videos, vs. 78 minutes last year.

Eventually, the outbreak will subside, work will resume, and clubs will reopen, but some analysts say this could be the moment when people get truly comfortable working out, cooking dinner, and partying alongside a livestream. "The recent changes in user interest for online entertainment and behavioral shifts could sustain for a longer period," says Citi internet analyst Alicia Yap.

Super Monkey, a Chinese gym with 115 locations, said the number of active users online had recently topped 280,000 during livestreamed classes and boot camps. Rival chain Shape Fitness started livestreaming workouts just days after the epidemic began. "It helps us maintain loyalty of users who have nowhere to go for exercise, and it's a good attempt for us to attract new users during this special period," says founder Zeng Xiang.

Cabin fever has even driven interest in virtual tours of more than 1,000 Chinese museums offered by 4Dage, a startup in Zhuhai that uses 3D cameras to reconstruct spaces. In recent weeks, the tours attracted roughly 100 million views, up from a few thousand prior to the outbreak. The traffic spike caught the company by surprise; it had to call its engineers back from the New Year vacation to handle the demand. "People are bored, they're looking for ways to entertain themselves while they're confined at home," says 4Dage chief adviser Matteo Pallotta. "Youngsters may be hooked on video games, but this provides something for the older generation."

"People are bored, they're looking for ways to entertain themselves while they're confined at home"

Maggie Liu, the owner of One Third, says the success of the nightclub's livestreams should build its customer base and could create an alternative revenue stream once it reopens. The venue is drawing in new listeners, she says, "and turning them into followers who could potentially fly over to feel the vibe." *—Claire Che and Shelly Banjo*

THE BOTTOM LINE With many Chinese unable to go out in public due to coronavirus fears over the extended Lunar New Year break, the audience for livestreaming apps jumped 35%.

Who Pays to Make Big Tech Green?

● Companies like Google have leverage over local utilities as their power use climbs

In the otherwise flat Minnesotan expanse, the whitish-gray mound of coal ash looks mountainous, a permanent cemetery of contaminants next to the twin smokestacks of the Sherburne County Generating Station. This power plant doesn't just run the town of Becker; it pretty much is the town. But within a decade it will close completely. One frigid morning, Greg Pruszinske, Becker's administrator, is staring at the field across from the coal ash pile, where he's placed his hopes for the future.

Overhead, bands of high-tension cables connect to towers near the plant. That infrastructure is one reason Google has pledged to put a $600 million data center here. It needs access to massive amounts of uninterrupted power. "The transmission won't go away" when the coal plant closes, Pruszinske says. "Electrons can come this way, same as they can go the other way."

For almost four decades, Sherco, as locals call the plant, has done two things in abundance: burn coal and pay taxes. It emits more greenhouse gases than anything else in Minnesota, but it also covers 75% of Becker's tax base. Taxes from the plant subsidize a public 18-hole golf course, an uncommon amenity for a town of fewer than 5,000 people, and Sherco employs more than 300 locals to create cheap power for millions. Its transmission towers can deliver more than 2,200 megawatts of power—four times the output of a typical coal plant and enough to run 2.6 million homes, roughly half the state.

By 2016, local officials were worried about Becker's long-term prospects. Sherco's operator, Xcel Energy Inc., was planning to decommission the plant in phases over the next decade or so, and the town, about 50 miles northwest of downtown Minneapolis, seemed to have few options to replace it. So when the utility came to Becker's leaders with word that Google wanted to put a data center near the aging smokestacks—one that would need as much juice as a city of 600,000—they and Xcel were eager to meet the tech company's requirements. "We want to become the coal transition model for other communities across the nation," Pruszinske says.

In exchange for a promise of 50 full-time jobs, Google will be exempt from two decades' worth of local and county taxes, worth at least $14 million. While the data center will run on electricity generated by fossil fuels, Google will buy carbon offsets from wind power suppliers in South Dakota. And Xcel is giving it an initial 10-year discount on its electric bill, which in effect means the utility's other customers will help subsidize that bill.

"Given our scale, we can often find a mutually beneficial structure that increases the amount of renewables in a region, while also meeting our energy goals as a company, and, given the decreasing cost of renewables, do this in a cost-effective manner for the utility serving the existing community," says Google spokeswoman Jacinda Mein. "Not only does Google benefit, but so does the rest of the community in the utility company's service area."

While most companies will gladly use any leverage at their disposal to wring better deals from local officials, Google's arrival in Becker is an object lesson in the unique clout big tech companies' huge power needs give them over local utilities at a moment when few industries' power needs are growing, says Anthony Logan, a researcher at Wood Mackenzie, an energy consulting firm. Every company pursuing a green energy plan "is getting a really good deal," he says. And by locating near an existing power plant, even if it's closing, Google benefits from the infrastructure without having to pay for it, he says.

The lack of transparency surrounding the negotiations can make it hard to figure out whether such deals make sense for the public. "We don't know the amount of savings they are getting," ▶

Edited by Jeff Muskus

ILLUSTRATION BY WENKAI MAO

◀ says Gabriel Chan, a professor at the University of Minnesota who studies energy policy. "The state can go too far and give Google too much, but no one knows what the numbers are actually," he says. "It really does neuter a third party from being able to say if this is in the state's interest."

A week after state regulators approved Xcel's rate deal with Google, Xcel announced that as part of a plan to stop all coal operations in the upper Midwest, it would begin a four-year phased decommissioning of the Sherco plant in 2026, years earlier than previously anticipated. That's a win for the environment, but a blow to Becker. After the announcement, Pruszinske issued a statement asking for state aid. "The coal plant is closing earlier because of a little less political resistance because of the arrival of Google," says Chan.

This isn't the first time Google has located near a coal plant. In 2016 it opened a data center on the site of a former coal plant in rural Alabama, lured by more than $80 million in tax breaks and an undisclosed discount on its electricity. By 2017, Google was preparing for a massive infrastructure expansion. Over the next two years, it would spend about $22 billion opening new data centers across the U.S. Its energy needs, the biggest operating cost for data centers, were set to balloon.

Google also wanted to boost its reputation as the largest corporate buyer of renewable energy. It put itself on a renewable path a decade ago, when Larry Page, then Google's chief executive officer, issued a memo calling for the company to become carbon neutral. (Google was way ahead of cloud computing leader Amazon.com Inc. on this front. Amazon says it expects to be carbon neutral by 2040. Google says it became a zero emitter in 2017.)

Technology companies were far and away the biggest customers for renewable energy credits last year, signing power purchase agreements for 6,400 megawatts of solar and wind—more than triple the No. 2 industry, communications, according to BloombergNEF, which studies renewable energy markets. Google accounted for about 2,700MW of clean energy commitments, with Facebook Inc. next at 1,100MW. Most of Google's total came from what's called a "reverse auction," a timed, public bidding process in which it demanded that wind and solar developers compete to underprice one another.

Google, Facebook, and Microsoft have all reached their 100% renewable energy targets in the past few years. Their demand for electricity, however, has kept climbing at an average of 22% a year. With utilities eager to land large customers in an era of flat electricity demand, more deals like Becker's are almost certainly in the offing.

Utilities and state regulators might find it hard to justify millions in undisclosed rate discounts for mostly automated data centers. It's easier to make the case for factories that provide a lot of jobs. But Google paid Oxford Economics, a commercial research firm, to produce a report about the economic impact of Google's data centers. Oxford concluded that six data centers opened from 2006 to 2008 had proved a boon for local communities: a total of $1.3 billion in economic activity and 11,000 new jobs in just a few years. Google had ultimate control over the information researchers used. A footnote disclosed that only 1,900 of the 11,000 people were directly employed by Google, and the report didn't clarify how many of them were full-time workers in highly paid technical positions as opposed to, say, temporary security guards.

The report's release in early 2018 coincided with Google's active negotiations for land deals, tax breaks, and rate discounts in small towns across the U.S., including Becker. An obscure Google subsidiary called Jet Stream first showed up in filings with Minnesota regulators in June 2017, along with a Google shell company called Honey Crisp Power LLC, a nod to Minnesota's popular apple. In December 2018, Xcel laid out the mysterious companies' demands for rate discounts and access to renewable energy credits from a federally subsidized wind farm in South Dakota. In the heavily redacted 143-page filing, Google was not

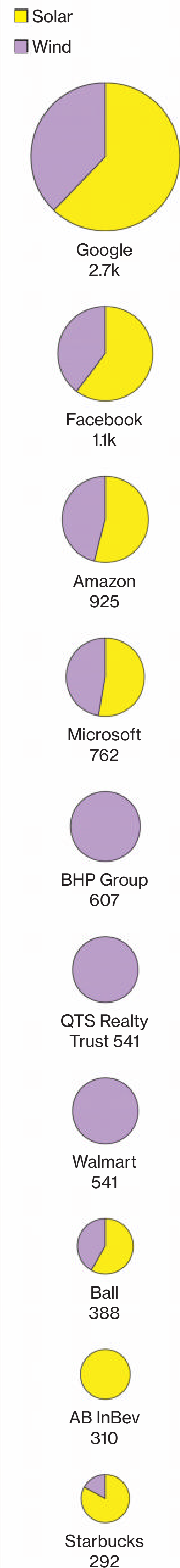
A Facebook By Any Other Name

Google is hardly the only company to shield its identity as it negotiates with local governments and utilities. The practice is becoming standard among the technology industry's biggest companies.

As it builds out its data center footprint, Facebook consistently conditions potential deals on the utmost secrecy. When it first came to Altoona, Iowa, in 2013, the company shrouded its identity under the code name "Project Sequelant." Later it used an obscure subsidiary, Siculus Inc., when negotiating a deal with local politicians who had to sign highly restrictive nondisclosure agreements. By 2018, Facebook had built four massive data centers in Altoona, in exchange for $26 million in tax breaks.

In 2019, Facebook came back for more, and most local citizens had no clue. When the agenda for a City Council meeting was released in early May, it included an item about a development agreement with Siculus, but no further information. Local officials denied media requests for the identity of the company, claiming it was protected by "attorney-client privilege."

It wasn't until the day of the City Council meeting—at the actual meeting—when politicians could finally say Siculus was Facebook, and it wanted $40 million more in tax breaks. Local citizens had only 12 minutes to read the details before it was approved. "We treat our preliminary discussions as confidential because it is a competitive process," says Facebook spokeswoman Melanie Roe. —*Mya Frazier*



PHOTOGRAPH BY ACKERMAN + GRUBER FOR BLOOMBERG BUSINESSWEEK. *ON-SITE POWER PURCHASE AGREEMENTS NOT INCLUDED. POWER FIGURES IN MEGAWATTS OF DIRECT CURRENT. DATA: BLOOMBERGNEF

▲ Pruszinske and Bertram

named and described only as a "large commercial and industrial customer."

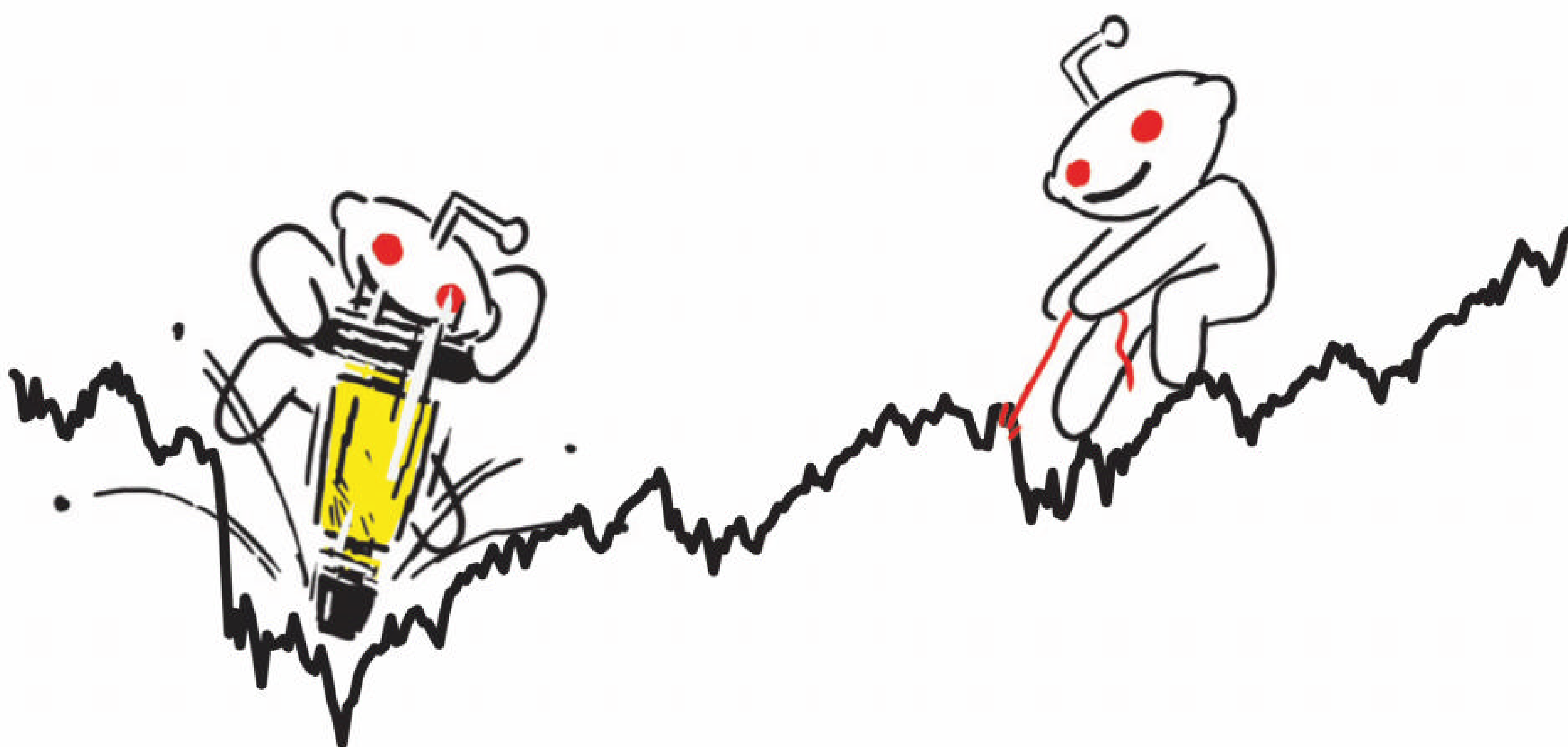
Google's name became public at a Minnesota Public Utilities Commission hearing on May 14 last year. The commission approved Xcel's discount for the company at the hearing, without a public comment period to debate the terms. As part of its rationale for granting the discount, the commission referred to data from the Google-funded Oxford Economics report. "We believe public dialogue is vital to the process of building new sites and offices, so we actively engage with community members and elected officials in the places we call home," says Google spokeswoman Mein. "Of course, when we enter new communities we use common industry practices and work with municipalities to follow their required procedures."

"A city of our size had made it to the global market," says Becker Mayor Tracy Bertram. "For somebody of that magnitude to recognize us, that was a very proud moment for all of us." Bruce Messelt, the administrator of Sherburne County, which will lose $6.2 million in taxes in the deal, says that he'd rather Google had moved to town without the incentives, "but we'll take the better-than-nothing concept for the next 20 years, and then hopefully they'll pay taxes."

Inside a modest conference room in Becker's town hall, Pruszinske stares at an aerial map. A black blotch representing Sherco's coalfield stands out among farmland where fields of russet potatoes, green beans, and seed corn grow in rotation. For the foreseeable future, Google's data center will do little to offset the 75% hole that's going to be punched in the town budget when the coal plant shuts down. "It's been challenging, and I've had some anxiety along with it," Pruszinske says. Still, he's sanguine about Becker's future, pointing out the site of a new metal recycling plant, an expanding trucking company, and scattered warehouses. Other tech companies might even take over more of the farmland, he says, now that Google has noticed Becker. "When I look at this map," he says, "all I see is possibility." —*Mya Frazier. Reporting for this story was supported by the McGraw Center for Business Journalism at the City University of New York's Newmark Graduate School of Journalism*

THE BOTTOM LINE Google's commitments to environmental sustainability have long been ahead of its peers', but it's quietly cutting deals that make sure it doesn't bear all the costs.

Trolls Come to



● Think retail investors are still bored with the long bull market? Check out Reddit

In a dingy corner of the internet is a message board, soaked in profanity, bro-speak, and greed, where posters with handles such as OverthrowYourMasters and yolo_tron campaign for their favorite stocks, putting up screenshots from their online brokerage accounts of their moonshot victories—or showing off their massive losses like badges of honor. Some of them think they've found the key to fast wins on the stock market. Wall Street doubts they're right, but it's getting nervous about what it sees there.

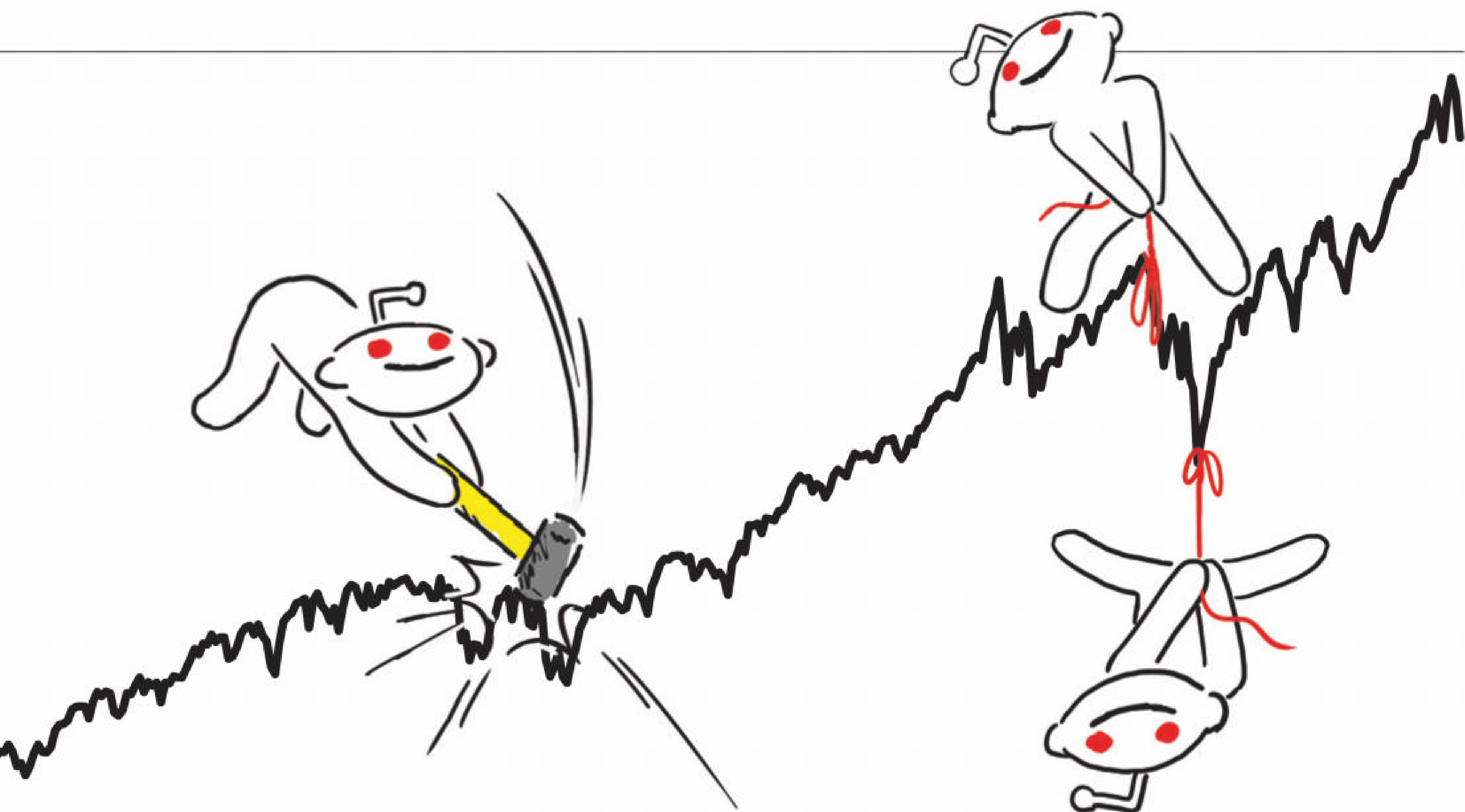
History hasn't been kind to people claiming to have a magic hand. The latest sell-off, driven by a new wave of coronavirus fears, shows how quickly markets can turn on you. But even veteran traders have trouble dismissing a 900,000-user Reddit forum called r/wallstreetbets, or r/WSB for short, whose tips and tactics have shown an uncanny ability to push prices, at least for the short term. Hitherto sleepy companies such as Virgin Galactic Holdings Inc. and Plug Power Inc. went crazy shortly after being mentioned there. The board may have added a little froth to Tesla Inc.'s $90 billion rally.

The do-it-yourself traders of r/WSB are waging a kind of guerrilla warfare in the markets, trying to exploit what they see as weaknesses in the system to move prices where they want them. For anyone who wondered about where the small day traders who made the 1990s so wild went, meet the 2020 version. After years of indifference, individual investors seem to be finding their way back to stocks, for better or worse. They're flexing muscles in ways that can easily call to mind excesses from the dot-com era.

"There is no denying the fact that in the month of February 2020, the public is back," says Julian Emanuel, chief equity and derivatives strategist at BTIG LLC. He thinks the S&P 500 can jump an

Edited by Pat Regnier

ILLUSTRATIONS BY MATIJA MEDVED



The Stock Market

extra 10% because of small-investor enthusiasm. “This bull market is not going to end until the public falls in love with stocks, and that process may just be beginning.” Of course, timing the moment when irrational exuberance gives way to a mass exit isn’t so easy. Chatrooms where stocks were hyped are seminal artifacts of the 1990s boom and the following bust. They were a setting for bare-fisted digital brawls among all manner of hustlers and promoters, many of whom could move shares on a dime—sometimes just long enough so they could get out and leave others holding the bag.

Twenty years later, one thing that’s changed is the nomenclature. It’s frequently both juvenile and objectionable. For Reddit’s band of self-styled “autists”—a term of endearment, relatively speaking, that crudely leans into stereotypes surrounding extremely online people—the chief prize is “tendies” (chicken tenders, the treat an overgrown man-child receives for being a “Good Boy”). Figuratively speaking, tendies are the financial rewards that follow from a successful bold wager. Bears are usually referred to in homophobic terms.

What this moment shares with 1999 is a rising belief that someone else will come along to buy a surging stock at an even higher price, regardless of fundamentals. But while traders at the end of the millennium were willing to wait around for a “greater fool” to show up, this generation believes it can conjure up those buyers through its own trading sleight of hand.

Members of r/WSB believe they’ve discovered a kind of perpetual motion machine in the interplay of stocks with options contracts, which offer a cheap way to bet on whether shares will rise or fall without buying the stock itself. It goes like this: Members make bets that rely on market makers, the professional middlemen who sell you a “call” (a bet on shares rising) or a “put” (a wager on a decline). Market makers, like good bookies, don’t want to go out on a limb. When taking a bet, they lay off the risk. If someone buys a call, for instance, ▶

◀ speculating on a rally, the dealer buys stock in the underlying company. If the stock rises, the dealer may have to pay out on the option—but that's offset by the gain on the shares.

When shares keep rising, managing the hedge entails buying more stock. That's where the Reddit set perceives a weakness. A favorite tactic on r/WSB is to swamp the market with call purchases early in the morning in an attempt to force dealers to keep buying stock. Up and up everything goes—supposedly. As the stock price rises, so does the value of the calls, often by far more.

In this worldview, the only constraint on success is the force of one's own conviction and willingness to act upon it. An added attraction: It's all relatively cheap in terms of an option's simple dollar cost. For the price of one share of Amazon.com Inc.—about $1,965 on Feb. 25—a decent-size campaign can be waged in long-shot options trading for pennies. That matters nowadays, when the rise of exchange-traded funds and mutual funds has convinced U.S. companies that they no longer need to split their stocks to keep the share price manageable for retail investors. Many companies now trade for three or four figures a share.

To be clear, there's no magic money machine in options. The middlemen of the market are hardly the only players buying and selling stocks. If the rest of the market sees a reason to sell a company, it won't matter that r/WSB is pushing it. While options can produce eye-popping gains, they frequently expire worthless.

But suddenly bullish individual investors are putting their mark on the options market. How influential have they become? Typically puts are in higher demand than calls because traders are more interested in hedging against losses. That's often not the case now—with some stocks, demand for the bullish calls is higher. "This is not normal," said Amy Wu Silverman, an equity derivatives strategist at RBC Capital Markets, on Bloomberg TV recently.

Benn Eifert, chief investment officer at QVR Advisors, was initially skeptical that the money behind these online message boards could sway anything. He changed his mind. "At least from the dealers"—the middlemen—"they'll tell you in big tech names, flows are substantial, and it's moving things," he says. Smaller stocks are even more sensitive to sudden bursts of attention.

BTIG's Emanuel says it's hard to say whether today's chatrooms or those in the late 1990s have bigger sway. "When I was sitting in a proprietary trading room in 1999, you would see certain stocks be mentioned on message boards, and the process would then be one person saying to another, 'Hey, this looks interesting,'" he says. "Now you see something on a message board, and you might not necessarily see a continued discussion." Instead, computerized traders automatically jump in. "As a human you never actually see the flow because it's going electronically," Emanuel says. In other words, don't just wag a finger at message boards—look at the supposedly sophisticated algorithmic traders that are following them.

Members are aware that questionable thinking underpins their bets, to the point of self-deprecation. After user SolTrainRnsOnHolGran wondered whether r/WSB's activities might constitute insider trading, a user named recentlyunearthed replied, "How can we have insider knowledge when we don't have any knowledge?"

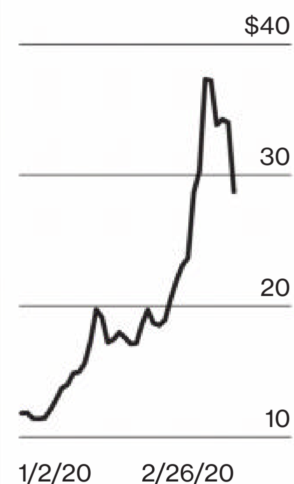
The forum's zest for call options is a key force behind a broad market trend. By one measure, the value of options traded rose 77% over the first six weeks of 2020. Much of this expansion was concentrated in a handful of stocks popular among individual investors, says John Marshall, head of derivatives research at Goldman Sachs Group Inc. "The size of the increase in options volumes is definitely moving the needle," he says.

The average number of contracts purchased in a single-stock option trade shrunk to just 6.7 contracts in 2020, roughly half what it was in 2015, says Henry Schwartz, president of Trade Alert LLC. Looking at the combination of small orders and heavy trading volume, he concludes, "Really, retail is the only audience."

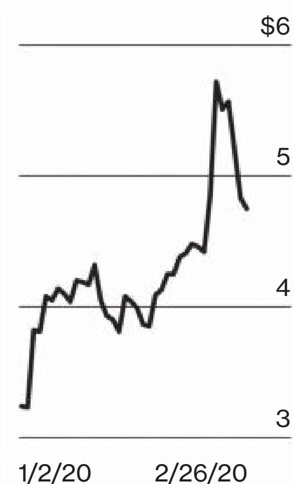
As the swashbuckling day trader's imprint on the market becomes more pronounced, moderators are getting stricter in their policing of the board—or "sub," for subreddit. One user, who'd been a member for three years without posting, laid out the bull case for Lumber Liquidators Inc. and promised another pick the following morning. Call volumes in the company jumped to 71 times the previous one-month average, with shares rising 18.6%. This user was promptly banned from r/WSB upon providing the next tip, with a moderator claiming that the poster "tried to use the platform for personal gain." Members were warned that any interactions with the user on Reddit or discussion of the user's latest recommendation would also get them kicked out. "This sub is a travesty," wrote user Deftech1, complaining about the influx of those looking for—or pushing—get-rich-quick schemes. "Can we just go back to losing inordinate amounts of money?" —*Luke Kawa*

THE BOTTOM LINE Chatter on a Reddit message board is pushing up prices on some stocks and reshaping the options market. Retail traders are back—for better or for worse.

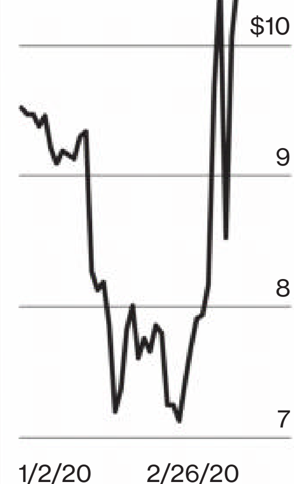
▼ Virgin Galactic stock price



▼ Plug Power stock price



▼ Lumber Liquidators stock price



Say Goodbye to the Standalone Broker

● Retail traders may be back, but commissions are down to zero. So brokers are racing to merge

Throw dirt on it. The era of independent online brokers is over.

It was Charles Schwab Corp. that plunged the knife in, but the sale of ETrade Financial Corp. in February was the last gasp. Schwab's purchase of TD Ameritrade Holding Corp. to create a $5 trillion monster serving customers who trade stocks in their pajamas for free made it impossible for ETrade to continue as it was. Morgan Stanley swooped in, and for $13 billion in stock it gets to clothe itself in ETrade's digital street cred, attracting younger, tech-savvier clients to a bank whose reputation is staid even by Wall Street standards.

Of course, newer trading platforms such as Robinhood, which was charging zero commissions before it was fashionable, have threatened to render ETrade yesterday's news. That doesn't seem to matter to Morgan Stanley. Its mission is to absorb ETrade's customers. Morgan Stanley Chief Executive Officer James Gorman said in a conference call on Feb. 20 that he expects ETraders—perhaps after they get better jobs, rack up some debt, and put on a few pounds—to sign up for financial products geared toward the more standard Morgan Stanley customer. That is to say, an older and wealthier investor.

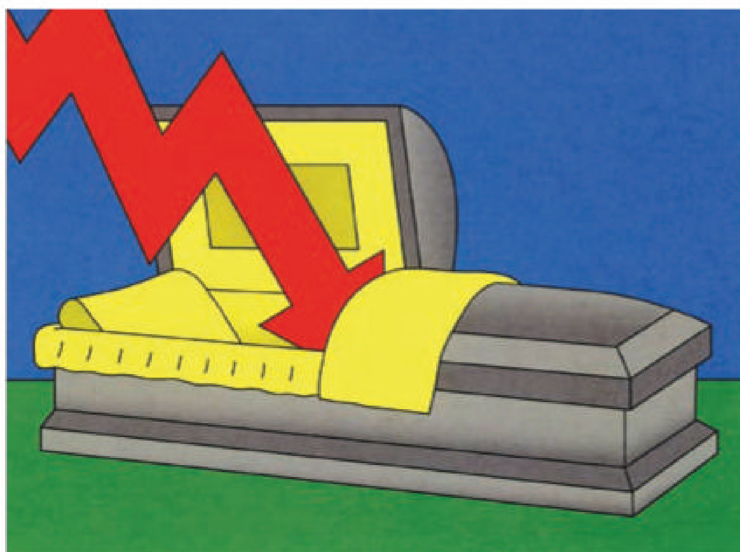
"It was an act of desperation by Morgan Stanley," says Jack Ablin, chief investment officer of Cresset Capital Management, a Chicago-based wealth-management firm. "Anyone who has a Morgan Stanley account probably still has a full cable-TV package."

ETrade, founded in 1982, had its peak success during the dot-com bubble of the late 1990s. At the time it was among a group of upstarts rankling the financial establishment, challenging the notion that it should cost big bucks just to place a stock trade. Its TV commercials, featuring dancing chimpanzees and toddlers trading on mobile phones, poked fun at companies like Morgan Stanley, for whom jacked-up fees were considered a divine right.

In the beginning, ETrade's startup environment was as wacky as they get. Christos Cotsakos, the CEO through 2003, used to say the company's culture had "a lust for being different." He'd make employees carry around rubber chickens, wear propeller beanies, or stand on a chair and reveal something intimate about themselves to colleagues.

But ETrade made a series of stumbles as the industry shifted. In the early 2000s it charged $14.95 per trade when competitors had dropped the price to $8. In 2007 the hedge fund Citadel bailed it out, injecting $2.5 billion in cash into its balance sheet and purchasing its $3 billion in toxic asset-backed securities for 27¢ on the dollar.

More recently, ETrade decided to tough it out alone even as consolidation took hold among its peers. As one of the smaller brokerages by market value, it was long seen as a potential acquisition target for a firm such as TD Ameritrade, which bought Scottrade in 2017. When ETrade executives wrapped up a detailed review of the company's business in October 2018, they surprised analysts and investors by recommitting to remaining independent. ETrade may have fetched a higher price then, when its shares were trading higher. "They missed an opportunity," says Rich Repetto, an analyst at Piper Sandler & Co. ETrade didn't immediately respond to a request for comment.



Schwab changed everything a year later. The pioneering online brokerage pushed trading commissions to zero, forcing ETrade and others to do the same. Although commissions didn't account for quite as large a share of ETrade's revenue as they did at its competitors, the change still came as a blow, eliminating a business line that accounted for about 15% of its net revenue in 2019.

The Wall Street establishment was once the enemy for ETrade and Morgan Stanley the worst example that its chimps mocked in TV ads. But it's time to blow taps. That world is over. To ETrade, the old-guard institution now looks like something very different: a lifeline. —*Annie Massa*

THE BOTTOM LINE Electronic stock trading has become so commoditized that big players are giving it away in hopes of drawing in customers for other products.

ILLUSTRATION BY XAVIER LALANNE-TAUZIA; DATA: COMPILED BY BLOOMBERG

Penciling Out a Pan

● One forecast has the new coronavirus wiping out $1 trillion in world output

The global economy had seemed to be improving as the anxiety caused by the trade wars and Brexit eased. Suddenly, however, the world is confronting the specter of the first truly disruptive pandemic of the era of globalization.

With the death toll in the coronavirus outbreak approaching 2,800 and approximately 82,000 cases officially recorded across 30 countries, some economists are war-gaming what an uncontrolled outbreak could mean for global growth.

Oxford Economics Ltd. figures an international health crisis could erase more than $1 trillion from the world's gross domestic product. That would be the price tag for a spike in workplace absenteeism, lower productivity, sliding travel, disrupted supply chains, and reduced trade and investment.

Investors are already nervous. In the U.S. a multiday rout wiped out stock gains for the year, while yields on 10-year government bonds touched record lows. "The market is pricing in a significant slowdown in GDP and a 10% impact on earnings," says Zhiwei Ren, portfolio manager at Penn Mutual Asset Management.

For now, central bankers and governments continue to bet that the virus won't damage the world economy by much and that there will be a rapid rebound once the illness is contained. But that confidence is being tested. While the International Monetary Fund reckons the virus will force it to knock only 0.1 percentage point off its 3.3% global growth forecast for 2020, IMF Chief Economist Gita Gopinath said in a Feb. 24 Yahoo Finance interview that a pandemic would conjure "really downside, dire scenarios."

Broadly speaking, the current outbreak comes close to the technical criteria for a pandemic—a situation where a new virus, against which most people do not have immunity, mushrooms across multiple continents. The World Health Organization has already raised its highest level of

Edited by
Cristina Lindblad

◀ Milan's Piazza della Scala. The outbreak could tip Italy into recession

alarm about the novel virus, yet at a Feb. 24 press conference Director General Tedros Adhanom Ghebreyesus stopped short of labeling the situation a pandemic.

Nevertheless, the protracted shutdown of Chinese factories and the spread of the virus to South Korea, Iran, and Italy raise the specter of much greater death and disruption.

The virus risks tipping Italy into a recession that could hurt the rest of Europe, too. South Korea's economy is being buffeted, with consumer confidence plunging to its lowest level in five years. In Iran, the virus is putting further strains on an economy already being sapped by U.S. sanctions. The U.S. Centers for Disease Control and Prevention warned Americans to prepare for a coronavirus outbreak at home.

UBS Group AG Chairman Axel Weber is already far more pessimistic than the IMF, warning that global growth will experience a massive drop, from 3.5% to 0.5%, and that China will contract in the first quarter. "The much larger downside risk is that this continues to be a problem," the former president of Germany's central bank told Bloomberg TV in Riyadh on Feb. 22, where Group of 20 finance chiefs hinted at collective worries about the dangers of the virus.

How to assess the risk is complicated by doubt over how far the coronavirus will spread. In an analysis that predates the current outbreak, the World Bank calculated that a destructive pandemic could result in millions of deaths and pointed to how even conservative estimates suggest such an experience might destroy as much as 1% of global GDP. A disastrous health crisis akin to the 1918 Spanish flu, which may have killed as many as 50 million people, could cost 5% of global GDP, the Washington-based lender said in a 2015 report.

A March 2016 paper co-authored by former U.S. Treasury Secretary Lawrence Summers likened the annual financial impact of a pandemic flu to the long-term yearly cost of global warming. It calculated that if pandemic deaths were to exceed 700,000 per year, the combined cost to the world economy because of illness and lives lost prematurely, along with unrealized earnings, would total 0.7% of global income.

If the current coronavirus leads to a pandemic, Oxford Economics suggests the impact may cost the equivalent of 1.3% of global output, with recessions in both the U.S. and euro zone in the first half of 2020. It describes such a scenario as a "short but very sharp shock on the world economy."

Aside from containment of the disease, one mitigating factor—and a major unknown for economists modeling the outcome—will be the actions of central banks and governments to cushion the effects. "When we entered the year we certainly didn't think that central banks would be as eager to cut interest rates and to become even more supportive," says Nannette Hechler-Fayd'Herbe, head of global economics and research at Credit Suisse Group AG. "Now the answer is going to be quite dependent on how the coronavirus spreading is going to continue."

"The market is pricing in a significant slowdown in GDP and a 10% impact on earnings"

Yet for Drew Matus, chief market strategist at MetLife Investment Management, monetary policy alone would probably be insufficient. "My guess would be you actually can't solve it with interest rates," he told Bloomberg TV on Feb. 24. "People are worried about their families, worried about their health—25 basis points doesn't do it in terms of encouraging people to go out there and spend." *—Craig Stirling, Enda Curran, and Catherine Bosley, with Francine Lacqua, Tom Keene, Joanna Ossinger, and Manus Cranny*

THE BOTTOM LINE Economists are mining history to figure out the economic hit from a coronavirus pandemic. An episode on the scale of the Spanish flu could erase 5% of global GDP.

PHOTOGRAPH BY CHIARA GOIA FOR BLOOMBERG BUSINESSWEEK

Putting a Price on the Boris Bounce

● The U.K. prime minister is poised to bring a decade of painful austerity to a close

U.K. Prime Minister Boris Johnson led his Conservative Party to its biggest victory in a national election since the days of Margaret Thatcher by persuading voters in former industrial heartlands to vote Tory for the first time. Johnson promised to "get Brexit done" after years of political gridlock and duly delivered on Jan. 31, when Britain formally left the European Union. But if he is to retain support in some of the poorest parts of the country, he must now address the grievances of those who feel economically marginalized.

As the face of the 2016 campaign to leave the EU, Johnson skillfully harnessed anger over almost a decade of cuts to public services and the erosion of living standards to build support for Brexit. Now he's promised to "level up" struggling regions, leaving no doubt that Britain is about to open the spending taps. The only question is how much. The answer will be contained in the boxy red briefcase that the finance minister, Rishi Sunak, will carry into Parliament on March 11, when he presents the administration's first budget. (The so-called red box ritual dates to the 1860s.)

A power struggle over who should control the economy—Johnson or the Treasury—saw Sunak's predecessor, Sajid Javid, resign on Feb. 13. The appointment of Sunak, a young politician who owes his meteoric rise to the new prime minister, has fueled speculation that the boost in spending for the fiscal year that begins in April could be even greater than the more than £30 billion ($39 billion) Javid had pledged.

Either way, Britain is headed for the biggest fiscal stimulus since the early 2000s, when the Labour Party was in power. The expectation is that the U.K.'s budget deficit is set to increase significantly from the £44 billion or so estimated for the current fiscal year. Investors appear sanguine about the prospect, with yields on government bonds close to record lows.

For now, Johnson is basking in what's being called the "Boris bounce." His election win removed the crippling uncertainty over Brexit, buoying confidence among businesses and consumers. London home prices are growing at their fastest pace in more than two years. Both S&P Global Ratings and Fitch Ratings upgraded their U.K. assessment after the election.

If Johnson gets it right, the budget could buttress the economy at a challenging time, as the spreading coronavirus roils global markets and Britain begins the enormous task of negotiating a trade deal with the EU. If talks fail, the country will once again face a disruptive rupture with its largest trading partner.

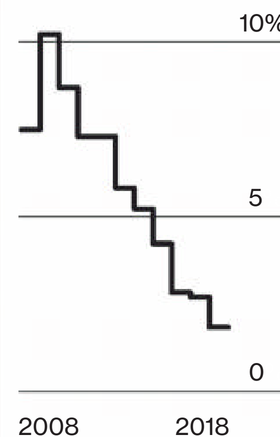
Politically, the budget could also help bolster Johnson's power. It's early days, but he has a huge 80-seat majority in the House of Commons, and Labour is still reeling from its worst election result since 1935.

The Conservatives inherited a budget deficit equal to 10% of gross domestic product, the highest in British peacetime, when they took office in 2010 in the aftermath of the financial crisis. The shortfall is now just under 2%. But the squeeze—amounting to more than £100 billion of spending cuts and tax increases over the course of a decade—has been brutal. The National Health Service and education were protected, but few other areas of society escaped the ax. Deep cuts were made to welfare and social care. A debate over the links between rising knife crime and cutbacks to funding for policing and community centers rages on.

The impact of austerity was back in the spotlight in late February when a nonpartisan study found that life expectancy in England stalled over the past decade for the first time in more than a century and is in outright decline among women in the poorest regions, such as North East England. Its author, Michael Marmot, who heads the Institute of Health Equity at University College London, blames spending cuts that have left many resorting to food handouts and insecure, low-paid work. "If health has stopped improving, it is a sign that society has stopped improving," he says.

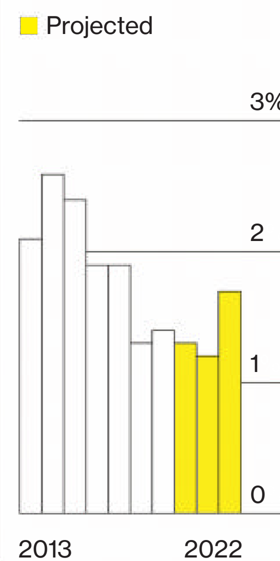
Johnson's budget is expected to target areas such as the North East and the Midlands with billions of pounds for infrastructure, on top of money already pledged for public services such as schools, hospitals, and policing. Javid committed himself to balancing day-to-day spending and revenue but gave himself room to spend an extra £20 billion on capital projects including railways, roads, and broadband networks. As those fiscal rules were election commitments rather than

▼ U.K. budget deficit as share of GDP



▼ U.K. real GDP growth, year-over-year

Projected



law, Sunak could easily relax them if he wants to increase spending further or cut taxes. The timing for a fiscal stimulus is propitious: The cost of borrowing for investment has never been cheaper, with yields on 30-year U.K. bonds now below 1%.

Johnson inevitably invites comparisons with Donald Trump. Both rode waves of popular discontent and they stand outside the fiscally conservative traditions of their own parties. The fiscal boost being prepared in the U.K. could exceed that in the U.S. in 2018, which the International Monetary Fund estimates at around 1.3% of GDP.

But there are key differences. The Trump stimulus cut taxes more than it increased spending, and the effect was immediate but short-lived. Officials had hoped businesses would use their tax savings to increase investment, but so far this hasn't been the case. That may be due partly to uncertainty created by Trump's trade wars, as White House Chief Economist Tomas Philipson recently acknowledged.

Johnson's budget, with its emphasis on capital spending, may take longer to feed through. Infrastructure projects take time to come onstream, and some proposals could fall by the wayside. However, investment ultimately delivers a greater economic impact than tax cuts, not least because wealthier individuals often save rather than spend their tax windfalls. Infrastructure spending can also eliminate bottlenecks and elevate the growth potential of an economy in a more lasting way.

"The debate around fiscal policy in the U.K. was turned on its head in the recent election," says Dan Hanson of Bloomberg Economics. "A discretionary loosening of about 1.5% GDP in the coming fiscal year, which is possible if the government manages to find enough shovel-ready investment projects, would have been unthinkable under recent Conservative administrations. And with Sunak rumored to be considering ditching the fiscal rules he inherited from his predecessor, the giveaway could be larger still."

The end of austerity in Britain comes amid a global debate over the role of fiscal policy. A decade of crisis-fighting has left central banks depleted, and they've been pleading with politicians to use whatever resources they have to pump money into their economies. The call has so far fallen on deaf ears in Germany, whose devotion to budget rectitude is unparalleled in Europe. France, on the other hand, has reaped clear benefits from loosening its purse strings. The tax cuts President Emmanuel Macron enacted to appease the antigovernment Yellow Vest protesters proved well-timed, stimulating the economy in 2019, as the manufacturing recession took hold in Europe. Growth still slowed, but France's 1.3% was better than the euro zone average of 1.2% and more than twice Germany's rate.

Growth in Britain is expected to slow this year but rebound in 2021 and 2022, with robust government spending and investment. Johnson is hoping the momentum extends as far as the next general election in 2024, when voters will decide whether the new prime minister has lived up to his promises. *—Andrew Atkinson*

THE BOTTOM LINE Johnson is prepared to depart from his party's fiscally conservative tradition to make good on his promise to "level up" Britain's struggling regions.

DATA: OFFICE FOR NATIONAL STATISTICS, BLOOMBERG ECONOMICS

Shutting Down Canada

● To kill a pipeline project, demonstrators are targeting transport links, paralyzing industry

The long-simmering conflict between Canada's indigenous people and its leading industries has boiled over again, but this time it's not just delaying a pipeline or halting a logging project—it's threatening to hit an already shaky economy.

The latest flare-up started in January, when members of the Wet'suwet'en First Nation in British Columbia blocked roads to try to halt construction of the Coastal GasLink natural gas pipeline through their lands. In recent weeks, protesters showing solidarity with those Wet'suwet'en have blockaded rail lines, ports, and other key economic arteries.

"This is a dress rehearsal for illegal protests on pretty much any major project"

The demonstrations have backed up cargo ship traffic, temporarily halted the nation's passenger rail service, and caused more than 400 freight train shipments to be canceled, delaying deliveries of oil, grain, propane, and consumer goods. The protesters, who use the hashtag #ShutDownCanada, are taking on new targets every day. The disruptions may knock first-quarter economic growth in Canada to a 1.5% annualized rate, down from a previous estimate of 1.8%, according to Capital Economics analyst Stephen Brown.

Prime Minister Justin Trudeau, whose Liberal ▶

◀ government has made a priority of improving relations with First Nations, initially struck a conciliatory tone, instructing his ministers to reach out to indigenous communities. But on Feb. 21, Trudeau said efforts to arrive at a negotiated solution had failed and signaled that he'd be open to police intervention. "We cannot continue to watch Canadians suffer shortages and layoffs," the prime minister told reporters. "The barricades must now come down," he said.

Trudeau's initial overtures to the protesters angered some business leaders and Conservatives, a few of whom pressed the government to use force to swiftly end the demonstrations. Alberta Premier Jason Kenney, whose oil- and gas-rich province stands to benefit from the natural gas pipeline, criticized the protests as "ecocolonialism" by urban Canadians who are projecting their "fringe political agenda" onto indigenous people. "This is a dress rehearsal for illegal protests on pretty much any major project," Kenney said at a Feb. 11 press conference.

The major project Kenney may have in mind is the Trans Mountain pipeline expansion, a much larger development than the gas line at the center of the Wet'suwet'en protests. The C$12.6 billion ($9.5 billion) Trans Mountain project seeks to roughly triple the capacity of an oil pipeline running along a 1,150-kilometer (715-mile) route from Edmonton, through the Rocky Mountains, to a shipping terminal near Vancouver.

The opposition to the project has been so fierce that the pipeline's original owner, Kinder Morgan Inc., threatened to scrap the expansion, prompting Trudeau's government to swoop in and buy the pipeline in 2018. Construction started in late 2019 and is scheduled to resume in earnest this year after the winter freeze ends, possibly kicking off a new round of protests.

This isn't the first time Canada's indigenous communities—which account for about 5% of the nation's population—have clashed with industry. In the 1990s more than 10,000 people protested logging activities along Clayoquot Sound on Vancouver Island, leading to almost 1,000 arrests. The latest demonstrations have the support of about 39% of Canadians, while 51% support the natural gas pipeline, according to a poll released by the Angus Reid Institute on Feb. 13.

Canada's First Nations aren't united in their opposition to the Coastal GasLink line. The project has the support of all 20 indigenous communities along the line's route, according to TC Energy Corp., including the elected council of the Wet'suwet'en. The main source of resistance to the project is a number of the Wet'suwet'en hereditary chiefs. TC Energy has said it's working with indigenous groups to provide them the opportunity to acquire a 10% stake in the line.

There are already precedents for such deals. The Fort McKay and Mikisew Cree First Nations own 49% of a Suncor Energy Inc. oil storage facility near Fort McMurray, Alta., an investment that was financed in part with a C$545 million bond sale in 2017.

At least three indigenous-led groups have drawn up competing proposals to give First Nations a chance to buy a stake in the Trans Mountain pipeline. The groups are attracted to the idea of having a reliable source of revenue. They're also aware that providing the project with an imprimatur of indigenous approval could help it overcome resistance from local communities.

▲ Wet'suwet'en hereditary chiefs at a January rally in British Columbia

JASON FRANSON/THE CANADIAN PRESS/AP PHOTO

Chief Mike LeBourdais, who leads the Pellt'iq't people near Kamloops, B.C., has organized a group of communities seeking to buy a majority stake in Trans Mountain. "This pipeline is important to Canada, and that's the bottom line," he says. "If we want doctors and standing armies and Royal Canadian Mounted Police and a health-care system, then you get the pipeline done. I'm trying to help them do that."

But support from groups like LeBourdais's may not be enough to head off protests. Kanahus Manuel, a member of the Secwepemc people, lives in a community of tiny houses in the mountains of central British Columbia, near where a 1,000-person work camp is planned for the builders of the Trans Mountain expansion.

Manuel says she and a group of fellow Secwepemc people are going to put up a fight, and they have supporters and friends ready to join them. "Canada purchased the pipeline to de-risk it," Manuel says. "The risk is us." *—Kevin Orland and Robert Tuttle*

THE BOTTOM LINE Disruptions to rail and port traffic in Western Canada caused by demonstrations against a planned gas pipeline could knock first-quarter growth to 1.5%.

In schools to unlock potential.

At the beginning of his freshman year, Jalen's ambition wavered. He lost sight of his goals and found himself straying from his path. Toriano from Communities In Schools became his trusted guide, working with Jalen to improve his attendance, raise his GPA and set clear goals for the future. Now a senior, Jalen is a first-chair trombone player and drum major in his high school marching band. He's exploring musical scholarship opportunities for college, and he has dreams of becoming a U.S. Marshal. There are millions of kids like Jalen who need a caring adult to help them stay in school and succeed in life.

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Pedestrians in protective masks walk past surveillance cameras in Shanghai

Surveillance State Vs. the Virus

● Paranoia sets in as China's government ramps up blanket tracking not designed for an outbreak

For decades, China has been building and refining the ability to track its citizens' whereabouts and interactions to control dissent and protest. The state's efforts to contain the rapid spread of the new coronavirus are now testing the limits of that surveillance system.

To slow down any virus, it's important to interrupt person-to-person transmission. Officials in China have used a mix of high- and low-tech to find and monitor people who may have been exposed to the virus, which had infected more than 78,000 and killed upwards of 2,700 in the country as of Feb. 25. Authorities have sourced data from phone carriers and called on private tech companies to set up virtual health hotlines to trace everyone who's been in or near Hubei province, home to Wuhan, the epicenter of the outbreak. They've also activated an extensive network of Communist Party members and community groups, encouraging citizens to monitor neighbors' vital signs and whereabouts.

A 25-year-old who studies in Wuhan told Bloomberg News he was surprised when officials found him about 300 miles north in his hometown of Henan. The postgraduate student, who asked not to be named because he feared police retaliation, left Wuhan in early January. Two weeks later a Henan police officer called, saying he suspected the student had visited the seafood market where the virus was thought to have originated and asked if the student was feeling all right. Soon, the

Edited by
Rebecca Penty

student was overwhelmed by calls and visits from health officials, police officers, and other authorities; doctors came to take his temperature daily for two weeks. He hadn't contracted the virus. Overwhelmed, the student turned off his phone.

Mobile phones–which, like social media accounts, are linked to Chinese citizens' national identity numbers–are an integral part of China's surveillance. Now they're a key part of its virus-containment efforts. China's Big Three state-owned phone carriers have responded to the call last month by the Ministry of Industry and Information Technology to contribute data to fight the outbreak. As of Feb. 12, China Mobile Ltd.'s 300-strong big-data team had fulfilled more than 400 government requests for information on people's movement. China Telecom Corp. has helped 24 provinces install a system that lets officials and medical staff record and monitor people's personal, health, and travel information. It's also adding systems at office buildings that track people's identities and health through facial recognition and infrared temperature scanners.

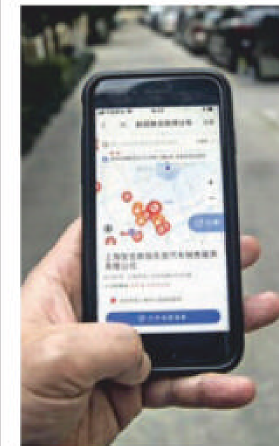
Technology from Tencent Holdings Ltd.'s WeChat and Alibaba Group Holding Ltd.'s Alipay is also helping the government monitor people's movements. The companies developed a color-coded health-rating system to identify people as high-, medium-, or low-risk. The system scans people seeking to enter offices, malls, and subways and allows or denies them access based on their ratings. Hubei and other provinces are requiring anyone selling cough or fever treatments to report the buyers' identities.

The new tools are intensifying the paranoia that's setting in as some of China's 1.4 billion people isolate themselves at home, with little to do but search the internet. Baidu Inc.'s map function now shows how crowded a neighborhood is so people can avoid congested areas, while WeChat has added functionality so users of its social network can see if they're in the proximity of confirmed virus cases. WeChat and microblogging site Weibo have set up online services where people can report friends, family members, and neighbors who might be sick or who aren't taking proper quarantine precautions.

Since late January, spreadsheets and lists identifying people living in or returning home from Wuhan have been circulating around social media, including on Weibo. A Wuhan resident included in one of the lists says he recently received an influx of strange calls. The resident, who asked to remain anonymous to prevent further harassment, says he quarantined himself alone at home for 14 days because his parents both tested positive for the virus. His mother recovered after spending four days in the hospital, while his father remains at a local hospital.

Across the country, scores of neighborhood committee members have been deployed to take people's temperatures each day and record their whereabouts. Earlier in February, a group of young women in red down jackets and flimsy surgical masks went door to door in Beijing's Shichahai neighborhood with clipboards to record residents' temperatures, ID numbers, and recent travel. One, a party member who says she oversees 500 households, told a Bloomberg reporter that as a disease-prevention measure, the community would now restrict outsiders from entering–including grocery deliverymen–on orders "from above."

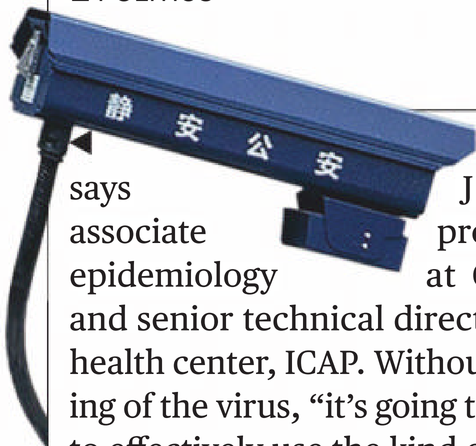
The panic and fear that blanket surveillance creates could actually undermine efforts to contain the epidemic. China had come under criticism for silencing doctors in Wuhan who suspected early on the virus was serious, and the suspicion facing people thought to be potentially ill could discourage the transparency needed to engender trust and fight an epidemic, says Stuart Hargreaves, a law professor at Chinese University of Hong Kong who researches surveillance and privacy issues. "If you had an approach that encouraged the reporting of 'negative' information, rather than punishing it, then this outbreak might have been limited at a much earlier point," he says.


▲ A Baidu app shows crowded places to avoid

It's also not clear that the use of mass surveillance will be effective. While it might seem useful to have full oversight of citizens' movements and vital signs, making use of data on that scale requires manpower and training that China's police force lacks, says Suzanne Scoggins, an assistant professor at Clark University. Scoggins, who researches policing and authoritarian control in China, says tracing the spread of a virus is different from tracking the movements of dissidents or criminals. "This is still relatively new technology that is likely being used in a way that is different from its original design," she says. "It may help some, but we shouldn't expect it to contain an outbreak."

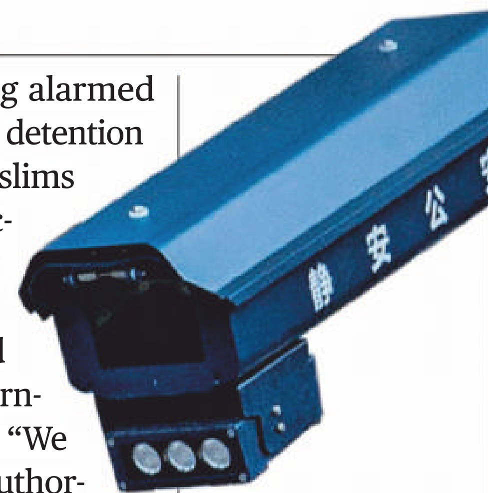
Blanket surveillance is different from so-called contact tracing, a practice that goes back centuries to map a disease's spread, most famously when Dr. John Snow used it to find the source of the 1854 cholera outbreak in London–a water pump. The usefulness of high-tech surveillance tools will be limited until officials identify the incubation period of the new coronavirus and develop rapid diagnostic tests and ▶

QILAI SHEN/BLOOMBERG (2); CAMERAS: GETTY IMAGES (2)



effective treatment, says Jessica Justman, associate professor of medicine in epidemiology at Columbia University and senior technical director of its global public health center, ICAP. Without a better understanding of the virus, "it's going to make it much harder to effectively use the kind of cellphone and other data people are imagining," says Justman, who's gone door to door across Africa, testing people for HIV to map its spread and provide them with treatment options.

Person-to-person transmission of this coronavirus may be particularly difficult to stop, because it may be highly infectious before symptoms are apparent, says Keiji Fukuda, director of University of Hong Kong's School of Public Health and a former adviser to the World Health Organization on pandemic influenza. If patients don't realize they're sick, they're less likely to stay home or take other precautions.



China's surveillance system has long alarmed human-rights advocates, who point to the detention of about 1 million Uighur and other Muslims in the western region of Xinjiang, restrictions on the open web, and tightening social control. That's led to concerns about how this new flood of tracking and data collection might be used by the government, even after the outbreak has passed. "We need to make it very clear what health authorities are doing and why they are doing it," says Fukuda, who's advising Hong Kong's government on the coronavirus outbreak. "I think people are inherently suspicious and distrustful. So it's really important—if you're dealing with an outbreak—to explain there are good reasons to conduct disease surveillance." *—Shelly Banjo, Shirley Zhao, and Blake Schmidt, with Sharon Chen and Peter Martin*

THE BOTTOM LINE China's heightened use of surveillance tools to contain the virus has raised concerns about how the new flood of tracking and data will be used by the government.

Trump Gets Pushier With NATO

● The alliance is being hectored by the leader of the superpower that founded it

NATO is a slightly odd collection of countries. Some of its 29 members fought wars against each other. Some are sparring even now over territory and influence. One—Turkey—is busily stirring the pot over everything from Syria to Libya to control of energy sources in the eastern Mediterranean.

Even so, for 70 years the alliance has provided a security umbrella across Europe, held together in no small measure by the moral and financial imprimatur of the U.S. Differences have been papered over because states have kept their eyes on the prize of collective defense.

That's changing under the administration of Donald Trump. The U.S. president has spent his time in office needling NATO for taking advantage of American largesse (with some validity: the U.S. has borne the largest share of the cost of funding the alliance). And, increasingly, Trump and his aides are dragging the alliance into broader trans-Atlantic tensions.

At the recent Munich Security Conference in Berlin, U.S. Secretary of State Michael Pompeo had relatively polite words to say in public about ties with Europe. That was in contrast to his comments in November that NATO risked becoming irrelevant. But behind the scenes, the frictions were palpable. The U.S. is frustrated over Europe's refusal to accede to Trump's demands for a full ban on Huawei Technologies Co. in the member nations' 5G networks. The U.K., France, and Germany are all looking to keep the door open to the Chinese telecom giant in some way, snubbing the American view that Huawei is a security risk.

After the U.K. rejected a complete block of Huawei, Trump berated Prime Minister Boris Johnson over the phone. The U.S. ambassador to Germany, Richard Grenell, Trump's acting director of national intelligence, says the president instructed him to "make clear that any nation who chooses to use an untrustworthy 5G vendor" risks jeopardizing intelligence-sharing with the U.S. "at the highest level." The U.S. and U.K., along with Australia, Canada, and New Zealand, are part of what's known as the Five Eyes intelligence-sharing alliance.

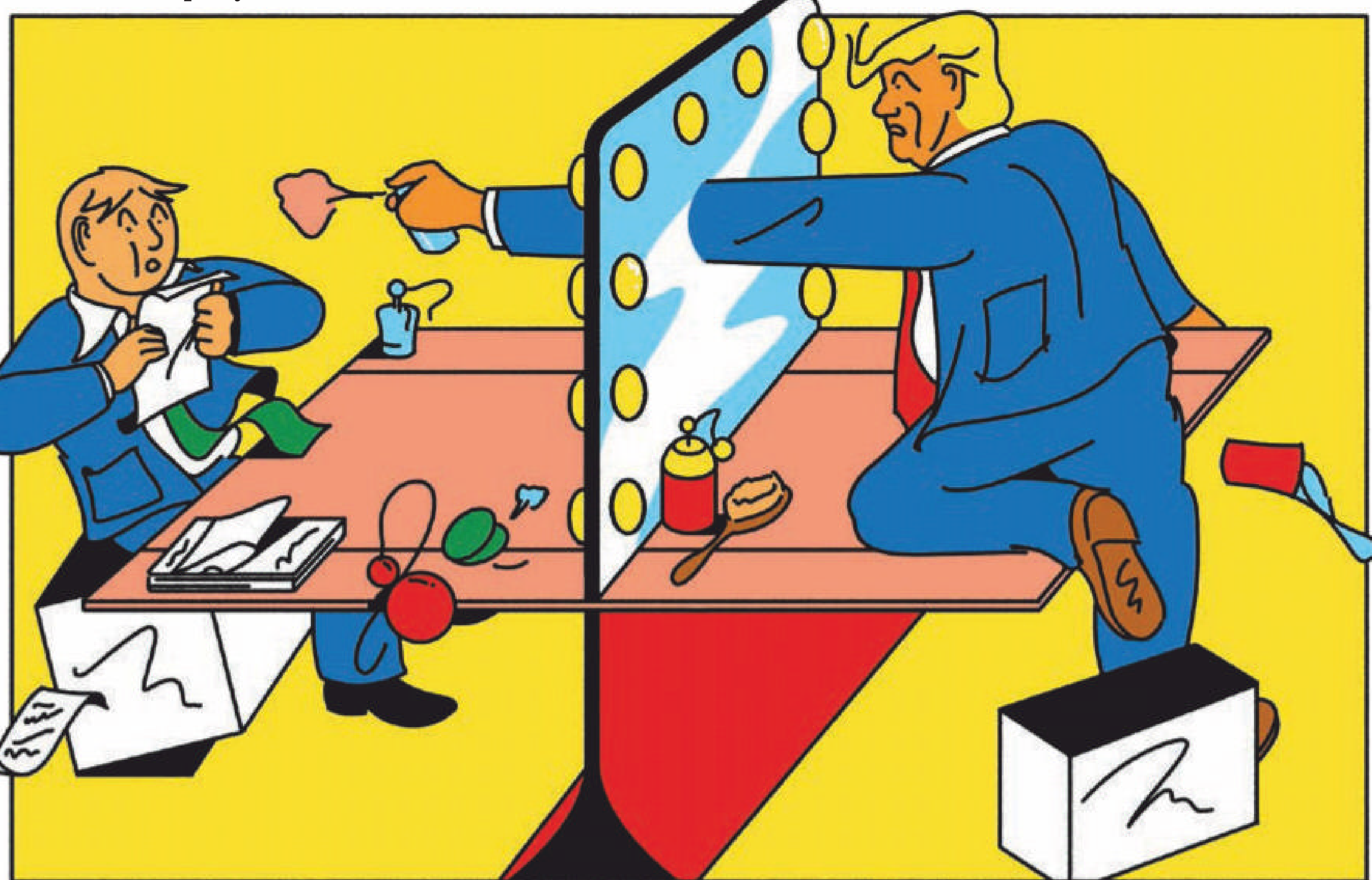
"Threats like that...do cause people to wonder what President Trump might do next"

U.S. Defense Secretary Mark Esper has thrown NATO into the mix, warning that unless Europe

better appreciates the threat from China, "it could compromise what is the most successful military alliance in history."

NATO's mandate is security matters, including perceived threats. So it's appropriate perhaps that China, and a company like Huawei, be discussed within the group. But analysts say it's the manner in which it's being raised that's causing concern.

Senior officials in Europe sound perplexed: The U.S. tells them Huawei is a problem, but it offers no real solutions other than "don't do business with Huawei," they say. And then the White House threatens punitive actions for engaging with the Chinese company.



The Huawei/China issue is bleeding into broader questions about ties with some of America's most steadfast allies since the end of World War II. The Trump administration has gone so far as to suggest that cars imported from Europe are a threat to the country's national security. It's also threatened secondary tariffs against European carmakers unless countries back the president's hard line on Iran.

By linking foreign policy so directly to trade and economic matters, the U.S. is leading Europe to think about how to preserve its independence on policymaking, according to Adam Thomson, the U.K.'s envoy to NATO from 2014 to 2016 and now director of the European Leadership Network, a London-based think tank. "There is quite a feeling in Europe that Europe is being coerced on some fairly key foreign policy issues, whether it is Iran or China, more by the United States, ironically, than by either Russia or China," he says. "It's simply a natural fact of life that if you are coerced in this way with threats and trade sanctions by your closest ally, you start wondering how much of an ally they are."

The U.S. approach risks a boomerang effect. European nations have largely—but not absolutely—supported America on foreign policy for decades. But as the U.S. turns the screws on Europe on trade and Huawei, some officials say the backing could become less automatic in the future when the country comes calling for help.

French President Emmanuel Macron has stepped up his calls in recent months for Europe to adopt a more independent foreign policy that relies less on the U.S. That said, he's also been a critic of NATO, an alliance that he said in November was suffering a "brain death." Macron is pressing for a standalone European army with the European Union in command, though that prospect makes some EU members uncomfortable, according to senior European officials.

Europe doesn't want a full-blown trade war with the U.S.; it also sees the experience of China, Mexico, and Canada in their own trade disputes with Trump as a cautionary tale. Nor does Europe want NATO to fall apart. Still, there's a feeling among some officials that long-understood norms in the trans-Atlantic relationship are fracturing.

It wasn't always this way. Under the Obama administration, trade and political priorities ▶

ILLUSTRATION BY JACK TAYLOR

◀ also went hand in hand, but the correlation was mostly positive. Then-Pentagon chief Ash Carter said in 2015 that congressional approval for an Asia-Pacific trade deal, the Trans-Pacific Partnership, was as strategically important for the U.S. in Asia as "another aircraft carrier." Trump excised the U.S. from the pact in one of his first acts as president.

One key uncertainty for officials in Europe is the coming U.S. election and the prospects for a second Trump term. If "America First" drove White House policy in the first Trump presidency, what might drive it in the second with a more emboldened leader claiming voter validation of his actions so far?

Most European policymakers take comfort in the decades of NATO resilience. The Cold War might be over, but NATO's mandate of collective defense is valued by many, as Vladimir Putin's Russia becomes more active in North Africa and the Middle East and as Putin continues to make mischief in parts of Eastern Europe. Even with Turkey's provocations, NATO isn't at immediate risk of a full split.

Still, "NATO would be fundamentally altered if the United States was no longer prepared to give other allies its security guarantee," Thomson says. "Threats like that from Mark Esper at Munich do cause people to wonder what President Trump might do next." —*Rosalind Mathieson*

THE BOTTOM LINE With the Trump administration putting trade pressure on members of the trans-Atlantic alliance, Europe wonders how NATO might be calibrated for the future.

A Health-Care Test In Colorado

● The state's public insurance push could influence the national debate for Democrats

For Democratic presidential candidates contemplating sweeping health-care overhauls, what happens in Colorado over the next few months will be instructive. Lawmakers in Denver are preparing to vote on a state-sponsored health plan that would compete with private insurance and offer lower premiums. Its approval could embolden Democrats eyeing the White House.

Moderate Democratic candidates such as Pete Buttigieg, Michael Bloomberg, and Amy Klobuchar want to let people buy government coverage—like that offered to Americans 65 and older via Medicare—while their rivals to the left, Elizabeth Warren and Bernie Sanders, would replace private insurance entirely with benefits funded by taxpayers. (Michael Bloomberg, founder and majority owner of Bloomberg LP, *Bloomberg Businessweek*'s parent, is seeking the Democratic presidential nomination.) Colorado's proposal is more modest than what much of the Democratic field favors, since it relies on private insurers to manage the plans. But if the state is stymied by stiff opposition from hospitals and insurers, it could force voters to recalibrate their expectations for what a Democratic president could achieve.

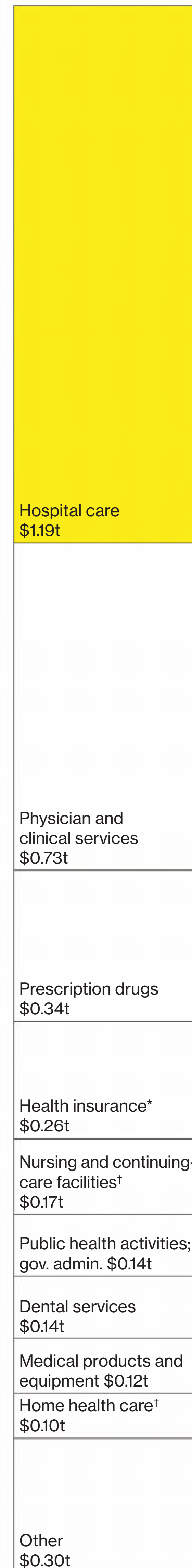
Democrats won control of the state legislature in 2018, and Democratic Governor Jared Polis has put reducing health-care costs at the top of his agenda. Polis created an Office of Saving People Money on Health Care and promoted a number of ideas to lower spending, including the so-called public option. Colorado follows Washington state, which passed the first public health insurance option last year. Delaware, Massachusetts, and New Mexico have weighed their own versions in recent years. Polis says the measure is part of a necessary response to rising health-care costs, which he characterized as a crisis at a recent event in Washington, D.C. "People are fed up, and they want solutions."

One of those fed-up people is Cindy Kahn, 59, who leads a social justice nonprofit and lives in the small mountain community of Carbondale, Colo. When Kahn and her husband began buying their own health insurance in 2018, they were "absolutely gobsmacked" at the $2,000-a-month premium, she says. An expensive surgery to treat a tumor in Kahn's husband's jaw added to the mounting costs. Kahn calls the financial toll "a toxicity in your life that lives with you. It's like one step from the precipice." Partly because of medical expenses, the couple decided to sell their home and consider moving to a bigger city where the market for insurance is more competitive. Kahn says she supports a public option but worries it may not be enough to make care affordable.

Colorado's state-sponsored plans would start in 2022 and initially be targeted at the 7% of the population who buy their own coverage directly, instead of getting it from employers or through other government programs. The plans would offer premiums about 11% lower than what's available today, on average, in the state's individual insurance market, and as much as 17% lower in some places, according to an outline of the proposal by health and insurance authorities released last November.

To reduce costs, the state has taken aim at ▶

▼ U.S. consumer health expenditures in 2018



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◀ cutting how much money health-care companies can make. Authorities proposed that the public plans should be administered by private health insurance companies. The state would set the prices paid to hospitals according to "a clear, public, and transparent formula," the outline says, rather than leave insurance companies to negotiate rates. Insurers, in turn, would be required to offer the public option plans across the state, including in rural counties with no competition today. They'd also face tighter limits on how much premium revenue they can keep for administrative costs and profits.

While Democratic presidential candidates blame pharmaceutical companies and health insurers for the high price of care across the country, Colorado politicians are clashing most fiercely with the hospital industry. Health-care costs have continued to soar, even after the Affordable Care Act placed restrictions on health-insurer profits, says Kerry Donovan, a Colorado state senator who's co-sponsoring the public option legislation. "The missing factor has got to be the hospital systems," she says. "You don't have to exactly have a doctorate in economics to come to that conclusion."

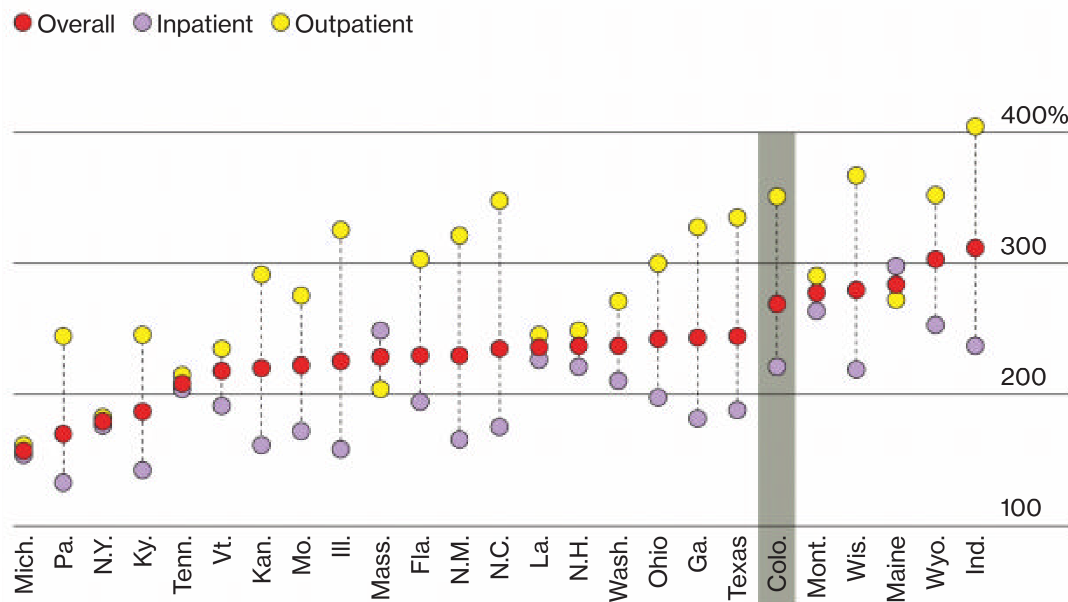
An analysis last year by Rand Corp., a policy research group, found that prices paid by commercial health plans to Colorado hospitals were among the highest in the 25 states for which analysts had data. Colorado hospital profits almost tripled from 2009 to 2018, to more than $1,500 per patient, according to a January report from the state. Economists have cited consolidation among hospitals and a lack of competition as factors driving up prices.

Hospitals, rejecting the idea that the state should set prices, have proposed an alternative that would limit total health-care spending in Colorado without interfering in the privately negotiated rates between insurers and hospitals. Targeting hospital profits is "punishing hospitals that are operating efficiently," says Katherine Mulready, chief strategy officer of the Colorado Hospital Association. Amanda Massey, executive director of the Colorado Association of Health Plans, says insurers likewise "have significant concerns with the administration dictating the product, the price, and the places we must sell health insurance."

A January mailer to Coloradans warned that the proposal would lead to higher costs and hospital closures, and that "politicians will be in charge of our health care." The ad was paid for by a local affiliate of the Partnership for America's Health Care Future Action, a national umbrella group of hospitals, insurers, pharmaceutical companies, and business interests formed to fight "Medicare for All" and similar policies. The group declined to say how much it was spending in Colorado.

Where Hospital Care Is the Priciest

Average hospital costs paid by private employer-sponsored health plans in selected states in 2017 as a share of what Medicare would have paid to the same hospital for the same services



STATES FOR WHICH FIGURES WERE UNAVAILABLE HAVE BEEN EXCLUDED. DATA: RAND

Advocates for the public health option say industry is trying to kill it before a detailed legislative proposal has even been released. "There's obviously a lot of national money being spent to protect the status quo," says Dylan Roberts, one of the Colorado state lawmakers drafting the legislation. While the Democrats control the legislature, it's not a given that Polis's public health option will pass during the current session, which runs for about the next three months. By raising the prospect of hospital closures and prompting political opponents of the proposal to speak out, the industry-backed advertising campaign has put legislators under pressure to change the public option or walk away from it entirely. "The legislators, especially the ones who haven't been paying close attention to this, are feeling the heat," says Billy Wynne, a health-care consultant who advised on Colorado's proposal but is no longer working for the state.

Colorado lawmakers will have to decide whether the state's health-care costs are so high they warrant that kind of public interference, says Michele Lueck, president of the Colorado Health Institute, a nonpartisan research group. "This is kind of the classic example of, 'What's the appropriate role of government intervention and regulation?'" she says. "Are things so bad, are they so unaffordable for consumers, that the government has the right to intervene?" *—John Tozzi and Emma Court*

THE BOTTOM LINE Colorado wants to make health care cheaper by offering public insurance. The plan could be a blueprint for Democratic candidates vying for the White House.

For more on the future of health care, go to Bloomberg.com/prognosis

*NET COST CALCULATED AS THE DIFFERENCE BETWEEN INCURRED PREMIUMS EARNED AND BENEFITS PAID FOR PRIVATE HEALTH INSURANCE. †INCLUDES FREESTANDING FACILITIES ONLY. DATA: CENTERS FOR MEDICARE & MEDICAID SERVICES, OFFICE OF THE ACTUARY, NATIONAL HEALTH STATISTICS GROUP

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The milking carousel at Fair Oaks Farm

The dairy farm of your imagination is disappearing

By Monte Reel

Photographs by Lucy Hewett

To lure drivers off Interstate 65 at Exit 220, about 70 miles southeast of Chicago, the roadside ads lean hard on wordplay. A metal corncob the size of a speedboat carries the words, VISIT EAR OFTEN! A sign with a cow on it promises A DAIRY GOOD TIME FOR THE FAMILY! Another billboard shows a wide-eyed kid with a fruit-flavored ice cream in his hand: BERRY TEMPTING!

You're in for even more of this sort of thing if you take the exit. At the BP gas station, the little food market inside is called the Dairycattessen. There's Central Bark, a green area to let your dogs run around in, and an adjacent Cowfé where you can get cheese sandwiches and milkshakes. The water tower is mottled like a Holstein, but just about every other structure in sight conforms to the red-and-white motif of the classic American barnyard. Among them is a hotel with two towerlike extensions painted to resemble grain silos and an indoor pool with a slide that looks like a big wet cow's tongue. These attractions, however, are for later, after you visit another barnlike building two doors down. On its face, big white letters in a Playskool-esque font announce: YOUR ADVENTURE STARTS HERE.

Yager at his farm in southern Wisconsin

This is Fair Oaks Farms, an Indiana tourist attraction designed to entertain road-weary families and deliver them back to the highway reassured that American agriculture is headed in the right direction. With more than 33,000 cows that pump out some 300,000 gallons of milk daily, it's also quite a bit more. "Welcome to our home, a functioning Modern farm, where our Animals are the center, led by a team with country Charm," says a sign by the counter where you buy tickets for the tour. "There's nothing here that's hidden.... Everything here is from the heart. If you're ready for Ag-venture, Fair Oaks Farms is the place to start."

The grounds are immaculate, and if you're in the mood to celebrate milk—"the most wholesome food on earth," according to the recorded script that's broadcast on the bus tour—you'll probably love it as much as Cargill Inc., Land O'Lakes Inc., and other corporate partners apparently do. But outside of these 19 acres, in much of the rest of rural America, dairy hasn't been celebrated much in recent years. Instead, it's been agonized over, lamented, even eulogized.

In Wisconsin alone, between two and three family dairy farms go out of business every single day. (Some of these farms still operate, but no longer as dairies.) That rate has held steady for about three years, which is particularly striking given how few farms remain left to fail. In the early 1970s, the state had more than 75,000 dairies. Today it has about 7,400.

Across the western border in Minnesota, officials recently reported that the median household income rose last year to about $68,000, roughly 10% higher than the national average. Dairy farmers had nothing to do with it. In 2017, the median income for a dairy farm dipped just shy of $44,000 in the state. In 2018, it plunged all the way down to $14,697. Half of Minnesota's dairy farmers failed to break even for the year. There, too, thousands of dairy farms have simply vanished.

In the midst of this mass extinction, a counterintuitive fact remains true: Americans are consuming more dairy products than ever before, primarily because yogurt and cheese have compensated for a steady drop in fluid milk consumption. Americans consumed 646 pounds of dairy per person in 2018—the highest consumption rate in 56 years.

As small farms fold, the balance of production tilts further toward huge, efficient, industrial dairy operations that can more easily weather price downturns and manage a razor-thin profit margin through the power of scale. Places, in other words, like Fair Oaks Farms.

"Thirty years ago, when I got started, if you would have asked me what a large farm was, I probably would have said 15 or 20 cows, something like that," says Mark Stephenson, the director at the University of Wisconsin Center for Dairy Profitability. Now a concentrated animal feeding operation—a CAFO, as factory-style farms like Fair Oaks are known—can house thousands or even tens of thousands of cows. Today, more than 53% of America's milk is produced by less than 3% of its farms. That helps explain how, in the face of a massive reduction in the number of total dairies, the U.S. continues to produce more milk and cheese than the market consumes—in 2019, America's cheese surplus reached 1.4 billion pounds.

"People still have this image of red barns, of cows in the field," Stephenson says. "We've all been there—it's an image, and it feels like a warm hug, somehow, and that's what you want to think of when you think of a dairy farm. But that's not the reality anymore."

Everywhere you look at Fair Oaks, you'll find something that imitates, if not exaggerates, the precise strain of countrified charm that industrial agriculture is often blamed for destroying. It makes a direct and unabashed attempt to tap into those warm-hug feelings with facsimiles of the homespun and pastoral, while at the same time celebrating the efficiencies that come from the advances that replaced them. The tour guides plug a notion that at times contradicts the imagery: Industrial-scale dairies may be

quantitatively and qualitatively better than small, traditional, family-operated ones—for consumers, for the environment, and even for the cows.

Mike and Sue McCloskey, the founders of Fair Oaks, are close to royalty in the dairy industry. Mike started his career as a veterinarian in California and eventually became a partner in dairy farms there and in New Mexico. After spending several years as the chief executive officer of Select Milk Producers Inc., one of the largest and most powerful dairy cooperatives in the country, he moved with Sue to Indiana in the late 1990s.

Industrial-scale operations had already thoroughly transformed the meat and poultry industries, and dairy was poised to follow suit. The business model faced a predictable obstacle, however: the generalized perception that large-scale farming was bad for just about everything except productivity and profitability. Fair Oaks, the McCloskeys announced, would directly and transparently confront those they labeled the "anti" activists—animal-rights groups and environmental campaigners.

"The farm was founded out of necessity to counter the very loud, very well-funded, and often, very misleading voices against modern farming and animal agriculture in particular," said Sue McCloskey in an interview with *Food & Wine* in 2018. "Having come from a non-generational farming background"—that's another way of saying she doesn't come from a family of farmers—"and growing up in the consumer-centric East Coast, I knew the ploy of these organizations."

In an introductory video shown to tourists at Fair Oaks, Sue is seen mingling with her "girls," the cows. The animals spend almost all of their time in barns or, if they're calves, inside small plastic hutches. To preempt the idea that they'd rather be grazing in open pastures, the informational materials emphasize that the sheltered cows are freed from the ravages of wind, rain, and extreme temperatures. Tourists are driven through a barn-turned-exhibit, where, from behind the windows of a bus, they can watch a few hundred cows lying hip-to-hip in metal-railed stalls. A recording playing over the bus's sound system assures visitors that there's no better place for cows to be than here, where they're free to eat, drink, and socialize. "They love to hang out at the drinking fountain and interact with other cows in the herd," the recording says.

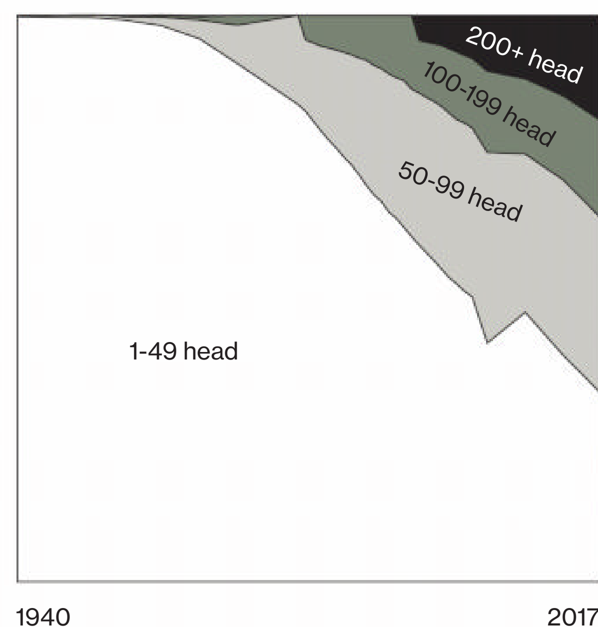
The tour also touts the environmental benefits delivered by this style of containment. One display says an operation like Fair Oaks uses 90% less land and 65% less water than dairy farms once did to produce a gallon of milk. Some of that can be attributed to selective breeding managed through artificial insemination, and also to nutritional supplements; the average dairy cow today produces more than four times as much milk per year as she did in 1950, and today's most productive heifers pump out 14 times more.

The centerpiece of the farm's story of environmental sustainability, though, is its anaerobic manure digesters—large tanks in which waste is heated and turned and the methane produced by the process is captured. A typical dairy cow produces about 120 pounds of waste every day; multiply that by 30-odd thousand, and let your imagination fill in the details of that picture. On the farms of old, where cows roamed and grazed, manure management wasn't much of a problem; it nourished the same grass the cows ate. In a typical industrial-scale farm, manure is dumped into pits and lagoons, and the resulting methane releases into the atmosphere. Because the gas has an atmospheric impact 25 times greater than carbon dioxide, according to the Environmental Protection Agency, it effectively accounts for 10% of all U.S. greenhouse gas emissions. Dairy cattle alone are responsible for 53% of methane emissions generated by manure, the EPA says.

Fair Oaks Farms' four digesters help the operation reduce its emissions while also producing compressed natural gas, which fuels the operation's trucks and provides electricity to the barns. Fair Oaks casts it as an elegant solution, and the system has been widely lauded as a model that one day could result in a dairy with net zero carbon emissions. But some critics complain that such digesters fuel a harmful cycle. The government grants millions of dollars to large farms every year to build digesters (Fair Oaks received federal and state funding for its system), which reinforces the methods that created the problem in the first place.

Last year a Florida man named Richard Couto read about the Fair Oaks tour and decided to fly to Indiana to check it out. He was, to say the least, skeptical of the benefits the farm advertised—Couto is founder of the Animal Recovery Mission, or ARM, which launches what it calls tactical missions to expose animal cruelty. "I took the Dairy Adventure tour, and I knew right away I was being lied to," he says. "I knew it was staged."

Share of U.S. dairy operations by cow herd size



Couto wanted to see everything that wasn't showcased on the tour, the other 90% or so of the operation. His way in, he determined, was through the labor force. As in most CAFO-style dairies, many of the jobs are both low-paying and physically demanding—the kind often filled by immigrant laborers. (More than half of all dairy workers in the U.S. are immigrants, according to a 2015 study by Texas A&M University.) Couto sent people to Indiana to apply for jobs at Fair Oaks, and they were quickly hired. One began clandestinely filming his co-workers. For nearly three months he compiled footage, ▶

DATA: USDA

One of the attractions at Fair Oaks. Behind the polished tourist destination is a massive working dairy farm

◀ until someone at the farm figured out what he was doing and tipped off the McCloskeys, Couto says.

The couple released a video statement on social media in April, informing the public that activists had infiltrated their operation to "misrepresent our practices and [what] we are about," Mike McCloskey said.

If the message was meant to preempt whatever backlash might arise from an eventual video release, it didn't work. In early June, ARM posted videos that showed Fair Oaks workers dragging calves by their ears from vehicles, tossing them through the air into plastic enclosures and transport trailers, and beating them in the heads with milk bottles and branding irons. Dozens of examples chronicling multiple forms of abuse were exposed. Protests against Fair Oaks were staged in Chicago and elsewhere. Some targeted the Coca-Cola Co., which partners with Fair Oaks and Select Milk Producers, where Mike McCloskey is still CEO, to produce the Fairlife brand of premium milk. In its marketing push for that product, Coca Cola advertised that the milk was sourced from family-run farms that pursue "the highest standards of milk quality, agricultural sustainability, and animal comfort." Lawsuits were filed alleging fraud. Late last year eight of those suits were consolidated into a single consumer-fraud case.

The farm announced that the employees who could be identified in the video had been fired, and said it would post cameras throughout the farm, hire a new animal-welfare supervisor, and implement frequent animal-care audits. The McCloskeys released more videos promising that animal care was a top priority and pledged that their commitment to total transparency would be stronger than ever.

After numerous requests over the course of several months, before and after the release of the ARM video, Fair Oaks and the McCloskeys declined to be interviewed for this article. The tours continue as before, however, and dairy industry groups accuse the activists, in effect, of provoking a few bad apples among the farm's workforce into bad behavior. The trade organization Dairy Management Inc. has stood by Fair Oaks as a model for the evolving industry. "Big is not bad," says Marilyn Hershey, the group's chair.

Mike Yager smooths a copy of his latest federal milk check on a table in his equipment barn and studies the numbers. The U.S. Department of Agriculture regulates and controls the complex pricing schemes that put money in the farmers' pockets. The milk check lists all of the factors—price differentials, premiums earned, deductions—that together determine how much money Yager gets each month. One of the deductions listed on the check in front of him, a figure that last year averaged about $1,000 a month, is for advertising and marketing. It's a mandatory deduction that helps fund groups such as Dairy Management Inc. That line item irritates Yager every time he looks at it; sometimes, he says, it seems like the industry he helps support is promoting trends that put his way of life in jeopardy.

His farm in Mineral Point, Wisc., sits in the Driftless Area, a part of the upper Midwest that wasn't ironed flat by glaciers during the last ice age and is defined by its rolling hills. Not so long ago, with 300 cows, his farm would have been considered reasonably large. Now he considers himself one of the little guys, barely managing to stay afloat.

The price of milk is determined by a complicated government framework that, generally speaking, has insulated the industry from volatile ups and downs. But in recent decades, even with state and federal buffers, the price of milk—both what farmers receive and what consumers pay—has lagged behind inflation. This is part of a general drop in the relative price of grocery staples; since the 1960s, the percentage of income Americans spend on food has fallen by roughly half. As the dairy industry has shifted to large farms, and production has continued to outpace demand, profit margins have grown increasingly tight. This has put a squeeze on everyone in the industry, including the major companies that depend on smaller farms for supply. In November, Dean Foods, America's largest milk producer, filed for bankruptcy; in January, Borden Dairy, founded in 1857, did the same.

Last fall, Yager attended the World Dairy Expo in Madison, Wisc., where industry leaders floated plans to help dairy farming thrive. There was a lot of talk about the new U.S.-Mexico-Canada Agreement, or USMCA, which allows American producers access to an estimated 3.6% of the Canadian market, up from the previous limit of 1%. The plan, which was signed into law in January, didn't impress Yager. "Canada's dairy industry, total, is about $18 billion, and the state of Wisconsin alone is about $45 billion," he says. "So this 3.6% that the government is talking about? This number that's supposed to be a big deal? It's peanuts. It's nothing."

At that same expo, some attendees began talking about the threat of laboratory-made, animal-free milk—the dairy industry's answer to the meatless burger. Big agriculture companies including Archer Daniels Midland Co. have invested in projects to use cellular cultures to produce dairy proteins. Yager was incredulous. "The major corporations that have made their money off the farmer are putting their money back in, reinvesting, to put us out of business!" he says. Later, at the same event, U.S. Secretary of Agriculture Sonny Perdue talked to reporters about the consolidations that have troubled so many farmers. "Now, what we see, obviously, is economies of scale having happened in America—big get bigger, and small go out," Perdue said. "I don't think in America we, for any small business, have a guaranteed income or a guaranteed probability of survival." Maybe he was just stating a hard truth, but to a farmer like Yager, it sounded as if the architects of the U.S. dairy industry had all but agreed on a shared assumption: Small farms are destined, sooner or later, to fail.

The stress farmers end up feeling, however, is rarely associated with these sorts of big-picture discussions. The challenges are always hyperlocal, and they often trigger a circular pattern of collapse. First the farmers struggle to make ends meet, then the related businesses that help populate small towns and townships—the seed wholesalers, the equipment ▶

dealers, the trucking companies—respond to a dwindling customer base by raising prices where they can. In the end, the hardship circles right back to the farmers.

One day last year, the bearings went out in one of the axles of Yager's manure spreader. No big deal. He drove to the local equipment dealer, who charged him $165 for new bearings. Six months later, the bearings on the other axle went out. Again: no tragedy. But this time the same dealer charged him $310 for the same service. The ad hoc inflation would be forgivable if it didn't seem like it was compounded every single day. Yager sells most of his milk to a local cheese processor, and in 2016 he paid the processor $4,800 to truck his milk from the farm to the processing plant. Last year, for the same service and for roughly the same amount of milk, the processor charged him more than $38,000.

Crazy, you might say, and—save a choice word or two—you'd be echoing Yager's thoughts exactly. In 2019 he considered taking out a loan, buying a big truck, and shipping the milk to his processor himself. But when the processor realized farmers were willing to resort to such measures, it started levying a surcharge on all farmers who trucked their own milk. Other local processors did the same.

"Every time you come up with a plan to maybe make things better, I just feel like there's someone who's already a step ahead of you," Yager says. "So what do you do?"

A lot of people go out of business.

In the summer of 2019, about a dozen farm-loan officers, equipment dealers, manure storage technicians, and other agricultural professionals filed into a conference room in a county building in West Bend, Wisc. They'd signed up for a half-day workshop designed to help them respond to dairy consolidation in their communities.

The programs bore titles such as "Embracing Option B" and "Making the Connection: Communicating With Distressed Farmers." An instructor briefed them on the basics of mindfulness meditation, the differences between empathy and sympathy, and how to use EARS (Explore, Affirm, Reflect, Summarize) when talking to a troubled farmer. As the attendees took notes from a slide showing "Tips to Take Back to the Barn," the instructor asked how many of them had encountered farmers who'd exhibited worrying signs of depression. Every one of them raised a hand.

In dairy-producing communities nationwide, local agriculture extension offices are launching programs to encourage stressed farmers to try new ventures. Wisconsin's agriculture department, for one, provides farmers with information about how they might transition farms into bed and breakfasts, petting zoos, or farm-to-table restaurants.

Mention these ideas to farmers and other agricultural professionals, and chances are fair you'll witness a roll of the eyes. Jerry Gander, who helps manage herd nutrition for farmers across the state, including Yager, shakes his head in disbelief. "I mean, come on. Really? They really think we're going to sustain this region with a bunch of bed and breakfasts?"

Gander, just by expressing his doubts out loud, seems to tap a deep reservoir of frustration. "There's got to be something other than saying, 'Well, you have to be big to survive,'" he says. "Maybe this is getting a little radical, but it reminds me of medieval times. Like we're going back to that. We'll have our kings—the owners, the corporations—and then we'll have all the people who work the land. That didn't work well centuries ago. Because taking ownership, taking pride—that's what makes things really work. We're gonna lose that. And think about conservation. Think about water quality. I don't think you find land conservation, water quality, and animal care any better, anywhere in the world, than you do on these family farms. You absolutely will not!"

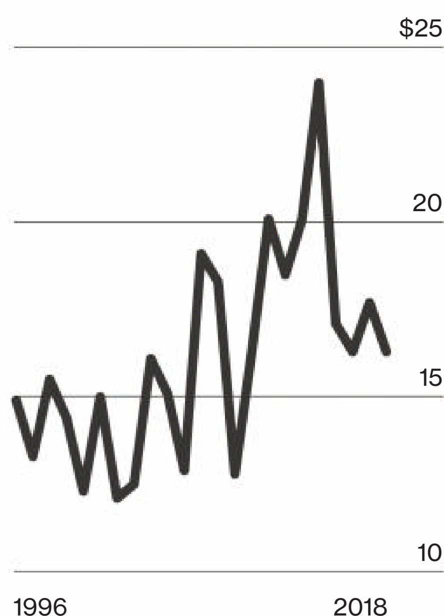
He stops himself, apologizing for getting carried away. "It's just that these are big cultural questions we're gonna have to deal with, and we're stuck right on the forefront of it. People in town, they just don't have any comprehension," Gander continues. "We're gonna watch our schools disappear. Our governments disappear. Our roads fail. That's a coming thing. It's not just B.S."

Amid all that angst, some farmers have found a way to profit on smallness itself.

Paul Aubertine grew up on a plot of land overlooking the St. Lawrence River on the northern edge of New York state, near Cape Vincent. He was poised to be the seventh generation of his family to take the reins of the 50-cow dairy farm, but in 2002 his father and grandfather determined they couldn't keep the business afloat any longer. Aubertine went to college, pursued a career in sales, and started a family.

The older he got, the more he recognized and valued all that had been lost. There'd been 35 or 40 dairies in the community when he was growing up; now, wracking his brain, he could come up with four. "I really wanted my kids to experience what I'd experienced, to give them the chance to grow up on a farm and be exposed to the same thing," he says.

Milk price received by farmers, per 100 pounds



DATA: USDA

He and his brother-in-law, a computer scientist, decided in 2015 to restart the dairy. They crunched the numbers and saw that trying to compete with the 1,000-cow mega-dairies on their terms was a recipe for disaster. "I've never had an interest in having employees, and $300,000 tractors, and all the other stuff you need for that," says Aubertine, who's now 37. Instead, they decided to produce milk that could be certified as grass-fed

Yager's 300-cow farm, once considered a sizable operation, is one-hundredth the size of Fair Oaks

and organic. Their cows would graze in the field. Aubertine would buy no herbicides, no grain feed, no nutritional supplements, no hormone treatments. Instead of acquiring the huge, high-powered heifers that produce 90 pounds of milk a day, he assembled a herd of smaller cows that might give him 35. Because of the animals' reduced stress, he could keep them on the farm longer, saving on livestock costs.

"I'm a realist, and I expected bumps on the road, but—and I shouldn't say this out loud, probably—but it's been beyond my expectations, what we've been able to do," Aubertine says. The price he commands for grass-fed organic milk isn't double that of regular milk, but it's close, and his expenses are a fraction of what a modern dairy would require. He can raise his kids, take them on vacations, buy nice things, and preserve precisely the things about dairy farming that he believed were worth preserving.

"It's not even so much the prices you're paid, but it's the consistency of the prices," he says. "We can make a budget, because we know what we're going to be paid—we're guaranteed each month's prices a year in advance, and they don't come off that price, unless they go up and pay more. So I'm not one of those dairy farmers going to the mailbox every month and worrying about what's going to be in the milk check."

He sells to Maple Hill Creamery LLC, a venture-capital-backed company specializing in organic milk from grass-fed cows. It collects milk from 158 farms, all in upstate New York. The average farm keeps 48 cows. CEO Carl Gerlach says he believes increasing demand for milk from grass-fed cows has the potential to transform the American dairy farm. "When I think of what dairy will look like in 20 years," he says, "I believe it'll look like it did 100 years ago."

If that transition actually occurs, Aubertine knows it's unlikely to be a smooth one for farmers currently operating within the standard, modern dairy system. Aubertine's organic certifications—the ones that enable him to get premium prices—require that his land, for example, has been free of herbicides and synthetic fertilizers for at least three years. "If that's what your farm is running on, how is a farmer going to just stop doing that for three years, and still keep his head above water?" he asks. "So we were kind of lucky, in a way. It's easier to start from scratch."

When dairy cows no longer pay for themselves, they're often culled—the polite term for being sent to slaughter. As small farms fold, their cows are rarely incorporated into the herds of large dairies; older animals don't handle the transition to a new milking system well and produce less milk than those raised in the system. According to industry figures, only four times in the 25 years before 2019 did the national weekly total of slaughtered dairy cows exceed 70,000. Every one of those times occurred in the second week of January, when slaughterhouses reopen after a holiday hiatus and catch up on a backlog of work. In 2019 it was a rare week when the cull total didn't exceed 70,000.

Yager, on his farm in Wisconsin, watched his nephew try to sell off his cows last fall. "Anything that was over four years old, people didn't want," he says. "He had to haul them out to be culled." The very thought pained him. "I know every one of my cows," he says. "I love these animals."

On a winter weekday morning at Fair Oaks Farms, a traffic light outside the Birthing Barn, a red-painted structure near the Cowfé, turns green. That means another show is about to commence inside. About 30 people gather on bleachers in an amphitheater-style room. Two cows stand onstage, separated from the crowd by a glass wall. Jumbo TV monitors hang above them. The backside of one cow faces the audience; extending from it is a small, glistening hoof. The cow, breathing heavily, convulses slightly. The hoof extends further, exposing a foreleg. "Ewwwww!" a little girl in the crowd says. "Is that a baby pig coming out?"

Within minutes—at 11:48 a.m., precisely—a Fair Oaks employee tugs hard on the calf's protruding legs, and with one final push from its mother the animal falls in a messy heap on the straw-covered stage. It's one of about 80 to 100 calves born that day, and every day, at Fair Oaks.

After the mother licks the calf awake, the newborn is ushered offstage and outfitted with an ID tag: 36,873. Ⓑ *—With Deena Shanker and Lydia Mulvany*

HP AND XEROX AREN'T QUITE THE BEACONS OF INNOVATION THEY ONCE WERE, BUT THEY'VE STILL GOT A GIANT PILE OF MONEY WORTHY OF A TAKEOVER FIGHT

BY AUSTIN CARR AND NICO GRANT

HP'S 63 TRI-COLOR INK CARTRIDGE retails for $28.99 at Staples. Stuffed with foam sponges drenched in a fraction of an ounce of cyan, magenta, and yellow dyes, this bestseller, model No. F6U61AN#140, can spray 36,000 drops per second in the Envy printers made by HP Inc. The 63 Tri-color cartridge may not look like much, but that ink, which needs a refill every 165 pages, is ridiculously valuable. HP's printer supplies business garnered $12.9 billion in sales last year, and the printer division overall represented 63% of the company's profits. Here in the year 2020, proprietary ink cartridges remain important enough to spark a fight worth at least $35 billion.

Xerox has been trying to buy the much larger HP for what the target says is a laughable bid. On Feb. 24, HP Chief Executive Officer Enrique Lores moved to protect his hold on F6U61AN#140 and its toner brethren. During his report on the company's latest quarterly earnings, which met Wall Street's expectations, Lores announced that HP would triple its share buyback program to $15 billion over three years as part of an effort to fend off the hostile takeover. While Lores said he was open to exploring new merger frameworks, he dismissed the size and technology of Xerox Holdings Corp. and stressed that HP already had a winning strategy.

"I am pumped up," the CEO tells *Bloomberg Businessweek* in an interview shortly after the earnings call. "We have a great plan."

Lores, who's spent three decades at HP, has survived his share of existential threats. Before he took over as CEO in November, he'd led the printer business to a streak of revenue gains after even his bosses had left it for dead. But last year also saw HP's share price fall by a third from a February high. The company announced thousands of employee layoffs as it struggled to compete with cheaper ink cartridges from Asia. That public floundering has left HP freshly vulnerable to activist investors such as Carl Icahn, who owns 11% of Xerox and 4% of HP. He snarked in December that HP appears in danger of following "the road to the graveyard."

For decades, HP and Xerox ranked among the most powerful forces of invention in Silicon Valley. Now they're arguing over who has the superior vision to acquire competitors, jettison workers, and jealously guard the tech specs of their aging intellectual property.

It's unclear whether either company's leaders can repeat the miracle Lores's team managed a few years back. Consumer and office printers still churn out 3.2 trillion pages a year, according to researcher IDC, but Toni Sacconaghi, a tech analyst at Sanford C. Bernstein, warned in a client note that the "traditional printing and copying business is slowly collapsing." Recalling the image that critics deployed in 2002, when HP tried to acquire its way out of trouble in the PC business by buying Compaq, Sacconaghi wondered if the company is facing another deal that looks an awful lot like "two garbage trucks colliding."

Among the HP faithful, however, the response is, yeah, well, waste management makes a ton of money, too. "Garbage trucks are still really big," says a longtime HP printing executive who recently left the company and spoke on condition of anonymity, like many sources in this story, because of nondisclosure agreements and fear of reprisals. "The industry may not be sexy, but it's not going anywhere."

IT'S TOUGH TO OVERSTATE HOW strange it would have seemed a half-century ago to watch HP and Xerox fighting over who can pinch pennies the best. These were temples of engineering. Xerox's Palo Alto Research Center laid the groundwork for software innovations later "borrowed" by Steve Jobs and Bill Gates. (Think graphical interfaces.) HP's Bill Hewlett and Dave Packard pioneered groundbreaking circuits, calculators, LED screens, and, of course, the very idea of starting up a company in a garage, which they did in 1939. HP eventually codified its founders' ethos as the "HP Way," a mission statement centered around respect for employee creativity and the development of innovative products in a wide range of fields.

By the 1980s, a string of advances in robotics led to HP's line of inkjet and laser printers, which might as well have been printing money. In the three decades following the company's introduction of the desktop laser printer, in 1984, the division wrangled in well over a half-trillion dollars of revenue. HP dominated the market by reinvesting billions in printhead physics, color science, and other feats of engineering. The devices had such monstrous sales potential, they were given codenames like Godzilla and Ghidorah (Godzilla's hydra foe).

Then there was the ink. The solvents and pigments that HP scientists concocted were so overpriced that the company could afford to sell its hardware at steep losses and make it up in ink and toner sales. The 1,000-liter vats of ink at HP's manufacturing hubs might as well have been filled with Dom Pérignon.

This was the HP Lores joined as an engineering intern in 1989. He was there when the company's products became fixtures of a new generation of home offices—and, a couple decades or so later, when they began to suffer in the shadow of the iPhone and Gmail. By the late aughts, printers looked like a relic of a bygone era, and then-CEO Meg Whitman spun off the PCs-and-printers division as HP Inc. in 2015. She kept artificial intelligence, cloud, and consulting—you know, the sexy divisions—for herself under the banner of Hewlett Packard Enterprise Co.

"We all thought printing was dead," says a former vice president who worked closely with Lores. "HP was running the same playbook since they invented the category." Likewise, Wall Street and the press broadly assumed the old hardware was doomed and Whitman was smart to cut ties. Pretty much the opposite happened: Amazon.com Inc. and Microsoft Corp. crushed Whitman's cloud services, and frumpy old HP Inc.'s stock climbed 67% through the end of 2018. "Not many people thought we could grow, but we proved everybody wrong," Lores says. As the printer team's morale improved, Lores ordered up improvements to his core lines, such as adding more smartphone and cloud connectivity; a subscription ink service, ▶

RYAN DUFFIN FOR BLOOMBERG BUSINESSWEEK

◀ which now has 6 million members; and efforts to develop 3D-printed goods ranging from clothing to food. Between 2016 and 2018, sales at the PC business shot up 26%, and printer sales rose 14%. Mostly, though, Lores and Dion Weisler, the boisterous Australian who preceded him as CEO, focused with a singular zeal on cutting costs throughout their PC and printing supply chains.

Alex Cho, the president of HP's personal systems business, says the company was maniacal in that pursuit. "I remember a review where one person said, 'We only have these items that could save us $1.50.' I was like, 'What about [the parts] under $1.50?'" he says. "We needed a culture of going after that stuff."

Far from the grand vision of the HP Way, the executive team spent a significant portion of its research and development budget on stopping product lines from wasting microscopic amounts of ink, or on ways to make its printers less compatible with other companies' cartridges. Accounting tricks weren't out of the question, either. Two former printer division employees say the company often raised hardware prices near the end of a fiscal quarter to make short-term losses from printer sales look less severe. An HP spokesperson says the company doesn't prevent the use of refilled cartridges that have a genuine HP chip, and that the company manages its printer hardware and supplies "based on a wide variety of factors."

An obsessive focus on quarterly margins put a low ceiling on the company's ability to plan ahead, says the longtime HP printing executive: "What HP now thinks is innovation is overwhelmingly incremental vs. disruptive. They squeezed the lemon to the last drop."

When asked about these charges, Lores invites *Businessweek* to visit HP's research labs to witness his company's commitment to revolutionary R&D. While he said on the Feb. 24 earnings call that "reducing cost is a neverending task," in the one-on-one interview, he pledges that these cuts "will not jeopardize investments in long-term technologies."

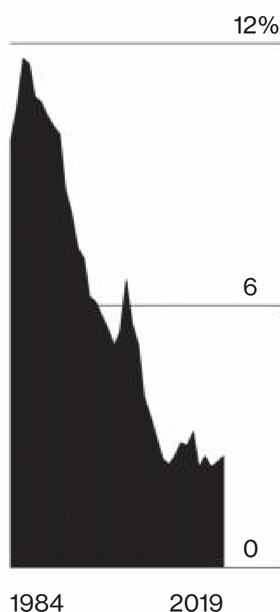
IN FEBRUARY 2019, HP PROJECTED its first decline in quarterly printer supplies revenue in years. This wasn't some isolated issue. A critical mass of fed-up customers finally seemed to be sick enough of HP's high cartridge prices to try generic ink resellers or, in some cases, counterfeiters. Weisler vowed to fight off the other ink producers, and later, the company said it would stop discounting certain pricey printer lines and make sure the deep-discount models couldn't use non-HP ink. The company was already shipping certain staffers to less costly offices in Texas and Idaho, where they had to accept lower salaries, and was in the process of laying off 5,000 employees, roughly 9% of its workforce. Some revered engineers who'd stuck it out since the good old days took buyouts or pay cuts. A couple of quarters later, Weisler was out, too. Lores's first act as incoming CEO was to begin dismissing as many as 9,000 more employees.

In swooped Icahn and Xerox, the 113-year-old company struggling to maintain its photocopier sales. In 2018, Icahn had used his position as a leading Xerox shareholder to urge the ouster of the company's CEO and scuttle its attempt to sell itself to Fujifilm Holdings Corp. At first, Icahn and John Visentin, Xerox's new CEO, just wanted some kind of expanded partnership with HP. Most printer companies hold at least a few patents that all their rivals need, so these kinds of frenemy deals are common. But when one executive suggested that Xerox, at one-third the size of HP, should just try to buy the company, Visentin's team fixated on the idea. Icahn, infamous for loading up struggling companies with debt and selling off valuable assets for short-term gains, was an easy sell, too. Visentin and Icahn declined to comment.

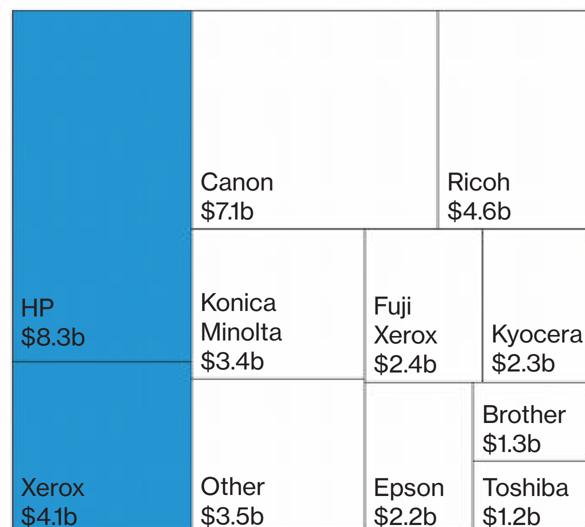
In November, Visentin proposed a cash-and-stock deal valued at $22 a share, fueled by colossal bank loans. Icahn lobbied Lores to make the deal or some variation on it, including letting HP buy Xerox instead. (He's since said Visentin would have to run the combined business.) Lores didn't bite. He felt the offer significantly undervalued HP and would saddle both companies with billions of dollars in debt. Visentin launched a proxy battle for control of HP's board, nominating a slate of directors who'd favor the deal. He also raised Xerox's bid to $24 a share, or $35 billion.

Over the past few months, members of Lores's team have sought to quash the deal by promising big cost savings and shareholder returns. Lores's latest counteroffer to shareholders suggests his management team is hellbent on keeping control of HP. "They've planted their flag," says Sacconaghi, the Bernstein analyst. "But printer supplies, the majority of the company's profits, have gone down for the last three quarters.

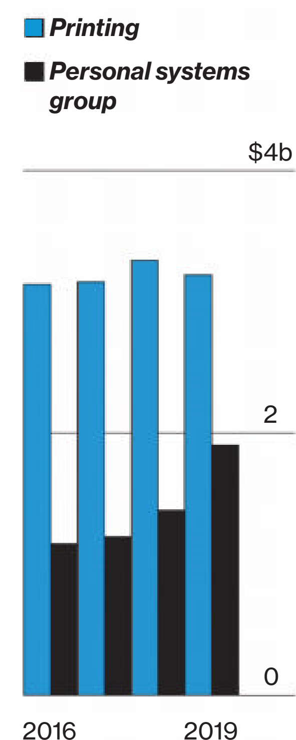
HP R&D spending as a share of net revenue



Global printer and copier sales in 2018



HP operating income



RYAN DUFFIN FOR BLOOMBERG BUSINESSWEEK. DATA: COMPILED BY BLOOMBERG, GARTNER

HP said it's going to get better, but if the problem persists, it's going to make it hard for HP to meet their targets."

To recap, a onetime innovation factory now finds itself so focused on the coming year's results that it'll be hard-pressed to return to making serious bets on the future. In other words, HP appears trapped in a classic innovator's dilemma. The company's executives vehemently disagree. Chief Commercial Officer Christoph Schell says HP's forays into 3D printing are as ambitious as anything it's attempted. "I don't think we have an innovator's dilemma," he says. "We are trying to disrupt how mankind does manufacturing," which, the company has said, is a $12 trillion industry.

So far, the company's big investments are in machinery that can "print" production-grade plastic and metal components, technology that has won over corporate customers including GE Transportation, Volkswagen Group, and BMW Group. Last year, the advanced printing group manufactured more than 18 million parts, a tally set to double this year. It's a sign of rapid growth in 3D printing, but also a scary reminder of how much further HP's effort has to go to catch up to its paper-and-ink business.

XEROX HAS ONLY MADE IT MORE difficult for Lores's team to find its HP Way. Several people familiar with the matter say the past year's pressure to revive printer earnings has made futuristic products less central to the team's focus. "Carl Icahn could probably buy HP himself, lay off more employees and shut down R&D, and just make all his money back by continuing to sell ink and toner," says a former HP printing executive who was involved in acquisitions.

At the moment, HP and Xerox seem unlikely to regain anything resembling their 20th century R&D aura. Tolga Kurtoglu, CEO of Xerox's research center, says it's investing significantly in 3D printing, AI, and data analytics, including ways to predict when Xerox hardware will need maintenance. "But that doesn't change the fact that paper is being used less and less," he acknowledges.

When Lores joined HP in 1989, its annual report, signed by a 77-year-old Dave Packard that December, talked up the major challenges the company faced but also gleamed with optimism about the ideas on the horizon. "New products are the lifeblood of our company," the report read. Today old products are arguably the lifeblood of the company. In 1989, 10% of HP's revenue, about $1.3 billion a year, went to R&D spending. Today the company spends just 2.6% of sales on R&D, or $1.5 billion, a tiny fraction of what Amazon, Apple, and Google invest in their futures.

Lores, HP's first lifer CEO in more than two decades, says it's unfair to compare the company he joined in 1989 to the "much narrower set of businesses" he runs today. Still, he argues that the spirit of Bill Hewlett and Dave Packard's corporate culture has a lot more in common with his own strategy than nostalgia might suggest. After becoming CEO, he took his first meeting in Packard's old wooden garage at 367 Addison Ave. in Palo Alto, now an historic landmark with a sign that dubs it the birthplace of Silicon Valley. "Bill and Dave were extremely focused on results," Lores says, "driving significant innovation but staying cost-competitive."

"It's about creating the future," he adds. "But if you read the HP Way, the future is based on delivering today." Ⓑ

—*With Scott Deveau and Olivia Carville*

“Sorry, we can’t paint your walls”

“You’ll definitely need extra security”

March 2, 2020

When You Run an Abortion Clinic, Every Budget Line Is a Battle

On the front lines of the most challenging small business in America

By Cynthia Koons and Rebecca Greenfield

Photographs by Heather Sten and Caroline Tompkins

Amy Hagstrom Miller, owner of Whole Woman's Health in Austin, has faced many existential threats to her business. When Texas passed a law in 2013 requiring abortion providers to have admitting privileges at a nearby hospital, she was forced to close the clinic. She fought the measure all the way to the Supreme Court, and in 2016, she prevailed. By a 5-3 decision, the court ruled in *Whole Woman's Health v. Hellerstedt* that the law wasn't medically justified. There's an iconic photo of Hagstrom Miller descending the Supreme Court steps afterward, fist raised, smile radiant. Nine months later, she reopened her clinic.

It looked like a happy ending. But a year later the Austin clinic was on the brink again. An anti-abortion funder offered Hagstrom Miller's landlord five years of rent for the clinic and the offices she'd been renting next door to prevent anyone from setting up a crisis pregnancy center there. These places, which counsel women against having abortions, have proliferated in recent years, with more than 2,500 nationwide, and some try to operate as close to providers as possible. Hagstrom Miller estimates it would have cost her $250,000 to match the group's offer, a sum she simply couldn't spend. The clinic is now a crisis pregnancy center called the Source.

The displacement sent her on a nine-month quest for a new location. Even in a liberal city like Austin, she had to tour more than 80 places before she found an appropriate site whose owner was willing to rent to her. She estimates that the relocation cost $100,000—all part of what she calls the "abortion tax," a litany of extra, often unforeseen expenses providers must pay to open and operate. There's security to protect staff and patients. Airfare to get doctors to areas lacking trained physicians willing to perform abortions. Higher rates for contractors concerned about protesters and boycotts. More stringent loan terms. Insurance can be canceled unexpectedly, and replacement plans can have higher premiums. And for some clinic owners, there are legal fees for defending the constitutionality of the procedure.

Hagstrom Miller is both an abortion provider and a de facto legal guardian of the pro-choice movement. At 51, she carries on the fight while simultaneously running a national network of clinics in some of the most strongly anti-abortion states. Having bought 14 clinics in her career, she jokes that she could host an HGTV show called *Flip This Clinic* given how many she's renovated. (Providers who are thinking of closing down know to give her a call first.) Her clinics and the head office in Charlottesville, Va., carry the same feminist aesthetic, their violet walls featuring Georgia O'Keefe prints and inspirational quotations from Maya Angelou and Zora Neale Hurston. Sitting in her headquarters, Hagstrom Miller recounts story after story about struggles to secure vendors and about legal battles that forced her to delay opening clinics she'd already renovated. She usually finds a way. "I call myself a loophole archaeologist," she says.

Less than four years after *Whole Woman's Health v. Hellerstedt* was decided, her day-to-day work is at least as challenging as it was before. The abortion tax has gone up, with new barriers that hurt clinics' bottom lines. Protests have increased in number, and providers are struggling to offer a medical procedure that's been legal in the U.S. since 1973 and whose legality 7 in 10 adults support, according to a recent Kaiser Family Foundation study. Clinic owners across the country describe a business environment that's curtailing their ability to operate. And if owners can't operate, access disappears.

Anti-abortion activists have adopted a two-part strategy. On one hand, they lobby for the continued passage of laws like the one Hagstrom Miller fought before the Supreme Court—abortion-rights advocates refer to these as TRAP (Targeted Regulation of Abortion Providers) laws. And on the other, they try to raise providers' operating costs directly or otherwise pressure clinics out of existence. It appears to be working. The number of independent clinics, which account for 60% of U.S. abortions, was down to 344 as of November, one-third fewer than in 2012, according to the Abortion Care Network, an association of independent providers. In the parts of the country most hostile to abortion, rates are declining sharply.

On March 4 a Supreme Court refashioned by President Trump will hear arguments in a case involving a Louisiana law similar to the one Hagstrom Miller got overturned. If the law is upheld, a wave of similar ones could follow, essentially mooting her 2016 win. But even if the providers' side wins, there's no guarantee their businesses will endure. "We might have won a Supreme Court case that allows us to be open," Hagstrom Miller says, "but you can't be open if you can't find space."

Hagstrom Miller began her career in 1989, during an era of extreme violence against clinics. Fire bombings were widespread, and some doctors and staff were murdered. Five years later, President Bill Clinton signed a law to protect clinics and providers, banning blockades and punishing anyone who intentionally damaged a reproductive health facility.

Since then, anti-abortion activists have turned the law in their favor. The TRAP approach started taking off around 2011. Some of the most challenging of these regulations require providers to qualify as "surgery centers," facilities equipped for procedures more complex than a typical abortion; these measures can dictate a building's specifications right down to hallway widths, forcing renovations or relocations that can cost upwards of $1 million. Other regulations add hurdles before patients can get the procedure. When Texas passed one law requiring an extra clinic visit for women seeking an abortion, Hagstrom Miller says, her labor costs increased to the point that her clinics in the state haven't been profitable since.

In the wake of TRAP laws, her vendors were targeted by protesters. Contractors from plumbers to roofers to parking lot pavers expressed fears for their businesses and about dealing with demonstrators, whose numbers in the U.S. have more than doubled, to more than 280,000 over the past decade, according to the National Abortion Federation. When Hagstrom Miller tried to hire security, activists would target the guards or their employers, too. "Does that work?" she asks. "Yes. It gets them scared. They're worried they're going to lose their clients." Tammi Kromenaker, director of the Red River Women's Clinic in Fargo, N.D., says a

Hagstrom Miller

CAROLINE TOMPKINS FOR BLOOMBERG BUSINESSWEEK

window-washing company once claimed it couldn't work with her because it didn't clean "older windows." Other providers say they've resorted to arranging for their waste contractors to work incognito.

The difficulties of the TRAP law era have been compounded by social media, where viral videos have sparked new forms of protest. In one prominent example in 2015, a group called the Center for Medical Progress released tapes claiming to show that Planned Parenthood was selling fetal tissue for profit, which is illegal. A congressional inquiry and multiple state investigations concluded that the claim wasn't true, but activists noticed the attention the video garnered. One of them was Mark Harrington, who seized on a claim made in Ohio's investigation that a medical waste management company called Stericycle Inc. had been putting fetal remains in landfills—something the attorney general said violated humane disposal codes. Harrington's organization, Created Equal, decided to target Stericycle, which it identified as one of the biggest players in the medical waste industry.

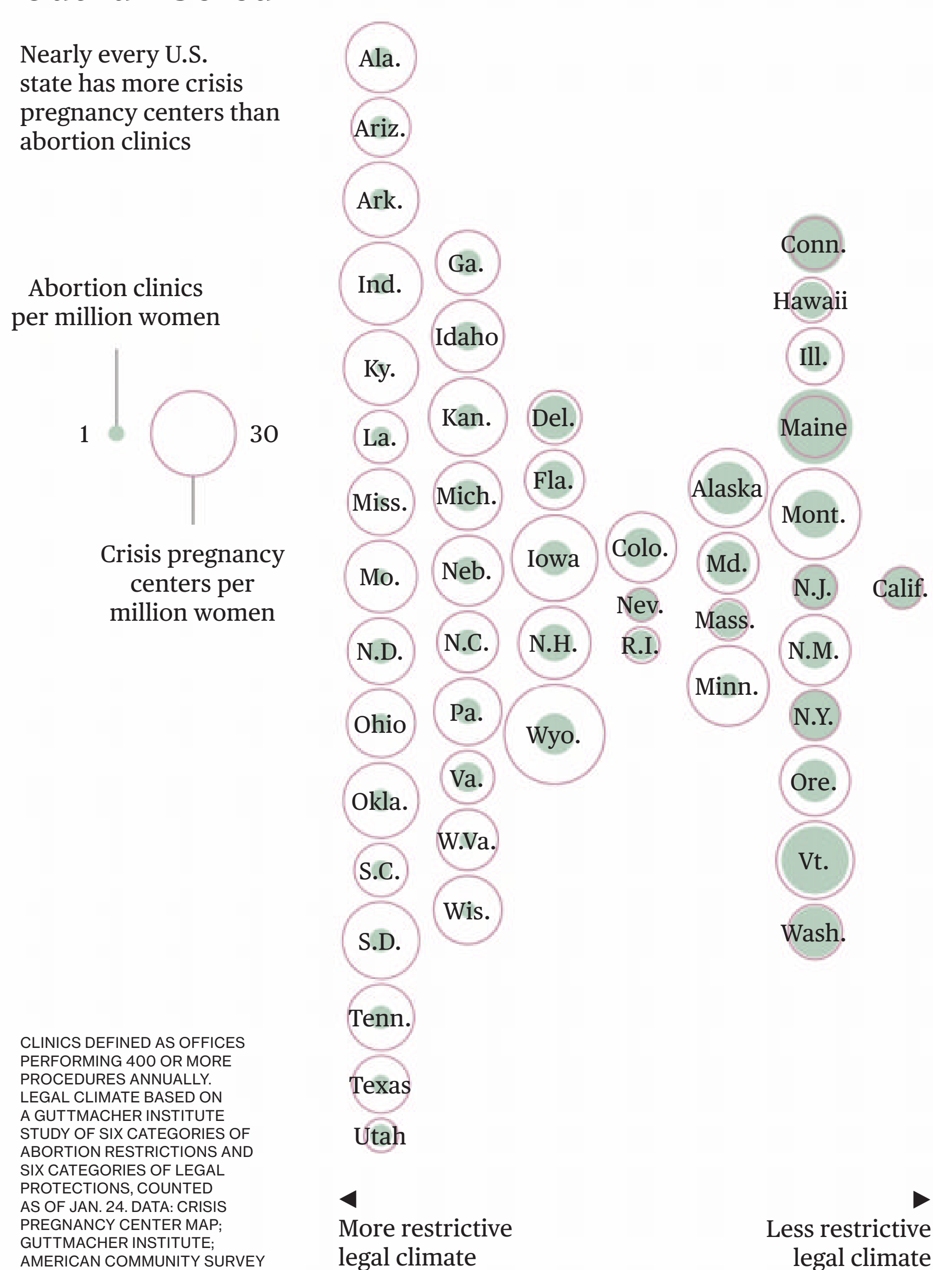
According to a lawsuit brought by the company against Created Equal, the activist group posted the home address of Stericycle's then-chief executive officer, Charles Alutto, on Facebook and on postcards it distributed near his home in Illinois. "Medical waste companies, which dispose of the victims and the instruments used to kill them, are the industry's Achilles' Heel," Harrington wrote on his website. (Stericycle didn't respond to multiple requests for comment but appears in legal filings to have contested Harrington's accusations, saying it had a long-standing policy against accepting fetuses as medical waste. Created Equal won the suit and was allowed to continue its campaign.)

Trump's appointments of Neil Gorsuch and Brett Kavanaugh to the Supreme Court further emboldened activists. Gorsuch had never ruled on an abortion case prior to his nomination, but he was on the shortlist the president drew on from the resolutely anti-abortion Federalist Society and had been described by *Christianity Today* as an "evangelical favorite." Kavanaugh famously argued in a dissenting opinion for delaying the abortion of an immigrant teenager while she was in federal custody.

Encouraged by the prospect of a solidly conservative majority at the high court, Republican lawmakers have lately passed a surge of abortion regulations. In 2019 alone, state legislatures enacted at least 58 new restrictions, including five that effectively ban abortions six weeks after conception, which is early enough that some women don't yet know they're pregnant. Several states started requiring providers to counsel patients on the possibility of taking a drug that purportedly acts as an "abortion pill reversal"—a claim the American College of Obstetricians & Gynecologists has publicly said is "not based on science." (One study testing an abortion reversal medication was halted last July after three women were hospitalized for severe bleeding.) And more than a dozen states now make abortion clinics qualify as surgery centers. "In other parts of medicine," Hagstrom Miller points out, compliance costs "are passed on to patients or insurers." The nuisance to providers, she says, "is by design. This isn't by default."

Catherine Glenn Foster, CEO of Americans United for Life, which has crafted a playbook for activists lobbying state ▶

Outnumbered



legislatures to pass TRAP laws, argues that the regulations are necessary to protect women. She says that, while she would prefer there be no abortions in the U.S., "right now abortion is legal. As long as it is, I am going to fight for every woman's safety. That may end up costing a little bit more."

In an era of high medical cost inflation, abortion is an outlier. A first-trimester abortion might cost between $400 and $1,000, depending on the method and the clinic. In Minnesota it's about $650. "You can't get a mole removed for $650," says Nikki Madsen, executive director of the Abortion Care Network. She calculates that in her 15 years in the field, the price of an abortion has gone up only $50. Go back 45 years, and it was $125 to $200, according to a 1974 *New York Times* article. Based on U.S. Bureau of Labor Statistics data, a procedure that cost $200 in 1974 would be around $2,686 today had it kept pace with medical inflation.

Prices remain static because abortion exists largely outside the traditional health insurance model. Eleven states ban or heavily restrict abortion coverage by private insurers, and more than half of all states have stringent rules that limit coverage on the insurance exchanges created by the Affordable Care Act, according to the nonprofit Guttmacher Institute. Most of the demand comes from low-income women, who got 3 out of 4 abortions in the U.S. in 2014. But Medicaid, which provides many of these women with coverage, is prohibited by a 1970s law from using federal funds to cover the procedure, and state funding fills the breach only if politics allow it.

All of that leaves abortion largely a cash business, with doctors charging what they believe a patient, rather than an insurer, can pay. Many clinics cover the entire cost of services for those who can't afford it, often drawing on donor support.

It can be a struggle even to open the doors, let alone to keep them open. Before Julie Burkhart started her clinic in Wichita in 2013, she spent two years trying to get funding. Everyone from Bank of America Corp. to Wells Fargo & Co. to some smaller regional institutions declined to give her money. "After I announced that we would be providing abortion care, that's where the conversation stopped," she says. In the end, she relied on donations, opening the same month as Kansas lawmakers passed sweeping anti-abortion legislation. "To all the lenders who thought we were too high-risk, here we are still open seven years later," she says. (In a statement, Wells Fargo said, "We do not have a policy against lending to family planning providers." Bank of America didn't respond to a request for comment but has previously said it doesn't have information on Burkhart's clinic.)

The chill has spread to pro-choice regions, too. After Trump was elected, Burkhart, concerned that *Roe v. Wade* might be overturned, decided to set up an operation somewhere more politically hospitable. She settled on Seattle, a liberal city in a state with abortion protections written into law. Even there, she quickly ran into issues. Her lease with the University of Washington for space in a skyscraper had clauses saying that Burkhart couldn't engage in "advocacy" and that she could be evicted if her business caused "any demonstration, protest,

Burkhart

picketing, rally" for more than two straight business days. In May 2018, after a picture of Burkhart in her office appeared in the local newspaper, she got a cease-and-desist letter from a lawyer for the university, warning her that she'd violated these clauses. The message cited the article, as well as a protest that had taken place outside in December 2017 and descriptions of her clinic's advocacy for reproductive rights on its website.

"I was a little disturbed, and floored, by the fact that an organization in the state of Washington, in the city of Seattle, would take such a punitive approach," Burkhart says. To placate her landlord, she agreed not to do media interviews in her office anymore. Ultimately, feeling muzzled and seeing less business than expected, she closed and refocused her attention on her clinic in Kansas. (In a statement, the university said, "The lease terms are established to ensure that any disruptions in the building potentially caused by a tenant's use can be addressed by the landlord.")

Another provider described a similar experience in New York City, which last year allocated $250,000 to establish the country's first municipal abortion access fund, for helping lower-income women living in states with restrictive laws to pay for abortions in New York. The provider, who asked to remain unnamed for fear of reprisal, was on the verge of opening a clinic in Manhattan in 2018 when she discovered a clause buried deep in her lease that said the tenant couldn't terminate a life or end a pregnancy. After a heated negotiation, she agreed to a provision that allowed her to provide birth control and the emergency contraceptive Plan B, but not abortions, for three years. The landlord told her he wasn't against abortion but was concerned that protests would limit his ability to lease property.

The national shift in climate also seems to be influencing insurers. Several providers describe having policies canceled over the past few years. One of them, Dr. Laurent Delli-Bovi, who owns a clinic in Massachusetts and teaches at Harvard Medical School, got a letter in 2017 from her insurance company, a division of Hartford Financial Services Group Inc. It was ending her property and general liability insurance, even though she'd never filed a claim. "We will not renew this policy when it expires," the letter read. "We have learned that your operations include [an] abortion clinic."

Seeking other options, Delli-Bovi contacted the broker for her workers' compensation insurer, Travelers, because it had once provided her with general liability coverage for a different location. Instead of a new policy, she got another letter. "We wish to inform you that your 'WORKERS COMPENSATION POLICY' Policy Number UB-4K987411-18-42-G will not be renewed on its expiration date 04-13-19," it read. The broker relayed that the decision was "because of your operations." After Delli-Bovi finally got a policy through Lloyd's, the broker sent word about that, too: "We have received a non-renewal notice from your current insurance carrier." All the broker could say was that "this happens from time to time" and that Lloyd's had attributed its decision to the "class of business."

It's been the same story for malpractice insurance. Dr. DeShawn Taylor, who operates a clinic in Phoenix, says she lost her coverage out of the blue even though she'd never had a claim or a suit against her. "It's really sad, because abortion is one of the safest possible things that a health provider can do. We don't admit people to the hospital," Taylor says. Research published in *Obstetrics & Gynecology* found that around 1 in 5,400 abortions results in a same-day ambulance transfer to an emergency room.

Spokespeople for Hartford, Travelers, and Lloyd's said that they couldn't or wouldn't comment on specific policies, and that they don't have blanket rules denying coverage to abortion providers. "We occasionally learn information about businesses that we were unaware of initially that makes them ineligible under our underwriting guidelines," the spokesperson for Hartford wrote. Michael Barry, head of media and public affairs at the Insurance Information Institute, an industry body, ties the phenomenon to risk assessment. An insurer might, for example, be "concerned about the higher risk of property damage," he says.

As the hassles mount, clinics are shutting down. There were 19% fewer abortions in the U.S. in 2017 than in 2011. A lot of this traces to the Affordable Care Act, which increased access to contraceptives and drove down the rate of unwanted pregnancies, but there's evidence that TRAP laws are playing a role in the decline, too. According to the Guttmacher Institute, states whose laws led to clinic closures saw abortion-rate declines that outpaced the national average. In Arizona and Ohio, the drop was 27%. In Texas, 30%. In Virginia, 42%.

The consequences are manifold. Studies have shown, for example, that women who want an abortion but can't get one are four times more likely to be in poverty four years later, are more likely to stay with violent men, and are more likely to experience complications from pregnancy, including death. The effects also stretch beyond elective abortions and into maternal health generally. Dr. Anuj Khattar, a Seattle-based family medicine practitioner, frequently flies to Oklahoma to fill a gap in abortion coverage there. While he was in the state last year, he was called in to perform an emergency abortion when a woman lost her pregnancy at a hospital whose staff doctor hadn't been trained to remove a fetus. Had Khattar not been there, the patient could have lost her uterus. "It's just frustrating," he says. "We have created this system that separates abortion care from the rest of medicine."

Delli-Bovi

HEATHER STEN FOR BLOOMBERG BUSINESSWEEK

When the Supreme Court returns its decision in the Louisiana case this summer, the worst-case scenario for providers will be if the court takes the opportunity to overturn *Roe* entirely. In an amicus brief drafted by Americans United for Life and filed this January, a group of 39 senators and 168 House members petitioned the court to do just that. "That is possible in any abortion case," says Foster, of Americans United for Life. "I would expect at some point the court would overturn *Roe*, and at that point the issue would return to the states."

Were that to happen, providers in states with abortion protections written into their constitutions would be able to continue their work. "I think we're perfectly poised to be a safe haven and provide service to women from other states," Delli-Bovi says. But, she adds, "we can only do that if we can stay in business, and right now that doesn't look that good."

Her clinic, which provides abortions at up to 24 weeks' gestation and takes patients from all over New England, hasn't been profitable for 13 years because of rising costs for insurance, anesthesia, rent, and property taxes. In December, as the business was facing more than $300,000 in debt (not counting $600,000 in loans from her and her husband, nor the 12 months' worth of back pay she was due), she started a GoFundMe campaign with a $250,000 goal. She warned that if she didn't hit it, she'd have to close within three months.

She's now more than three-quarters of the way to her target, which has allowed her to pay some of her bills. When the debt is gone, Delli-Bovi says, she's hoping a hospital or philanthropist will take over the clinic. She doesn't want to deal with the hassle anymore. "It's terribly stressful living like this," she says. "It's week to week, can we pay our bills? Debt collectors hounding you to pay them. That's not a pleasant way to live." B

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الديوان الأميري
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The Wild, Wild Rest

60
Hangers that will hook you

62
Greed is no *Wall Street*

63
A Thunderdome for your wrist

Bizarre secrets from the staff at the Canyon Ranch spa

March 2, 2020

Edited by Chris Rovzar

Businessweek.com

By Brandon Presser | Illustrations by Jaci Kessler Lubliner

Overweight and underslept, real estate executive Mel Zuckerman ignored the stern warnings from his physician: The yo-yo dieting and long hours at the office had to stop–his life depended on it. Then, suddenly, his father died, and he began to listen. It was the late 1970s, and fat camps were all the rage. But after one too many military workouts and bland, calorie-conscious meals, Zuckerman set out to develop a more satisfying and sustainable recipe for healthy living: Canyon Ranch.

Since its founding in 1979, the tony retreat has espoused a whole-person approach to care. The veritable pioneer of what's become a multitrillion-dollar wellness industry, the Tucson resort has never focused on isolated symptoms but instead uses integrative medicine. And it remains on the cutting edge, counting the likes of Diana Ross, Tim Cook, and Eva Longoria as devotees of its Ayurvedic third-eye awakenings, crystal sound healing, and lucid dreaming "soul journeys."

Zuckerman still swooshes on ellipticals alongside them, and his age is a mystery that guests love trying to crack–88? 95? 137? But these days he's there for less work and more play. In 2017, Zuckerman sold his entire share of the company for an undisclosed sum to Texas billionaire John Goff, who's continued Zuckerman's project of turning Canyon Ranch into a global brand with satellite locations, cruise and airline partnerships, and a rapidly expanding real estate portfolio. In November a Silicon Valley-adjacent retreat opened to woo moneyed millennials; this winter, for its 40th birthday, the Arizona flagship is unveiling its own $30 million tip-to-toe refresh.

Aging well, it seems, is easy for Canyon Ranch and its founding father (who's 91, by the way). So when the legendary spa offered me a chance to go undercover as a staff member for a week, I jumped at the opportunity to see how the (fat-free) sausage was made. And it wasn't all downward dogging and green juicing, either. From cataloging sex toys to slicing single dumplings into half portions, here's everything I learned at America's original wellness retreat.

Special requests are a special nightmare

You'd think most people come to the ranch to reset their bad habits, but it's often the ranch that needs to budge for picky clients. "I think seven is the current record for the number of times a guest has changed rooms during a three-night stay," says front-office manager Samantha Zaepfel, who fields requests such as adding blackout curtains and duct-taping peepholes. She's also been asked to unscrew half the lightbulbs in a suite, to remove all pens and paper, and to arrange a two-car airport transfer for a single customer—one for him and one for his luggage.

The list goes on. As the ranch has started drawing tech bros in addition to its usual crop of high-strung Fortune 500 execs and sixtysomething ladies who lunch, Zaepfel and her colleagues have gotten an equally diverse array of odd requests. They've flipped a bed so it didn't face north for a feng shui fanatic, removed all the tables and chairs for someone who "hated the look of flat surfaces," replaced the furnishings in a suite with a guest's shipped-in selections, and hung an extremely expensive (and extremely giant) portrait over a bed—it was one client's apology to his wife for bailing last-minute on their anniversary trip. For visitors who desperately want to be left alone, the staff has disconnected doorbells, enabled sensors disguised as rocks outside doors to let guests know when people are approaching, and even installed food warmers for frequent in-room dining.

Some requests end up as permanent installations. The La-Z-Boy recliners and big-screen TV near the hot tub in the men's locker room, for instance, are there thanks to one regular who was adamant about having a place to watch sports. One casita has a special toilet installed higher off the ground than a standard latrine for a repeat visitor with very precise potty needs. All of these tweaks are made at no extra cost. Hard-core loyalists can even stow items in their own complimentary on-site locker—their personal tennis ball-feeding machine, for example.

Yes, there are gluten-free fakers

Every day the dining staff gets a personal-needs report outlining who has special dietary considerations—all of which are taken very seriously. "Ten years ago the list was one sheet; today it ranges between 20 and 30 pages," says Mena Garaawey, the assistant restaurant manager. But how many of these diners are conflating preference and allergy? "Around 40% of people who claim to be gluten-free will go for some bread or dessert," she explains. "The same amount of dairy-free diners will quietly splurge on ice cream."

Allergic or not, picky eaters are best accommodated at the Canyon Ranch Grill. It's like Goldilocks's dream restaurant—you can tweak any dish to your heart's delight. Want four scallops instead of three? Easy. Take the coconut out of the coconut rice? Sure. Slurp the chicken broth but skip the noodles? No prob. I even watched a colleague serve half of a single wonton, its stuffing barely contained by the remaining sliver of dough.

There are exceptions. I ended up on the receiving end of a tantrum when we couldn't replace a dish's shiitake mushrooms with maitakes. (Nine other fungi were offered and rebuffed.) And alcohol is always a no-no. The resort maintains a sort of "brown bag" policy; booze can be purchased off-site and consumed in the privacy of one's casita. Garaawey says the nearest Circle K convenience store is probably the franchise's most profitable location.

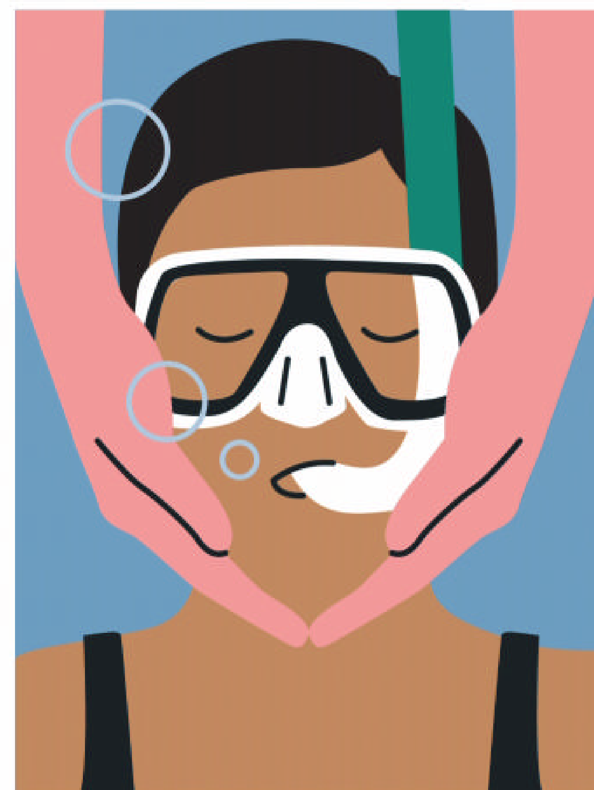
Oftentimes requests extend well beyond the dietary. "We have one regular that—no matter what he orders—wants his [already hot] entree zapped in the microwave for exactly eight and a half minutes," Garaawey notes. Another demands a welcome offering of three raspberries and one small apple. (How small? Only one server has ever guessed right.) A certain startup whiz refuses to be served by a blonde, claiming they lack the mental faculties to get his order right; ironically, his brunette of choice is actually a towhead with an auburn dye job. During my shift I had one high-achieving soccer mom refuse to sit at all—"Sitting's the new smoking!"—while a man demanded a table equidistant from the kitchen and salad bar. He was "allergic to the smell of raw onions."

You can massage your spirit in a hot tub

Canyon Ranch's spa services list reads like a Cheesecake Factory menu, with dozens of globe-spanning treatments targeting muscles you didn't know existed. My favorite was the "Rejuvenating Waters," which starts with an American Indian-inspired spirit worship in the sauna and culminates with an underwater massage in a hot tub. There are so many options (seaweed leaf cocoon, ahhhh) that creating a week's itinerary can take two months of back-and-forth before arrival.

About 70% of guests are focused on nutrition and fitness (read: weight loss); 15% are dealing with significant life changes (divorce, death); and the remaining 15% are simply seeking some R&R. They range in age from 30 to 85, with a gender split that's 70% female and 30% male—though Shayne Hornfeck, an operations manager, says that's been shifting as men realize that "spas aren't just places where ladies get their nails done."

A trip here adds up. The weekly rate (from $7,800) includes activities such as spinning and hiking but not spa services, on which the average guest spends an extra $1,500. The biggest single-day spree on record is $45,000; each week a few big spenders notch $10,000 in facials and rub-downs. During my tenure, one guest who'd been there a couple of months had rung up more than $300,000, largely on astrology readings and other metaphysical sessions.



At times, the guests are *too* comfortable

"Around 40% of people like to talk throughout their massage," says Ed Finnegan, one of the resort's senior masseurs. Beyond that, 1 in 15 people audibly moan when the tension in their muscles is released. "Once I had a woman on the table who began to talk loudly in her sleep," recalls aesthetician Hannah Turner. "We had a whole conversation about her favorite tacos that she didn't remember later."

And sometimes people just can't help how their body reacts. "An elderly woman once got a cramp during her service, popped up buck naked, and began skipping in circles around the table for relief," Turner says. Another time she found a client dangling nude from the ceiling after her session, experimenting with the Ashiatsu bars.

If there's one phenomenon that's extremely common, it's farting. "Blatant tromboning happens at least once a day," Turner says. "Guests eat high-fiber diets, and we're moving air around their body. It's sort of inevitable," Finnegan adds.

Jenny Flora, Canyon Ranch's personal dietary needs specialist, says this embarrassment often causes undue stress. "We get complaints that we're adding something to the food to make them gassy, when really it's just the body getting used to a balanced, vegetable-forward diet," she says.

Some confuse sensuality with sexuality...

Fetishes do come into play at Canyon Ranch. A guest once brought a giant feather and demanded to be dusted with it. Another needed 10 minutes devoted to her left second toe.

But generally, cases of "Can you go a little lower?" are extremely rare at the resort, a place where people go for therapeutic benefits—not a happy ending. In Finnegan's almost 30 years, he can remember only four isolated instances of questionable behavior: three women who adamantly didn't want to be covered by their modesty blanket and one man who obsessed over a specific area between his buttocks during a salt scrub. "My guess is that people are more likely to confuse sensuality and sexuality at beach resorts or strip malls," Finnegan says.

"Pheromones are happening in the gym, too, as people work on their fitness," says Mike Siemens, corporate director of exercise physiology, who once had a female client complain "that sex was the only way for her to relieve the tension in her pelvic floor." He declined the advance, putting the kibosh on any *How Stella Got Her Groove Back* fantasy. Equally memorable was the woman of a certain age who decided she was on a break from her marriage while visiting the ranch alone. When her husband rang the resort unable to get hold of his wife, she waltzed through reception drunk, with a young trainer on her arm. That was the end of the marriage—and the staffer's tenure.

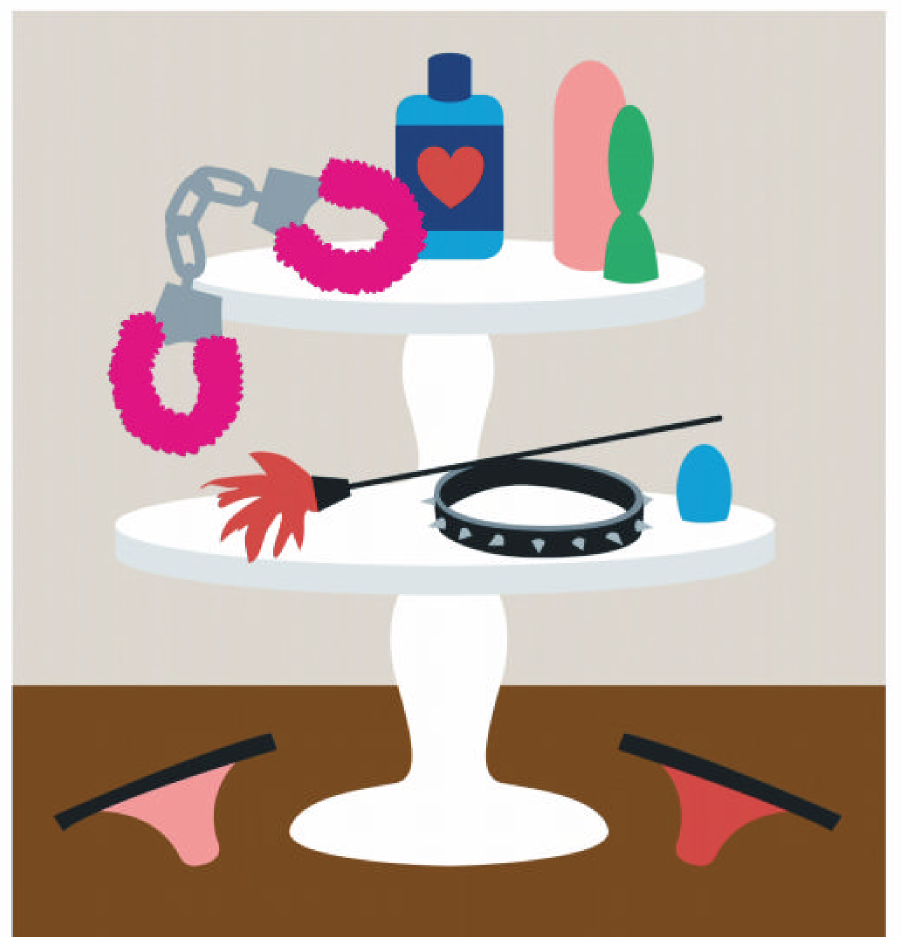
Very occasionally, the ranch will bar guests from the property for this kind of misconduct. This includes the high-profile ousting of British billionaire Sir Philip Green after a pilates instructor claimed he spanked her (he disputes the claim) and the dismissal of a middle-aged woman who completely trashed her room, smashing wine bottles everywhere, after a male trainer rejected her advances.

...which is OK, if you're in a sex toy showroom

One of the most popular doctors on the property is Nicola Finley, a women's sexual health expert best known for her regular lecture, "Not Tonight Honey, I Have a Headache." Most of her work at the ranch helps middle-aged, heterosexual, monogamous women address low libido or a disparity of desire with their partner. When their needs are being unmet, she says, it usually has to do with a lack of foreplay—not size or technique.

Ten percent of Finley's patients are on the hunt for the Big O they've never achieved; the rest "often experience heightened pleasure on their own, but not with their partner." She frequently reminds them that—despite common perception—there's no such thing as a G spot. "Evidence-based medicine shows there's simply not one anatomical area on every woman that, when stimulated, gives arousal," she says.

To help guests find what works for them, there's the Intimate Product Room, a sex toy patisserie selling more than $50,000 in literature, lubricant, dildos, and vibrators each year. The most popular purchase? The $200 We-Vibe Sync, which comes with a remote control and FaceTime capability for long-distance relationships—so clients can actually push each other's buttons.



Guests ate a ton of kale last year

Well, more precisely, 3 tons. "Diet's a four-letter word at Canyon Ranch," says executive chef Russell Michel, who joined the resort in 2019 after catering a vegan bat mitzvah for Zuckerman's granddaughter. Michel doesn't adhere to buzzwords such as "keto," "gluten-free," or "paleo." He simply reproportions ratios of meat, vegetables, and carbs.

The results are palpable: In my one week, I dropped 7 pounds of holiday chub I didn't even know I was hiding.

In 2019, while the resort was at 70% of its normal capacity because of renovations, guests devoured 6,000 pounds of kale, 7,000 pounds of salmon, 10,000 pounds of apples, and—vampires, beware—more than 4,000 pounds of garlic. Scarcity and skyrocketing prices caused a decline in avocado consumption (guests still ate about 50,000 of them last year), while celery was ascendant, a direct result of rampant juicing.

It's possible to eat too much produce at the ranch—even without exceeding the recommended 600 calories at dinner. One guest ate 2 pounds of carrots a day, turning the palms of her hands orange. Another insisted on consuming 4 pounds of cut-up cauliflower daily, which apparently causes an odd set of digestion issues. About cauliflower: It's the most consumed veg on campus; the chefs prepared 13,000 pounds of it last year.

Way more people are doing Botox than you think

Even at a place such as Canyon Ranch, the full detox has recently gone a little more, um, tox. That's thanks to Amy Henderson, who introduced injectables when she arrived as director of the resort's medical aesthetics division.

Oddly enough, the elderly guests who signed up first were the same ones throwing shade about whether Botox belonged on the ranch at all. "I think everyone was worried that I was going to be some scary Botox lady, looking all exaggerated and fake," Henderson explains. But as it turns out, high-level execs searching for a physical and mental recharge want to look the part, too. Now, on average, she touches up a dozen faces a day—including those of the company's top brass.

Demand, Henderson says, is why the ranch added these plastic surgery-adjacent treatments in the first place: "So many people were sneaking off property in the middle of their stay to visit different clinics around Tucson, we decided to bring it in-house."

More than half of her patients are first-timers who feel safe dabbling in something new if it's within the confines of the ranch. And although the average filler treatment runs $2,000 to $3,000, "dipping a toe" into a light dewrinkling can cost only $12 a unit, making it much easier to stomach. (The typical forehead touch-up includes 35 or so units—or $400.)

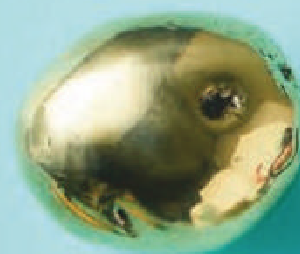
But bragging about one's Botox is far from commonplace. In fact, guests are so tight-lipped (really, the jokes are endless here) about treatments that they prefer to omit the line item from their resort bill, paying in cash or divvying up the expense across several credit cards to hide the indulgence, even from their spouse.

The boom in Botox is palpable, but the requests remain grounded. Well, relatively. "Recently I had a young woman aspiring to look like a Snapchat-filtered photo of herself—that was unsettling," Henderson says. But no one's demanded that their Shar-Pei be shot up, and "we've yet to receive a request for scrotox," she adds. We'll let you figure out what that entails. Ⓑ

Get the Hang of It

Whether inspired by soap bubbles or potatoes, designers are getting wild with wall hooks. *By Monica Khemsurov*
Photograph by Sarah Anne Ward

UNI
At 4.5 inches in diameter, this ceramic circular hook can hold up to 5 pounds and will give your colorful hand towels a proper showcase. It's also available in nonspeckled black. *$42; virginiasin.com*



POTATO
This whimsical wall hook shares the misshapen, lumpy character of its namesake, which Los Angeles designer Ramsey Conder describes as "a perfect example of the natural world finding harmony with a new perspective." *$80; ramseyconder.com*

TALLOMET
Thanks to a black brass peg that's offset by a backplate in brushed brass, this coat hanger by Portland, Ore., designer Elizabeth Parker is a study in contrast. All the mounting hardware is hidden inside the hook itself, which can hold up to 40 pounds. *$128; spartan-shop.com*

WORM
San Francisco designer Tina Frey casts and finishes her substantial hook by hand, using lead- and BPA-free food-safe resin. It also comes in black and "sunshine," a bright orange hue. *$35; tinafreydesigns.com*

CONCHA SHELL
Find your beach with a shell-shaped hook from AYTM design studio. Made from Zamak, a zinc alloy, it's available in gold or silver finishes. Almost 5 inches tall and wide, it works as a standalone wall ornament, too. *$45; comingsoonnewyork.com*

FLOAT
Two concealed screws that attach to the wall give this hook a floating appearance, hence the name. A solid milled brass front can be paired with either marble (pictured) or glass. *$290; trueing.com*

PA
For this steel hook, London designer Philippe Malouin takes a stripped-down approach that references hoop and stud earrings. It also has a hidden pin to keep it from turning sideways. *$40; mattermade.us*

CAST-IRON HOOK
The spotted look here leans into the current trend for terrazzo-printed designs. The full collection contains other sizes and finishes—semiprecious stones, marble, and brass—to mix and match. *€15 ($16.20); fermliving.com*

HOOK HANGER
Danish brand Gejst recently acquired the rights to this 5-inch-tall model, which is inspired by the handle of an umbrella. The deep curve of the hook proves versatile, whether for heavy-duty coat hanging near the front door or smaller items such as tea towels and aprons in the kitchen. *Similar styles from €42; gejst.com*

ADÃO
Paris-based Pauline Deltour designed a coat peg made of solid chestnut with a distinct concave face and a low-sheen wax finish. But it's named for Adão Gomes, the Portuguese woodworker who brought the coat peg to life. It's available in 4- and 6-inch sizes. *From €45; origin-made.com*

BUBBLE
French duo Vaulot & Dyèvre made a coral-tinged, bulbous hook for hip design manufacturer Petite Friture. Its soap-bubble shape, made from blown glass, amps up the fun quotient in a staid hallway, especially when combined with its other yellow, blue, and gray colors. *From $85; amara.com*

CLEAT
Inspired by nautical hardware and rigging, this solid brass wall hook needs no tools—just use it as a handle and screw it into the wall. *$80; patkimdesign.com*

Greed Is ... Not Good

A new movie takes aim at the .001% and hits the poor instead. *By James Tarmy*

It's never clear if *Greed*, the story of the rise and fall of an English fast-fashion billionaire, is intended as satire or moral parable. It's certainly got some superb comedic actors: Steve Coogan plays arch-capitalist Sir Richard McCreadie; Isla Fisher plays his (amicably separated) ex-wife, Samantha; and David Mitchell, best known as the co-star of the British series *Peep Show*, plays Nick, a hack McCreadie has enlisted to write his biography.

The setup for a sendup is there, too. The movie opens as McCreadie and his entourage prepare a Roman bacchanal-themed birthday party on the Greek island of Mykonos: There's harried staff, a callous attempt to remove some Syrian refugees camped on a public beach ("They're refugees—they can find refuge somewhere that isn't smack bang in the middle of our f---ing view"), and a plywood Roman amphitheater that's intended for some sort of gladiatorial performance with a live lion. Looming over the proceedings is a recent parliamentary inquiry into McCreadie's business that's tarnished his reputation.

Coogan as McCreadie

What could go wrong?

To find out, viewers have to wait while the movie, directed by Michael Winterbottom and running a quick 104 minutes, lavishes time on its ostensible villain's origin story. After being removed from a posh public school, the hardworking young McCreadie, played by Jamie Blackley, crisscrosses the globe as he founds a series of clothing companies whose profits are built on cheap labor.

McCreadie visits several Sri Lankan sweatshops, pitting one owner against another until he squeezes out the best deal possible. "If the price goes down, the factory still has to make money," explains the daughter of one such worker. "So what happens? The workers have to work faster."

Gradually we learn that McCreadie, though fabulously rich, has not been fabulously successful; instead, his modus operandi is to start or acquire a company, saddle it with debt, extract as much money as he can from the operation, and then let it go bankrupt.

There's a reason the character sounds like someone you've heard of. According to the filmmakers, McCreadie was inspired by Philip Green, the billionaire who oversaw the collapse of fashion retailer BHS. (Green owned BHS for 15 years, then sold it for £1 the year before it went under; 11,000 people lost their jobs.) But McCreadie's playbook could be taken directly from any one of dozens of private equity firms that have subjected companies including Toys R Us, Fairway Market, and Claire's Stores to a corporate pillaging.

Coogan, who often appears in flashbacks in front of the parliamentary committee wearing a power suit and fake teeth, is unnervingly good at humanizing what could be a two-dimensional character: He's not a bad person, he argues to the committee, he's just doing well in a system that's designed to punish the many for the benefit of the few. "I pay what I have to [in taxes] and no more, because I'm not stupid," he says. "If you want to chase people avoiding tax, why don't you go after the big boys? Look at Apple, look at Amazon, Starbucks. Why are you chasing me?"

And where, throughout all of this, are the laughs? It's an increasingly unanswerable question as the movie stutters to a close. The danger of all these flashbacks, it turns out, is that they drain any narrative momentum. All the air has left the film well before McCreadie's birthday party spirals joylessly out of control and ends in gruesome fashion.

Without the humor, we're left to reckon with *Greed*'s victims—the refugees tricked into working as handymen at the party, his hapless employees, the women in his sweatshops. We watch one such laborer, who happens to be the mother of a member of McCreadie's entourage, as she falls ill, gets fired, and then dies in a horrible accident. Because the film toggles unsteadily between these people's suffering and McCreadie's theatrics, neither manages to make an impact.

To be fair, *Greed* always faced an uphill battle. Wealth porn has so completely replaced real pornography in contemporary cinema that it's difficult for a filmmaker to linger on the yachts, planes, and mansions of the very rich and still expect audiences to get offended. Indeed, cannier directors than Winterbottom have tried to turn viewers against excess and failed. In 1987, Oliver Stone made *Wall Street* as a scathing indictment of the financial industry and ended up delivering an infomercial for Goldman Sachs.

More than 30 years later, greed is still good, at least from the perspective of people trying to sell films, and maybe that's the takeaway of *Greed*, too. "It must be costing a fortune," McCreadie's mother says of his birthday party. "It is," McCreadie replies. "And that's the point." Ⓑ

PHOTOGRAPH BY AMELIA TROUBRIDGE/COURTESY SONY PICTURES CLASSICS

A Crinkle In Time

There's magic behind the dial in this eye-catching watch from the mad scientists at MB&F
Photograph by Joanna McClure

Every year or so, Maximilian Büsser & Friends produces a new timepiece in a line it calls the "Legacy Machines," which are an exercise in upending horological tradition. The watchmaker may twist dials into a vertical angle that offers a different view than the usual flat face or bend the bridges that secure the movement into dreamy, wishbonelike arches. For the $280,000 Legacy Machine Thunderdome, unveiled in December, MB&F joined wunderkind movement inventor Eric Coudray and perfectionist designer Kari Voutilainen to create a tourbillon that rotates on three axes at the quickest speed on the market.

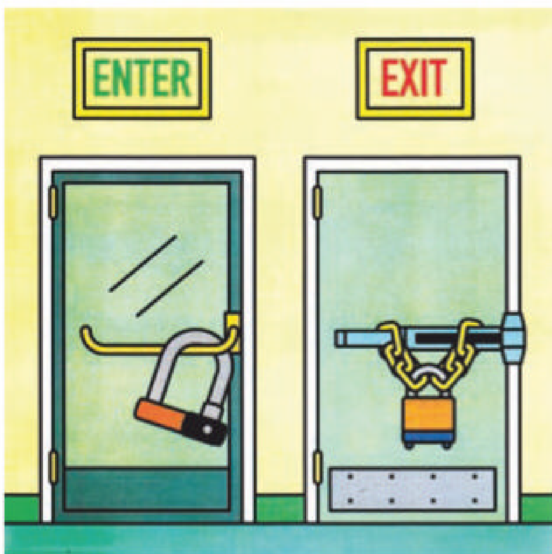
THE CASE
With a high dome and a dial that lifts away from the wrist, this timepiece isn't one for the subtlety-inclined—yet it's elegantly and minimally designed. From above, the Thunderdome appears to hold a tangle of blue titanium and brass, but up close its delicate complexity revolves into view. Rivulets carved into the guilloche face emphasize the relative simplicity of the dial, with its plain hour and minute hands. (The tourbillon rotates on its three axes in 8, 12, and 20 seconds, respectively, if you need to keep track of smaller increments.) MB&F will make only 33 of the watches in the current platinum model, which means it's a collector's piece that will stand as a testament to what elite watchmaking is capable of at this moment in time. *$280,000; mbandf.com*

THE COMPETITION
- If a bulbous, attention-grabbing piece of wrist bling is what you're after, the Jacob & Co. Astronomia Flawless is the most audacious you'll find. Featuring a full rotating Earth and a pea-size yellow diamond, it'll set you back a galactic $1 million.
- Breguet can lay claim to the invention of the tourbillon itself, which the company's founder patented in 1801. Its Double Tourbillon 5347 ($444,000 in platinum) displays two of them working in tandem set into a hand-engraved dial.
- Coudray also designed the mechanism at work in the unorthodox Cabestan Triple Axis Tourbillon, inspired by a sailing catamaran. Only 50 all-sapphire versions will be made; each retails for 265,000 Swiss francs ($270,000).

SoftBank's Woes Are Not A Victory for Rival VCs

By Alex Webb

Venture capitalists may have breathed a sigh of relief in February when the activists came calling for SoftBank Group Corp. founder Masayoshi Son. The Japanese company's $100 billion Vision Fund upended technology investing when it began making outsize bets on startups in 2017. Being the biggest venture fund in history meant its portfolio companies didn't have to worry about profit anytime soon, while making it harder for rival investors to get in.



Paul Singer may have put an end to all that. Elliott Management Corp., the billionaire's activist vehicle, has built a stake of almost $3 billion in SoftBank and is demanding that Son refocus attention on its existing business. The Vision Fund accounts for just 10% of SoftBank's overall managed assets, runs the argument, yet consumes 100% of investor attention.

Son's plan to raise a larger second fund was already proving difficult after last year's ditched initial public offering of WeWork parent We Co. The fiasco highlighted major defects in the way the fund, and by implication SoftBank itself, is run. But VC firms would be wrong to think pressure on SoftBank and the Vision Fund makes their lives easier. Even if Son fails to raise the new capital, the Vision Fund has fundamentally changed the landscape.

Venture capital is hard not just because it's tough to find the best investments, but also because the most promising startups often have the luxury of choosing whose money to accept. Storied firms like Sequoia Capital, an early investor in Apple, Google, and LinkedIn, have a significant edge over the arrivistes. To get over that hurdle, the Vision Fund weaponized its cash pile, bullying companies into acceptance by threatening to invest in rivals. "Rather than having their capital cannon facing me, I'd rather have their capital cannon behind me," Uber Technologies Inc. Chief Executive Officer Dara Khosrowshahi said in 2018.

To compete, rival funds have gathered their own vast stacks of money, helped by the dearth of good returns elsewhere. More money poured into venture in both 2018 and 2019–the two years the Vision Fund started investing–than had in any previous year, as Sequoia, Andreessen Horowitz, and other firms raised their biggest funds yet. And the average size of new funds grew to the biggest in more than a decade, according to data from PitchBook Data Inc.

These monster funds, while smaller than SoftBank, still have to compete with one another. And they won't have the option of exiting by selling their stake to the deep-pocketed Japanese firm. Son has also inadvertently changed public investors' expectation of startups. In addition to WeWork, the disappointing market debuts of SoftBank stablemates Uber and Slack Technologies Inc. have refocused attention on old-fashioned metrics such as, dare I say it, free cash flow. Somehow the Vision Fund has managed to make it harder for venture capitalists to both invest and then find an exit. Ⓑ —*Webb is a columnist for Bloomberg Opinion*

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amount of tree cover lost per second, equal to the area of a soccer pitch

1°C
increase in average global temperature over the last 100 years (0.18°C per decade since 1981)

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40%
reduction in air pollution in the U.S. since 2000, due in part to stricter EPA policies

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