Bloomberg Businessweek
May 17, 2021

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BLANK-CHECK COMPANIES HIT THE WALL 44

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RYDERSHARE™ BRINGS VISIBILITY AND COLLABORATION TO THE SUPPLY CHAIN

For decades, supply chains have been fraught with issues. Lack of visibility between vendors, suppliers, and shippers, as well as manual or disparate processes and the inability to connect to each other has historically caused bottlenecks, redundancies, and late or missed shipments. With more pressure on supply chains than ever before, Ryder's new digital platform—RyderShare™—changes all that with real-time visibility and collaboration with key stakeholders that increases productivity and drives value.

RyderShare™ is a collaborative logistics platform that breaks down industry silos and provides complete transparency to everyone in the supply chain journey from end-to-end. Additionally, RyderShare™ provides detailed shipping visibility and instant proof of delivery—eliminating the need for multiple phone calls to verify a shipment's status while en route—and gathers valuable data to further increase efficiency.

"RyderShare™ breaks down the silos that exist in today's supply chain, and enables all players in the supply chain to have access to the same information at the same time," says Kendra Phillips, CTO and VP of New Products at Ryder System. "And with that, everyone in the supply chain can collaborate together to make decisions—especially if something's going wrong—to make sure that they can adjust and adapt to changes in the supply chain."

Ryder launched the digital platform in May 2020, and demand for it exploded as Ryder's customers faced unprecedented supply chain challenges amid the pandemic.

In one example, since implementing RyderShare™ in its operation last year, Do it Best has vastly improved its delivery process. Traditionally, store or distribution center managers needing updates on an inbound delivery have to call a customer service department to check on a shipment's timing. Customer service then reaches out to the operations team to get an accurate update. Next, operations has to check in with the carrier or truck driver for real-time information. Once the information is received, the communication process occurs in reverse to get the update to the requesting manager. This inefficient process, requiring several people, can often take hours to answer a simple delivery question.

Through RyderShare™, store managers receive a customized notification when a truck is on the road or when it's an hour from the store, via a link that allows managers to track the truck throughout the day.

Enhanced end-to-end collaboration

The ability to see what's happening within a supply chain in real time is invaluable to logistics providers—and their customers. RyderShare™ allows shippers, receivers, carriers and service providers to instantaneously view all shipping and operational information in real-time. If there's an issue with a specific load or order, stakeholders can message each other directly through the platform. Since both partners are looking at the same screen at the same time, this process is fast and efficient, minimizing the chance of miscommunication.

Incorporating real-time data

In addition to real-time visibility, RyderShare™ harnesses data that operators can use to create business intelligence that results in improved productivity, efficiency and customer service. For example, the platform is able to uncover traffic patterns that could show a faster route, and can recognize which receivers cause repeated delays, and reorder deliveries accordingly.

"If data shows one customer is consistently causing delays for everyone else down the chain, analytics can tell us to shift that customer to last," Phillips says. "That allows the other customers to get a great experience, and the last one is not holding anyone else up."

Implementing solutions for the future

RyderShare™ continues to evolve as it takes advantage of the latest technological advances and data. Phillips says that the company aims to incorporate additional IoT technology into the platform, which will allow customers to see information such as temperature, security and yard management. Furthermore, the platform will provide increased visibility further up the supply chain, into the distribution center or warehouse.

"We really are enabling that true visibility far up the supply chain, so you can better plan, and better predict," she says. "There are so many pain points in today's supply chains, and with RyderShare™, we eliminate the inefficiencies and create a differentiated customer experience that drives value."

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◀ A pedicab waits outside Mumbai's Maasaheb Meenatai Thackeray Hospital on May 8

PHOTOGRAPH BY SARA HYLTON FOR BLOOMBERG BUSINESSWEEK

FEATURES

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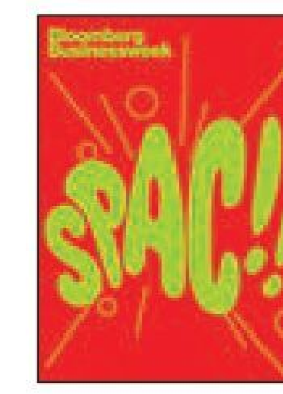
■ COVER TRAIL

How the cover gets made

1

"This week's story is about SPACs. They're looking far more lucrative for sponsors than retail investors."

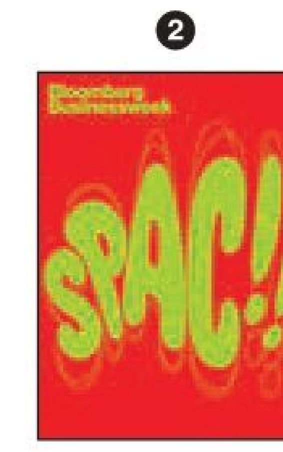
"SPACs go *SPLAT!* Y'know, like, 1960s Batman-style."



"Wow! Are we done? Already?!"

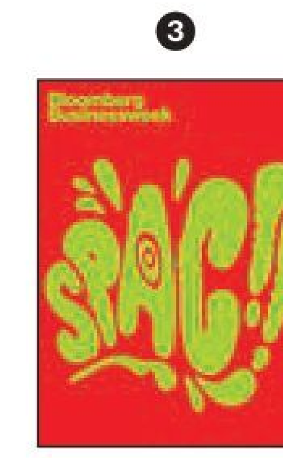
"I'll just make a few refinements…"

2



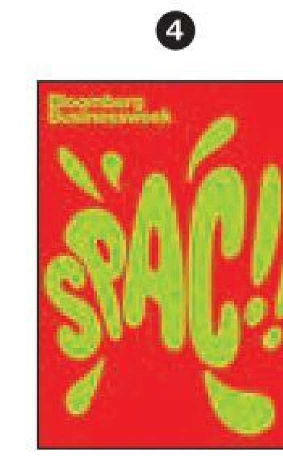
"Hmm, I dunno, but that's…not better?"

3



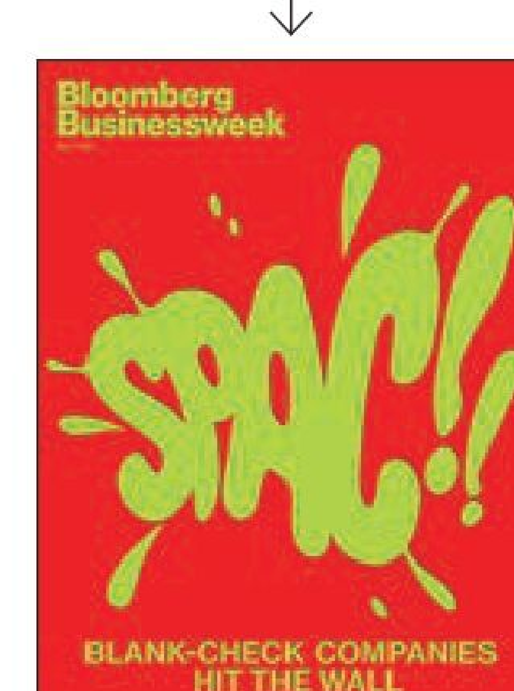
"Worse. Are we sure this is a good idea? Needs more tomato-meets-wall effect."

4



"Ah! I kind of like it again?"

[Muttered cursing]



BUSINESS: PHOTOGRAPH BY IAN LORING SHIVER FOR BLOOMBERG BUSINESSWEEK

● Global coronavirus cases have passed 160 million, and deaths have topped

3.3m

Almost 1.4 billion vaccine doses have been given. Some Asian countries are racing to contain outbreaks, with Taiwan and Malaysia imposing new restrictions. Japan extended a state of emergency to Tokyo, less than three months before the city hosts the Olympics.

● U.S. gasoline prices averaged above $3 a gallon for the first time in more than six years on May 12.

The surge followed the May 7 shutdown of the Colonial Pipeline, North America's biggest petroleum conduit, after a cyberattack.

● Tensions over the potential eviction of six Palestinian families in Jerusalem erupted when Hamas fired missiles from Gaza (above). Israeli forces retaliated with airstrikes. As of May 12, six Israelis and more than 50 Palestinians had been killed.

● The National Rifle Association had its bankruptcy filing tossed out.

A Texas judge said the financially healthy entity can't go down that path, which aimed to shield the group from a New York probe threatening its dissolution.

● Bankrupt car rental company Hertz was sold to private equity buyers Knighthead Capital Management and Certares Management. The deal gives each share of stock a recovery value of about

$8

It's a victory for shareholders, who only recently faced the prospect of being wiped out.

● China's once-a-decade census showed the most populous nation on Earth barely grew over the past 10 years.

The annual average growth of 0.53% in the past decade was the slowest since 1953, bringing the population to 1.41 billion.

● Malaysia's 1MBD state-owned investment fund filed 22 civil suits against entities and individuals for alleged wrongdoings including fraud on May 10. Targeted banks include JPMorgan Chase, which declined to comment, and Deutsche Bank, which said it hasn't been served papers yet.

● "We cannot be dragged backward by the very dangerous lies of a former president."

Representative Liz Cheney, after being stripped of her role as House GOP conference chair on May 12 because of her criticism of former President Trump and his incessant falsehoods about the election he lost to Joe Biden.

● Qatar froze the assets of six local businessmen as part of a crackdown against high-ranking figures. The move follows the arrest this

month of Finance Minister Ali Sharif Al Emadi over alleged abuse of power and misuse of public funds.

● Helmut Jahn, the German-born architect who designed Terminal 1 at Chicago's O'Hare International Airport and the city's James R. Thompson Center, died on May 8 from injuries suffered in a cycling accident. He was 81.

GAZA: AMIR COHEN/REUTERS. CHENEY: AL DRAGO/BLOOMBERG. AL-EMADI: KARIM JAAFAR/GETTY IMAGES. JAHN: SVEN GRUNDMANN/GETTY IMAGES

Europe's Failed Super League Got One Thing Right

European soccer has survived its greatest crisis: not the coronavirus, but commerce. The attempt last month by the 12 biggest clubs to create the European Super League quickly collapsed, to hoots of derision from fans and much relief from the sport's administrators. But short-lived as it was, the proposal brought attention to the dysfunction at the heart of European soccer—and suggested a reform that could well save the sport.

Because Europe's leagues impose minimal restraints on spending, clubs effectively must spend larger sums each year to acquire and retain top talent and win trophies. That forces them to pursue every avenue of profit, even at the risk of undermining the sport's traditions and institutions. In addition to inducing bankruptcies and encouraging corruption, the system all but ensures that a handful of wealthy clubs dominates year after year.

Other sports leagues have solved this problem by restricting how much franchises can spend. Salary caps are the norm in cricket (the Indian Premier League), rugby union (Premiership Rugby), and most U.S. sports (the NFL, NBA, and so on). In most instances, teams have the additional protection of assured participation, regardless of their achievements.

This arrangement benefits owners and fans. It creates a level playing field for franchises, but allows the marquee names to maximize their commercial potential. In baseball, for instance, 14 franchises have won the World Series over the past 20 years. Yet the New York Yankees, despite winning it only once in that period, are far and away the sport's richest club.

It's easy to see why 12 of the biggest soccer clubs wanted to replicate that model in Europe. In attempting to do so, they made two mistakes. One was that the European Super League would have guaranteed annual participation for the big clubs. Although this would assure broadcasters that every game featured glamorous names, it almost certainly wouldn't fly in Europe. The sport's administrators, including the Union of European Football Associations (UEFA) and all the national leagues, are dead set against the idea. Sporting chance, they argue, demands that the elite be demoted for poor performance and humbler clubs be promoted for excellence.

Next, the founding clubs agreed to limit their "sport spending"—including salaries and transfer fees—to 55% of revenue. This was a poor iteration of a good idea. A salary cap of some kind is exactly what Europe needs. But a spending limit based on revenue would merely preserve the disproportionate advantage enjoyed by the big clubs.

Better to embrace a Europe-wide salary cap along the lines of the National Football League. The ceiling imposed on American clubs—set at $182.5 million for 2021—hasn't prevented the NFL from becoming the world's most profitable sports league, or the Dallas Cowboys from remaining the most valuable franchise for five years running. It also helps ensure that most teams have a fighting chance each season.

Although the leading European soccer clubs have flirted with the idea, the UEFA has never seriously attempted such a cap. Now, the combination of the economic damage wrought by the pandemic and the anxiety caused by the prospect of a breakaway league should give impetus enough to finally do so.

A Europe-wide salary cap wouldn't be without complications. But it would prevent the top clubs from perpetually hoarding the best talent, make national leagues far more competitive and less predictable, and place the sport on sounder financial footing for the long term. It would also capitalize on an insight that NFL owners hit on long ago: There's more money to be made when anyone can win. *For more commentary, go to bloomberg.com/opinion*

AGENDA

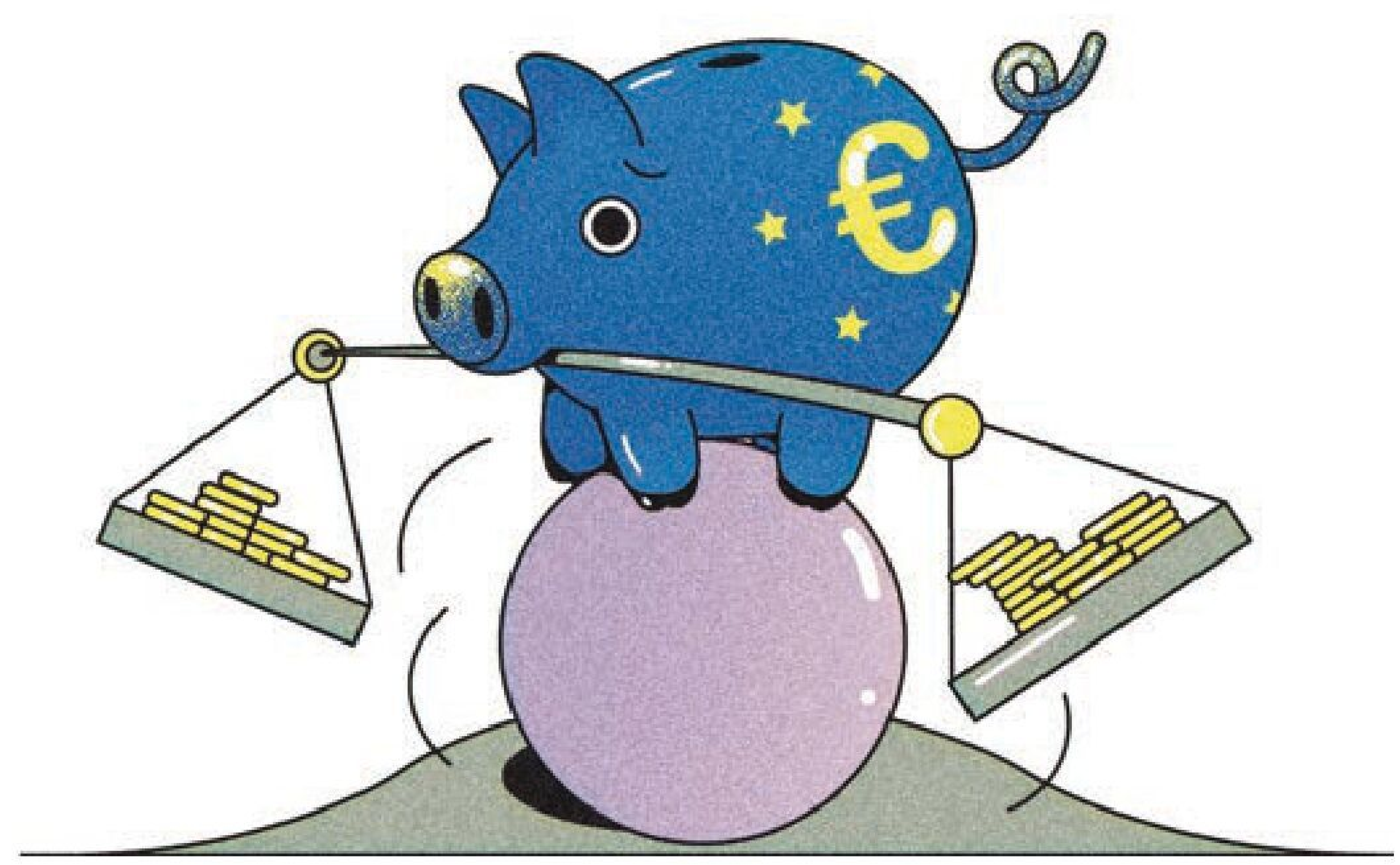


ILLUSTRATION BY EMMA ERICKSON

► A Bill of Health

The European Central bank issues the results of its biannual stress test on the region's financial institutions on May 19. The risk review often requires banks to shore up their balance sheets.

► Tencent Holdings unveils first-quarter earnings on May 20. Like other Chinese tech giants, the company has come under pressure from the government seeking to curtail its size.

► Daimler hosts a strategy meeting for investors to discuss its heavy truck unit on May 20. The company plans to split off the business and rename itself Mercedes-Benz.

► European finance ministers meet in Lisbon on May 21-22 to discuss their joint recovery efforts as the region slowly emerges from the pandemic's third wave.

► The Sohn Conference in Hong Kong will be held virtually again on May 20. It will feature remarks from hedge fund managers such as Seth Fischer of Oasis Management.

► U.S. Commerce Secretary Gina Raimondo plans a May 20 summit with companies affected by the intensifying global semiconductor shortage.

► An Atlas V rocket will launch a satellite for the U.S. Space Force's missile-detection system from Cape Canaveral, Fla., on May 17, bringing its early-warning arsenal of satellites to five.


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Image by anothermountainman
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For Crypto, The Price of Success May Be Regulation

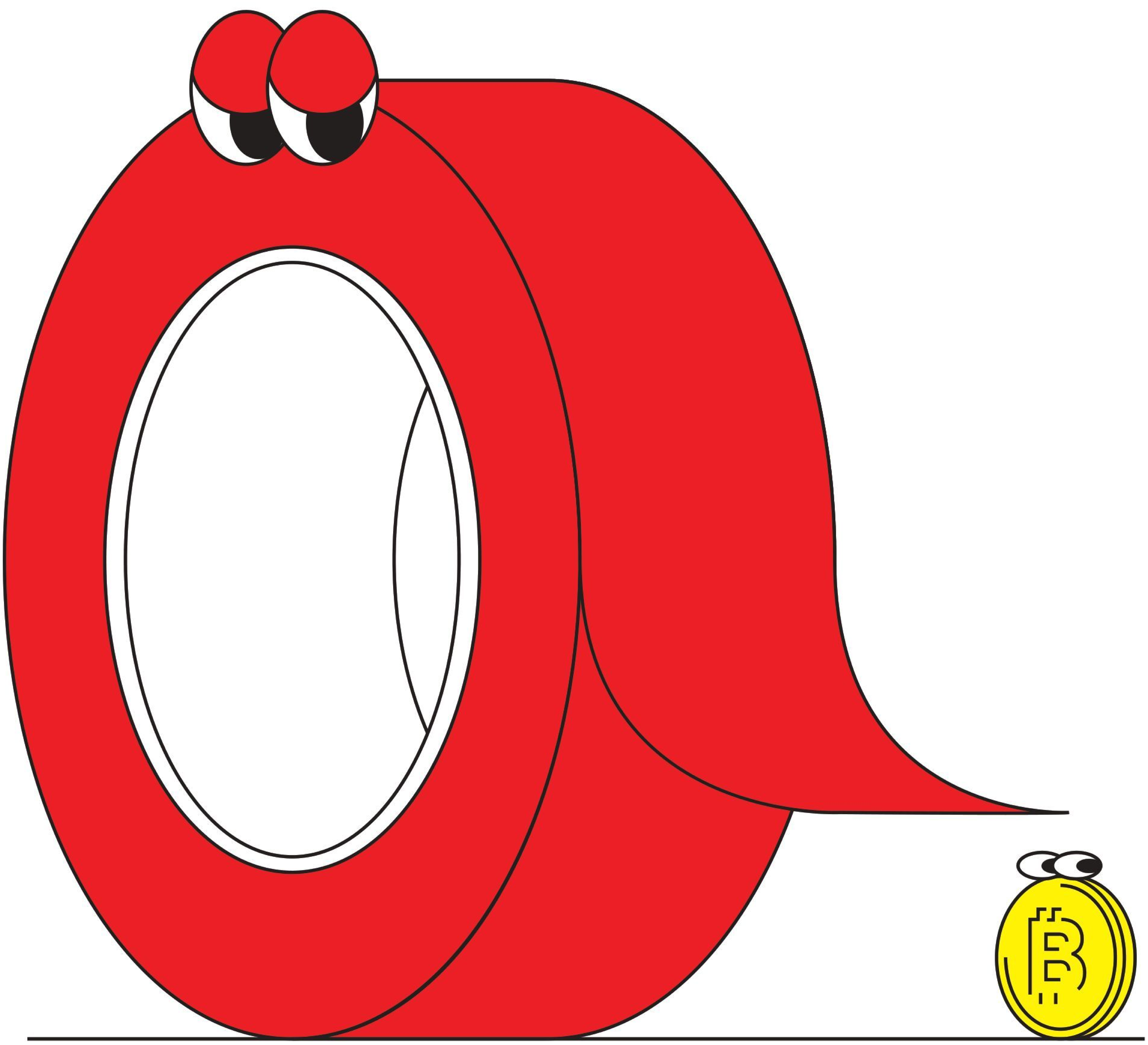


ILLUSTRATION BY 731

● Governments could finally target the anonymity that makes Bitcoin a haven for hackers

● By Joe Light

When Berkshire Hathaway Inc. Vice Chairman Charlie Munger earlier this month called Bitcoin "useful to kidnappers and extortionists" and "contrary to the interests of civilization," crypto enthusiasts mocked his investment performance, compared him to an elderly Muppet, and said he was too old to understand the technology. Michael Saylor, a crypto investor and chief executive officer of MicroStrategy Inc., asked rhetorically in an interview with a precious metals website, "Do you go to your great-grandfather for investment advice on new technologies?"

Munger's warning is looking pretty good about now. Days ago, a criminal gang hacked Colonial Pipeline Co., in effect shutting down the conduit for 45% of the East Coast's fuel supply. Details of the hack haven't been revealed, but the group's modus operandi is to encrypt its victims' data and threaten to release it publicly unless paid a ransom in Bitcoin or another cryptocurrency.

How's that for "contrary to the interests of civilization"?

The overwhelming majority of Bitcoin users have nothing to do with the criminal underworld, and plenty a heist is funded by plain old U.S. dollars. Blaming Bitcoin for the activities of its holders is a bit like getting mad at a $100 bill for being used in a drug deal.

But after letting Bitcoin spend most of its 12-year rise outside the watchful eye of government, regulators from the U.S. to Europe are cracking down. Their ambition is to take away the treasured anonymity that makes Bitcoin and other cryptocurrencies a haven for hackers and other criminals. "We don't really have an adequate framework to deal with the different issues that they pose from a regulatory perspective," said U.S. Treasury Secretary Janet Yellen at the Wall Street Journal CEO Council Summit on May 4, calling crypto's use in illicit activities a topic "well worth addressing."

Cryptocurrencies can be a pretty poor currency for criminals. Bitcoin is built on a digital ledger that publicly records every transaction, with users identified by a string of characters called a "wallet address." If a law enforcement agency can figure out a wallet's owner, it essentially has access to that person's entire transaction history, no subpoena required. Compare that with the relative untraceability of paper money, and the good old greenback starts to look pretty good for your average criminal enterprise. But for online crimes, Bitcoin remains the default payment. Since the FBI shut down the Silk Road marketplace in 2013, other digital currencies that aren't as easily traceable have emerged. Yet Bitcoin is still the most prevalent, in part because it's so easy to get and because it's held its value better than others.

As the Colonial hack shows, ransomware is by far the fastest-growing problem. In 2020 almost $350 million worth of cryptocurrency went to wallets associated with those attacks, quadruple the level of 2019, according to Chainalysis Inc., a Bitcoin forensics firm.

Regulators have taken notice. Toward the end of 2020, the U.S. Treasury Department proposed rules that would require banks, exchanges, and anyone else dealing in Bitcoin to make a greater effort to discover the true identities of people trying to withdraw the currency–and, in some cases, to figure out to whom they're sending the currency.

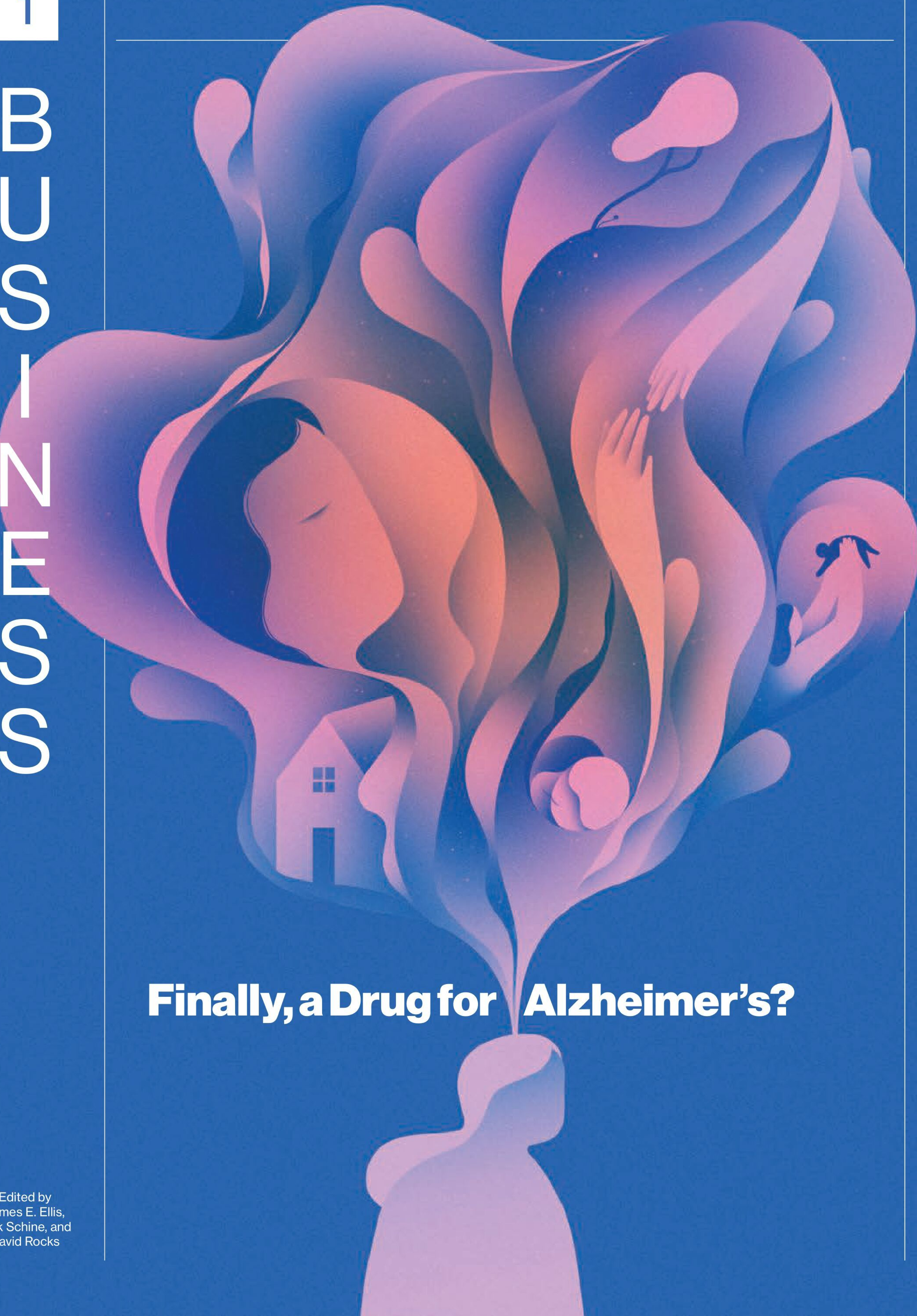
The Treasury drew more than 7,000 letters during its official comment period. Negative comments came not just from crypto-focused companies such as cryptocurrency exchange Coinbase Global Inc. but also from Wall Street heavyweights like Fidelity Investments, which has recently tried to build a presence in the cryptosphere. Some analysts said the proposal could even cause the price of Bitcoin to crash. Former Treasury Secretary Steven Mnuchin pushed to finalize the rules before President Donald Trump left office, but his department ultimately punted the final decision to the Biden administration.

Rules that crypto advocates called even more alarming appeared in March, courtesy of the Financial Action Task Force, which sets standards for the world's anti-money-laundering bodies. The group said countries should require operators of crypto networks to collect data on their users' activities even if the operators themselves don't have custody of the users' wallets. Bitcoin think tank Coin Center described the proposal as "mass warrantless surveillance."

Crypto executives think regulators' fears are overblown. Days after Munger's and Yellen's comments, Coinbase, which last month had a landmark initial public offering valuing the company at $86 billion, published a "fact check" dismissing the concerns. Chainalysis says the percentage of cryptocurrency transaction volume tied to illicit finance dropped to 0.34% last year, from 2.1% in 2019.

Coinbase and other crypto companies have responded to the regulatory push as companies often do, by hiring lobbyists and former government officials to make their case. The number of public lobbying filings mentioning crypto-related issues more than doubled from 2019 to this year. Last month a trade association newly formed by Coinbase, Fidelity, and other companies released a white paper authored by former acting CIA Director Michael Morrell. It concluded that claims about Bitcoin's use in illicit finance "are significantly overstated."

To some extent, Bitcoin's growth makes more regulation inevitable. It was easy for governments to mostly ignore crypto a decade ago. Now with major banks such as JPMorgan Chase & Co. and Goldman Sachs Group Inc. fighting for a piece of a multitrillion-dollar industry, events like the Colonial hack make Bitcoin's criminal use an unacceptable risk. The crypto industry spent years fighting to break into mainstream finance, and now it's finding out just how much success might cost. Ⓑ



Finally, a Drug for Alzheimer's?

Edited by
James E. Ellis,
Rick Schine, and
David Rocks

● After scores of failed drugs, the FDA is set to rule on a controversial candidate

Jeffrey Borghoff was just 51 when he received a diagnosis of early-stage Alzheimer's disease. Shortly thereafter, he retired from his job as a software developer and went on disability. He also quickly enrolled in a trial for an experimental Biogen Inc. drug to remove an aberrant amyloid protein from his brain that researchers believe is tied to reduction in memory and brain function in Alzheimer's patients. Since then, with the exception of a brief interruption, he's been getting monthly infusions of the medicine, named aducanumab, which he credits with slowing his cognitive decline. Now 57, Borghoff can't drive because he confuses red and green lights, but he can still cook and take walks with his wife, Kimberly, and their dog. His life, he says, is full.

Now Borghoff is steeling himself: The U.S. Food and Drug Administration is set to rule soon on aducanumab, which has already been rejected by an FDA advisory panel of medical experts. The FDA may also reject the drug, requiring years of additional study. That could eventually force him to search for a trial of a different treatment—something that takes time that many patients simply don't have.

"We're fighting like hell to get this drug approved," says Borghoff, of Forked River, N.J., who also spoke to FDA regulators in favor of the Biogen medicine at a meeting of patients in January. "Every day they are making progress in cancer and diabetes and other diseases. We need something for Alzheimer's disease," he says.

The decision, which Biogen says the FDA will make by June 7, is one of the most consequential the agency has faced in years and is guaranteed to be controversial no matter what the outcome. Existing Alzheimer's drugs only temporarily improve symptoms. If approved, aducanumab could become the first drug ever authorized to slow the course of the most common type of dementia. That suggests the drug could become a hit, providing at least some hope to an estimated 6 million Alzheimer's sufferers in the U.S.—and likely billions of dollars in annual sales for its makers.

That Biogen's drug is even up for approval at all is noteworthy. In early 2019, Biogen and its Tokyo-based partner Eisai Co. discontinued two big trials, citing lack of evidence to merit further study. The drug appeared destined to take its place among the hundreds of Alzheimer's failures over several decades. But Biogen and Eisai, in a surprise move, later reversed course and submitted the drug for approval. "This [FDA review] is a momentous decision of tremendous consequence," says Marwan Sabbagh, director of translational research at the Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas and a consultant to Biogen on Alzheimer's treatments, who thinks the benefit from the drug is meaningful.

Two large trials run by Biogen produced seemingly contradictory results. In one, high doses of the drug slowed patients' decline by 22% over 18 months. In the second, the drug was ineffective overall. Biogen says some patients didn't receive high enough doses in the unsuccessful trial. Still, those conflicting results have sharply divided doctors and Alzheimer's researchers.

"Nobody is ambivalent about this," says Sabbagh. "They are either for it or against it."

Some doctors and groups such as the Alzheimer's Association say the evidence is good enough given the desperate need for a treatment. "The downside of it not working is greatly outweighed by the possibility of being able to give something to people who are dying of Alzheimer's every day," says Maria Carrillo, chief science officer for the Alzheimer's Association. "Waiting another five years for another trial is for us not acceptable."

Other researchers and physicians say approving a medicine on such uncertain evidence would set a bad precedent. The drug is likely to be expensive, must be infused in a clinic by medical professionals, and is likely to require costly brain scans to monitor for possible side effects such as brain swelling. What's more, aducanumab's benefit is modest at best and less than what some doctors consider clinically significant for an individual patient.

Approving the drug now "would send a horrible message to the market for what the FDA is willing to settle for," says Caleb Alexander, an epidemiologist at Johns Hopkins Bloomberg School of Public Health, who was on the panel of FDA advisors that voted against the drug in November. "It would completely undermine our regulatory system."

Biogen has a lot riding on the Alzheimer's treatment, and its share price has swung wildly along with aducanumab's prospects over the past two years. The drug may cost $30,000 a year, bringing in $5 billion a year in annual sales, estimates Jay Olson, an analyst at Oppenheimer & Co. who gives the medicine only a one-in-three chance of approval. "It is probably the most unusual setup the FDA has ever faced," he says.

Biogen has said more than 600 clinical sites in the U.S. could begin infusing the drug into patients soon after a potential approval. The drug will ▶

ILLUSTRATION BY SOPHI MIYOKO GULLBRANTS

◀ also likely require brain scans or spinal taps prior to treatment to confirm amyloid is present. “Our team is currently working to evaluate the capacity at these and other sites to absorb an influx of Alzheimer’s patients,” Biogen Chief Executive Officer Michel Vounatsos said on an April 22 investor call. The company said its executives were unavailable for further comment.

For more than a quarter century, researchers have targeted amyloid, the aberrant protein that clogs the brains of many Alzheimer’s patients. It was first spotted by Alois Alzheimer in 1906, but didn’t become the focus of drug hunters until rare inherited forms of the disease were linked to amyloid buildup in the 1990s.

Yet over the years at least 25 major trials of amyloid-targeting drugs have failed to slow the disease. That disappointing track record hasn’t kept other companies, including Eli Lilly & Co. and Roche Holding AG, from also pursuing a breakthrough amyloid drug. “The people that are the smartest in the book, the ones with the most money, all put their money on amyloid,” says George Perry, a biologist at the University of Texas at San Antonio, who thinks that the heavy attention to amyloid has delayed other promising approaches.

Over two decades, Lilly has spent billions testing Alzheimer’s drugs that didn’t work. Finally, in March, the company reported its anti-amyloid antibody donanemab slowed decline on a measure of cognition by 32%. “This is the first time really we had a clean hit,” says Lilly CEO David Ricks. A Phase III trial is under way to confirm the result.

Biogen’s drug is the closest any amyloid-based drug has gotten to approval. After an early trial showed promising results in 2015, Biogen began two final-stage trials that eventually enrolled more than 3,200 people with early Alzheimer’s. When the company halted the trials in March 2019 after a statistical analysis showed the medicine was unlikely to work, it quietly assigned dozens of scientists to comb through the data to figure out what had gone wrong. As more data rolled in from patient follow-up visits, something strange happened: One of the trials turned positive. The Biogen scientists also noticed that in the second trial, which is still showing negative results, patients had received lower doses of the medicine, potentially explaining the differing findings. In October 2019, Biogen reversed course, declared one of the trials a success after all, and revived the drug. Some Alzheimer’s researchers were still skeptical; they thought a third big trial was needed as a tiebreaker.

Biogen applied for approval in July 2020. Its shares surged on Nov. 4 when, in an unusual move, FDA staff released a joint report with Biogen, in which the agency called the evidence behind the drug “exceptionally persuasive.” (Usually, the FDA posts its own report.) But two days later, a panel of independent FDA advisers reviewing the evidence took a much dimmer view. It voted 8 to 1, with two undecided, that the one successful trial was insufficient to prove the drug works. A University of Washington statistician on the panel likened Biogen’s after-the-fact explanations for why only one trial worked to the “Texas sharpshooter fallacy,” referring to a gunman who shoots first and then draws a bullseye around wherever the bullets land.

▲ Borghoff and his wife, Kimberly, at their New Jersey home

BORGHOFF: PHOTOGRAPH BY IAN LORING SHIVER FOR BLOOMBERG BUSINESSWEEK. DE MEO: ALEX KRAUS/BLOOMBERG

While the advisory panel vote isn’t binding, the FDA has rarely gone against such a lopsided vote. The agency may find some way to approve the drug with a requirement that Biogen perform another large study, as it has done with some cancer drugs, says Olson, the Oppenheimer analyst.

Coverage under the federal Medicare program remains a wild card. On May 5 the Institute for

Clinical and Economic Review, a nonprofit that reviews drug cost-effectiveness whose findings are closely monitored by payers, released a draft report that called the aducanumab data "insufficient" and "contradictory." Nonetheless, health insurer Cigna Corp. is preparing for a potential flood of patient inquiries. "Patient demand will happen fairly immediately," says Steve Miller, Cigna's chief clinical officer. "There's a lot of people waiting for this product."
—*Robert Langreth, with John Tozzi and Riley Griffin*

THE BOTTOM LINE No drug has ever slowed Alzheimer's disease. With no alternative treatments, the FDA is stirring controversy by considering a Biogen medicine that's shown only modest success.

Renault Takes the Slow Lane

● Even as most of the industry thrives, the French automaker's sales are falling

After one of its toughest years ever, the global auto industry is roaring back as lockdown-weary and public-transport-leery consumers swarm showrooms. The biggest carmakers have reported double-digit jumps in first-quarter revenue even as they battle a semiconductor shortage that's forced production cutbacks. And booming sales mean they can move the metal without discounts, spurring several to raise their profit forecasts for the year. The outlier in all this: France's Renault SA, which saw revenue fall 1% in the quarter after losing almost $10 billion last year.

The 123-year-old automaker is suffering from high costs, limited geographic reach, and continuing fallout from the 2018 arrest in Japan of Carlos Ghosn, the former boss who's now a fugitive living in Lebanon. Renault missed out on the shift to SUVs, clinging instead to sedans and hatchbacks, which offer far thinner profit margins and face intense competition in the crowded European market. And the pandemic laid bare weaknesses stemming from its underutilized factories, labor strife, and meddling by its most powerful shareholder, the French government. "Management has identified the problems," says Charles Coldicott, an analyst at stock research house Redburn. "But it will be very challenging for Renault to properly turn around."

Rivals such as BMW, Volkswagen, and General Motors have seen unit sales surge in the two biggest markets—China and the U.S.—where Renault has virtually no presence. Instead, the French company is largely dependent on Europe, where consumers have kept their spending in check as they slowly emerge from the lockdowns of the past year. Many of Renault's difficulties can be traced to its alliance with Japan's Nissan Motor Co. and Mitsubishi Motors Corp. Ghosn had sought to make the group the world's biggest vehicle producer, predicting Renault alone would sell 5 million vehicles in 2022. Output peaked at 3.6 million in 2019, then fell below 3 million last year. Renault has since abandoned all volume targets in a bid to improve profitability and generate much-needed cash.

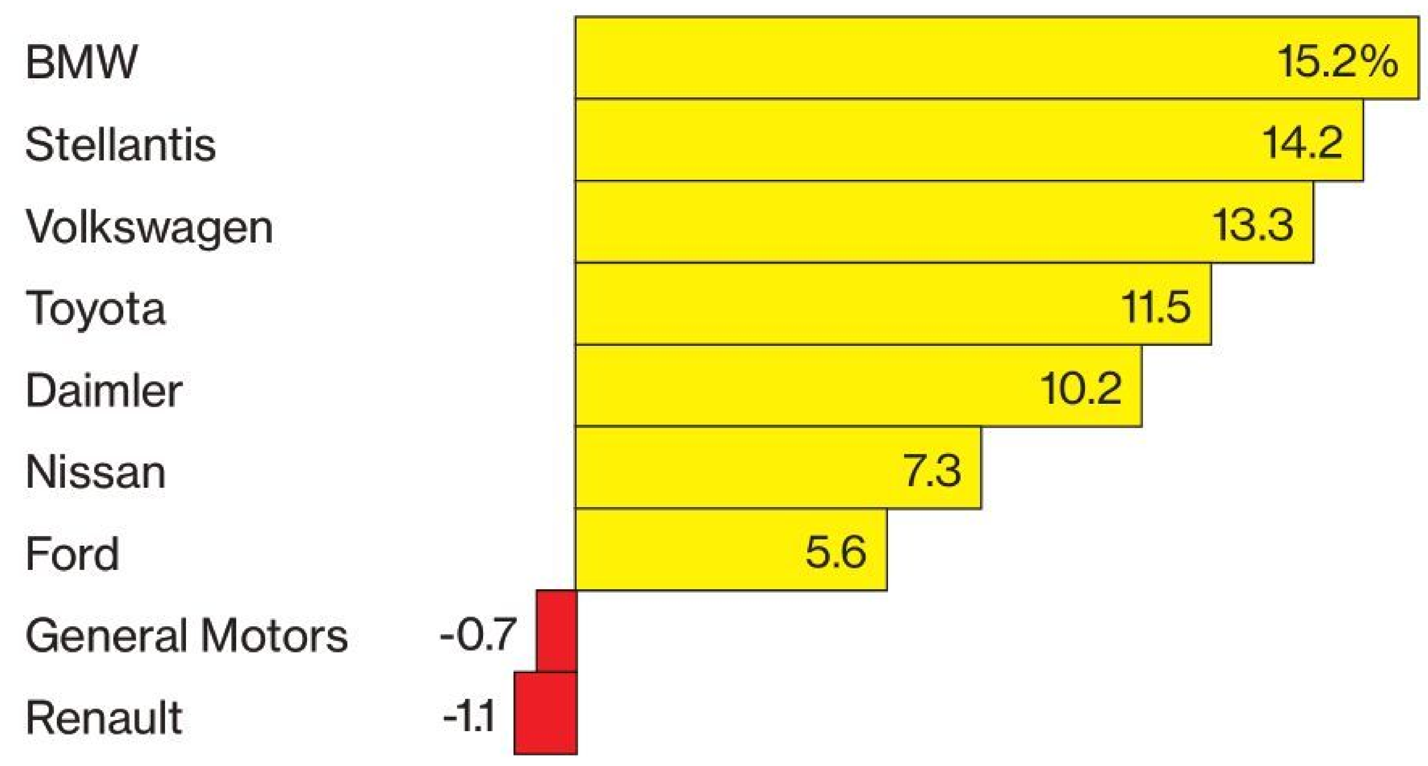

● De Meo

Luca de Meo, the Italian-born chief executive officer Renault poached from Volkswagen AG a year ago, is overseeing a plan to rein in costs by €3 billion ($3.6 billion) over four years. The proposal includes eliminating 14,600 jobs—9% of the global workforce—with an aim of reducing manufacturing capacity by about 20%. Of greater concern is de Meo's target of getting the cost of research and development and capital investment under 8% of revenue by 2025, from about 10% today. As peers pour billions of dollars into new technologies, Renault risks falling behind in electric vehicles and autonomous driving, says Joel Levington, head of credit research at Bloomberg Intelligence. "The strategy could leave Renault vulnerable," he says.

De Meo insists the carmaker is on the right track. Its compact Zoe was Europe's bestselling electric vehicle last year, outpacing offerings from VW and Tesla Inc.—though first-quarter sales were disappointing, and rivals are charging ahead. The CEO has streamlined the company's tangle of ▶

Bringing Up the Rear

Revenue in most recent quarter, year-over-year change



DATA: COMPANY REPORTS, BLOOMBERG

◀ business units into brand-based divisions that include Renault, budget Dacia-Lada, and Alpine, which he envisions as an all-electric nameplate positioned somewhere between Ferrari and Tesla. De Meo aims to build a manufacturing hub in northern France that will produce a full range of electric vehicles as well as batteries and components, and by 2025, he expects Renault's 10 electric models to be more profitable than traditional cars. "We can make Renault one of the best turnaround surprises of your investment portfolios," de Meo told shareholders last year. "I'm just asking for a little time to prove this."

In the wake of Ghosn's arrest for alleged financial misconduct, the alliance with the Japanese companies has looked more like a squabbling family, which has hurt employee morale and slowed integration. Renault Chairman Jean-Dominique Senard, who's also vice chairman of Nissan, calls the alliance irreversible, but it's been riven by conflict rooted in an imbalance of power. The French automaker owns 43% of Nissan; in contrast, the Japanese company holds just 15% of Renault, and its shares have no voting rights, leaving the French in the driver's seat and fueling resentment in Tokyo.

While Renault had long looked to the more-profitable Nissan to shore up its results, the Japanese partner last year lost almost $1.4 billion, which accounted for most of Renault's record 2020 deficit and cost the company €73 million in the first quarter. But in March, Nissan's vehicle sales jumped 51%, and the company is forecasting it will break even this fiscal year, thanks in large part to its presence in China and the U.S. A quick turnaround for Nissan would again highlight questions about the shareholding structure and exacerbate tensions in the partnership.

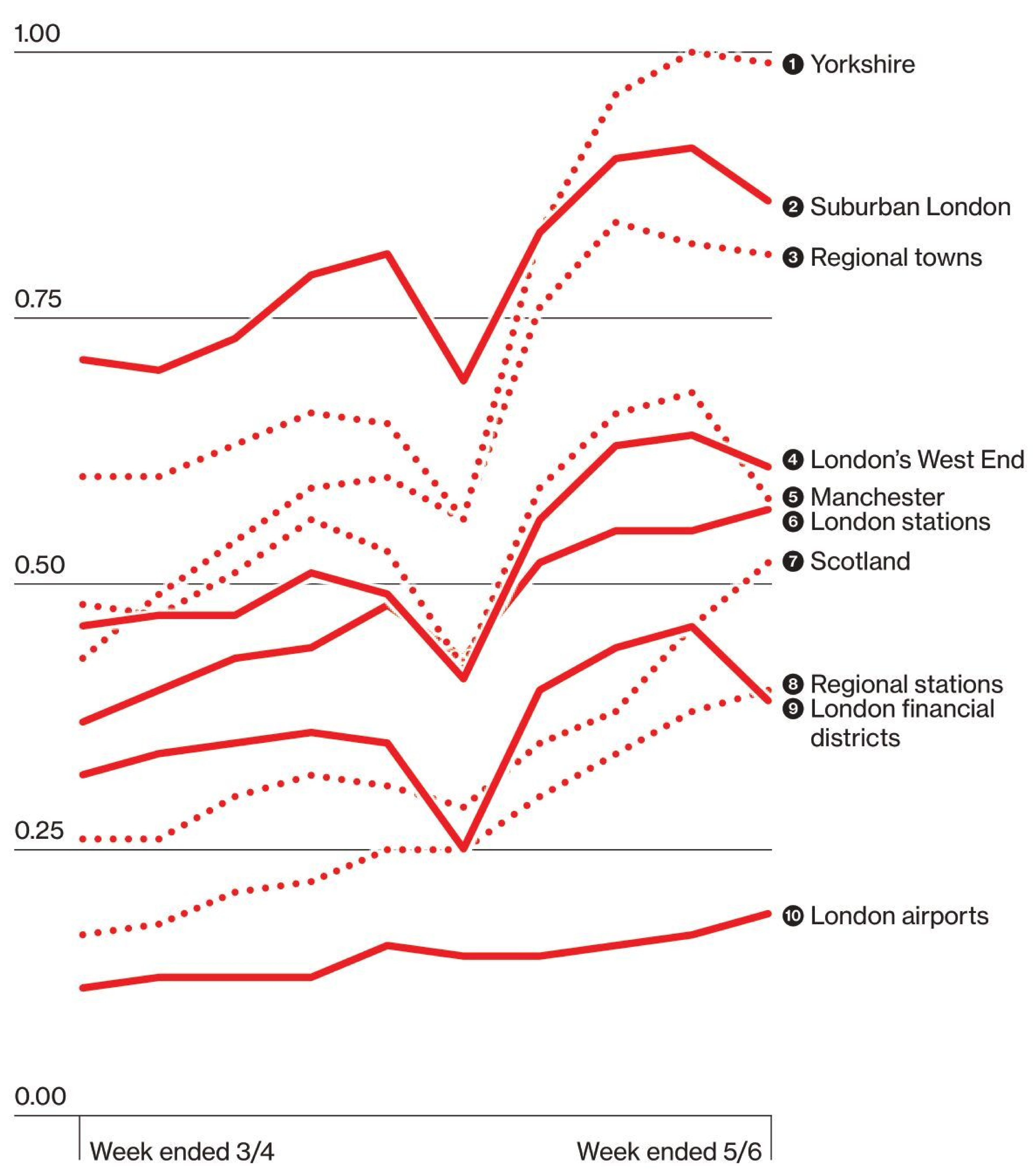
Despite Senard's pledge to maintain the alliance, he spearheaded a clumsy and failed attempt in 2019 to combine Renault with Fiat Chrysler, appearing to confirm the broadly held suspicion that a full merger with Nissan is unlikely. Instead, Renault's crosstown rival PSA Group—the maker of Peugeot and Citroën—ended up joining with Fiat to create the company now known as Stellantis NV. That partnership reduces PSA's reliance on Europe and gives it access to shared technologies and profits from Chrysler's booming U.S. sales. "PSA was in catastrophic condition, and it managed to turn itself around," says Bruno Aziere, a representative of the CFE-CGC labor union. "The same could be done at Renault." —*Tara Patel*

THE BOTTOM LINE The automaker is suffering from high costs, labor strife, limited geographic reach, and continuing fallout from the 2018 arrest in Japan of former boss Carlos Ghosn.

Workplace Pret Index

If sandwich sales are any guide, London's bankers, corporate lawyers, and asset managers are taking their time returning to offices even as the pandemic eases across the U.K. That's shown in data from eatery Pret a Manger Ltd., which typically sold about 200,000 lattes and 100,000 croissants a week to Britain's office workers, shoppers, and commuters before Covid struck. Pret is providing weekly data to Bloomberg about its transaction volume to give one look at how quickly the U.K. is returning to normal. —*Thomas Buckley and Jeremy Scott Diamond*

Transaction volume index (1.00 = January 2020 baseline)



DATA: PRET A MANGER

❶ Pret's growth is strongest in Yorkshire, according to the most recent analysis.

❷ Sales in suburban London suggest residents are ordering at pre-pandemic levels, even if they're sticking closer to home.

❹ Pret's cluster in London's West End, home to some of the country's largest department stores and designer boutiques, shows signs of life. Nonessential stores were allowed to reopen on April 12.

❻ Train stations are in slightly better shape than airports, though they're still struggling.

❼ Business in Scotland has languished, reflecting tighter lockdown rules than in England.

❾ In a geographical area that includes the City and Canary Wharf, London's two major financial districts, business remains relatively slow. Although some employers are encouraging workers to return, official U.K. government guidance is that those who can work from home should do so until June.

❿ Traffic is slow in the Pret cluster that includes London Heathrow and Gatwick airports. Airlines have grounded many flights, with Britons barred from taking overseas vacations or nonessential trips until at least May 17.

MAY 17

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Director, NIAID
U.S. National Institutes of Health

Jay Leno
Host
Jay Leno's Garage

Justin Lin
Filmmaker

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The Chip King Faces The Crunch

TSMC has mastered the business of semiconductors, but staying on top of the politics is only getting trickier

Decades before he founded Taiwan Semiconductor Manufacturing Co., Morris Chang was present at the creation of modern Silicon Valley. He reminisced at an event this April about being at an industry conference with Gordon Moore and Robert Noyce in 1958, 10 years before they started Intel Corp. The three men attended sessions all day, let the beer flow at dinner, and sang at the top of their lungs all the way back to their hotel, according to Chang. "We felt favored by the gods," he said.

Moore and Noyce's company went on to become one of Silicon Valley's most legendary institutions before stumbling in recent years. It's Chang's TSMC that now seems like the blessed one, the result of his early embrace of an untested business model and deft execution that's made TSMC the leader in the most advanced types of semiconductors on the market today. It dominates the smartphone sector, and its chips are in everything from cars to fighter jets. The Covid-19 pandemic further

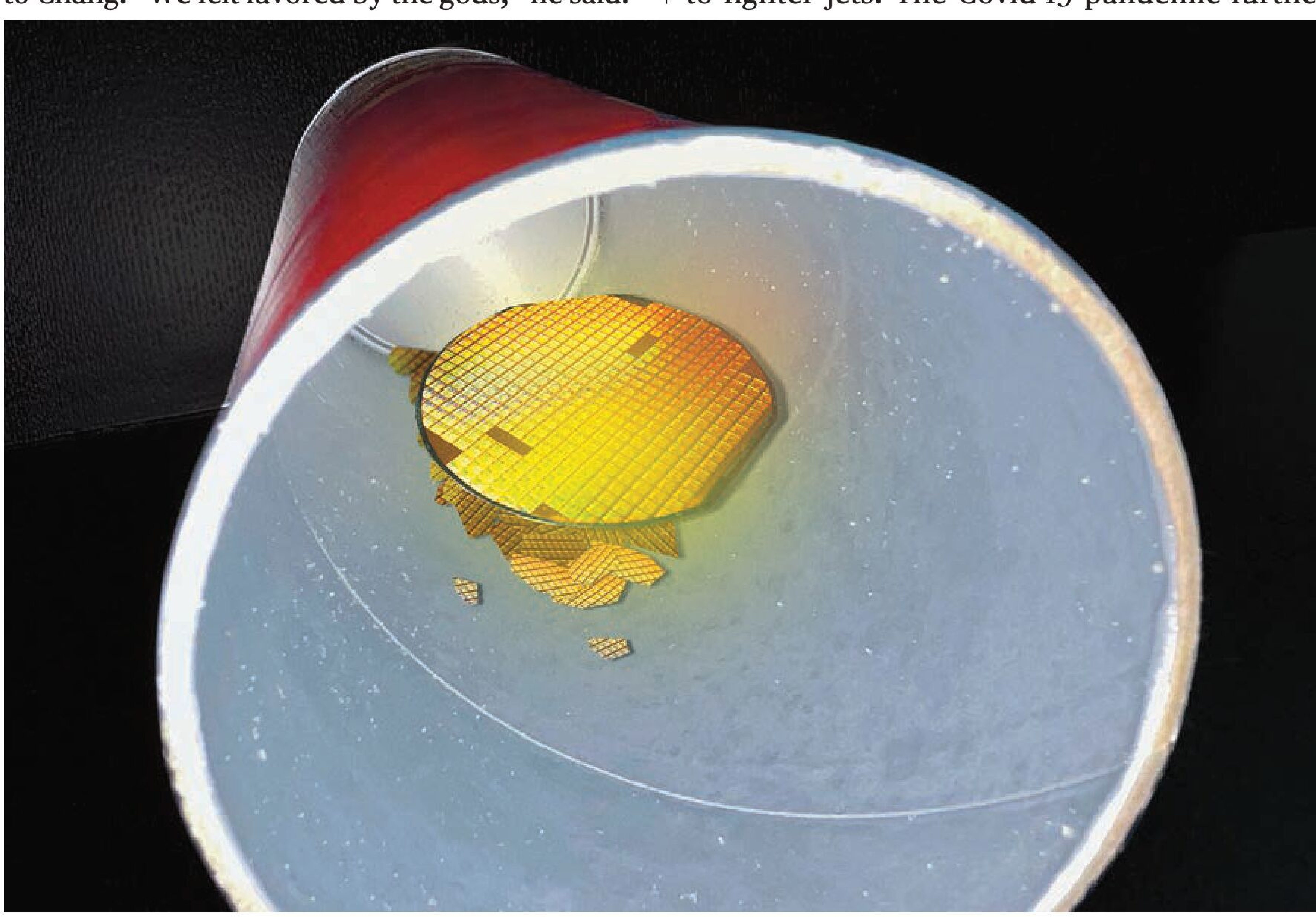


PHOTO ILLUSTRATION BY 731. CHANG: WAY WANG/BLOOMBERG

Edited by Joshua Brustein

cemented its dominance. TSMC's 2020 revenue was $45.5 billion, a 31% increase from the year before, and its adjusted net income of $17.3 billion dwarfed its profits from any previous year. The company is now worth about $590 billion, more than two and a half times Intel's market value.

The global chip shortage has added a new layer of political sensitivity to TSMC's business. The company does most of its production domestically, an arrangement Taiwan is eager to maintain. But the world's biggest economies are feeling increasingly vulnerable to supply chain shocks. American, European, Japanese, and Korean officials have called on TSMC since late 2020, angling to persuade the company to serve their national interests. Simultaneously, the U.S. and China are planning to invest in domestic production to reduce their reliance on foreign suppliers. On May 5 the European Commission also laid out plans to build up its ability to design and manufacture advanced semiconductors.

TSMC has an enormous head start, and the barriers to entry are very high. Still, it faces increased competition from Samsung Electronics Co., which is spending $116 billion on its next-generation chip business, and Intel, which plans to regain its footing by investing $20 billion on its own effort.

In April, TSMC announced a three-year plan to invest $100 billion to increase its capacity. If spent well, the money could help soothe customers' fears of supply disruptions. But the politics and the competition have the potential to erode TSMC's position if it doesn't adapt. This makes the next few years the most crucial period TSMC has faced since Chang retired in 2018–and probably since he founded the company in 1987.

TSMC has always been tied closely to Taiwan. The Chinese-born Chang moved there in 1985 after becoming convinced he'd never get a chance to run an American tech company. He became chairman of a small company and took up a government research institute job, where he became inspired to start TSMC in part because of the Taiwanese government's policies to spark the domestic tech industry.

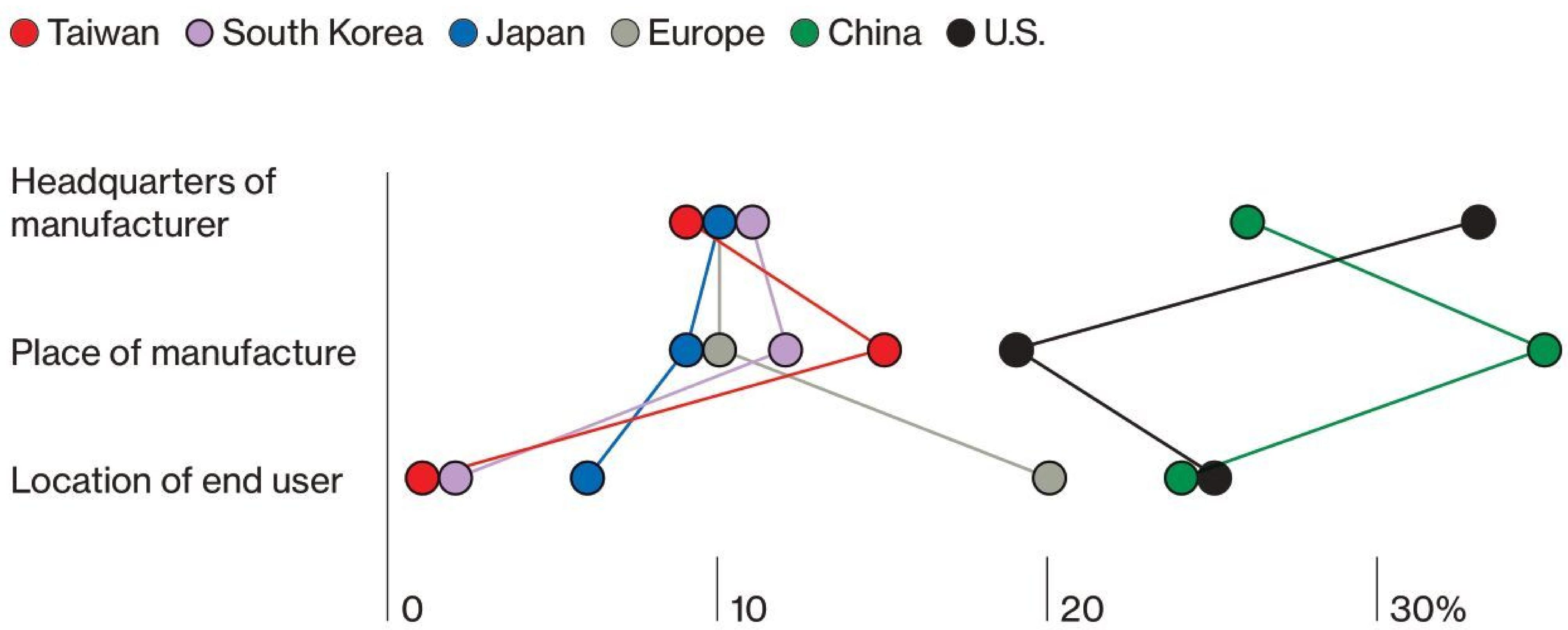
Companies like Intel both designed and manufactured chips for their clients, but Chang envisioned a model known as the pure-play foundry. His company would take on the intricate task of producing chips for clients that wanted to design their own but didn't want to run the multibillion-dollar manufacturing facilities known as foundries, or fabs.

It was one of those ideas that seem obvious only in retrospect. When Chang approached Intel in 1985 to see if it wanted to invest, it turned him down. Companies that later became important partners were skeptical at first. "I was thinking to myself, 'This is crazy,' " said Arm Ltd. Chief Executive Officer Simon Segars during a 2017 event celebrating TSMC's 30th anniversary. "It turns out it is a really good idea. We wouldn't be here today without it."

In its early years, TSMC mostly subsisted on leftovers, picking up marginal business from early clients Advanced Micro Devices Inc. and Japan's NEC Corp. But as it grew, TSMC developed the ability to produce cutting-edge chips. It became known for its extraordinarily consistent yield (the ratio of good vs. bad chips) and reliable delivery times, which allowed clients to chart their own investment and product cycles. By separating manufacturing from design, TSMC lowered the barriers for aspiring chip designers, empowering a second wave of players including Qualcomm Inc. and Nvidia Corp.

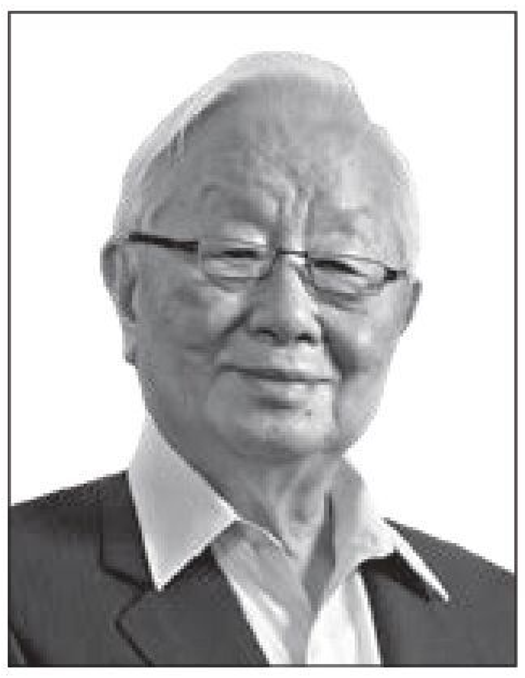
The Geography of Chips

Global semiconductor sales by geographic area, 2019



DATA: BOSTON CONSULTING GROUP

The really big break came in 2010, when Chang had Jeff Williams, who helped future CEO Tim Cook oversee worldwide operations for all Apple Inc. products, to his house for a home-cooked dinner. The two companies had been negotiating an agreement for TSMC to make custom chips for Apple's iPhones and iPads, and the meal sealed the deal, Williams recounted at TSMC's anniversary party.



● Chang

It was a risk for both companies. Apple was relying on a company that was then seen as an also-ran. "If we were to bet heavily on TSMC, there would be no backup plan," Williams said. For TSMC, it meant an initial investment of $9 billion and devoting 6,000 employees to building a dedicated plant for Apple in 11 months; it took several years before it began producing the chips. The bet paid off, helping Apple reach universe-denting scale and propelling TSMC into a linchpin of the semiconductor industry while further sharpening ▶

◀ its ability to make more sophisticated chips.

Intel failed to develop as a credible competitor in the smartphone chip market, and TSMC products became good enough to tempt Intel's lucrative clients in the high-performance computing market to switch.

"Semiconductor users around the world know that TSMC produces more than half of cutting-edge logic chips," says Kazumi Nishikawa, an official at Japan's Ministry of Economy, Trade, and Industry. "Samsung is trying to catch up, but TSMC is becoming more and more dominant."

The pure-play foundry model has proved to be a good fit for an era dominated by huge cloud computing companies. Behemoths such as Alphabet, Amazon.com, and Microsoft are increasingly interested in designing chips for the specific needs of their data centers and artificial intelligence applications. These companies often base their chips on designs from Arm, which has been working directly with TSMC for years.

Political leaders in the U.S., Asia, and Europe have all just witnessed how vulnerable they are to disruptions in the parts of their supply chains they don't control. For China, the Trump administration's decision to keep U.S. companies from working with Huawei Technologies Co. added urgency to its aspirations to nurture domestic chipmaking. At the event in April, Chang said Chinese chipmakers are still years behind TSMC and urged Taiwanese officials to continue to support the company so it can maintain its position.

President Joe Biden, who's also sought to strengthen domestic manufacturing, wants to dedicate $50 billion to U.S. semiconductor research and production. TSMC will begin building a $12 billion plant in Arizona this year, with production set for 2024 and further expansion envisioned. Samsung and Intel are already both more geographically dispersed than TSMC, a distinction the companies may be able to use to their political advantage.

TSMC has signaled a reluctance to make changes at the scale Western governments are seeking. Its international facilities have generally focused on less advanced chips, while the bulk of its capacity is in Taiwan. Chang recently questioned the logic of ramping up advanced manufacturing in the U.S. In early May, TSMC Chairman Mark Liu told CBS that the chip shortage wasn't caused by the geographical location of chip foundries. It's not clear that this is what officials in its biggest markets want to hear.
—Debby Wu, with Ian King and Isabel Reynolds

THE BOTTOM LINE TSMC has always concentrated its operations in Taiwan, but it's facing growing pressure from multiple governments that want chip manufacturing closer to home.

Is the Future Of the Internet In This Van?

● Tarana takes a $300 million shot at providing wireless internet that can rival fiber-based networks

The ideal way to connect people to the internet is to run a fiber-optic cable into their homes. When that's impractical, there are various options to use wireless networks as a substitute. The entire global telecommunications industry is focused on building 5G networks, which promise speeds rivaling those of broadband. The world's two richest men are backing competing efforts to beam down signals from tens of thousands of orbiting satellites, while Alphabet Inc.'s Google and Facebook Inc. have mothballed their plans to build networks of internet-transmitting balloons and drones, respectively.

◀ Steve Avilla, a senior applications engineer, tests download and upload speeds out of Tarana Wireless's van

PHOTOGRAPHS BY JASON HENRY FOR BLOOMBERG BUSINESSWEEK

Tarana Wireless, based in Milpitas, Calif., is working on another approach, with a novel way to direct wireless signals around obstacles. With sufficient computing power and the right algorithms, Tarana's antennas can send multiple signals to each customer, rapidly hop among the best-performing connections for each one, and combine them to strengthen the signal. The startup—if you can still call it that, given that it's been around for 12 years—has designed computing chips for exactly this purpose. "It's almost like magic," says Greg Wyler, a telecommunications veteran who has invested more than $30 million in Tarana. "You sort of have to stop time for a moment and do all the math."

Tarana's service can reach speeds of about 800 megabits per second, depending on how far customers are from the antenna and how many people are using each one. That's much faster than satellite internet and, unlike 5G, is intended primarily for home use, where family members spend hours online and don't want limits on data usage. Tarana's technology can also use wireless frequencies that don't require government spectrum licenses, allowing it to sidestep a significant cost of traditional wireless service.

Even in advanced countries such as the U.S., many suburban and rural areas have few good options for true high-speed internet. Tarana's technology has the potential to reach those populations, as well as users in countries that lack physical broadband infrastructure.

The company grew out of research conducted by engineers at the University of California at Berkeley, who saw advances in chip technology as the key to a wireless networking breakthrough. One of the company's founders came from a wealthy family in the Middle East, and his relatives invested $70 million in seed money.

Tarana struggled for years to make chips fast and cheap enough for its purposes. Still, it made enough progress to attract interest from investors. Along with Wyler, the company's backers include Khosla Ventures, EchoStar, and Prime Movers Lab. It recently raised $50 million, bringing its total funding to $292 million. This year, Tarana hired Basil Alwan, a former Nokia executive who joined its board in 2020, as its chief executive officer.

In a recent demonstration, Alwan took a reporter to downtown San Jose, where Tarana had a van parked on the street. The vehicle looked like something out of an FBI eavesdropping operation, with a bunch of computers inside and equipment poking out of the roof. Most significant, from Alwan's perspective, it was surrounded by multistory buildings and was miles from the closest Tarana antenna. Yet the laptops in the van were able to receive data at speeds rivaling those produced by fiber cables.

Tarana now has to focus on commercialization, which will put it in competition with many deep-pocketed companies. "While they've done a lot of the hard work, this next part will not be easy and will require a lot of time and money," says Gabriel Brown, principal analyst at Heavy Reading, which does research on telecommunications technology. Alwan acknowledges that Tarana's business operations so far have been lackluster, but thinks the company is ready to shift to its next phase.

▲ Alwan, at Tarana's headquarters in Milpitas

One of the company's first customers is MTN Group, a telecommunications company operating throughout Africa and Asia. It has been running a trial in South Africa, a country where about 5% of the 18 million households have fiber connections. Over the course of this year, MTN will sell the high-speed wireless service, which it calls Unlimited Air Fibre, to 25,000 customers in South Africa, and it plans to expand to countries such as Ghana, Nigeria, and Uganda.

MTN sees the construction of new fiber-optic networks as a logistical nightmare and says such service is often too expensive for its African customers. "People have tried with fiber throughout Africa, and it has failed abysmally," says Calvin Collett, an MTN executive. "We need a wireless product."

Wisper Internet has also piloted the Tarana systems for rural customers in the U.S. Midwest and expects to sell services ranging in speed from 100 to 500 megabits per second. Wisper sells other wireless service, but Tarana has impressed it the most because it doesn't stop working when there are physical objects between the antenna and the customer, according to Nathan Stooke, Wisper's CEO. "We have a hard time going through trees," he says. —*Ashlee Vance*

THE BOTTOM LINE A little-known company has developed a novel wireless system that could compete directly against traditional broadband in areas where it's hard to run cable.

THE DOGESTOCK GENERATION

PHOTO ILLUSTRATION BY 731. CROWD: GETTY IMAGES. DOG: SHUTTERSTOCK

Get-rich-quick trading is partly about entertainment, but it's having a very real impact on markets

It's been a weird year for the old guard of the financial markets industry.

Consider the events of two weeks ago: U.S. employment data trailed economists' forecasts by the most on record, and more than 130 companies in the S&P 500 reported earnings.

Now consider what created the most buzz in markets: a massive rally in Dogecoin amid speculation that Tesla Inc. founder Elon Musk would give the cryptocurrency a boost while hosting *Saturday Night Live*.

The pandemic, and the nascent recovery from it, have caused a whiplash in the fundamentals underlying the value of asset prices everywhere. Yet at the same time something else has happened: The whimsical entertainment value of some assets has undeniably emerged as a reason investors are bidding prices higher.

Dogecoin, which started as a joke based on memes about a talking dog with a limited vocabulary, is hardly the first example. Funny memes also played a huge role in the frenzy in the shares

Edited by Pat Regnier and Jenny Paris

of GameStop Corp. and other companies that participants on Reddit's WallStreetBets forum promised to send "to the moon" earlier this year. Even since the Reddit mania has worn off, GameStop is up more than 750% this year—a return that would have required an investor in the S&P 500 to buy and hold the index for about a quarter century. And good luck holding it long enough to match the 21,000% Dogecoin rally over the past year. Elsewhere, the craze in nonfungible tokens, or pieces of digital art that live on the blockchain and in some cases sell for millions of dollars, is perhaps the purest example.

The result is that the old buttoned-up financial markets—with their puritan stock index funds and barely there bond yields—seem boring compared with the show put on by these new assets. Even after a selloff in technology stocks last week shook up traditional markets, the move paled compared with the rise and fall of cryptocurrencies and meme stocks so far this year. The Nasdaq 100, where technology stocks are traded, remains near its peak.

"Bitcoin Is This Generation's Rock & Roll" reads the title of a report from strategist Marko Papic at Clocktower Group LP, which provides seed capital to hedge funds. Being compared to the baby boomers may cause some eye rolling among the younger generation—and vice versa. Yet if you squint, it's easy to see the similarities between the anti-establishment proselytizing of cryptocurrency's true believers and that of the "don't trust anyone over 30" zealots of the classic rock era. The adrenaline rush from a loud guitar has been replaced by the thrill from oversize investment gains or losses. Dogecoin, for its part, is perhaps this generation's disco music—just here for the party and not interested in all the baggage of being a revolutionary.

It all adds up to a strange picture of what the new frontier of financial risk-taking looks like, whether it be the appreciation of a satirical cryptocurrency before a comedy show, a surge in the stock price of a left-for-dead company, or pixelated collectible images sold by auction houses that usually deal in works by masters like Monet.

At first blush the trend seems fairly harmless, like any other past fad that consumers spent heavily on only to look back later with a tinge of regret. However, the returns and dollar figures involved have become so large that it's reasonable to ask whether a major shift is occurring among investors: out with the boring old buy-and-hold ethos of traditional markets, in with the exciting, get-rich-quick assets.

The morning that Musk was preparing for his *SNL* performance, the total market value of Dogecoin peaked at more than $94 billion, according to CoinMarketCap.com—bigger than that of about four-fifths of the companies in the S&P 500. Bitcoin's market value is almost $1.2 trillion, which would make it the fifth-largest U.S. stock if it were a company.

The larger these types of speculative assets become, the more influential they are in traditional markets. Dogecoin's impact has been so great that many blame it for putting a dent in the share price of Coinbase Global Inc., the largest cryptocurrency exchange, because it doesn't offer trading in such highly speculative coins.

A few months ago, when it was GameStop's turn for the "to the moon" treatment, traders pumped the stock up almost 2,000% in less than a month. Even after falling by more than half, GameStop is still one of the largest stocks in the Russell 2000 Index—a small-cap benchmark in which many retirement accounts and pension funds invest.

● Dogecoin total market value at peak

$94b

While there's likely some truth to a metaphor such as "this generation's rock & roll," it's also true that appetites for get-rich-quick strategies obey no generational boundaries. The embrace of Dogecoin by the likes of Musk, Mark Cuban, and Snoop Dogg make clear that this strange chapter of market history isn't a story solely about the whims of youth. What it's mostly about is what happens when massive amounts of disposable dollars created by government stimulus payments, enhanced unemployment benefits, and rock-bottom interest rates meet a still-limited set of opportunities to spend on traditional sources of entertainment. A year after the Covid-19 lockdowns began, the personal savings rate in the U.S. stood at about three times what it was before the pandemic.

As the economy continues to reopen and those savings start to dwindle, the rewards from dabbling in these entertaining new assets may begin to be overshadowed by the risks—and the dullness of those old, traditional investing strategies may become a virtue.

As for Dogecoin, the surge in its price didn't even last until Musk made his appearance on *SNL*. By Sunday morning, after a bow-tie-wearing financial analyst played by Musk admitted on the show that "it's a hustle," the value of the coin had crashed almost 40% from its peak.

Yet Musk isn't done promoting Dogecoin. As an encore to *SNL*, he announced the next day that his company Space Exploration Technologies Corp. will accept Dogecoin as payment for launching a satellite to—you guessed it—the moon. —*Michael P. Regan and Kriti Gupta*

THE BOTTOM LINE The new frontier of financial risk-taking is shifting away from traditional markets and boosting the influence of assets with entertainment value.

Private Equity Wants You

● Managers of buyout funds are looking for more money from individual savers

Private equity funds have spent decades wooing pensions, universities, and other big-ticket investors. Now they have a new pool of untapped capital in their sights: mere millionaires and even ordinary savers in workplace retirement plans.

Private equity firms use debt to buy out businesses—everything from hotel chains to doctor's offices to restaurants—and overhaul them before taking them public or selling them. They also run funds that invest in real estate and loans to companies. Part of their success comes from the steady flow of cash they receive from large investors willing to lock up their money, giving buyout managers the flexibility to take on deals that could require years to pay off.

Private equity funds run almost $5 trillion and are constantly on the lookout for more capital to put to work—and earn management fees from. Their fundraising has gone global, expanding to Asian sovereign wealth funds and Japanese insurers. The next frontier is wealthy households. According to a recent report from Capgemini SE, households around the world with investable assets above $1 million controlled $74 trillion in 2019, up from $46 trillion as recently as 2012. About 44% of that wealth—more than $30 trillion—is in the hands of "millionaires next door," those with $1 million to $5 million.

The giant Blackstone Group Inc., with $649 billion under management, has said it wants half of new client assets to come from individuals. Over the past two years it's doubled staff in its private wealth solutions team, which is focused on selling funds to individuals through private banks and other intermediaries, says Todd Myers, the unit's chief operating officer. Similarly, Scott Nuttall, co-president of KKR & Co., said in a recent investor presentation that in the past several quarters, "about 10% to 20% of the money that we've been raising has been coming from individual investors."

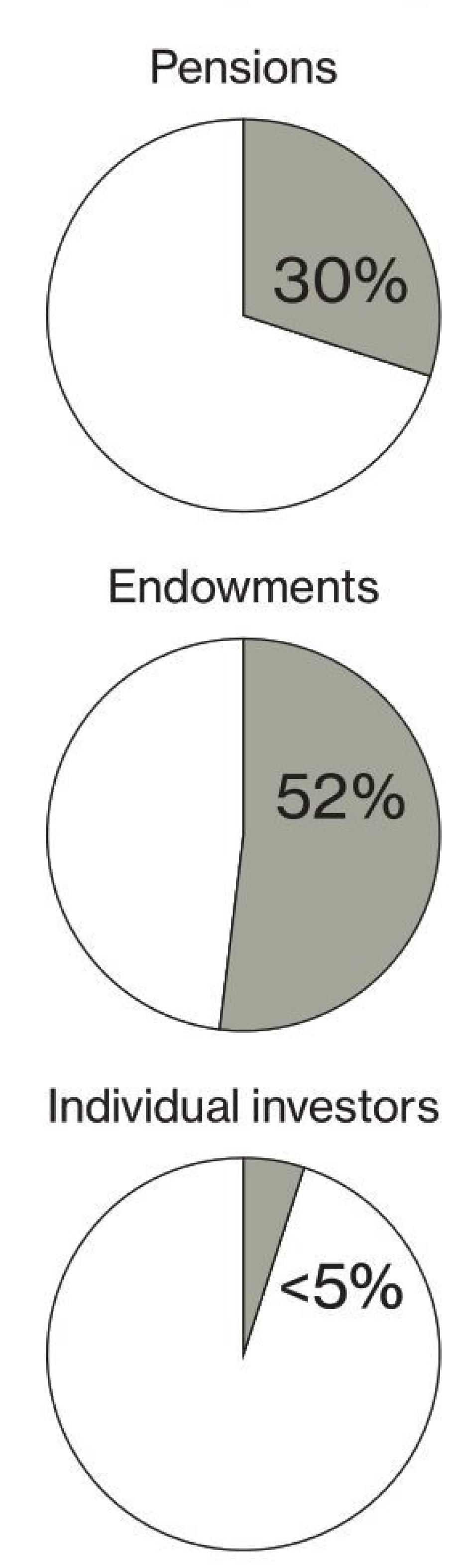
But private equity firms are still a long way from being able to pitch their products broadly to the everyday rich. While there are a handful of listed PE funds open for the average investor, the vast majority are difficult to access directly. Regulators around the globe remain wary of letting most people invest in funds that tie up savings in nonpublic companies with limited disclosure requirements.

People who want to take the plunge must get their heads around a new terminology, such as "capital call" and "internal rate of return." Returns can hinge on when a fund started and whether it was able to find good investment deals at the time. Mary-Anne Daly, chief executive officer of U.K.-based wealth manager Cazenove Capital, says people should plan to invest in successive "vintages" over several years to average out the ups and downs of the economy.

Smaller investors generally need a middleman to open the door to buyout funds. In 2016, Steffen Pauls, a former KKR managing director, launched Berlin-based Moonfare, a digital private equity platform for individuals in Europe. Moonfare's minimum investment is €50,000 ($60,675). That gets an investor into a "feeder" fund, which in turn puts money into buyout funds. At higher amounts, investors can choose specific funds. Moonfare charges a management fee of 0.5% of assets per year, which is on top of the fees the private equity managers

▲ Pauls

▼ Share of assets in private equity and other alternative investments



PAULS: PHOTOGRAPH BY SANDRA SINGH FOR BLOOMBERG BUSINESSWEEK. LUMBER: SHUTTERSTOCK. DATA: KKR charge. Rivals to Moonfare include Titanbay and Connection Capital in the U.K., as well as New York's ICapital Network, which works through advisers instead of going directly to the investor.

Moonfare has about €870 million under management. Pauls says regulation was "the biggest obstacle we had to overcome" but adds that policymakers will come under increasing pressure to allow more access. Low interest rates have investors looking for sources of better returns, and Pauls argues that ordinary investors now miss companies' fastest growth phase because firms stay private for longer. "There is a political need to open up these markets," he says.

Ludovic Phalippou, an Oxford University professor and lecturer on private equity, says regulators and the industry need to standardize how fees and returns are reported before funds are offered to the mass market. Fees can be as much as four times those for a mutual fund, and the private equity industry's favorite measure of performance, the internal rate of return, is not an easy-to-understand representation of how much money goes into investors' pockets, he says. Phalippou has argued that private equity's edge over public stocks is often exaggerated.

"I expect lawsuits when people realize they pay a lot more fees than on paper and realize the IRR is meaningless," says Phalippou, who's written papers analyzing fund returns. "I am, though, positive that if PE is open to ordinary investors, the regulators will force the industry to change the way it reports key metrics."

Swiss-based private equity manager Partners Group Holding AG plans to "ramp up" efforts to target 401(k) retirement plans as part of a broader effort to draw in U.S. investors, says co-CEO David Layton. Last year the U.S. Department of Labor issued a letter clearing the way for workplace plans to offer savers exposure to buyouts, as long as the investments are part of a diversified asset allocation fund. U.K. authorities have given a tentative nod to a similar initiative.

It's unclear whether the Biden administration will be as friendly to opening up private equity. Senior Democratic lawmakers including Ohio's Sherrod Brown and Massachusetts' Elizabeth Warren are hostile to the industry, blaming it for piling debt onto struggling companies and laying off workers. They won't be so eager to see more capital fed into the buyout machine. *—Benjamin Robertson and Melissa Karsh*

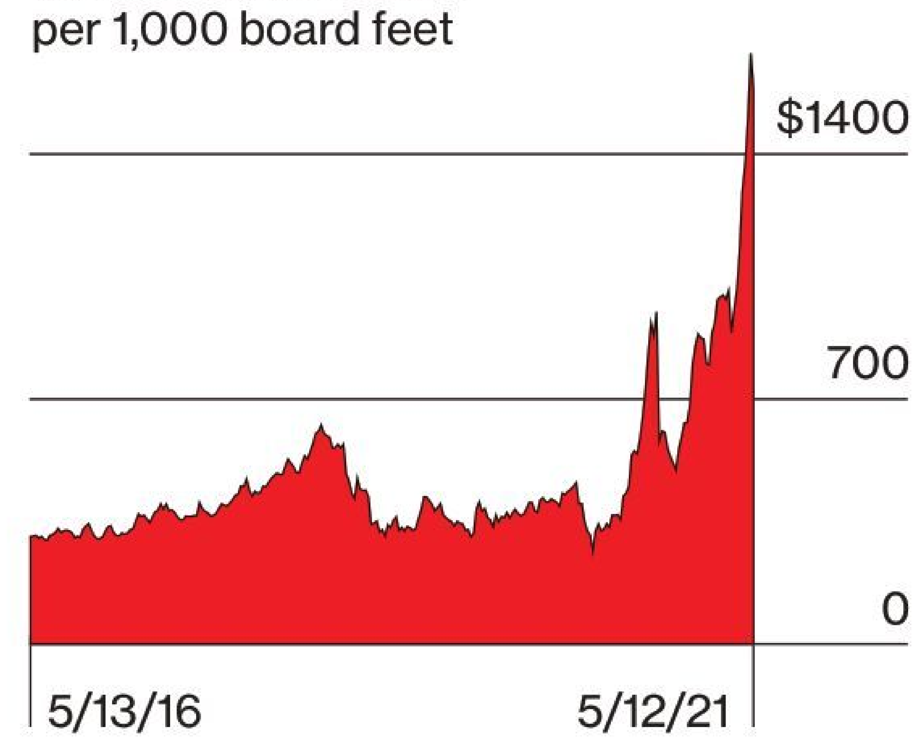
THE BOTTOM LINE Households with more than $1 million control trillions of dollars of assets, and private equity firms think they can tap into more of that capital.

DATA: COMPILED BY BLOOMBERG; U.S. CENSUS BUREAU, NATIONAL ASSOCIATION OF HOMEBUILDERS

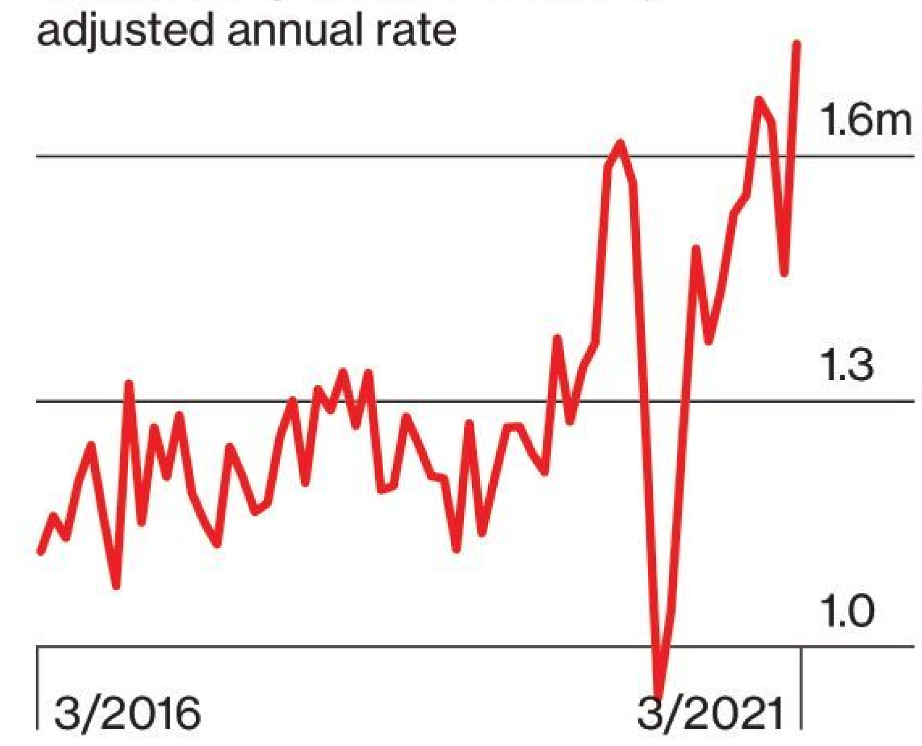
Shortages Lumber

Wood's become a precious commodity. When Covid-19 hit, sawmills cut production, anticipating an economic slump. Now there's a squeeze, and lumber prices have quadrupled within a year, hitting records. *—Marcy Nicholson and Joe Deaux*

Lumber futures price per 1,000 board feet

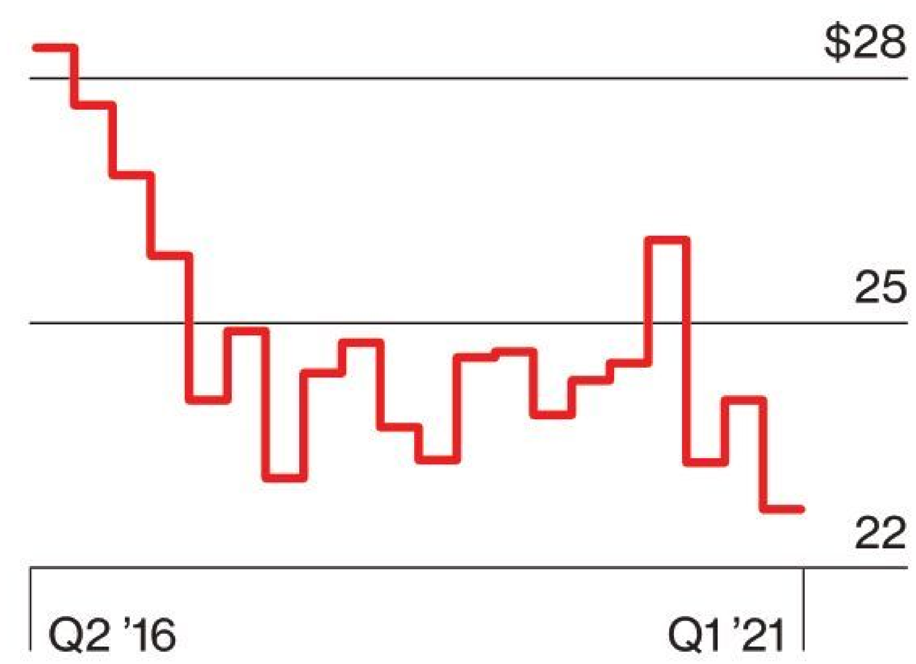


U.S. housing starts, seasonally adjusted annual rate



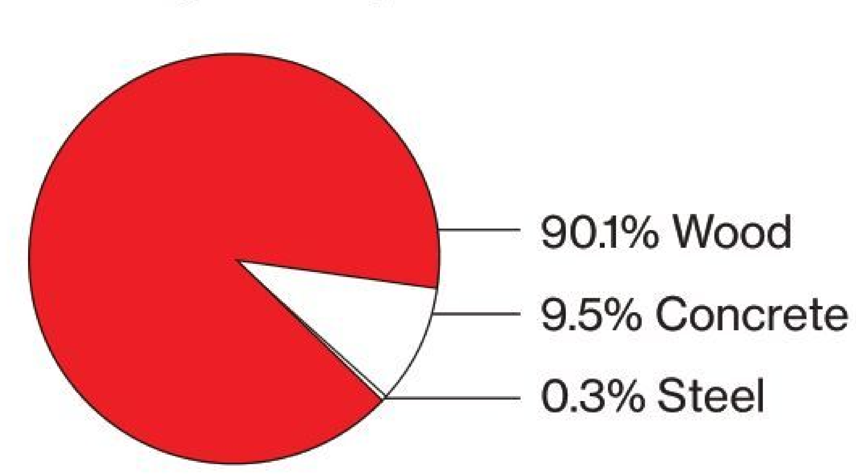
It's another unexpected pandemic twist. Cooped-up city dwellers with access to cheap loans wanted bigger homes out of town. Others decided to stay put and renovate. After a sharp decline, housing starts soared.

Louisiana pine stumpage spot price per short ton



There's no shortage of trees, at least in the southern U.S. Landowners planted loads of pine decades ago, and it's now abundant and cheap. In Canada, a major supplier of U.S. wood, provincial governments adjust timber costs along with lumber prices, so they're on the rise.

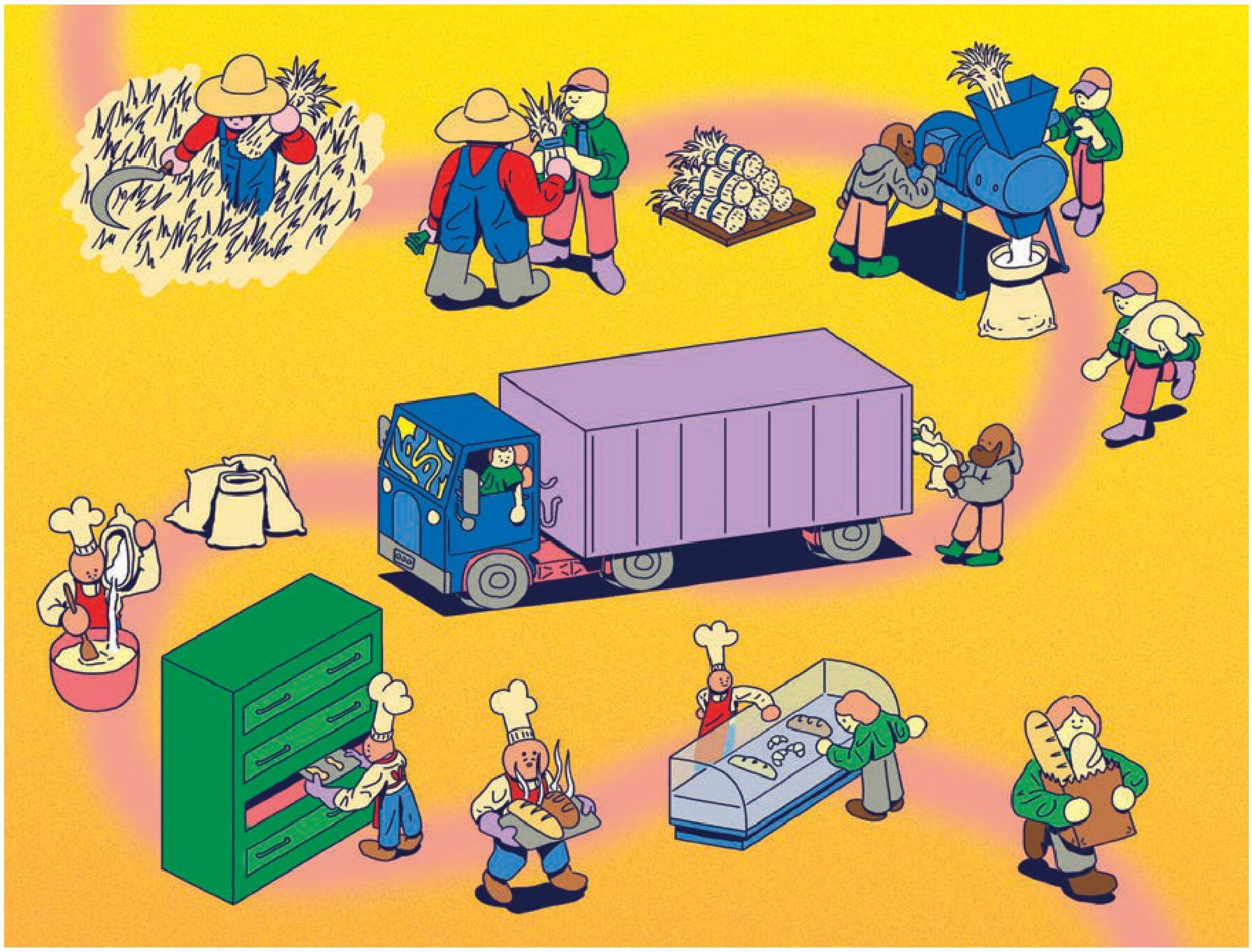
Framing for completed homes in 2019



Even at these prices, it's hard for builders to shift to alternatives. Wood is by far the most common material for house framing.

Since U.S. sawmills can't cut it up fast enough to meet demand, wood buyers are increasingly looking overseas. First-quarter imports of European forest products rose from the previous year by

37%



Decoding the Price Signals

What's real, what's transitory, what's base-effect distortion? Let's cut through the noise

We've been told for years that inflation has been too low. Now that it's finally reached and surpassed the Federal Reserve's 2% target, it looks as scary as the fast-growing carnivorous plant in *Little Shop of Horrors*.

Iron, copper, lumber, cotton, computer chips, and gasoline are jumping in price. The dollar has weakened, making imports more costly. Employers are having to raise wages to fill record openings; the federal government is spending heavily; and consumers emerging from the pandemic are in the mood to light some money on fire. On May 12 the U.S. Bureau of Labor Statistics reported that consumer prices rose 0.8% in April from March, four times the median expectation and the most since 2009. Excluding food and energy the increase was 0.9%, the most since 1982.

Stock indexes have retreated since May 7, when the S&P 500 hit a record. But jitters about the economic equivalent of an out-of-control, man-eating houseplant are more clearly evident in the bond market. Investor bets on the average inflation rate

ILLUSTRATION BY PATRICK EDELL

Edited by
Cristina Lindblad

over the next 10 years have shot up from their Covid-19 low of less than 1% in 2020 to more than 2.5%, the highest since 2013.

The nervousness may get worse. "One always has to be careful not to overplay a few anecdotes and project that onto the broader economy," Douglas Porter, chief economist at BMO Capital Markets, wrote in an April 30 report. "But as the anecdotes accumulate, they eventually become data."

So how worried should we be? This package of stories tries to answer that question. It focuses mostly on the U.S. but also takes a look at China, where manufacturers are beginning to pass along their higher costs to customers around the world.

Price pressures can bubble up at different stages in a supply chain. A lot of the pressure now is in commodities. At $66 a barrel, West Texas Intermediate crude is trading at its highest level since 2014 and far above its price of $20 or so during the worst of the Covid downturn. Bottlenecks including the ransomware-related shutdown of a major East Coast fuel products pipeline add to volatility. What's worse is that other raw materials are surging in tandem. A Bloomberg index of 20 commodities has climbed 53% over the past 12 months.

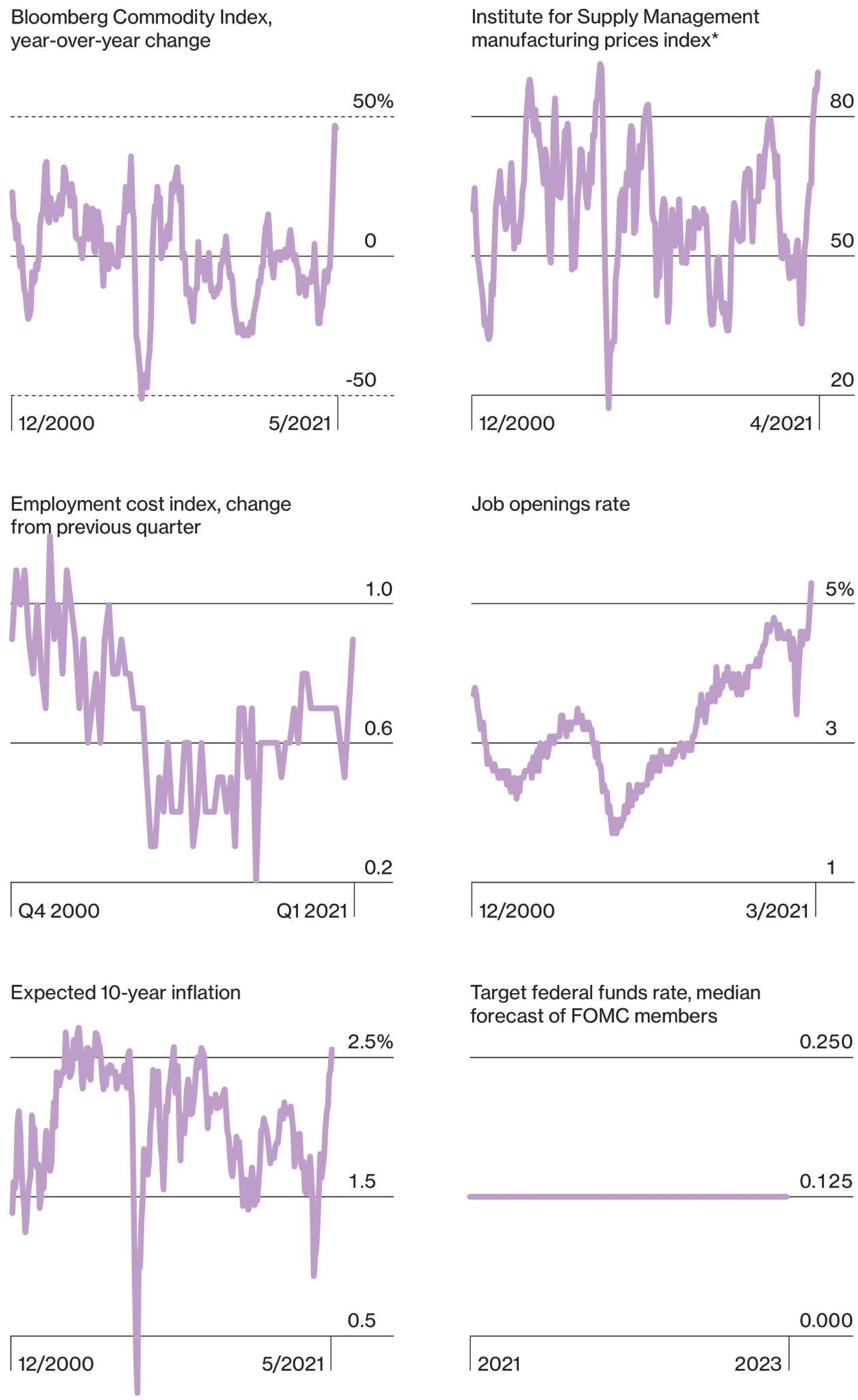
Commodity costs are only a small component of most consumer prices, of course. As the chart on page 32 shows, the consumer price index doesn't move up or down as dramatically as the indexes for producers at various stages of production. Nonetheless, it's worth noting that oil, the most important industrial commodity, has been a catalyst for every big spike in consumer price inflation since the early 1970s.

Wages are the biggest expense for most companies, and they, too, are moving up. Some observers interpreted the big shortfall in April jobs growth—a payroll increase of just 266,000, vs. the expected 1 million—as a sign that demand for workers is flagging, and so they conclude that runaway inflation isn't an imminent threat. Another way to read the May 7 report from the Bureau of Labor Statistics is that job growth is being held back by a shortage of workers, in which case businesses will have few options but to hike pay to fill openings. Under this scenario, inflation becomes a clear and present danger, as Bloomberg Opinion columnist Mohamed El-Erian wrote on May 10.

Although payrolls are still down 8 million jobs, data released on May 11 showed the national job-vacancy rate has shot up to 5.3%, the highest since records began in 2000. Fear of Covid, child-care issues, skills mismatches, and generous jobless benefits are all suspected factors in why workers are staying home. To lure them, companies are offering signing bonuses and raising wages. The employment cost index, which covers both wages and benefits, rose in the first quarter at the fastest pace since 2007.

Some companies are passing along their higher labor and materials costs to customers, according to transcripts of earnings calls with analysts. "Straight price increases will continue to be an important element as we look at the back half ▶

Inflation Jitters Are Everywhere, Except at the Fed



*DIFFUSION INDEX; NUMBERS ABOVE 50 INDICATE RISING PRICES. DATA: BLOOMBERG, INSTITUTE FOR SUPPLY MANAGEMENT, BUREAU OF LABOR STATISTICS, FEDERAL RESERVE'S FEDERAL OPEN MARKET COMMITTEE

◀ of the year," Noel Wallace, chief executive officer of Colgate-Palmolive Co., said on April 30. Paul Jacobson, General Motors Co.'s chief financial officer, told analysts on May 5 that the automaker's average transaction price was up 9% year-over-year in the first quarter, "helping to overcome headwinds from commodity inflation and lower volumes." Tyson Foods Inc. Chief Operating Officer Donnie King said on May 10, "We certainly can't eat all the inflation that we're experiencing now."

Fiscal and monetary stimulus are also pushing up prices. Federal net outlays hit 31% of gross domestic product in the final quarter of 2020, way above the recent average of about 20%. The Biden administration has kept the pedal to the metal since then with the $1.9 trillion American Rescue Plan and is seeking Congress's approval for other spending. And the Federal Reserve has maintained the target range for the federal funds rate at 0% to 0.25% while continuing to buy $120 billion a month of Treasury and mortgage-backed securities to hold down long-term rates.

Fed officials say higher inflation is precisely what they want. A bit of predictable inflation lubricates commerce and gives the central bank room to push down inflation-adjusted rates to revive the economy next time there's a crisis. On April 28 the Federal Open Market Committee (FOMC) unanimously reaffirmed its commitment to achieving inflation "moderately above 2% for some time" to compensate for the many years it was under 2%.

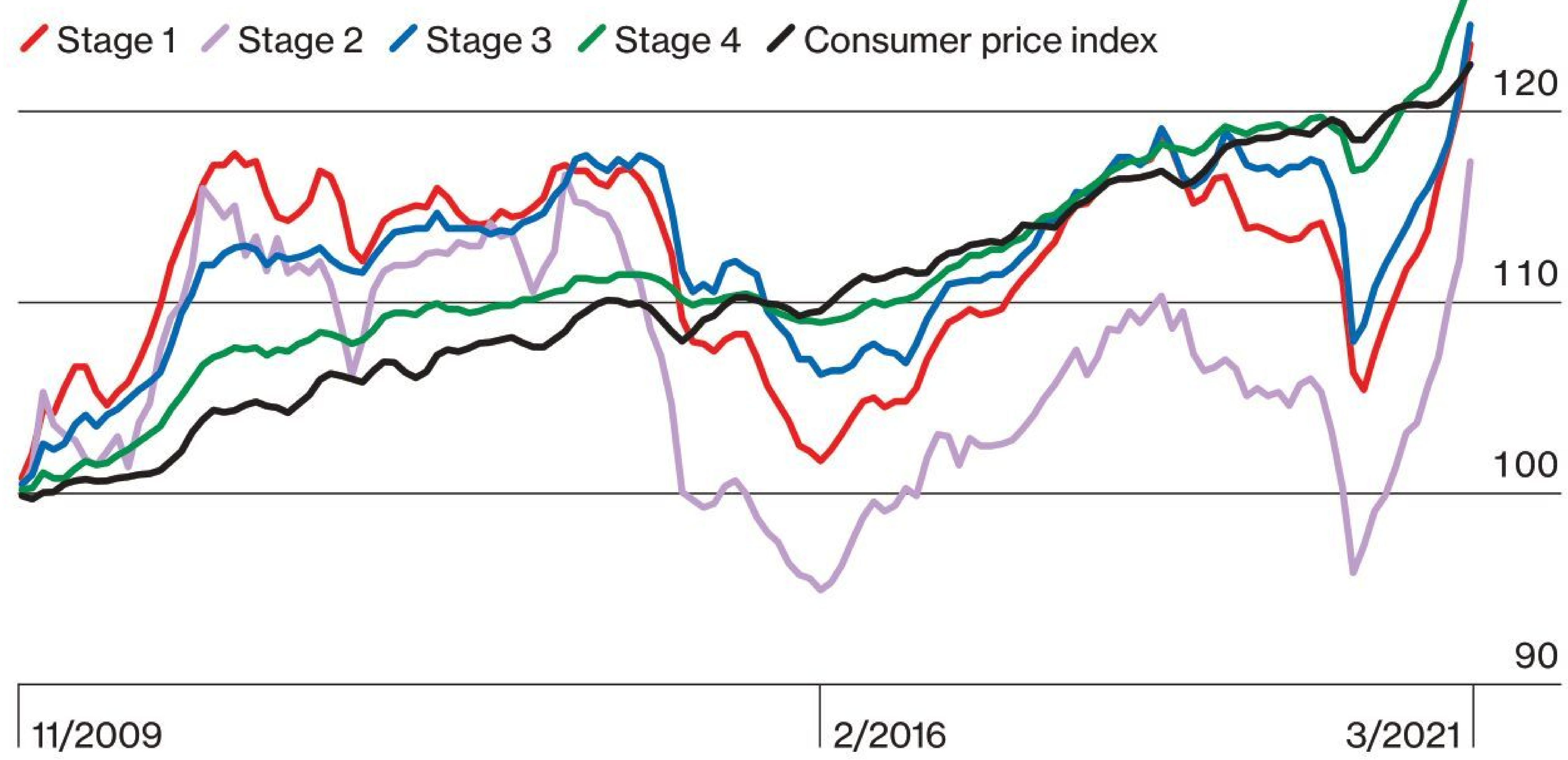
Fed Chair Jerome Powell has repeatedly stressed that the current inflationary pressures are "transitory" and that it's too early to even talk about tightening monetary policy while unemployment remains this high. "We have pent-up demand in the economy," said Fed Vice Chair Richard Clarida on May 12, calling the April inflation figure just "one data point." He added, "It may take some time for supply to rise up to demand."

He and others point out that the elevated year-over-year inflation readings are distorted by extremely weak prices from the Covid-damaged economy a year ago—and say that too-high inflation is easier for the Fed to fix than too-low inflation.

The one thing that could get the Fed to raise rates soon would be evidence that consumers and businesses are beginning to expect high inflation, which can become a self-fulfilling prophecy. There's no sign of that happening yet, Clarida said in an April 14 speech. He pointed to a Fed staff compilation of 21 indicators from households, companies, professional forecasters, and markets showing that expected inflation was 2% in the first quarter, on target.

Early-Stage Volatility

Producer price index by production stage



DATA: BUREAU OF LABOR STATISTICS

Some Wall Streeters say the Fed is right to stay the course. "We do not see the sort of inflationary pressures that markets appear to be fearing, and high growth rates will not necessarily translate into a higher inflation rate," says Praveen Korapaty, Goldman Sachs Group Inc.'s chief interest-rate strategist.

That may well turn out to be right. At the moment, though, the mood is fearful. And the more the Fed tries to reassure people that inflation is nothing to worry about, the more some people will conclude that it's about to get out of hand. *—Peter Coy, with Michelle Jamrisko and Vivien Lou Chen*

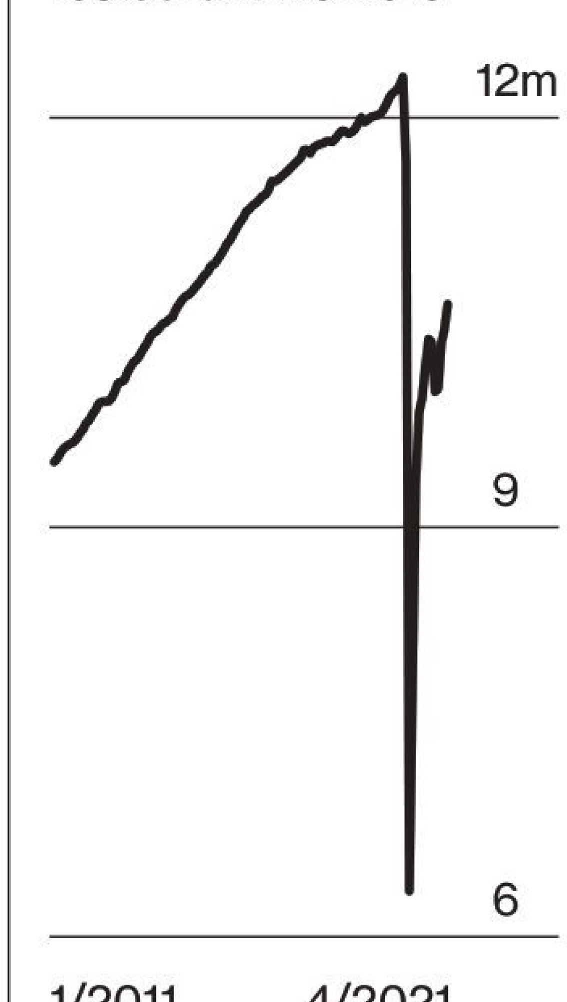
THE BOTTOM LINE The reappearance of inflation is acceptable, even positive, as long as it stays moderate. The risk is a return of inflationary psychology.

Help Wanted, Desperately

● The food service industry faces a reckoning as workers find better-paying jobs elsewhere

Chef Dan Jacobs's restaurants have long been fixtures on best-of-Milwaukee lists. One of his latest, called EsterEv, offers an eclectic mix of gourmet and comfort food: The $65, five-course menu features caviar tater tots and schmaltz-and-poppy-seed focaccia with hot mustard butter. But while diners may be eager to return, Jacobs can't find enough workers to get his place back up and running.

▼ U.S. bar and restaurant workers



He's offering $40,000-a-year salaries and $20 an hour for part-timers. He's begging on Craigslist. He's even scouting people who've served time in prison. No luck. "It's a coin flip," Jacobs says of the chances that EsterEv and his other two restaurants will survive. "I have to be realistic and realize there is a distinct chance this will not work."

Across the U.S., restaurants desperately want to reopen to full capacity, and mayors and governors are urging them to do so. While some diners are still wary, owners say a bigger problem is finding enough bodies to cook, serve, and wash dishes. Adding to concerns about inflationary pressures, the labor crunch nudged up average hourly earnings to $16.28 an hour in March, the highest on record, according to the U.S. Bureau of Labor Statistics.

The Covid-19 crisis has transformed few areas of the U.S. economy more than food service. Marking the launch of a $28.6 billion federal Restaurant Revitalization Fund earlier this month, President Joe Biden called restaurants a "key part of the American story," noting their importance as a driver of socioeconomic mobility for minorities and immigrants. It's hard to overstate the importance of what in 2019 was an $860 billion-a-year industry. More than 60% of Americans have worked in a restaurant at one time or another; for almost 1 in 2, it was their first regular job.

Perhaps no more. Restaurants and bars employ 1.6 million fewer people than at the start of 2020, federal data show. But it's unlikely the 10.6 million-person workforce will ever return to pre-pandemic strength. More than half of restaurant workers are considering quitting because of low wages and other opportunities, according to a survey published last month by nonprofit One Fair Wage and the University of California at Berkeley's Food Labor Research Center. Many are working mothers fearful of contracting Covid and are bringing in earnings that barely cover their family's grocery bills.

Extended unemployment benefits have allowed some restaurant workers to remain on the sidelines. In Milwaukee, Jacobs says candidates sometimes apply because they have to show they're actively seeking work to continue collecting unemployment but then don't return his phone calls.

Yet he and other employers in the industry face a more fundamental challenge. Low-skilled workers are fleeing food service for higher-paying jobs at fulfillment centers operated by Amazon .com Inc. and other retailers, according to Daniel Zhao, a senior economist at the employment site Glassdoor.

In St. Louis, Bettie Douglas recently quit her job at a sandwich shop to work at Rainbow USA Inc., an apparel store chain that also sells online. She's still making minimum wage, as she did in her previous job and before that, working at McDonald's. But unpacking boxes and tagging merchandise is a breeze compared with fast food, where she took orders, ran registers, washed dishes, and sometimes unclogged toilets, says Douglas: "It's more stress because you're moving more, you're doing more."

▲ Jacobs

To lure new workers and keep existing ones from bolting, some fast-food and casual-dining chains are offering one-time bonuses and increasing pay. Olive Garden owner Darden Restaurants Inc. said it spent $17 million on a one-off retention payment of as much as $300. Chipotle Mexican Grill Inc. will raise average hourly wages for kitchen workers from $13 to $15 by the end of June, as it looks to add 20,000 employees to ▶

◀ its payroll. Even before the planned hike, the chain's pay was up about 4% from the same time last year.

Todd Graves, chief executive officer and founder of Raising Cane's Chicken Fingers, a Baton Rouge, La.-based chain with about 530 locations, says it's the toughest hiring market he's seen in his 25 years in the business. "The demand for employees is just through the roof," says Graves, who's handing out retention bonuses of as much as $250. "Everybody is reopening at once."

Restaurants may become a smaller part of the economy. At least some of the shift in revenue to grocery and food delivery witnessed during the pandemic may become permanent if many office workers opt to continue working from home.

To adapt to these changes, restaurants may have to embrace automation and other technologies, something that much of the highly fragmented industry had been slow to do prior to the pandemic. Many now allow diners to submit their orders and settle their tab using their mobile phones. "This is sort of an 'aha!' moment, where we had these technologies and suddenly we see that we can use them even more," says Claudia Goldin, a Harvard economic historian.

Aaron Allen, a third-generation restaurateur, says that while the federal government's new rescue fund may help tide some establishments over, many will eventually succumb if they can't hire and retain workers. "This is the first time that they're actually saying, 'You know what? Screw you guys,'" says Allen, now an industry consultant. "'The way that we're being treated, we're not coming back.'" —*Leslie Patton*

THE BOTTOM LINE Despite federal aid, employment in the U.S. food service industry is unlikely to return to pre-pandemic levels for the foreseeable future.

China's Next Export: Inflation

● With prices rising at the factory gate, consumers abroad may wind up paying more

Bryant Chan's factory in Heyuan, in China's Guangdong province, turns out Nerf guns, LeapPad toy tablets, and other playthings for major U.S. brands, as well as electronics, such as a gadget that can capture data on golf swings. The president of Hong Kong-based Wynnewood Corp., Chan has seen prices for paint, screws, springs, solvent, metal, batteries, and packaging rise as much as 15% this year. Plastic resin has climbed up to 40%. "To put it very simply, everything has gone up in price," he says. "This increase has been much steeper and across a broader range of categories than we have typically experienced."

To illustrate, Chan breaks down the contents of the company's trail camera, a device used by hunters and wildlife photographers. The electronics, which make up 40% of its production costs, are now about 10% more expensive. Packaging, which represents one-tenth of costs, has seen a 10% increase. And while plastic accounts for only 2% of the production costs, the surge in resin has had a noticeable impact. When the higher input prices are added up, the camera is now 6% more expensive to make.

China's factories have spent months absorbing shocks, including soaring prices for raw materials, a scramble for semiconductors, and even the blockage of the Suez Canal. Now manufacturers are starting to pass on their rising input costs to overseas customers, adding to global inflation pressures.

China's producer price index (PPI) climbed by the most since 2017 in April, with everything from big-ticket items like oil and metal to components such as screws and cardboard all shooting up. On the other side of the Pacific, a U.S. gauge of prices for imported goods from China rose 1.8% in March from a year ago, the biggest gain in almost nine years.

The big unknowns are how durable these higher costs will prove to be and how much of China's price pressures will eventually flow to the world's consumers. If supply chain disruptions caused by the Covid-19 pandemic do smooth out—and once we get past the data distortion caused by last year's pandemic-depressed prices—the inflation might dissipate.

A sharp divergence in input and output prices for China's producers indicates costs aren't being

▼ China's producer price index, year-over-year change

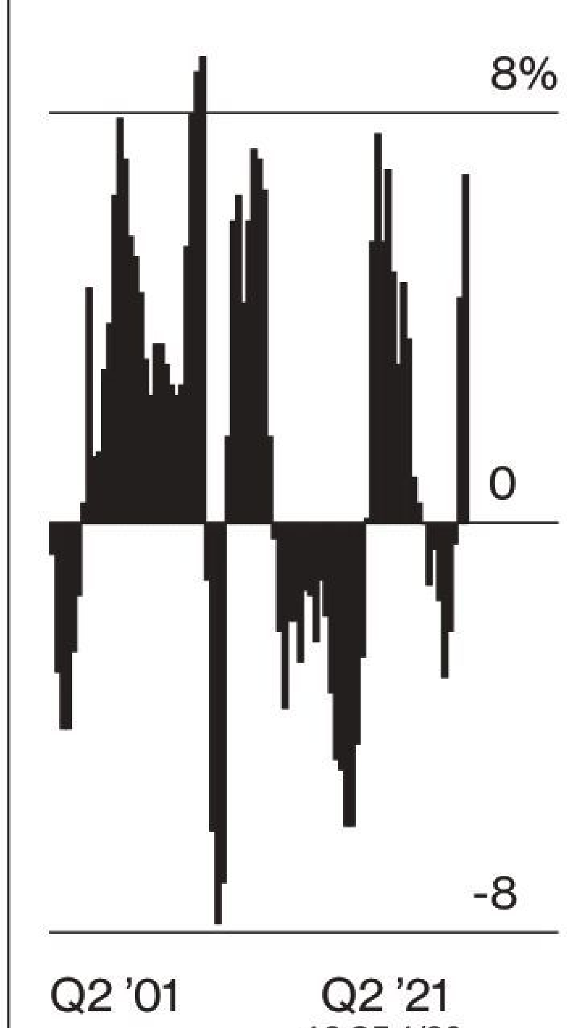
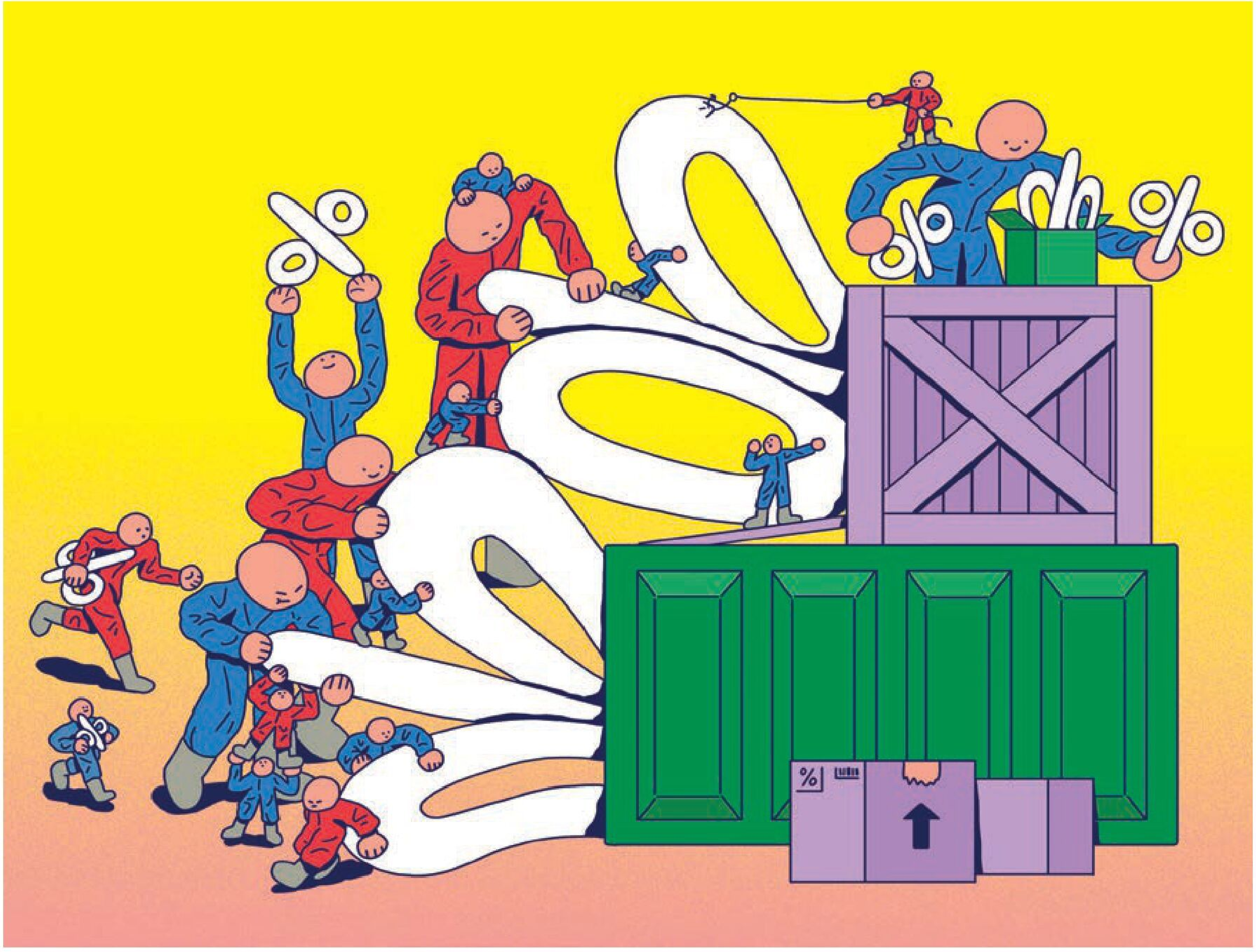


ILLUSTRATION BY PATRICK EDELL. DATA: COMPILED BY BLOOMBERG



passed all the way through just yet. Raw material prices rose 15.2% in April from a year ago, the latest PPI report shows, which was more than the 5.4% increase for manufactured goods. The official manufacturing purchasing managers index for April also showed input prices running far hotter than output prices.

Manufacturers are looking for workarounds and cost savings to avoid raising prices, according to Christopher Tse, chief executive officer of Musical Electronics Ltd., a Hong Kong-based company that makes Bluetooth speakers and high-power home stereo systems for the U.S. market, among other products. "In the end, if we have no choice, we have no choice," he says. "But we will try everything to save costs instead of passing too much to our customers."

Higher prices would reverberate all the way to U.S. store shelves. Research by Standard Chartered Plc shows the correlation between China's PPI and U.S. consumer prices has been as high as 0.61 in recent years. (Statistics 101 refresher: The maximum possible correlation is 1.) That relationship appears to be holding true again, though exchange-rate movements and other variables may influence the pass-through.

Other manufacturing giants, including the U.S., Germany, and South Korea, also are experiencing higher costs. The Bloomberg Commodity Spot Index, which tracks global prices for 23 raw materials, rose this month to its highest point since 2011; it's climbed more than 70% since reaching a four-year low in March of last year.

In an indication of just how strong demand is for China's goods right now, the nation's exports climbed 32.3% in dollar terms in April from a year earlier. On a two-year average growth basis, which strips out the base effect distortion, export growth was 16.8%, much stronger than pre-pandemic levels. Which is why economists say the combination of soaring prices and bumper demand augurs a period of higher inflation.

Wilson Lam, whose factories in Shenzhen make packaging for global cosmetic and perfume brands and metal caps and other accessories for whiskey and cognac bottles, thinks it's inevitable that some of the cost increases will need to be shared with his clients in Europe. "I don't think we can absorb all of these cost increases," says Lam, director at Chi Kwong (Luen Kwong) Metal Products & Electroplate Factory Ltd. "It's just a matter of time before we pass them on to our customers." *—Enda Curran*

THE BOTTOM LINE A jump in China's producer price index may eventually feed into consumer indexes overseas, as the country's manufacturers pass on the rising costs.

The Inscrutable Kyrsten Sinema

● What's driving the stubbornly independent Democratic senator?

ANNA MONEYMAKER/NYT/REDUX

Kyrsten Sinema likes to make a statement. The 44-year-old senior senator from Arizona wore brightly colored wigs in the Capitol last year after hair salons shuttered because of Covid-19. Voting in March on whether to increase the minimum wage to $15 an hour, the centrist Democrat riled progressives by giving a curtsy and a playful thumbs-down. And last month she posted a picture of herself on Instagram sipping sangria and sporting a gold ring adorned with a profane message intended, presumably, for her critics: "F--- Off."

But when it comes to where she stands on the issues, Sinema—who holds the power to quash any element of President Joe Biden's agenda by withholding her vote in a 50-50 Senate—is something of a mystery. The other Senate Democrat most likely to split with his party, Joe Manchin of West Virginia, appears frequently on Sunday talk shows to discuss policy and navigates the Capitol's corridors with reporters in tow. By contrast, Sinema is tight-lipped and seldom seen except on the Senate floor or inside committee rooms. (Spotted and asked if she would talk to *Bloomberg Businessweek* for this piece, she responded, "I have no interest in that.")

Now the question is just how much of an impediment Sinema will be to the Democrats' agenda. Her staunch opposition to eliminating the Senate filibuster casts doubt on whether the Democratic leadership can carry through on Biden's campaign promises on voting rights, an immigration overhaul, new gun control measures, and a grand economic plan.

Among Democrats in her home state, there's growing frustration with her interest in bipartisan dealmaking when there's scant evidence of it in Congress. "I want Kyrsten Sinema to be a champion for progressive causes and to make change," says Michael Slugocki, vice chair of the Arizona Democratic Party. "I want her to make the most of it and not be caught up in procedural issues like the future of the filibuster."

Yet longtime observers and allies say to expect the senator to use the same approach that helped her score a remarkable win in 2018: She'll keep her own counsel, ignore much of her party's leftward pull, and demonstrate a frequent regard for the desires of independent and Republican constituents.

The first Arizona Democrat elected to the Senate in a generation, and the first openly bisexual U.S. senator, Sinema has undergone a dramatic political evolution since the early 2000s. Depending on whom you ask, she's either caved on liberal principles or recognized the value of pragmatism.

"It is a combination of rigorous discipline coupled with ambition," says Chuck Coughlin, a veteran GOP strategist in Phoenix who became an independent in 2017 and who's watched her transformation. Sinema, he says, seems to be working to match the "maverick" image of another Arizona senator, the late John McCain.

Born in Tucson and raised in Florida, Sinema

Edited by Amanda Kolson Hurley

entered politics as a Green Party antiwar activist in Phoenix. After two unsuccessful runs for public office, she switched to the Democratic Party and won a seat in the Republican-dominated Arizona House of Representatives in 2004 at age 28. She served six years and became known as a champion of marriage equality, raising $2.5 million to help defeat a 2006 proposal to ban same-sex marriages, before advancing to the state senate.

Trained as a social worker and lawyer (she's since earned a Ph.D. in justice studies), Sinema learned early during her time in the state legislature that she needed Republican support to move bills, says Rich Crandall, a former Republican state lawmaker who worked with her on legislation. She was creative in forging relationships, Crandall says, inviting new lawmakers to volunteer at a Phoenix soup kitchen.

She also stood out in the Democratic caucus as the person who knew every technical aspect of a bill: "Her modus operandi is to know her subject really, really, well," Crandall says. "Kyrsten always thrived on the details, the weeds, the wonk."

Chad Campbell, a lobbyist and former Democratic leader of the Arizona House of Representatives who served with Sinema, says she was skeptical of one-party solutions that might be overturned if the legislature changed hands. "She wanted to achieve long-standing policy solutions, as opposed to solutions that were one-sided and had partisan foundations," Campbell says. Another former Democratic state legislator who worked with Sinema, Steve Farley, says she focused on issues she could get bipartisan support for, including the needs of veterans and domestic violence.

Sinema ran for the U.S. House in 2012 in a newly drawn district in south-central Arizona that was almost evenly split between the parties. After winning, she cemented her move to the center, joining the moderate Blue Dog Coalition and the bipartisan Problem Solvers Caucus. She didn't vote for Nancy Pelosi in 2015 and 2017 speaker elections, voted with Republicans to loosen some regulations, and supported a law to boost penalties on immigrants who illegally reenter the U.S. after being deported. She did vote with her party against a repeal of Obamacare and against the 2017 Trump tax cuts.

In the 2018 Senate race for the seat of retiring GOP Senator Jeff Flake, Sinema beat Republican Martha McSally with just a two-point margin after voters weren't swayed by McSally's attacks on Sinema's left-wing past. Campaigning in a state with roughly equal shares of Republicans, Democrats, and independents, Sinema rarely brought up her party affiliation.

In the Senate, she voted against the Green New Deal in 2019, one of just three Democrats in the chamber to do so. In 2019 and 2020, the Arizona Democratic Party considered censuring her for her frequent votes with President Trump and congressional Republicans, including her vote to confirm William Barr as U.S. attorney general. The resolution was tabled.

Now with Democrats in the majority for the first time in her career, some in the party say her opposition to altering rules on the filibuster, which requires a 60-vote threshold to advance legislation, is out of step with shifts in a state that just elected another Democrat, Mark Kelly, to the Senate. A Data for Progress poll conducted in late February found that 61% of likely Arizona voters say passing major bills is a high priority and just 26% say it's more important to preserve the Senate tradition.

"It's frustrating," says Emily Kirkland, executive director of the group Progress Arizona. "The reason she is receiving so much attention and has such outsized influence is tied to the fact that she is so out of step with Arizona voters."

For the time being, Sinema is keeping everyone guessing about what she might do on many agenda items Democrats want, including Biden's $2.25 trillion infrastructure and jobs plan and his $1.8 trillion American Families Plan. (Biden hosted her at the White House on May 11 to talk about infrastructure.) Senate Democrats could agree to take a parliamentary shortcut called reconciliation to pass portions of those, but she hasn't indicated she would back that.

How Sinema Has Voted in the Senate

	Chuck Schumer	Kyrsten Sinema	Mitch McConnell	Democratic senators' vote split
Ideology score (116th Congress)*	0.29	0.68	0.70	
Confirmation of William Barr as U.S. attorney general, 2/2019	No	Yes	Yes	3 Yes - 42 No
Withdrawal of U.S. support for Saudi war in Yemen, 3/2019	Yes	Yes	No	45 Yes - 0 No
Recognizing duty to create a Green New Deal, 3/2019**	Present	No	No	3 No - 42 Present
Confirmation of Amy Coney Barrett as Supreme Court justice, 10/2020	No	No	Yes	0 Yes - 45 No
$15 minimum wage amendment to Covid relief package, 3/2021	Yes	No	No	41 Yes - 7 No

*BASED ON PATTERNS OF BILL CO-SPONSORSHIP; 1 = MOST TO THE RIGHT. **MOST DEMOCRATS VOTED "PRESENT" TO OBJECT TO REPUBLICANS HOLDING THE VOTE WITHOUT ANY HEARINGS. DATA: GOVTRACK.US, U.S. SENATE

Sinema is taking part in bipartisan talks to seek compromises on such issues as immigration reform, and working with some top Republicans on legislation. She recently introduced a bill with Senator John Cornyn of Texas to provide the government with more resources to address the wave of migrants at the border with Mexico. Another frequent Republican partner is Utah Senator Mitt Romney. ▶

◀ They've co-sponsored legislation to curb student debt and are working on a proposal to raise the minimum wage, perhaps to $11 an hour.

While almost all other Senate Democrats support ending the filibuster, senior lawmakers in the party say they're fully aware that Sinema represents a Republican-leaning state and they wouldn't have a majority without her. "There is a recognition in our caucus that this is not an easy state for a Democrat," says Senate Finance Committee Chair Ron Wyden, an Oregon Democrat. "The challenges of states like Arizona in a 50-50 Senate are going to be consequential all the way through this session of Congress." —*Laura Litvan and Brenna Goth. Goth is a reporter for Bloomberg Government.*

THE BOTTOM LINE Sinema's committed bipartisanship appears to be part self-preservation, part hard-won experience. With Democrats in power, it's unclear whether or when she'll budge from it.

Austerity Backfires In Colombia

● Its disastrous tax reform warns neighbors not to balance their budgets too soon

In the predawn hours of May 10, Colombian President Iván Duque flew to the city of Cali to try to quell protests that had become violent and blocked key roads. It was the latest repercussion from a planned reform that's become a political disaster for the government—and a warning sign for other countries.

After borrowing heavily during the pandemic, Colombia moved faster than many developing-nation peers to get its financial house in order, announcing a new tax reform bill on April 15. Duque promised it would trim deficits and help the poor by increasing the burden on middle-class and wealthy individuals at a time when the country's poverty rate is surging. The measure, set to take effect in 2022, was meant to convey discipline and reassure investors. Instead, the blowback was fast and fierce: nationwide protests, more than 40 people dead, and the country's finance minister out of a job.

The debacle brings lessons for other countries around the world that will eventually have to choose between funding their economic recoveries or tackling their deficits. Developing nations are especially under pressure to satisfy investors who demand fiscal prudence. "There will be similar bills to pay across Latin America and emerging markets," says Jonathan Davis, a money manager for emerging-market debt at PineBridge Investments, which holds Colombian bonds.

Economists warn against pulling back too much stimulus, too soon. In Latin America, where the pandemic has thrown millions into poverty, the recovery is tenuous following a 7% economic contraction last year, the worst in two centuries. Tax reforms "might prematurely stop growth recovery and prove counterproductive," says Michael Papaioannou, a visiting scholar at Drexel University and an expert in emerging-market debt.

Further illustrating the depth of the collapse, the International Monetary Fund, which has long drawn scorn for the austerity it demands of borrowers, has supplied Latin America and the Caribbean with more financing than any other region and is urging governments to spend. Most have.

In a region of serial defaulters, even the riskiest countries and companies have been able to borrow from capital markets as interest rates sit near record lows. Latin American governments borrowed a record of more than $65 billion on bond markets last year. Deficits more than doubled in four of the biggest economies, including Colombia's, where it's expected to continue to widen to 8.7% of gross domestic product this year, according to the IMF.

The worry, for investors and indebted governments alike, is that central bankers in the

▼ Bogotá on May 1, left to right: a police officer in riot gear; an exploded projectile; a demonstrator

wealthy economies could reverse course and hike borrowing costs, which would hit developing nations the hardest. But paring back subsidies in the world's most unequal region was politically explosive well before the pandemic. In 2019 violent protests forced the Ecuadorean government to reverse a fuel subsidy cut. In Chile, a proposed metro fare hike led hundreds of thousands to take to the streets to demand a new constitution.

Benjamin Gedan, deputy director of the Latin America program at the Wilson Center, a policy think tank, says Colombia's unrest is going to make balancing budgets even harder. Leaders "are going to end up extremely gun-shy when it comes to any spending cuts or tax increase," he says.

Already, governments are finding new ways to raise revenues and avoid cuts. Argentina levied a one-time wealth tax on its richest citizens. Brazilian President Jair Bolsonaro pushed through more than $23 billion in pandemic funding, largely to help the poor, despite facing automatic spending cuts and investor hand-wringing over Brazil's fiscal situation. Chile has allowed its citizens to withdraw billions of dollars from their pensions as it faces pressure for more Covid-19 relief.

The problem for Colombia, a nation known for obsessing over its fiscal standing, isn't that it spent an astronomical amount of money–its stimulus cost 4.1% of GDP in 2020, less than the regional average of 4.6%, according to the United Nations. It's that it's the only Latin American country on the cusp of losing investment-grade status, which it shares with Chile, Mexico, and Peru. Getting slapped with a junk rating has well-known consequences, not the least of which is increased financing costs.

The rollout of the proposed reform baffled regular Colombians and political observers alike. "Anything with the words 'tax reform,' especially targeting the middle class, especially at this time, was going to be rejected," says Silvana Amaya, senior analyst at Control Risks, a political risk-consulting firm in Bogotá. Over the past year, the share of Colombians living in poverty has swelled to almost 43%, while the middle class has shrunk.

The plan's architect, Finance Minister Alberto Carrasquilla, who resigned on May 3, didn't help matters. While defending a new value-added tax scheme that removed exemptions on some staples, he couldn't say how much a carton of eggs cost. Almost all of Congress, even Duque's own party, refused to back the bill.

And when the proposal was introduced, protesters were already mobilizing against Covid restrictions that have shuttered businesses and kept Colombians cooped up at home. A bloody police crackdown, which drew rebuke from human-rights groups and the U.S., brought thousands more Colombians onto the streets.

Duque pulled the tax bill less than three weeks after it was introduced. Carrasquilla resigned a day later. His replacement, José Manuel Restrepo, who was serving as the trade minister, has been assigned to come up with a new plan.

All of that did little to slow the protests. "What do we want? For me, it's that Duque resigns," said Daniel Rodríguez, a 19-year-old university student who draped a Colombian flag over his shoulder as he marched with hundreds down one of Bogotá's main avenues on May 6.

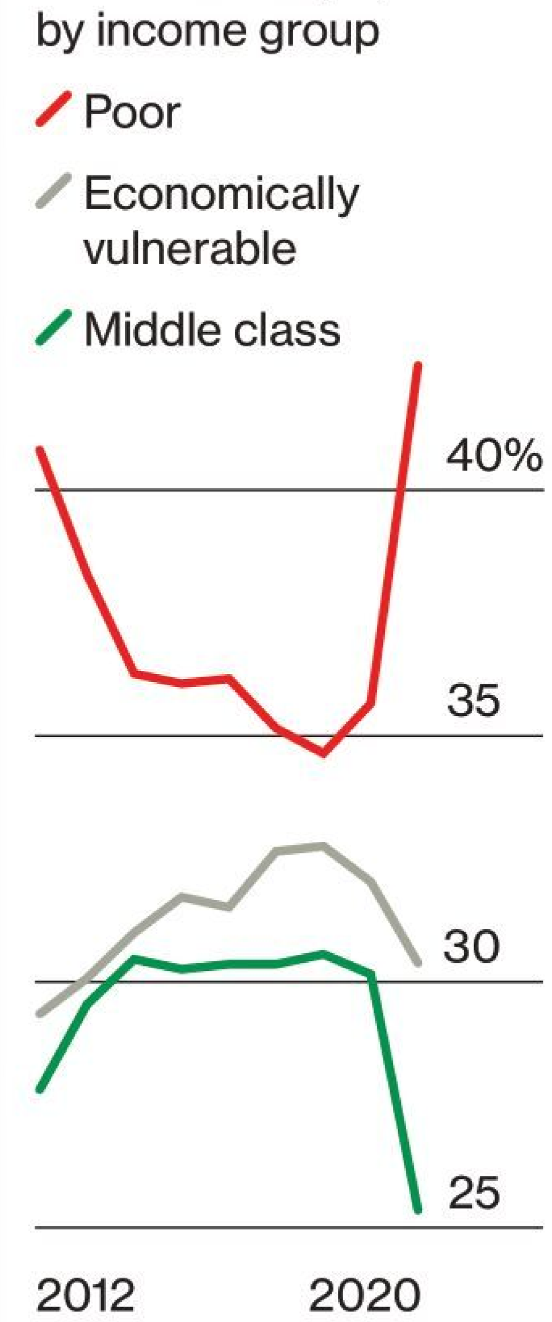
Rising anti-government sentiment before next May's presidential elections has been a boon for politician Gustavo Petro, a former guerrilla and ex-mayor of Bogotá. In 2018 he lost to Duque. But with Duque prohibited by term limits from running again, Petro, a leftist who has proposed major overhauls to the economy, is leading in the polls.

Andrés Abadia, an economist at Pantheon Macroeconomics, says Colombia ultimately needs reforms if it hopes to sustain growth. But getting them enacted requires demonstrating that they will be gradual and benefit those most in need.

"The government sinned in this sense," he says. For other countries considering measures of their own, he adds, "clearly, now is not the moment." —*Andrew Rosati and Ezra Fieser*

THE BOTTOM LINE The tax proposal that sparked Colombia's protests was bound to fail when the country's economic recovery has been shaky, poverty has risen, and the middle class has shrunk.

▼ Colombia's population by income group



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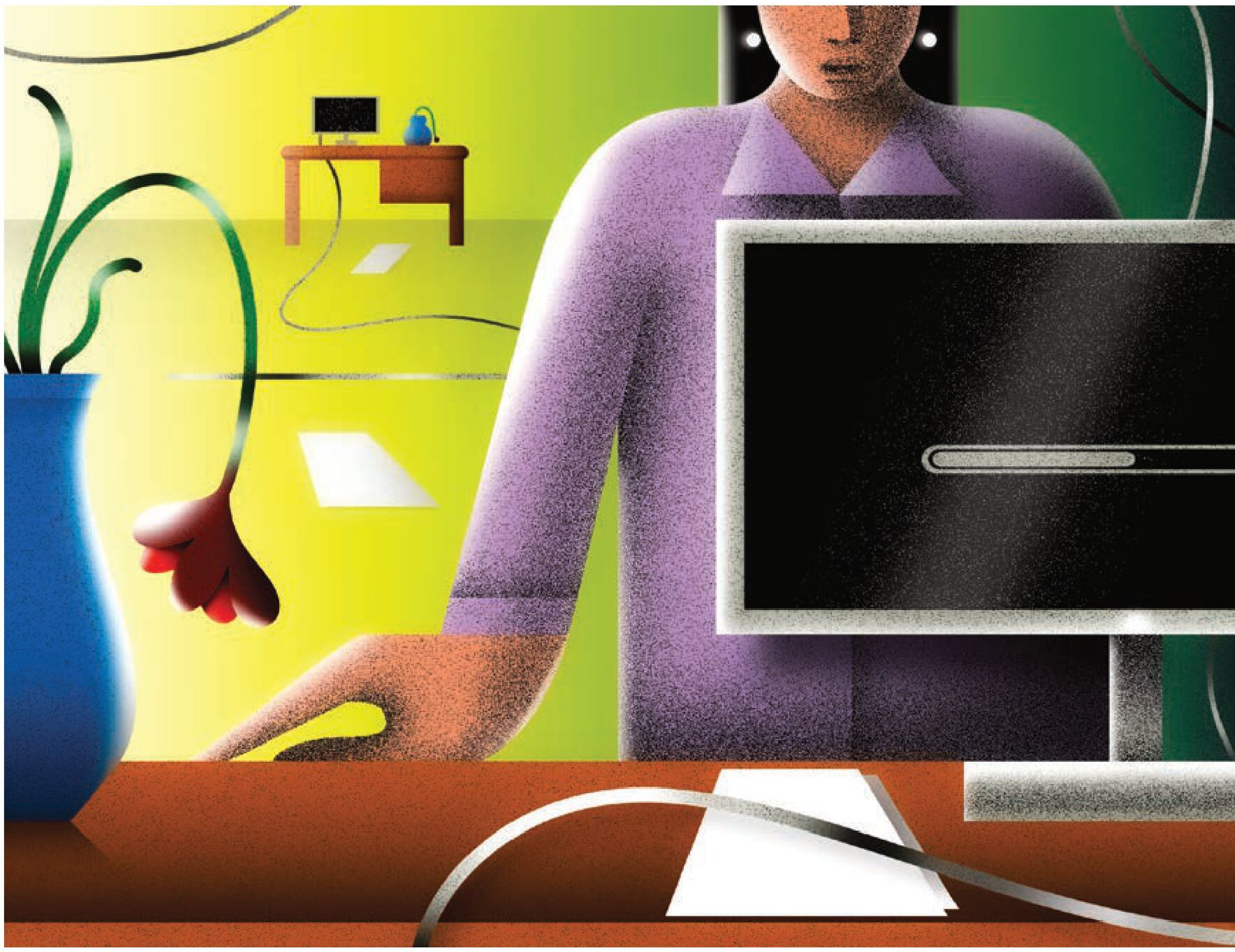


● "Return to office" means different things to different companies right now

Edited by Bret Begun and David Rocks

Managers are making tentative plans to reopen offices, leading to a bunch of questions from workers who've spent more than a year settling into (and in some cases learning to love) their work-from-home routines. Here are the most common ones bosses are facing, and how they're looking at them.

● WHEN WILL THE OFFICE REOPEN?

Mid-May to October is the range most companies are giving. But one lesson from the past year is that plans need to evolve with the virus.

At large businesses, this could mean that as some locations reopen, others stay closed (or close again) as infection rates change. Johnna Torsone, chief human resources officer at Pitney Bowes Inc., the global e-commerce and logistics company headquartered in Stamford, Conn., says July 1 is the soonest that five key U.S. offices would reopen. "Outside the U.S. it's a mixed picture," she says, with offices in Australia and New Zealand open at 50% of occupancy rates and Europe seeing more fluctuation. "The biggest challenge we have right now is in India."

● DO YOU EXPECT US IN THE OFFICE FIVE DAYS A WEEK?

No one interviewed for this story said employees would be forced to return to a pre-pandemic schedule by a set date. Some financial companies, such as Goldman Sachs Group Inc., are taking a harder line: Bankers are expected back by June 14 in the U.S. and June 21 in Britain.

Leaders say face-to-face time is valuable for collaboration, mentoring, and corporate culture. But most managers envision a hybrid arrangement, with people coming in two or three days a week. "We're probably not going to want more than 50% of people back at one time," to help with distancing, Torsone says.

Erin Turnmeyer, vice president for people operations at Civis Analytics, a data science company based in Chicago, says that because of new hiring, about 30% of staff members now live too far from the office to commute. Another 30% want to return, she says, and so Civis is figuring out how to accommodate both groups.

Some employees are skeptical of promises of flexibility. Peter Handy, chief executive officer of Bristol Seafood in Portland, Maine, says he's been telling employees since June 2020 that they can work remotely indefinitely, but "nobody believed me." He put the plans in writing and posted them to LinkedIn, where he emphasizes that "there will be no mandatory 'return to office' plan."

Lynda Gratton, a professor at London Business School and author of the *Harvard Business Review* article "How to Do Hybrid Right," says companies that expect a lot of face time need to be explicit about it. "If the deal is, 'We want you to be here for long hours in the office,' then that's the deal," she says. People can opt in or look for a new job. She warns employers with rigid expectations that they might need to increase compensation to retain talent.

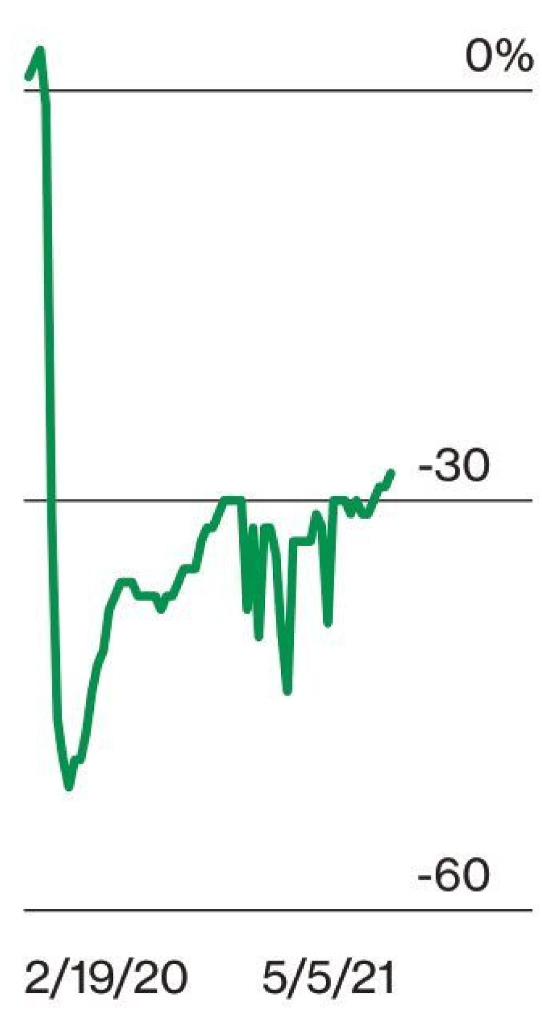
● WILL MY CAREER SUFFER IF I WORK REMOTELY MOST OF THE TIME?

Managers committed to hybrid arrangements are trying to ensure that remote workers are treated fairly. Harvard Business School professor Tsedal Neeley, author of *Remote Work Revolution: Succeeding From Anywhere*, says that "in 20 years of looking at this, I've never had a context where everyone had an equal level of empathy" about remote work—until now.

Turnmeyer of Civis says company leaders don't want remote employees treated as second-class citizens. She's encouraging executives not to rush back to the office to avoid the implicit pressure it puts on people. She says the company plans to train managers on the biases that remote workers can face and audit performance reviews—already a standard practice to check for race or gender bias—by location status.

"The key thing is: When you come on-site, it will be with a purpose"

▼ Change in Wednesday workplace visits from pre-pandemic baseline



● HOW WILL HYBRID WORK WORK?

New arrangements will require a more deliberate approach from everyone. "We were thoughtless about face-to-face work" before the pandemic, says London Business School's Gratton. "It comes at a cost now. We have to ask, 'How do we get the most value out of this precious commodity?' "

Kiersten Robinson, chief people officer at Ford Motor Co., said in an email that among the approaches the company is discussing is having teams that work on-site for a week, then work from home the rest of the month. "There will not be a one-size-fits-all approach," she said. "The key thing is: When you come on-site, it will be with a purpose."

And if workers balk at coming to the office? "Asking people to come into the office, just for a couple of days, or just for a single day, we don't think is onerous," says Jonathan Patrick, CEO of Consultant Connect, a telehealth company based in the U.K. But he's clear that running a hybrid workforce will take discipline, with managers becoming more intentional about check-ins and team building.

● IS EVERYONE GETTING VACCINATED? DO I HAVE TO?

A survey by Arizona State University and the Rockefeller Foundation shows 40% of U.S. and U.K. companies say they're planning to require vaccination. But people interviewed for this article didn't take a firm stance, whether out of concern for employee privacy, bad public relations, or legal risk. "It's not like you can go and ask someone if they've been vaccinated," says Marissa Andrada, chief diversity, inclusion, and people officer at Chipotle Mexican Grill Inc. But people are volunteering the information. She says a recent company survey showed 80% planned to get the vaccine, and 60% had already gotten a first dose.

At some companies, employees who support a vaccine mandate have found themselves in debates about science, politics, race, privacy, religion, and more. Making a return-to-office plan gradual and optional is a way to quell divisiveness, experts say.

Yet companies are encouraging vaccination. Pitney Bowes is offering employees time off to get a shot, and at a couple of locations it's gotten local pharmacies to perform on-site injections. At Bristol Seafood, Handy is helping processing-plant employees sign up for appointments and has paid transportation costs to vaccine sites. "My opinion is everyone should get vaccinated," he says. "I'm not under any illusion that we'll have 100% vaccination." Still, his efforts are paying off. A little more than 50% of Mainers have been vaccinated, but, he says, "we're over 80%." —*Sarah Green Carmichael*

ILLUSTRATION BY DEREK ABELLA. DATA: GOOGLE COMMUNITY MOBILITY REPORTS

Q&A

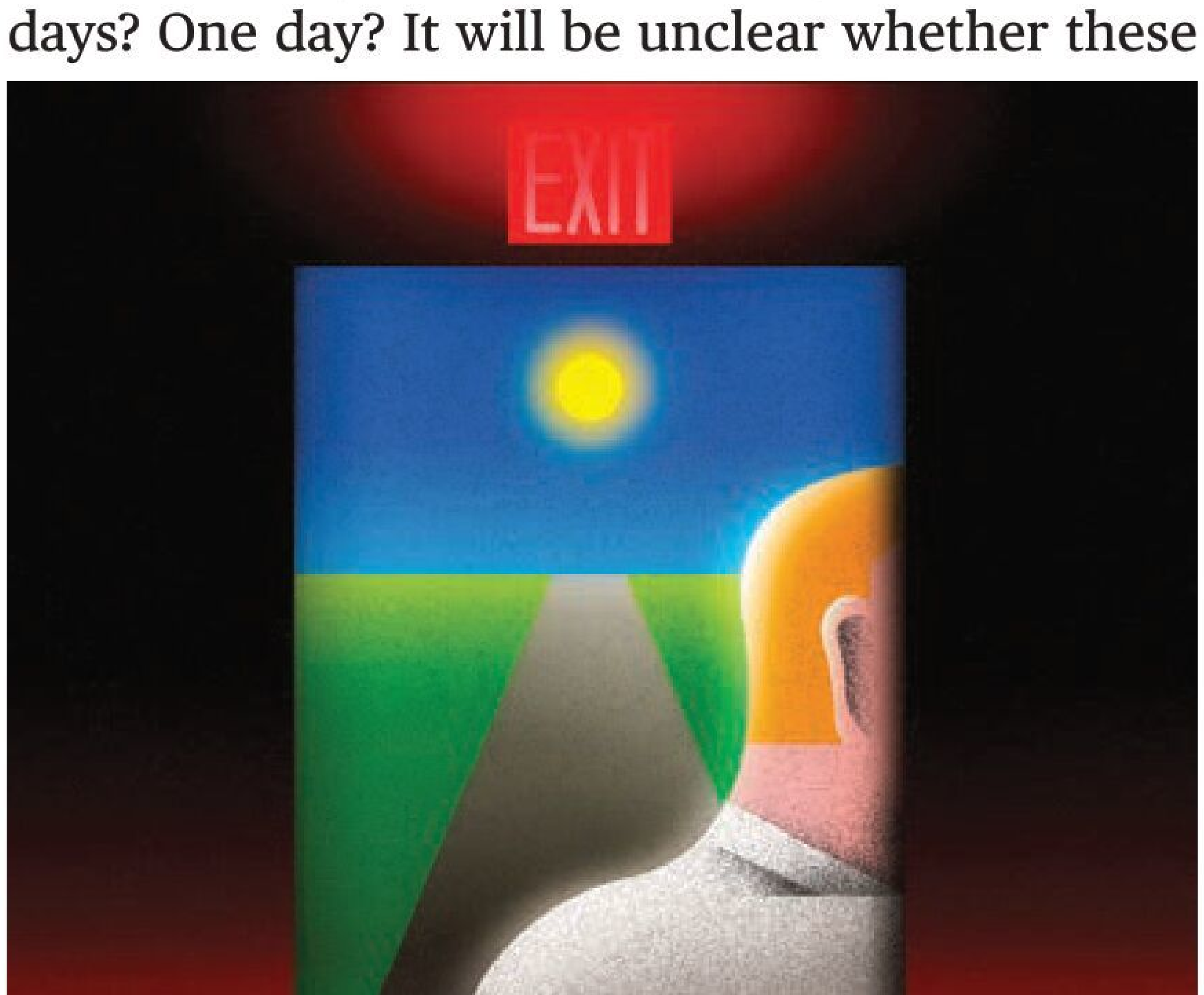
THE GREAT RESIGNATION

● Here's how to engineer a smooth post-pandemic exit

Ready to say adios to your job? You're not alone. "The great resignation is coming," says Anthony Klotz, an associate professor of management at Texas A&M University who's studied the exits of hundreds of workers. "When there's uncertainty, people tend to stay put, so there are pent-up resignations that didn't happen over the past year." The numbers are multiplied, he says, by the many pandemic-related epiphanies—about family time, remote work, commuting, passion projects, life and death, and what it all means—that can make people turn their back on the 9-to-5 office grind. We asked Klotz what to expect as the great resignation picks up speed.

● What are we going to see this summer with employees and organizations?

A lot of uncertainty, for both sides. Companies are figuring out how to maintain their cultures and employees, so many are offering multiple options: Do you want to come back full time? Work remotely? In-office three days a week? Four days? One day? It will be unclear whether these options will be permanent, making it difficult for employees to decide whether to stay or go.



● So will everyone just quit?

No. Plenty of employees don't really want to resign. If their company would let them keep working from home or do fewer hours, they would.

● Say I want to quit, like, right now. What should I do?

Give a lot of thought to the reasons. Are you just assuming your company won't work with you and let you work part time or remotely or take a sabbatical? Make sure you fully understand your company's plans. For example, if everyone is ordered back to the office, and the top three performers say they're quitting, the organization may rethink.

● Should I quit before or after returning to the office?

Consider going back for at least a week or two. Think of it as a test of your hypothesis. Humans tend to be really bad at predicting how they'll actually feel.

● What should I say to co-workers?

Co-workers may be having the same thoughts. You can imagine one thinking, I don't really want to go back to the office, but at least Anthony will be there. And then I call to say I'm not coming back. Give her time for that difficult conversation.

● How does one do a pandemic resignation?

It's going to be particularly tempting to use electronic mediums, but our research has found that organizations and managers respond poorly to emailing a boss or leaving a note on her desk.

● So when I talk to my boss in person or on Zoom, what should I say?

That you tried it, and it isn't working for you. Your boss will view that in a more favorable light than simply not trying at all. Your reasons should be honest, but not all the reasons. For example, if the job doesn't provide meaning, that doesn't need to be said. Give specific reasons, like graduate school or the commute.

● Is texting or emailing about it risky because of forwards?

Try to control the communication that you give to your organization, your co-workers, and your leader. In email you can't control the tone, and it often comes off wrong. You want to resign in as positive a way as possible.

● Why bother to be so careful?

We're going to see lots of "boomerang" employees, who a year from now miss their jobs and decide their novel isn't going as well as expected. Being a boomerang employee works only if you leave on a very, very positive note.
—Arianne Cohen

DECODING VOICES AT WORK

● Listening only to the words can make us miss valuable information

Want to know what your boss really thought of your idea? Or whether your employees respect you? Pay less attention to their words and listen to their voices. "They're leaky," says Allison Gabriel, an associate professor of management at the University of Arizona. "Underlying emotion leaks out, even when outward displays may be pleasant or smiling. Voice is a hard channel to regulate in terms of emotion." So unless your co-workers are trained voice actors, it will be tough for them to hide their true opinions, whether about profit targets, a company retreat plan, or that new wall color.

Decoding isn't that hard, says Alan Cowen of Hume AI, a company that uses recordings of voices to teach software such as digital assistants to recognize emotions. He's mapped thousands of vocalizations and speech-pattern recordings, revealing the meanings in the volume, tone, inflection, cadence, and pauses. "There aren't many experts who are better at decoding emotional expression than laypeople," he says.

When we listen only to the words being uttered, we miss a lot of valuable information, says Joe Navarro, who served for 25 years as the FBI's expert on body language. Going beyond the content of a conversation, he says, can reveal much more about the speaker. "How experienced are they?" Navarro says. "Do they see themselves as equal or subordinate or superior? How are they feeling?" That can help facilitate a stronger connection: A New York accent might be met with East Coast slang and a joke about dismal subway service; a worried voice might be met with concerned, urgent tones. "There's no better way to establish harmony than mirroring their cadence," he says. "The more you mirror, the more in synchrony you are." —*Arianne Cohen*

WHEN YOU HEAR...	IT SUGGESTS...
● A COUGH OR THROAT CLEARING	The speaker wants to broach a difficult or controversial topic or is reluctant to reveal something.
● HESITATION	Apprehension, or perceived subordination. Even short pauses can reveal discomfort.
● UPTALK	This "Valley girl"-speak, with rising pitch that can make declarative clauses sound like questions, often implies tentativeness or nervousness.
● FAST BREATHING	Stress or anxiety about the current situation.
● SLOW, DELIBERATE PACE	Pensiveness. The person is carefully choosing words and cares about precise communication.
● EMPHASIS	The speaker's true feelings. "It. Is. Good" vs. "It's good."
● STRETCHED, LENGTHENED WORDS	Superiority. "Riii—ght?" vs. "Right?" (If you're not sure, hum the tones to yourself without the words).
● BIG EXHALE	Cathartic relief after something difficult is said.
● FAST, MACHINE-GUN CADENCE	Rattling off information, this person is comfortable throwing out ideas without much need for deliberation.
● HARD SWALLOW	Stress about what was just said.
● ANIMATION	Passion about or personal connection to the topic, usually paired with arched eyebrows—the exclamation points of the face.
● TENSION	Psychological discomfort from the conversation or the situation. The voice sounds strained, tight, or pressed as the muscles around the larynx tense up.
● LOUD VOLUME	Although this can vary by culture, speaking loudly can betray strong feelings on the topic, often either anger or excitement.

ILLUSTRATIONS BY DEREK ABELLA

Hype

Chamath Palihapitiya—tech billionaire, Golden State Warriors co-owner, and all-around meme lord—has a sure-thing, 100%-can't-miss investment for you that will definitely, absolutely pay off for him

By Zeke Faux


Man

One morning last October, as wildfires raged across Northern California, President Donald Trump convalesced from Covid-19, and Congress debated how big of a stimulus bill would be needed to rescue the economy, Chamath Palihapitiya went on TV to pitch investors on the latest stock he was taking public.

In a blue blazer and glasses, and accompanied by a bullet-pointed slide deck, the Facebook-executive-turned-venture-capitalist explained how Clover Health Investments Corp. uses powerful machine-learning software to recommend treatments that keep people healthier. He predicted confidently that the insurer's revenue would triple in two years and that its stock would increase tenfold in a decade. He granted that, yes, he'd received a stake in Clover for setting up the deal to take it public, but he said his interests were aligned with those of other investors, because he and his partners had also put about $171 million into the company themselves. "There is no way that I can win unless the stock goes up," he told CNBC's *Squawk Box*, slicing his hand through the air to punctuate each word. "This is not some get-rich-quick scheme, at least for me."

What Palihapitiya said was partially true, in that someone who's already wealthy enough to be part-owner of the Golden State Warriors can't by definition get rich quick. But the way the deal was structured made it almost impossible for him to lose. Even as investors who bought the stock after watching him on TV would lose 28%, as of May 11, Palihapitiya and his partners would almost double their money, much of which was borrowed to begin with.

This kind of financial virtuosity has made Palihapitiya a billionaire, not to mention a hit on social media. He has 1.5 million Twitter followers, a popular weekly podcast, and an audience of day-trading millennials and zoomers who hang on his every word. He's 44, cocky, blunt, and seems like the kind of guy who'd take pleasure in calling BS on current stock market hype—if he wasn't the one behind it.

Instead, Palihapitiya argues that traditional value investors, who say some stocks are massively overpriced, are morons. Markets, he says, are all but guaranteed to go up as long as the Fed keeps printing money, and individual investors who buy popular stocks are outsmarting Wall Street. His take may be questionable, but it's entertaining as hell.

In late January, when sober-minded financiers warned that the mania around GameStop Corp., the once-beleaguered video game retailer beloved by Reddit users, would end badly, Palihapitiya took the fun side of the bet. He invested in it himself, then criticized the brokerage firm Robinhood Markets Inc. when it temporarily suspended trading, causing the price of the company's shares to fall. "These motherf---ers should go to jail," Palihapitiya said on his podcast, *All-In*, where he and several friends talk about technology, politics, and investment strategies. Their catchphrase—"Wet your beak!"—was once gangster slang for extortion. As used by Palihapitiya it means "make tons of money on the stock market and feel awesome about it."

Social media influencers of Palihapitiya's stature and charisma tend to monetize their following by promoting some sort of salable product—say, a detox tea or a line of home goods. Palihapitiya has the SPAC, or special purpose acquisition company; the Clover investment was one of them. When he called for the incarceration of Robinhood's C-suite, he suggested his fans pull out their money and put it into a competitor, Social Finance Inc., better known as SoFi, which is merging with another one of his SPACs.

Think of a SPAC as a pile of money with a ticker symbol. An investor puts in $10 and gets back one share of publicly traded stock. Then the SPAC's sponsor uses the stash to merge with a company like Clover, taking a shortcut around the IPO process and turning a private company public. Besides the speed, the structure offers two other important advantages: First, the sponsors get to keep 20% of the stock for themselves as a kind of fee. And second, unlike in a traditional initial public offering, even an unprofitable company can make ambitious projections about all the money it's about to make. With SPACs, pretty much any amount of boasting goes.

Although they've been around for decades, SPACs exploded in popularity in 2020, after Palihapitiya's first blank-check company—originally known by the ticker symbol IPOA—saw its stock price triple four months after merging with Virgin Galactic, a Richard Branson-founded enterprise that aims to blast tourists into space. Palihapitiya has since started five more SPACs—known as IPOB, IPOC, IPOD, and so on—raising more than $4 billion. He says he'll eventually do 26 deals, one for every letter of the alphabet.

Today it seems almost every rich, underemployed man with a bit of name recognition has raised, or is raising, a SPAC, seeking to earn a big payday by finding a company to buy. There are SPACs advised by retired athletes (Alex Rodriguez, Shaquille O'Neal), SPACs advised by washed-up politicians (Paul Ryan, John Delaney), and one SPAC advised by a dream team of NBA great David Robinson and former Senate Majority Leader Bill Frist. About 600 SPACs have raised more than $186 billion since the beginning of last year. Some double or triple in price even before announcing any plans as investors trade tips about which electric-truck or flying-taxi startup the SPAC might buy. Palihapitiya "created a template that all SPACers could follow," says Mark Cuban, the *Shark Tank* host and fellow NBA owner. "He knew what made them work and created a narrative that new investors could understand."

Palihapitiya's ego has seemed to expand along with the market for the hot new investment structure. In November he bought a $75 million Bombardier Global 7500, the longest-range business jet available, according to public records. On Dec. 30, 2020, he tweeted that when the price of Bitcoin—another one of his interests—hit $150,000, he'd buy the Hamptons and turn the whole region into affordable housing. In January, he hinted at a run for governor of California and began funding a campaign to recall current Governor Gavin Newsom. In February, when someone on Twitter praised Jeff Bezos' physique, Palihapitiya replied with a shirtless selfie. "You're welcome," he wrote.

While longtime money managers wince at these antics, Palihapitiya's fan base has been eating it all up. Arnav Naik, a

17-year-old from Troy, Mich., says he got into SPACs after his high school went remote and his swim season was canceled. He started reading the Reddit day-trading forum WallStreetBets and trading stock options, parlaying about $5,000 in savings into $35,000 within six months by betting on an electric-truck SPAC and GameStop.

After seeing Palihapitiya tweet about Clover, Naik doubled down. In January he put almost all his money into Clover call options—an all-or-nothing bet that the shares would go up. If they climbed to, say, $35 he could turn his savings into $130,000. "When you slap a name like 'Chamath' on there, it has a lot of potential to rocket up, like how Tesla did with Elon," he says. "He's going to join the WallStreetBets meme god pantheon."

Palihapitiya with Branson at the Virgin Galactic IPO in New York in 2019

In 2007, Palihapitiya, who was working as a venture capitalist, sat for an interview with video artist Sylvie Blocher for an installation titled *Living Pictures/Men in Gold*. "I have not had my revenge yet on the insiders," he told her. "I'm still working to get inside. And once I get inside, I will do my best to completely explode it from the inside."

In the years since, even as he's become a consummate insider, Palihapitiya has cultivated this image further, presenting himself as a brash outsider unafraid to tell harsh truths. His rants have tended to follow a pattern. Some group of people, often one he'd recently belonged to, is actually a craven bunch of hypocrites. His targets over the years include Facebook Inc.: "Ripping apart the social fabric of how society works." Venture capitalists: "A bunch of soulless cowards" who pump money into "useless, idiotic companies." Charitable giving: It's done for "branding" and "validation." Politicians: "They're all f---ing puppets." The startup economy: "An enormous multivariate kind of Ponzi scheme." The traditional IPO process: "Negative value." Hedge funds: "Those suck." Big banks: "No smart person goes and works at Goldman." Government: "Just a large validation of one's personal ego." Consultants: "Useless."

Presented in opposition is Palihapitiya, who, in his telling, is interested in making money only so he can solve the world's biggest problems, such as climate change and inequality. "Get the money, get the money, and then let's get around a table and let's create new rules," he told Stanford business students in 2017. "And don't wrap yourself in all this, like, liberal kind of bullshit about 'oh, my God, money, blah.'"

Palihapitiya declined to be interviewed, but his story, as he's often told it, begins in Ottawa in a two-bedroom apartment above a laundromat. The family had immigrated to Canada from Sri Lanka and received refugee status. His parents got by on welfare, and his father struggled with drinking. In high school he worked at Burger King and ran a blackjack game in the cafeteria for cash. (He still hosts high-stakes poker games; poker pro Phil Hellmuth has said Palihapitiya usually wins.)

He went into banking after studying electrical engineering at the University of Waterloo, but quit when he received no bonus, he said on a podcast in December. He dreamed of making the *Forbes* billionaires list, and at his first tech job, at AOL, according to Josh Felser, who hired him, he'd say he expected to hit that number before he turned 30. "He knew little about tech, yet he had chutzpah and was an in-your-face negotiator, which we needed," Felser says. He adds that Palihapitiya regularly stole his parking spot.

Palihapitiya joined Facebook in 2007, when it was just starting to expand to users beyond its base of college and high school students, and persuaded the then-23-year-old Mark Zuckerberg to make him head of growth. By the time he left, four years later, the company had added almost a billion users.

His next move was to use the connections he'd made at Facebook and as an angel investor to start his own venture capital firm, Social Capital. As he would later do with SPACs, Palihapitiya said his venture fund would change the world, transforming health care and education and disrupting the investment process by using data to pick companies instead of gut instinct. He called it "activist capitalism" in an interview with *Bloomberg Businessweek* at the time, and said he handpicked investors who shared his mission. Among them were Zuckerberg and Facebook board member Peter Thiel.

Two former employees, who asked not to be identified because they still work in the industry, say the data project never got beyond the testing stage. And its most successful bets weren't particularly socially minded. Palihapitiya and his partners backed Slack Technologies early on and invested in Bitcoin in 2012 (up at least 500 times since then), Amazon.com in 2014 (10 times), and Tesla in 2015 (15 times). His funds have had annual returns that are double those of the S&P 500 before fees, according to his yearend 2019 investor letter. That's served as a rebuke to critics who portray Palihapitiya as a bigmouth. He may talk a lot, but he has the returns to back it up.

As Palihapitiya got richer, he seemed to lose interest in the day-to-day work of running a venture capital firm. He divorced his wife, who'd been Social Capital's chief operating officer, and fell in love with a glamorous Italian pharmaceutical executive. When his top partners quit, he said investing wasn't a team sport. When investors balked, he said he didn't need them anyway. In September 2018 he announced he wouldn't raise any more outside funds. "I would rather spend time with the people that are 100% aligned with what I want to do," he told the tech news site the *Information*. "And the person that's most aligned with what I want to do is me." He later compared his decision to Michael Jordan quitting basketball to try baseball.

Palihapitiya now likes to say the upheaval at Social Capital came from upheaval in his personal life, which he's gotten over with the help of two therapists. "I realized how ▶

PREVIOUS SPREAD: PHOTO ILLUSTRATION BY 731; PHOTO: BLOOMBERG. IPO: MICHAEL NAGLE/BLOOMBERG

“The perso
with what I

◀ emotionally broken I was and incapable of really connecting with people,” he told the *Recode Decode* podcast in 2019. Whatever the cause, with his firm reduced to a much smaller size, Palihapitiya had more time to work on SPACs. He’d raised $690 million for his first one in 2017, saying he wanted to buy a tech company. In 2019, with an approaching deadline to find an acquisition or return the money, he decided to merge it with Branson’s Virgin Galactic.

The music-mogul-turned-airline-founder had been talking about space tourism since 2004. But Virgin Galactic had suffered two fatal accidents, still had no tourists in orbit, and was down to a few months’ worth of cash. Palihapitiya wasn’t dissuaded, pitching it as a sure thing. The business was “largely now de-risked and ready to commercialize and monetize,” he told CNBC, saying it would be as profitable as a software company. (Virgin Galactic has yet to make a commercial flight.)

Some investors were skeptical—“This isn’t the right stuff,” said the *Wall Street Journal*—and the stock was volatile, but it was up more than 50% in April 2020, when Palihapitiya raised more than $1 billion for two more SPACs. Much of it came from large hedge funds, who see SPACs as low-risk because the investors are allowed to redeem their shares for the $10 they paid if they don’t like the deal that gets announced, and they’re given valuable stock options to keep either way. Their only concern is that a sponsor might not be able to find a company to buy. But that wasn’t a problem for Palihapitiya. In September, one of the SPACs merged with an online real estate venture. The Clover merger came a month later.

Like Virgin Galactic, Clover wasn’t a startup. Since its founding in 2012 it had been hyped as the next big thing in health care, an insurer that would use the latest technology to hold down costs and improve care. But Clover had burned through the hundreds of millions of dollars in venture capital it had raised from Google, Sequoia, and other top investors, churning through a series of executives and continually missing growth targets. Social Capital had invested $500,000 in Clover in 2015, but it passed on investing more recently because of the company’s performance, according to a former partner.

The company struggled, according to the metrics set by the government to determine how much insurers get reimbursed, ranking among the bottom 15% of plans in the U.S.’s star-rating system. An effort to expand outside New Jersey resulted in few new customers. In 2018, Clover set a goal of about 7,500 patients in Georgia, according to a former employee, but signed up just 63. A spokesman said Clover ranks more highly on a metric the government is developing that takes into account that many of its members come from underserved minority or low-income groups. It’s typical for a startup to sometimes miss its aggressive growth targets, he added.

By 2020, after almost a decade in business, Clover could have been accurately described as a small, money-losing insurer that almost exclusively operated in New Jersey and sold Medicare Advantage plans—a privately run, government-funded alternative to traditional Medicare for retirees. The outlook, in other words, wasn’t ideal. But the company had developed a software tool called Clover Assistant, which it said was the culmination of years of research. The tool uses machine learning to scan patients’ records, suggesting medications and offering possible diagnoses, according to Clover President Andrew Toy, who joined from Google in 2018. And because Clover works with a wide network of doctors, he says, it has the potential to grow as quickly as a software company, improving the entire U.S. health-care system. “We believe in software powering primary care,” he says. “Clover Assistant is the basis of our company.”

Clover had already hired JPMorgan Chase & Co. to help it go public. Then, Palihapitiya presented the possibility of merging with his SPAC instead. A deal with him offered the company the ability to enthusiastically talk up the prospects of Clover Assistant rather than dwell on its losses, as it would’ve had to do in an IPO prospectus. “There’s a different dynamic in how you can go out and talk about the company,” Toy says.

As part of its pitch, Clover said 61% of its members see a doctor who’s “contracted” to use Clover Assistant, suggesting the tool had been adopted quickly. But according to former employees, many who signed up don’t use the tool themselves. *Businessweek* spoke with four doctors or their assistants who were among hundreds tagged on the company’s website as “Clover Preferred,” which it says means they’ve been “recognized for their dedication to using the Clover Assistant tool.” Only one said he used it, adding that he didn’t find it helpful. “I’ll be honest, I’ve never seen it,” said another. “This is the first I’ve heard of it,” said a third. His office manager said she took his notes and copied them into Clover Assistant at the end of each day, then faxed the notes to Clover.

Emily Evans, a managing director at Hedgeye Risk Management LLC, a research firm, says most insurers offer doctors similar tools. “This software system they’re developing—they’re at the starting line, and everyone else is halfway through the marathon,” she says, adding that if Clover Assistant were already working, the company would be spending less on claims. Andy Robinson, a spokesman for Clover, says the company’s data show that only a small minority of doctors are ignorant of the tool. He says doctors are regularly using it, making, for example, 28,900 prescription changes so far based on its recommendations. Doctors who use it have medical cost ratios 11 percentage points lower than those who don’t, he says.

“While some of our doctors might not know ‘Clover Assistant’ from the name, our data clearly shows they are interacting with the product in a meaningful way,” says Mark Spektor, Clover’s chief medical officer.

Around the time of Palihapitiya’s October 2020 CNBC appearance, Nate Anderson, founder of Hindenburg Research, came across a newspaper article about a previous

n that’s most aligned want to do is me”

business started by Clover’s co-founder. Anderson is a short seller who bets against publicly traded companies and attempts to persuade the market to take his view. It’s an unpopular business, especially amid an historic bull market. Reddit traders and corporate executives blame short sellers when stocks go down. One of Anderson’s highest-profile compatriots, Andrew Left of Citron Research, quit in January after GameStop investors, angry that he’d bet against the company, hacked his social media accounts and sent obscene texts to his children.

Anderson says the SPAC boom has given the market more frauds to expose than at any time in the past decade. In September, he’d caught Nikola Corp., an electric-truck company that went public in a 2020 SPAC deal, faking a video test drive by rolling one of its trucks down a hill. After his exposé was published, the stock plummeted and the founder resigned. “The strategy with SPAC sponsors has been to take just about any company public regardless of whether it’s complete trash,” he says.

As Anderson and a member of his team dug into Clover, they spotted more red flags. On Feb. 4 he published a report: “Clover Health: How the ‘King of SPACs’ Lured Retail Investors Into a Broken Business Facing an Active, Undisclosed DOJ Investigation.” Anderson decided not to short any Clover shares but said he was releasing the report to prove the value of skeptical research. His report quoted several anonymous doctors saying Clover Assistant was useless or designed to increase billing. It cited news articles showing that Vivek Garipalli, Clover’s co-founder, also ran a hospital chain in New Jersey that had been criticized for price gouging. (The chain has said it charged insurers more so it could cover the uninsured.)

Anderson

Most important, Anderson’s report included a copy of a letter that some former Clover employees had received from the U.S. Department of Justice seeking information on its sales practices. Hindenburg called it “an existential risk” for a company that gets its revenue from the government.

The stock dropped 12% that day, even as the company said it was aware of the government inquiry and had not violated any rules. Clover also said its lawyers had decided the request for information wasn’t important enough to mention, because regulators are always scrutinizing health plans. Clover Assistant, the company said, is designed to improve care, not increase billing, and often recommends treatments that actually cost Clover more. “We pay more money now in order to decrease costs and patient suffering down the line,” Garipalli said in a post on Medium.

Clover also said that criticism of Garipalli’s hospital chain was irrelevant and that other points Hindenburg had made about its sales practices were wrong. The next day, Palihapitiya wrote on Twitter: “Yesterday’s report was rife with personal attacks, thin facts, and bluster that has been rebuked by the company.” His post didn’t stop the slide. (In an email to *Businessweek*, Palihapitiya added that Clover “is executing on its mission to leverage its scalable technology to create better health outcomes at lower costs in a rapidly growing market. I am confident in its business and believe that Clover will compound for shareholders over the long term.”)

The SPAC boom turned to a bust not long after the Hindenburg report. Since then, SPAC shares have dropped 17% on average as of May 11, as measured by the IPOX SPAC Index. Palihapitiya’s SPACs, which had climbed quicker, fell faster, too, dropping 50% on average. Virgin Galactic was the worst of the group, crashing 68% as it delayed a planned test flight and Palihapitiya sold $200 million in stock.

As the stocks slid, the same individual investors who’d pushed them higher lost interest. Bank of America Merrill Lynch customers, for example, bought just a couple million dollars’ worth of SPAC shares in the first week of April, after loading up on as much as $120 million a week in January. In April, for the first time in a year, an entire week passed without a new SPAC raising funds in the U.S.

Naik, Palihapitiya’s teenage fan, has lost almost all his money and won’t get it back unless Clover’s stock rebounds. But he doesn’t blame Palihapitiya. “He’s doing the best he can,” Naik says. “It’ll keep growing. I really think I’ll get a huge return.” Regardless of the outcome, he plans to become an investment banker.

Unlike Naik, the hedge funds that invested in the SPAC that merged with Clover made money—filings show most sold and pocketed a quick gain around the time the deal was announced. Palihapitiya and his partners did even better. Because they gave themselves 20.7 million shares for putting the deal together, their $171 million investment has almost doubled to $320 million. A week after the Hindenburg report, Palihapitiya said he controlled a $10 billion to $15 billion fortune, triple what he’d told another interviewer 10 months earlier, and compared himself to Warren Buffett.

“A reminder to myself and others: If it were easy everyone would do it. In reality, it’s hard and most people give up,” he tweeted on March 25. “Good luck to all the players in the arena. Be proud of the dust on your face. Back to the grind …” The next week, Palihapitiya’s jet left on a trip to Milan and then a Caribbean island. When it returned, Bloomberg News reported Palihapitiya was in talks to merge one of the SPACs he’d raised earlier in the year, known as IPOF, with Equinox Holdings Inc., the fancy gym chain. B

JOHNNY MILANO

India thought it had the virus beat.

A campaign rally by the ruling BJP in West Bengal in April

The virus had other ideas

Governments around the world keep repeating the same mistakes. In a country of 1.4 billion, the consequences are on a whole new scale

By Chris Kay and P R Sanjai

The snaking queue outside Maasaheb Meenatai Thackeray Hospital terrified Mariselvan Thevar. More than 200 people were in line, sagging in the heat as they coughed and wheezed. Some had come hoping to find a dose of coronavirus vaccine, which remains a scarce commodity in India. Others were trying to get their hands on medication, a bed, oxygen—anything.

A 21-year-old engineering student with a tall, lean frame and a patchy beard, Thevar thought he had little choice but to join the growing crowd outside the hospital, a small public facility in suburban Mumbai. His father, Kannan, had been ill for days. At 49, Kannan was far younger than the people who, for most of the pandemic, have experienced the worst outcomes from Covid-19. Yet Thevar grew increasingly anxious as they waited to be seen; his father was running a high fever, and even slight exertions left him breathless.

With just two overwhelmed doctors working, the hospital was allowing only a trickle of patients to enter its doors. After 10 hours in the baking sun, Thevar and his father were turned away. "The doctors were insisting patients go home, citing a shortage of beds, on the assurance that they will call them," Thevar said. "They never call back."

As the virus burns through India, this sense of futility and fear has become commonplace. The country is reporting nearly 400,000 confirmed infections and 4,000 deaths every day, tallies that are certain to be drastic undercounts. In Delhi, public parks have been requisitioned as makeshift crematoriums, with rows of funeral pyres burning where kids once played cricket. Hospital beds and oxygen cylinders are in short supply, as are doctors and nurses. Some researchers predict that the total number of fatalities—currently at 250,000—could top 400,000 by mid-June and then keep climbing.

The crisis in India is horrific on its own terms, generating misery and loss at an enormous scale. It also has worrisome implications for the rest of the globe. Home to the world's largest vaccine industry and, until remarkably recently, recording only a modest number of coronavirus cases, India was central to international plans to inoculate developing countries by churning out low-cost doses. Instead its exports have largely ceased, with available vials prioritized for domestic use, and there's no timeline for when they might resume. Meanwhile, an unchecked outbreak in a nation of over a billion citizens creates ideal conditions for new variants to take hold. It's hard to imagine a more effective way to come up with mutations that might resist current vaccines.

But for Indians, huge numbers of whom are now sick or caring for ailing loved ones, those concerns are secondary to the immediate catastrophe. After being sent away from the hospital, Thevar's father deteriorated further, struggling through the night to breathe. The student made frantic calls to friends and relatives, trying to find anyone who could help get Kannan a hospital bed. None could. He called about 20 clinics, all of which gave him a version of the same answer: They had no space to spare. Next, Thevar raided his family's savings, spending 8,000 rupees ($109) to have a private ambulance shuttle his dad around Mumbai, searching fruitlessly for oxygen.

Eventually, Thevar's luck turned. He managed to get a local politician on the phone, and persuaded him to pull some strings and have his father admitted to a hospital run by a charity. The staff there took Thevar's number, promising to update him twice a day. Exhausted, he returned home, finally able to rest. Two days after Kannan was admitted, his doctors contacted Thevar with some bad news. The older man had stopped responding to remdesivir injections and had to be put onto a ventilator. A few days later, early in the morning, they called Thevar again. His father was dead.

A few weeks into 2021, the Reserve Bank of India issued a curiously optimistic press release. Straying from monetary policy into epidemiology, the central bank declared that India had beaten Covid, and that, better yet, "soon the winter of our discontent will be a glorious summer." Of the virus's curve, the RBI said, India had managed to "bend it like Beckham." Although he used less florid language, Prime Minister Narendra Modi was similarly bullish. At a digital-only meeting of the World Economic Forum in January, he boasted that he and his compatriots had "saved humanity from a big disaster by containing corona effectively."

Such statements may seem delusional in retrospect, but the viral numbers did look good at the time. After a surge last September that pushed daily case numbers to almost 100,000, by January new infections had slumped to less than a tenth of that level—a per-capita rate comparable to South Korea's, which is among the lowest in the industrialized world. Even in Dharavi, a Mumbai slum home to perhaps a million people, an aggressive public-health campaign had kept the virus largely under control. With social distancing restrictions mostly lifted, crowds returned to markets and restaurants, and well-heeled families booked holidays at beach resorts.

Epidemiologists and armchair experts debated a range of theories to explain the decline in infections, as well as India's relatively low number of deaths among those who did get sick. Many cited the protection afforded by its youthful population, with a median age of just 27. Others suggested the warm climate of South Asia might be slowing viral transmission, or speculated that enough Indians had already been infected to reach some degree of herd immunity. Then there was the so-called hygiene hypothesis: the notion that, in a country of crowded cities and poor sanitation, people are naturally resilient to new diseases.

Some scientists urged caution. For one thing, no one could be sure the figures were correct. India's testing rates are less than half those in the U.S., and mortality statistics are notoriously unreliable. Even in normal times, about 1 in 5 fatalities are never reported to the authorities, and official records often don't list a cause of death. In December, the country had detected its first cases of B.1.1.7, the variant initially identified in the U.K., prompting concerns about out-of-control spread.

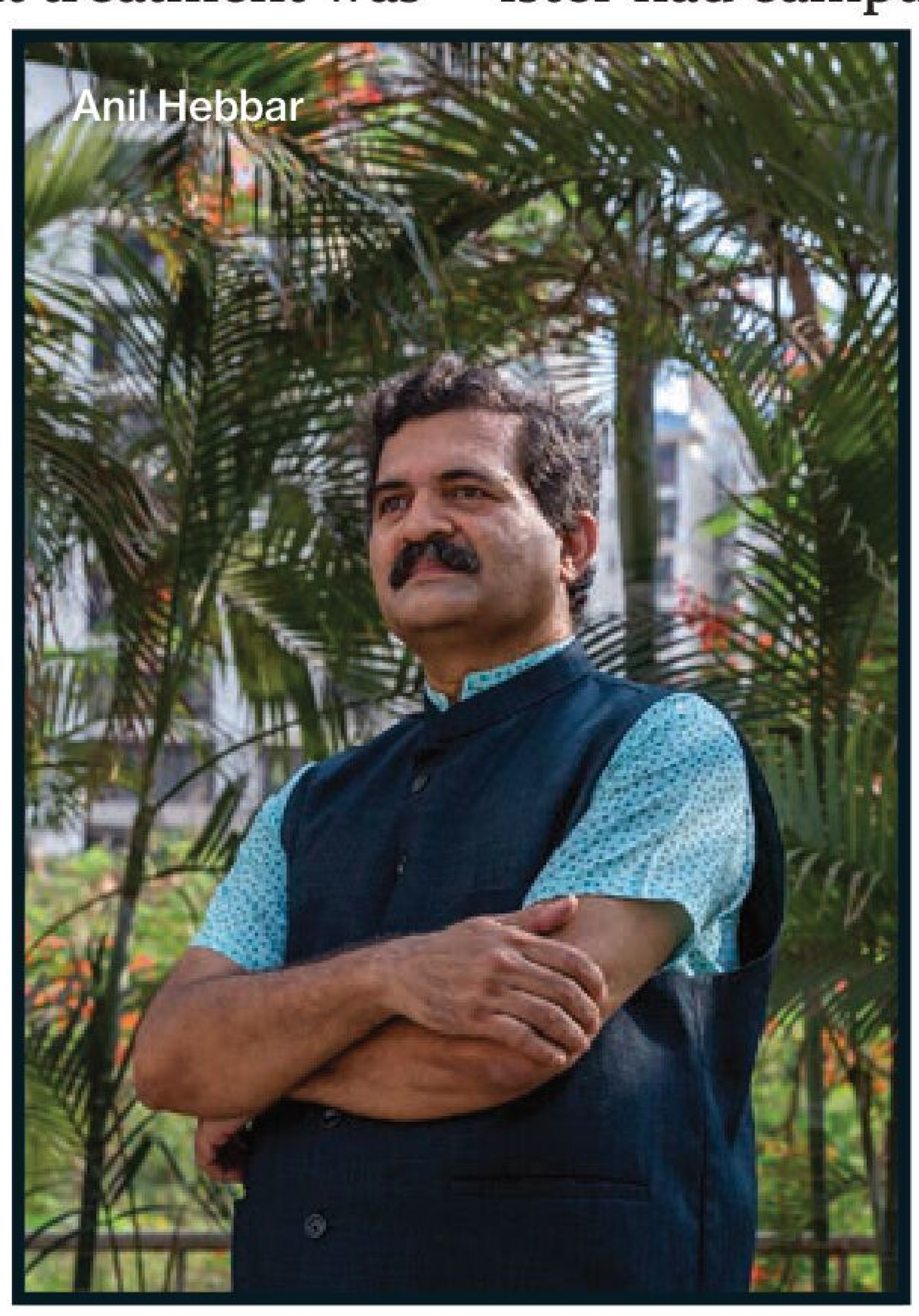
Yet politicians needed little encouragement to bring life back to normal. Even as infection rates began to rise in February, multiple state elections drew huge, largely ▶

DEBAJYOTI CHAKRABORTY/NURPHOTO/ZUMA PRESS

◀ unmasked crowds to hear candidates speak. Modi bragged about the size of the rallies he and his right-hand man, Home Minister Amit Shah, had managed to hold ahead of the vote in West Bengal, a densely populated state of more than 90 million people. Officials also encouraged citizens to participate in the Kumbh Mela, a Hindu festival on the banks of the Ganges that is the world's largest human gathering. Millions did, packing shoulder to shoulder by the edge of the sacred river.

By mid-March, the number of infections reported each day had more than doubled from a month earlier, while India's vaccine rollout remained sluggish. At the World Health Organization in Geneva, chief scientist Soumya Swaminathan fretted that her home country was ignoring a viral time bomb. "It could take off again at any time," she said on March 13. "We should not become complacent." It was already too late.

By April, Ramanan Laxminarayan felt helpless. The founder of the Center for Disease Dynamics, Economics & Policy, a public-health think tank, Laxminarayan was hunkered down at home in Delhi, his phone pinging constantly with messages from friends trying to find oxygen. When a 42-year-old colleague got sick, the hospital where he sought treatment was asking patients to bring their own oxygen supplies. Laxminarayan started getting requests for help even from senior bureaucrats, members of India's elite who were unaccustomed to wanting for anything. Even they couldn't find the care they needed.



Anil Hebbar

Furious that so little appeared to have been done to prepare for a new wave of infections, Laxminarayan decided he had to try and help. Along with some colleagues he created a charity, Oxygen for India, that locates and transports canisters to the patients with the greatest need. It's the kind of service that, in normal times, would be provided by governments, not organized by a researcher sitting in his home office. But Laxminarayan argues that, at this point, Indians have little choice but to help themselves. "The system has collapsed," he says. "If you need something—beds, oxygen—there is nothing that the system can do for you." By May his colleague was dead.

It's a situation that hardly flatters Modi, India's leader since 2014 and arguably its most dominant political figure in generations. The prime minister, who leads the Hindu nationalist Bharatiya Janata Party, came to power pledging to instill managerial competence in the federal government, drawing on his experience as chief minister of Gujarat, a state lauded by businesspeople for its good infrastructure and broad industrial base. Two years ago he was reelected with a thumping majority, and he's used his mandate to consolidate economic and political power—and, critics say, to undermine India's democracy and the rights of non-Hindu citizens.

But the scale of the Covid disaster is impossible for even Modi's most ardent backers to ignore. The press has begun to turn against him, with once-supportive newspapers and TV networks questioning the official death toll, citing their own grim tallies from crematoriums. In an editorial in late April, the *Hindu*, an influential broadsheet, said the government had "abdicated its responsibility" to the poor by failing to ensure vaccines were available. Even Arnab Goswami, a firebrand talk show host who is to Modi roughly as Sean Hannity is to Donald Trump, has implicitly criticized his performance, thundering in one broadcast that India's leaders are to blame for oxygen shortages. "They say, 'we've done a lot for the people of India,' " he almost shouted. "Rubbish!"

Rather than concede errors, the BJP has attempted to silence its critics, notably by ordering Twitter and Facebook to block posts criticizing the government's handling of Covid. One of Modi's closest allies, Uttar Pradesh Chief Minister Yogi Adityanath, has gone even further, threatening to seize the property of citizens and hospitals if they complain publicly about the scarcity of oxygen. Those efforts may be backfiring, delivering setbacks to a political machine that's rarely stalled since Modi was elected to national office. In early May the BJP lost the election in West Bengal, where the prime minister had campaigned so vigorously until surging virus cases forced him to stop.

The situation on the ground is dire enough that even the most adroit political leader would struggle to change the narrative. Large households are common in India, serving in good times as a source of social resilience, with grandparents looking after their descendants and vice versa. They also provide hospitable venues for viral transmission, allowing Covid to pass rapidly from generation to generation. Whereas earlier waves largely spared the young, Indian doctors have been shocked by the number of children falling ill in the current outbreak, many of them with severe symptoms. There's no question that many, if not most, of the cases are caused by new variants. In Maharashtra, the state that includes Mumbai, more than half of the sequenced infections contain the little-understood B.1.617 variant, which has prompted some governments to bar Indian travelers.

When the coronavirus first arrived in India last year, Modi imposed one of the world's strictest and most sweeping lockdowns, taking some pressure off urban health systems but also devastating the economy and spreading the pathogen deep into the countryside, as migrant workers with nowhere else to go returned to their home villages. Although another shutdown would probably buy some time, Modi has resisted the suggestion; his allies argue that India can't again ask its poorest citizens, many of whom are a couple of days' wages from going hungry, to stay at home.

With lockdowns most likely off the table, "honestly, vaccination is the only strategy out," Laxminarayan says.

PHOTOGRAPH BY SARA HYLTON FOR BLOOMBERG BUSINESSWEEK

“Without that, we may be looking at a new wave and then a wave after this.”

Since almost the beginning of the pandemic, any plan to end it has depended heavily on India’s vaccine industry. Its most important player is the Serum Institute of India Ltd., a huge manufacturer controlled by the Poonawalla family, a clan of billionaire socialites based in Pune, just inland from Mumbai. A year ago Serum struck a deal with AstraZeneca Plc to manufacture at least a billion doses of its vaccine, which is known in India as Covishield. Adar Poonawalla, Serum’s chief executive officer, planned to split its output between India and other developing countries, assuring politicians and journalists that its production capacity was more than sufficient to serve both markets.

Yet the Covishield rollout was shaky from the start. When Indian regulators approved the product in early January, they also gave a green light to Covaxin, a shot developed by a domestic company, Bharat Biotech International Ltd., that had barely begun final-stage trials. Combined with the well-publicized troubles of the AstraZeneca vaccine, as well as plenty of misinformation on social media, the result was a level of hesitancy that’s rarely been seen in India, which has extensive experience running national inoculation campaigns. It took more than two months for the rollout to reach its planned speed.

When demand did catch up, many of the doses didn’t go to those who needed them most. In a March survey of more than 10,000 people by pollster LocalCircles, 30% said they believed some health-care workers were falsely certifying people as high risk, allowing them to circumvent vague rules on prioritization. “This is India, so nothing is clear,” says one businessman in the technology hub of Bengaluru, who told *Bloomberg Businessweek* how he called around to a handful of clinics in March and soon found one that would give shots to him and his wife—despite neither being in a priority group. “And if things are clear, people find workarounds.”

India’s problem now is squarely one of supply, with Serum making about 70 million doses a month, well short of a targeted 100 million. Partly because U.S. manufacturers were forced by Washington to prioritize domestic orders, it and other Indian companies have complained that they’re short of components such as bioreactor bags and filters. Their efforts to accelerate production have been controversial: Citing the need to fund more capacity, both Serum and Bharat in April raised their prices, prompting an outpouring of rage on social media.

Not surprisingly, Modi is moving to ensure that what Serum does manage to produce stays in India. The company’s exports have been sharply reduced, and planned shipments of 200 million doses to Covax, the global effort to ensure the poorest countries receive vaccine supplies, have been delayed. While the move could be seen as reasonable under the circumstances, it’s giving the virus an opening elsewhere. Nepal and Bangladesh, which were counting on India’s production, saw their deliveries cut, and the former is now experiencing a severe Covid outbreak.

The Indian government is trying to increase vaccine availability by any means possible. Rules requiring domestic clinical trials have been removed, which will allow shots made by Moderna Inc. and Pfizer Inc. to be imported—though both companies’ production is largely spoken for. A three-dose vaccine from another local manufacturer, Cadila Healthcare Ltd., is in final-stage trials and may be approved as soon as next month, and Serum plans to eventually make the shot developed by Novavax Inc., a biotech company based in Maryland. India is also opening its doors to Russia’s Sputnik V. A small initial shipment has arrived, and there are plans to produce more than 700 million doses on the subcontinent annually.

Until vaccine production improves, getting enough needles into arms will be a struggle. Many Western countries hope to reach herd-immunity levels of vaccination by the end of this summer or sooner, but India is on a far slower trajectory. At its current rate of inoculations, according to the Bloomberg Vaccine Tracker, it will be almost three years before 75% of its population is protected.

After the virus appeared in India, Anil Hebbar threw himself into aiding his fellow Mumbaikars, as residents of the country’s financial capital are known. The national lockdown made it difficult for many of the poorest to get food, so Hebbar, who runs a small business selling medical devices, joined a team of volunteers that set up kitchens and went door to door in the city’s slums, handing out groceries. Returning to his apartment at the end of each day, he would try to stay away from his wife and daughter, fearful he’d been infected despite taking every precaution he could think of. But Hebbar didn’t get sick, tempting him to wonder whether a “helper’s high” from his good works might be boosting his immunity.

When a close friend died of Covid, Hebbar felt he had to do more, and in early October he walked into King Edward Memorial Hospital, an 1,800-bed colonial edifice in the heart of Mumbai. There, in a small clinic down a quiet hallway, he became a subject in the Indian trial for the AstraZeneca vaccine. He neglected to mention the plan to his wife; when he finally told her, she refused to speak to him for a day.

In February he tested positive for the coronavirus, and shut himself in his room for two weeks. It wasn’t pleasant, but Hebbar’s symptoms were manageable, particularly for a 56-year-old with diabetes. A couple of months later he found out that he’d been given the real shot rather than a placebo—a stroke of luck that he thinks may have saved his life. If not for those injections, he says, “it could have been very bad for me.”

With the virus having torn through Mumbai, Hebbar is painfully conscious that many of his fellow citizens don’t share his good fortune. The city’s usually bustling streets are quiet, apart from the wail of ambulance sirens. Countless numbers of friends and relatives have been infected; in Hebbar’s nine-tower residential complex, five of the buildings had been sealed by local authorities after recent outbreaks. “I’m scared to open Facebook,” Hebbar says. “You only see who has died, and you know so many of them.” B

Too Cool for Sch

Making enemies of the wrong parents has been hazardous to Juul's health

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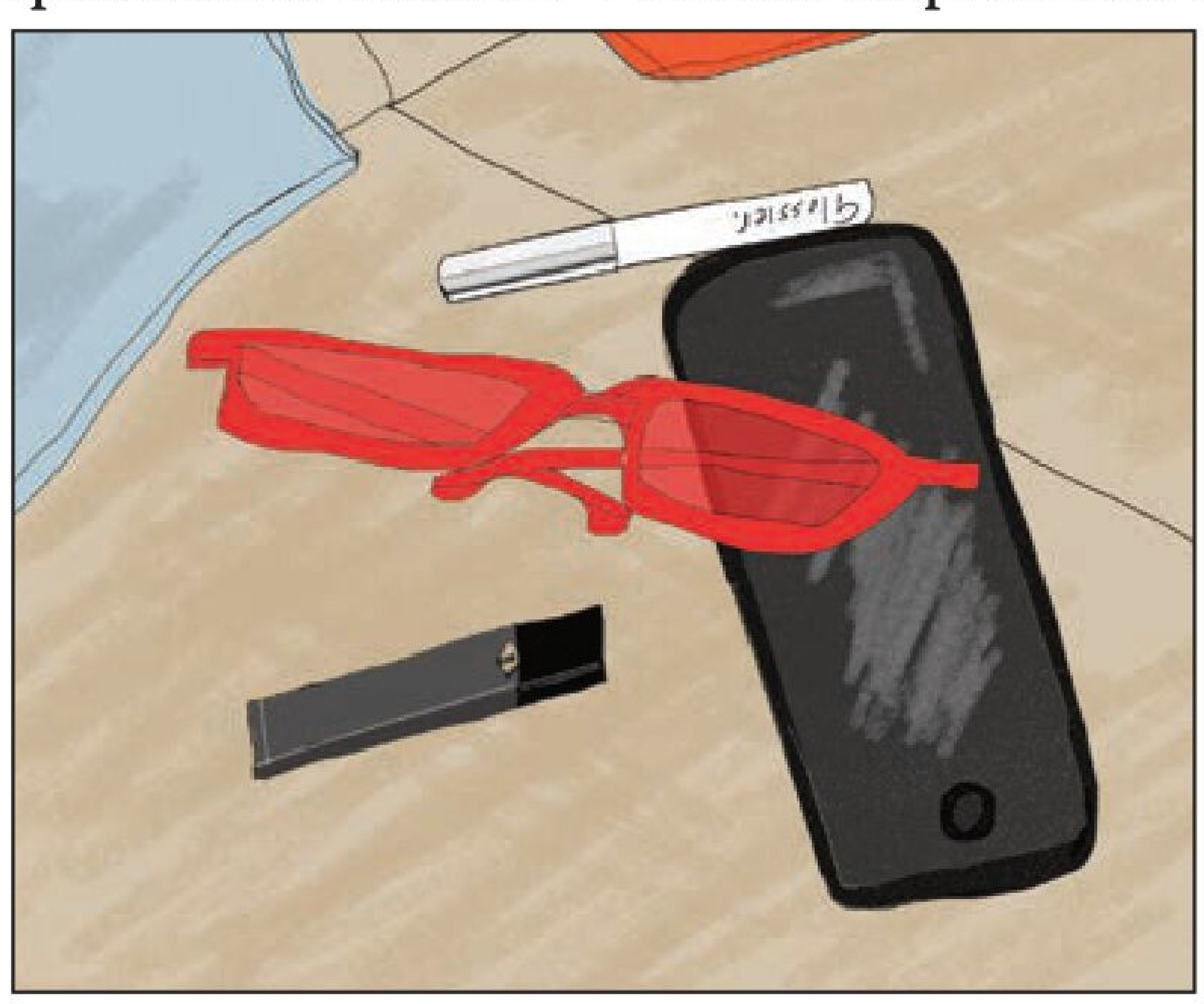
By Lauren Etter
Illustrations by Hannah Buckman

Atherton, Calif., once a quiet whistle-stop along the Southern Pacific Railroad, is situated 30 miles south of San Francisco and minutes from downtown Palo Alto. Fewer than 10,000 people live there, many of them behind tall hedges and forbidding gates. It's the wealthiest city in America, with an average annual income above $525,000, and its residents have included some of the world's most famous technology executives, including Eric Schmidt from Google and Sheryl Sandberg from Facebook. NBA star Stephen Curry bought a $31 million estate there. Microsoft co-founder Paul Allen had one worth $35 million.

In comparison, Kevin Burns's stately home in an Atherton neighborhood called King Estates seemed modest. Toward the end of the summer in 2017, Burns was sitting in the kitchen with his son and some of his son's friends. They were students at Palo Alto High School—Paly, as it's known by locals.

About a year earlier, Burns had left Chobani, the yogurt company, where he'd pulled off an operational miracle. After being brought in from the private equity firm TPG Capital, he'd righted the ship of a promising company that had been almost ruined by a crisis that saw sour, bubbling, oozing cups of moldy yogurt wind up in grocery store coolers, sickening dozens and leading to a nationwide recall. The feat solidified his reputation as a turnaround guru. Now he was considering a new job, as the chief executive officer of Juul Labs.



Juul was the nation's most popular e-cigarette. It was born from a provocative thesis project several years earlier by Stanford graduate students James Monsees and Adam Bowen. With more than 34 million smokers in the U.S. and 1 billion worldwide, they envisioned creating a less harmful version of the notorious burning stick. It would vaporize little tufts of tobacco, providing smokers with the nicotine fix they desired while reducing or eliminating the combustion that causes lung disease and contributes to more than 480,000 annual deaths in the U.S. In a closet-size room in a shared, rickety house just off campus, beside an old apple orchard, Monsees and Bowen shaped a product they hoped would—this was Silicon Valley, after all—change the world. Ultimately their project morphed into Juul, a device that dispensed a potent nicotine aerosol that could taste like dessert and fruit.

By the time Burns was up for the top job at Juul, the company had grown into one of Silicon Valley's most illustrious startups. It had also become one of the most controversial, for its role in hooking millions of teenagers on nicotine. Burns wanted to do his own market research. The *New Yorker* described how he convened a meeting with his son and his friends and asked them about vaping. Three of them pulled Juuls from their pockets. Juuling had become a thing at Paly. The bathroom by the art classroom had become the most popular location, and the best place for teachers, if they came in at the right moment, to catch students exhaling vape clouds before they vanished into nothingness.

That fall the Palo Alto High student newspaper, the *Campanile,* conducted a survey in which more than half of the 269 students surveyed reported vaping. Of those, half used Juul. "Clearly, vaping has become a habit on campus," the accompanying article read. "For many students, Juuling brings a very attractive social aspect. Students pass around the Juul and meet new people through this act, breaking the ice with a simple drag of the Juul."

Burns's son and his friends regaled Burns with stories of vaping, how they'd procured the devices, and how popular they'd become. For some people, the conversation might have served as a red flag. Not Burns. He'd been in private equity long enough to know that when you smell smoke, you run toward it, not away from it. That's where the money is. (Burns did not respond to requests for comment for this story.)

"We could not be more pleased to announce Kevin as Juul Labs' new CEO," said Monsees in a news release on Dec. 11. "He was a key contributor to the extraordinary operational and strategic success at Chobani that positioned the company for long-term growth, strong financial fundamentals and continued innovation. We fully expect that he will bring similar success to Juul Labs."

Burns arrived at Juul just as the company was moving boxes to its new, 30,000-square-foot headquarters on Pier 70 in the Dogpatch neighborhood of San Francisco, a stone's throw from Bowen and Monsees' first offices in an old tin-can factory. They kept their neighborhood haunts, but this time they had a better view of San Francisco Bay. And instead of a handful of employees, Juul had more than 200, with the count growing by the day.

Burns was 54 when he took over. With closely cropped gray hair and a stocky build, he exuded an unyielding Rust Belt vibe. A metallurgical engineer by training, he'd gone straight from college to General Electric in the days when Jack Welch, the ruthless godfather of lean manufacturing, was running the company. While there, Burns attended the company's prestigious manufacturing management program; it set him on a path whipping ailing manufacturing companies into shape, Neutron Jack-style. He'd been doing it—for tire makers, and solar panel manufacturers, and chemical companies—for more than two decades.

At Juul it looked as if Burns had been dealt a series of fairly run-of-the-mill challenges. This company was a long way from yogurt, but Juul and Chobani shared a common problem: They'd both scaled too quickly and couldn't keep up with all that the growth entailed. Burns had a plan and, because Juul had recently concluded a funding round, a war chest. But the enormity of what he walked into at Juul made sour milk and moldy yogurt seem like a dream.

While Burns sent his kids to the public high school in Palo Alto, many of Atherton's elite sent theirs to Sacred Heart Schools, a private institution on 64 serene acres in the middle of town. Founded as a boarding school in 1898 by an order of French nuns, it was now a day school for more than a thousand children, from preschool to 12th grade. For parents paying full tuition, the cost was up to $50,000 a year.

In early 2018, Emma Briger was a junior at Sacred Heart. She was a star goalie on the girls' lacrosse team, the Gators, and had been named a captain of the varsity team. She was set on leading the Gators to the championship that year, so she was disappointed and somewhat shocked to learn that several of her teammates had taken up vaping. They'd hit the Juul before and after practice, and sometimes even vape marijuana, showing up to practice high. This irked her, but she didn't know what to do. She didn't want to seem like a killjoy or a tattletale. One night she turned to her dad, Pete, for advice. The two had developed a trusting and close relationship and bonded over sports. As they sat around the kitchen table in their Atherton home, Emma brought up the vaping.

"That's impossible," her dad replied.

"Dad, I'm really worried about this," she said. "It's affecting the whole team."

Pete Briger wasn't just another lacrosse dad. He was the billionaire co-CEO at Fortress Investment Group, a firm with more than $45 billion of assets under management. Briger had made a career at Goldman Sachs as a trader in distressed debt, raking in untold sums for the bank and becoming a pre-IPO partner before moving to Fortress and opening an office for the firm in San Francisco.

It wasn't that Briger didn't trust what his daughter was telling him. He was just in disbelief. He knew people did stupid things, but surely no kid who attended Sacred Heart would show up to lacrosse practice high. Over the next couple of weeks, however, Emma kept coming home with stories, and finally Briger and his wife, Devon, called the coach of the team, Wendy Kridel.

"Wendy, you know, my daughter is telling me that this is happening, and that it's a real problem," Briger told her.

"It's not happening, Pete," Kridel responded.

Like many others at the time, Kridel was in denial. She, like Briger, thought it inconceivable that these overachieving kids would be so reckless.

Briger and Kridel had a good relationship. "Just do me a favor," Briger said. "Can you just go check into this?"

Within days, Kridel came back. "I'm just amazed," she told him. "But you're right."

A few weeks later, in April, Kridel was preparing to take the Sacred Heart team to Denver over spring break to play some teams there. She called a meeting with the girls and their parents one day after practice to discuss details of the upcoming trip. Kridel brought up vaping. She said that not only was Juuling unhealthy and addictive, but it was also against school rules, and she had a zero-tolerance policy. If any of the girls got caught vaping on the trip, they'd be immediately sent home at their parents' expense. They'd also risk being kicked off the team.

> "I just wanted to let you know that your stupid company has gotten my teenage kids' friends hooked on nicotine"

"Don't do this," Kridel warned, in her booming coach voice. "This is really bad for you."

The following week the team landed in Denver, just as a snowstorm was getting ready to barrel down. Briger was accompanying his daughter and would be staying with family while the team posted up at a hotel. The next day, Kridel was approached by three of her players. "There were girls vaping in their hotel room," they said.

Kridel was beside herself. A dramatic confrontation with the girls ensued, and it turned out two players had been Juuling. Kridel sent them home the next morning, and they never played for the Sacred Heart Gators again.

Briger was dumbfounded when Kridel told him about the turn of events. The trip was for only three days. "Wendy, that's crazy. How could they do that?" he asked.

When Briger returned home, he couldn't stop thinking about what had transpired. Did the girls not have supportive parents? Were they simply that distracted? Or that reckless?

Then it dawned on him. These girls were so hooked on Juul that they were willing to risk everything they'd worked for to have more of it. This was addiction.

As summer got under way, David Burke settled in to write a scathing message from his home in Atherton. The object of his rage was his neighbor, Kevin Burns, who lived a five-minute drive away.

Burke was a former managing director of the Stanford Management Co., where he oversaw private equity and venture capital investments for the university's endowment. He'd had a long career at Makena Capital Management, a $20 billion investment management firm he started with another Stanford alum, and he sat on numerous boards, including the Carnegie Endowment for International Peace, the University of Virginia, and Sacred Heart. His kids attended the school with Briger's daughter. ▶

◀ Burke had started noticing something odd at his house. When his teenage children had friends over, he'd see these little devices plugged into the outlets by the basketball court as they were shooting hoops or by the pool as they were swimming. When he first saw them, he had no clue what they were—like so many others, he thought they were some sort of flash drive. He quickly learned otherwise.

Burke's own father had started smoking cigarettes at 16 and struggled mightily with the habit until finally kicking it in his 40s. He'd died of esophageal cancer. Burke remembered watching with a sense of satisfaction and relief as smoking rates among kids ticked down year over year. Now he was furious. That's how he ended up in front of his computer on the afternoon of June 23, banging out a note to Burns on LinkedIn:

Kevin,
I believe we're both in the same Atherton community near Stanford. I just wanted to let you know that your stupid f---ing company has gotten my teenage kids' friends hooked on nicotine. From here on out, I'm going to go out of my way to fight the bullshit that you all are doing there and will be more than vocal about it. I have deep ties in the investment world and am from Washington DC and have deep ties there, all of which I will leverage to the max. I hope you feel really great about making lots of money for yourselves, under the guise of helping old conventional smokers kick the habit, while you hook a whole new generation on something that a decade from now we'll all know the truth about, just as things have played out with conventional smoking. Just like the Sackler family legacy with opiates, helping all those in pain while addicting millions and killing thousands. You'll have a beautiful, proud legacy for you and your family to celebrate in future generations.
Best,
Dave Burke

After a few days passed, Burke could see that Burns had opened his LinkedIn message. But he received no reply. That made him even madder. He decided to take his anger public, with a post on Facebook:

Here is my vote for the most evil company in the world, making money hand over fist in large part by destroying the lives of what will prove to be millions of middle school students who get rapidly hooked on nicotine and cannot control their addiction. They know exactly what they are doing and where that revenue is coming from as they target their under age illegal audience with flavors like mango, bubblegum, and cool cucumber. Just like the now-exposed Sackler family which has destroyed the lives of millions from easy opiate access as their privately held company Purdue pocketed the cash and looked the other way. Don't believe the bullshit PR statements they put out and their pledge of $30 million to "fight underage use," which is a rounding error of their profits. I've seen the numbers and it's appalling.

Not long after, Burke got a call from Briger, who'd seen the post. Briger was still fuming from the Denver lacrosse trip incident, and he'd since found a Juul in the bedroom of one of his sons. Briger shared the story with Burke, who in turn revealed his own tale about Juul infiltrating his kids' peer groups. As the two men talked, they grew angrier.

"We've got to stop these people," said Briger.

"Burns, this goddamned asshole, can you believe how despicable he is?" Burke replied. "I mean, they're pumping massive amounts of nicotine into kids."

"These people should go to jail," Briger said.

The two men decided that their neighbor, Burns, and his company needed to pay. "The only way is to play hardball with them," Briger said. "To make it uncomfortable for them. To let everybody know that people in our community are making money off this."

Burke knew someone they could ask for help. The 2018 Stanford football season was just getting under way. It was Friday, one of the last before school started, and the first home game would be played that night at Stanford Stadium. Burke was a die-hard fan. He'd had season tickets, with the same seats in the upper deck, for years. And for as long as he could remember, the same person had had the seats right in front of him: Jim Steyer.

Many people knew Steyer because of his younger brother, Tom, the billionaire founder of the San Francisco hedge fund Farallon Capital Management and a former member of Stanford's board of trustees (and later a candidate for the Democratic Party nomination for president). Jim was eminent in his own right, as a civil rights professor at Stanford and longtime advocate for children. A believer in the power of early education to beget a just and thriving society, Steyer had founded a group called Children Now in 1988, which helped shape policy in California and across the nation around issues such as access to immunizations and health insurance. Steyer had also long been concerned with youth exposure to sex, violence, and commercialism in media, and in 2003 he'd started another nonprofit, Common Sense Media. Originally a source for movie and media ratings for parents, it had become a grassroots army, with almost 150 million users.

Just before kickoff, Burke and Steyer were catching up—about their summers, their families, the kids' plans for the year. Then Burke brought up vaping.

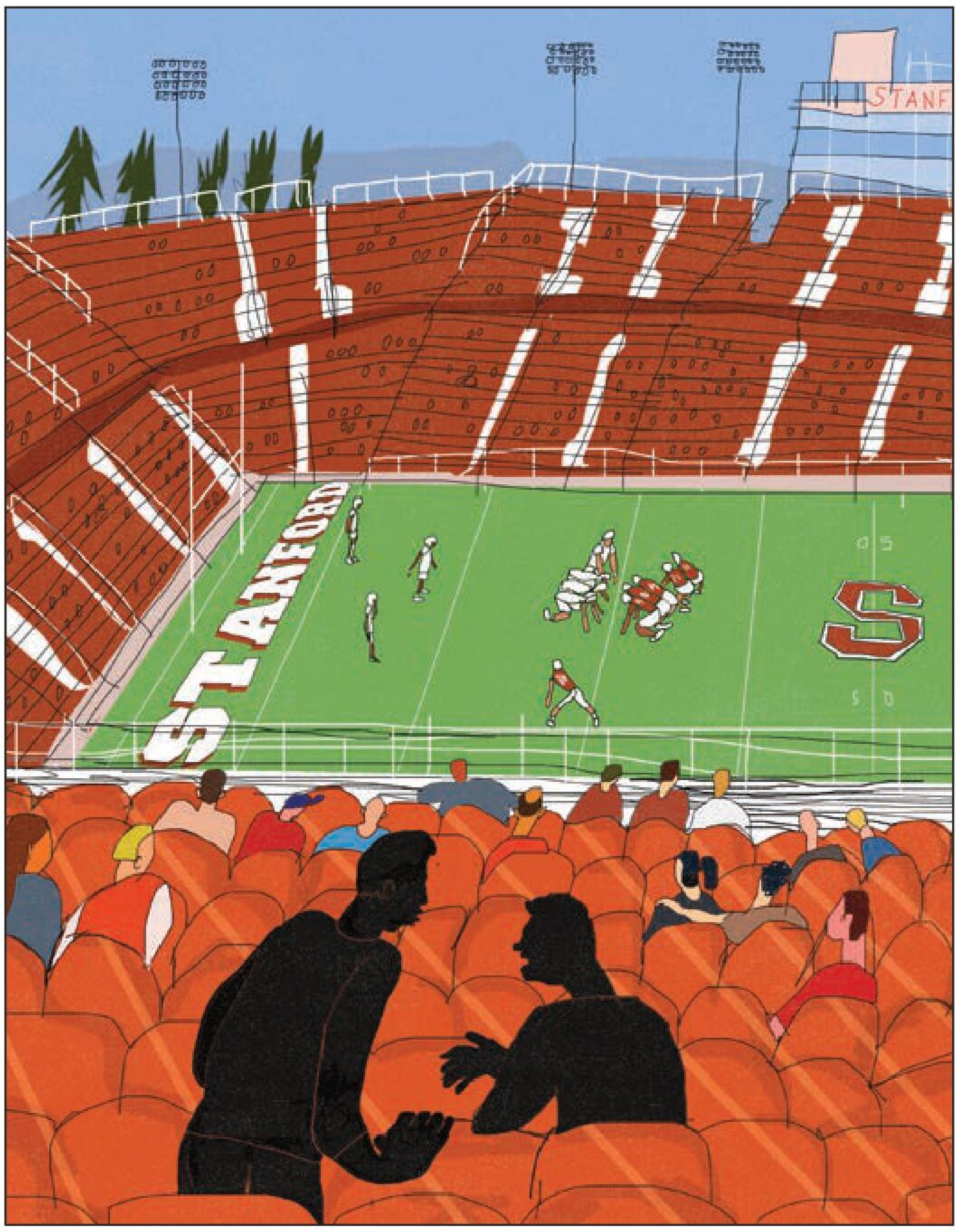
"Jim, have you heard about Juul?" Burke asked.

"Yeah, of course. I have four children. They're like the new Big Tobacco."

They began swapping stories. Burke told Steyer about Briger's experience. Briger and Steyer knew each other.

"Well, you run the biggest child advocacy group in the country," Burke said. "Do you want to get involved?"

Steyer decided to ask his own children what they knew about Juul. At the time he had a high schooler and three older children, one attending Stanford, the other two already graduated from Stanford. The high schooler not



only confirmed that Juul was a big problem but acknowledged that he'd tried it himself. Steyer was incensed. "Do you understand how bad nicotine is?" he chided. His older kids chuckled at his naiveté. "You have no idea, Dad," they said. "People Juul in your class at Stanford, and you don't even know it."

Steyer already had little love for the Silicon Valley companies that made a killing off addicting kids to video games and social media. Now here was one selling an actual addictive drug. It was a company born at Stanford, to boot. Steyer was in. Meanwhile in New York, a well-connected group of angry mothers whose own children had become all too familiar with Juul began organizing a group that was eventually called Parents Against Vaping E-cigarettes, or PAVe.

By the fall of 2018, a formidable group of wealthy parents whose children had fallen prey to nicotine addiction, from Atherton to San Francisco to New York City, were organizing in various ways to stop it.

Over the next year the fury of powerful parents like Briger, Burke, and Steyer was echoed by more American moms and dads who'd discovered Juul devices stashed in their kids' backpacks or colorful plastic nicotine pods littering their bedrooms. The tide soon began to turn against Silicon Valley's most dazzling startup. Briger and Burke donated money to a prominent Stanford researcher who evangelized about the dangers of tobacco use and vaping. Briger also became the first donor to PAVe, which went on to mobilize activists in almost every state to support antivaping laws and influence policy debates about e-cigarettes in city halls and statehouses, and, at least once, in the White House. Steyer and others joined a pitched battle in San Francisco against Juul that resulted in upholding a moratorium on e-cigarette sales in the city, kneecapping the company in its hometown. (Michael Bloomberg, majority owner of Bloomberg LP, which publishes *Bloomberg Businessweek*, was the largest donor to the campaign.)

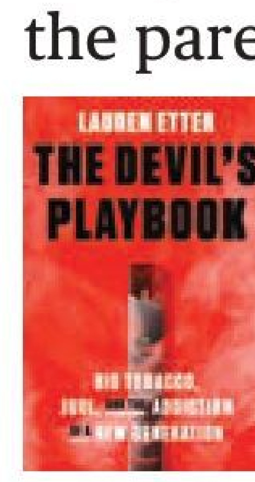
The U.S. Food and Drug Administration began turning up the heat on the company as data showed that millions of middle school and high school students were vaping, a jarring public-health setback after two decades of declines in youth tobacco use. Lawmakers began investigating Juul's marketing practices. State attorneys general began filing lawsuits against the company for its role in stoking the youth nicotine epidemic. A mysterious outbreak of acute lung injuries tied to vaping further spooked the nation. Class-action lawyers began filing a crush of product liability and racketeering lawsuits. A generation earlier, suits like these had brought Big Tobacco to its knees.

Juul's largest outside investor, the tobacco company Altria, was coming under its own pressure as shareholders railed against its $12.8 billion investment in a corporation whose valuation was being written down quarter after quarter. That investment, in December 2018, had been the largest haul by a U.S. venture capital-backed company in Silicon Valley history, eclipsing deals done by Uber, WeWork, even SpaceX. Nicotine was frothier than rockets. Altria now values its 35% stake in Juul at $1.5 billion, which would imply a total valuation below $5 billion, from a peak of $38 billion. Juul's 2020 revenue shrunk to under $1.5 billion, from a 2019 high of $2 billion.

The Federal Trade Commission has sued to unwind the deal between Juul and Altria, alleging that the two companies engaged in anticompetitive practices. An administrative trial is scheduled for June.

Meanwhile, Juul is waiting as the FDA considers whether to allow its product (and thousands of competing e-cigarette products) to continue to be sold in the U.S., a decision that could arrive this year. Juul has tried to salvage its future by bringing in new leadership, removing its candy-flavored products from the market, and relocating its headquarters to Washington, closer to those who will decide its fate.

The tobacco industry long ago learned that it was reliant on, and had to continually solicit, what it has referred to as "permission from society to exist." Now, Juul is learning the same holds true for itself. The lesson is worthy of being taught at Stanford: The enemies you least want are the parents of your customers.



Adapted from The Devil's Playbook: Big Tobacco, Juul, and the Addiction of a New Generation.

A commuter pays their transit fare using
a contactless payment system in Hong Kong.

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It's Time to Live on the Water

Sales of seacraft are increasing. From diving drones to floating mansions, the latest over-the-top toys are reinventing what it means to soak up the fun

By Mark Ellwood

The 2,600-square-foot, four-bedroom Arkup 75

Splash Into Summer!

May 17, 2021

Edited by Chris Rovzar

Businessweek.com

Blame James Bond. It was the sight of Roger Moore skidding a Wet Bike over the waves in 1977's *The Spy Who Loved Me* that piqued yacht owners' interest in keeping more than just a tender, or small ship-to-shore shuttle, on board. Moore's gadget morphed into the Jet Ski, a must-have for every polyester-era playboy. The Jet Ski, in turn, raised cultural expectations for what we should be able to do on–or under, or over–the water.

Billionaires such as Jeff Bezos and his new 417-foot-long project Y721–a yacht so big it needs its own yacht–plus destinations like the Four Seasons Bora Bora keep spurring new innovations. As bigger superyachts became dominant in the late 1980s, complete with roomier onboard garages, the types of toys and tenders available multiplied. Invention is "driven by charter guests," says Chris Clifford of the yacht industry bible *Onboard*. "Even if Grandpa and Grandma are paying for the boat, they'll bring their children and grandchildren, and you've gotta keep them amused." Indeed, charter specialist Burgess Yachts says 84% of its clients expressed interest in toys and water sports as crucial for their next rental.

But it's not just the world's wealthiest who are diving in since the coronavirus pandemic started. According to the National Marine Manufacturers Association, U.S. powerboat sales reached a 13-year high in 2020, when 310,000 new vessels were sold, a rise of 12% from the previous year. GetMyBoat, a marine rental platform, sent 60,500 renters out on the water in 2019, rising to 178,000 last year; it expects to hit more than 1 million for 2021. That's a lot of people potentiality looking for their first boat or an addition to an existing collection.

It makes sense: Nothing says summer like a good, socially distanced splash. Whether you're looking for an easy-to-maneuver three-cabin sailboat for your family, a two-seater Sea-Doo on steroids, or a double-decker party barge with a waterslide, here's our roundup of the newest and hottest toys.

Parajet Paramotors soar up to 500 feet in the air

Thrills

Four craft for the adrenaline junkie

ZAPATA FLYRIDE
Former world champ Jet Ski racer Franky Zapata founded his company more than two decades ago to devise wacky water toys like the Flyride, a narrow Jet Ski-like device that can shoot into the air on plumes of water. There's room for two, so a parent can hop on with an adventurous kid as young as 5. (They can also use the wireless remote to curb a teen's crazier ambitions.) With 300 horsepower, it offers a top speed of 22 mph—and a button will initiate a barrel roll. *From $9,285; zapata.com*

SUBLUE WHITESHARK MIX PRO
Cousteau-inspired explorers keen to chart the depths of the oceans on film should pick up this double-propeller sea scooter. It can duck more than 130 feet below the surface, pulling a swimmer behind it at up to 6 feet per second. Better yet, fix a smartphone in the waterproof camera mount to record every moment. The scooter is designed to be used by anyone 8 or older—a detachable floater can keep kids from diving more than a few feet deep. *$699; sublue.com*

SEABREACHER
Think of this fish-shaped, two-seater submersible as a Sea-Doo on steroids; the enclosed pod can leap into the air and duck under the surface at up to 50 mph. It was designed by New Zealand-born boat builder Rob Innes, who considers it more like an aircraft than a watercraft, because it's able to operate on three axes of control. With a little practice, a pilot can even do 360-degree barrel rolls while skipping across the water. The styling of the chassis adds a witty touch: Take your pick from sharks, whales, or dolphins. The company custom-builds only about two dozen of the craft each year. *From $85,000; seabreacher.com*

Zapata Flyride

PARAJET PARAMOTOR VOLUTION 3
You may have wondered about these flying whizbangs after spotting one soaring along a beach in the Hamptons or Miami. The love child of a paraglider and a fan boat from the Everglades, the Parajet was dreamed up by flying enthusiast Gilo

PREVIOUS PAGE AND THIS SPREAD: COURTESY COMPANIES

Cardozo, who wanted to share his love of aviation. Strap one on—the Volution is the sturdiest of the range—and you can soar as high as 500 feet at speeds that reach 50 mph, weather willing. (Pro tip: The air is less bumpy at sunset and sunrise.) Just book a few lessons first. *$8,395; parajet.com*

CHILLS

For casual fun, try a drone, a kayak, or your own mini pool

NAVATICS MITO
A student project at the Hong Kong University of Science and Technology led to this 5-year-old startup, which specializes in naval robotics. Its 7.6-pound Mito underwater drone streams footage to an app from as far away as 1,600 feet. The tethered 4K device has two 1,000-lumen headlights for visibility at depth, and four-thruster stabilization keeps the camera steady in rough currents. *$1,999; navatics.com*

TARPON 120 FISHING KAYAK
Nimble but sturdy, this 12-foot-3-inch sit-on-top kayak with a short waterline is perfect for fishing in creeks. The American-made craft is packed with user-friendly details, including gear tracks to secure rods and accessories as well as a paddle holder on the bow to free up your hands. The self-bailing hull retains buoyancy even when waters are choppy; best of all, it's dog-friendly. *From $999; wildernesssystems.com*

A handmade Preszler canoe

BEAU LAKE PADDLEBOARDS
With Club Monaco founder Joe Mimran among its advisers, it's no surprise this Canadian company produces paddleboards that emphasize beauty as much as function. Made with epoxy resin and other performance materials, they're finished with mahogany and Macassar ebony, among other options. Pair yours with the equally stylish paddles, which start at $350. *From $2,950; beaulake.com*

YACHTBEACH LUXURY POOL
Avoid jellyfish stings using this pool, which has an ultrafine PVC mesh stretching almost 8 feet down into the water. The largest, superyacht-aimed option includes a 19-by-13-foot boardwalk with a comfy foam top that's wide enough for sunbathers to linger near the swimmers. *€6,799 ($8,270); theyachtbeach.com*

TRENT PRESZLER CANOES
When Preszler inherited his father's woodworking tools seven years ago, the avid outdoorsman spent 14 months teaching himself how to build a wooden canoe from scratch. Preszler, who's based in Mattituck, N.Y., now juggles his day job running a winery and selling bespoke, handmade canoes to clients. Each boat, often using exotic woods such as red cedar and purpleheart, takes at least a year to complete. *From $100,000; preszlerwoodshop.com*

HANSE 348
Based on Germany's Baltic Coast, Hanse was founded by Michael Schmidt, a former winner of the Admiral's Cup regatta. The vessels from his company deftly combine top performance—a self-tacking jib is standard to maximize ease of handling—with smart layouts and design. It's a combination that earned this craft the title as *Cruising World*'s best value sailboat two years ago. Pick between a two- and three-cabin version, and you'll enjoy the great light and clean lines below deck. *$170,800; hanseyachtsag.com*

The Hanse 348 is great for families

FRILLS

You don't need a yacht to impress out on the water

ROM 28
The aptly named ROM, which stands for Rebuild Ocean Motivation, will construct a boat your way at its shipyard in Aveiro, Portugal. Former technology consulting executive Jorge Martins founded the startup four years ago to bring superyacht customization to smaller craft, upgrading workaday designs in a sleeker, sportier style. When Martins unveiled this specific model in January, he promised only 20 of the eight-passenger 25-footers would be made; just 14 remain. *From €230,000; romboats.com*

PREMIER ESCALANTE PONTOON BOAT
There's no better party venue than this 35-foot double-decker pontoon, with room for up to 20 people: A stairway turns into a slide from the upper deck straight into the water. Need we say more? The design incorporates more practical measures as well, including a hard-sided changing room/bathroom, plus a refrigerator, sink, and wine cooler. With 800 horsepower or more, the Escalante is packing as much power as some speedboats. Just make sure not to leave anyone behind. *From $154,150; pontoons.com*

ARKUP 75
The ultimate overwater bungalow, Arkup's two-story glass-box-like villa can be permanently tethered to a dock or cruise at a leisurely 7 knots under its own power. The open-plan four-bedroom structure has 2,600 square feet of indoor living space that connects to a retractable 450-square-foot deck. Its eco-credentials are impressive: Solar panels on the roof supply power, and tanks collect and purify rainwater for drinking and bathroom use. Sadly, the prototype has already sold, but the company is building several custom projects riffing off the same design, as well as planning smaller, marginally more affordable models. *From $5.5 million; arkup.com*

Knock yourself—or a friend—out with a Yacht Joust

SPILLS

We dare you to resist jumping or sliding on any of these insane inflatables

BIGAIR YACHT BLOB
This classic lake toy was first developed in Texas from an army-surplus fuel bladder. Like a seesaw, when someone jumps onto a specific spot from a boat, the force will propel anyone sitting at the other end up to 30 feet in the air. Austin-based FunAir has reengineered the blob for use on the ocean, adding stabilizer outriggers to prevent it from turning over and an inflatable stand-off to stop anyone from bashing back into the hull after they jump. It takes only around 20 minutes to set up. *$4,000; funair.com*

The BigAir Yacht Blob isn't as deadly as it looks, we promise

NAUTIBUOY FLOATING PLATFORMS
Countless companies produce platforms like this that can be jigsawed together to create a pontoon at the back of any vessel, be it speedboat or superyacht. The big differentiator for this British company's offerings is the quality of construction, with drop-stitch cores and strong, durable PVC borders. NautiBuoy's own ballast system keeps the platforms stable, and the teaklike finish is stylish and slip-resistant. Buy one to act as a parking slot for your Seabob or Jet Ski, and attach it to another for an impromptu, al fresco cocktail lounge. *From €3,805; nautibuoymarine.com*

YACHT JOUST
Anyone prepping to compete on *Wipeout* can finesse their dueling skills with a few sessions on this inflatable platform 5 feet above the water. The lightweight batons are easy enough for kids and adults to handle. Yacht Joust can be secured almost anywhere—in a small cove or close to a beach to drum up some cheers or jeers from spectators—and packs down to the size of a carry-on bag. *$8,000; funair.com*

AQUAGLIDE RESIDENTIAL MINI PARK 4
Install this 38-foot-long inflatable obstacle course behind your boat or lakefront home. The main appeal is a 10-foot, high-velocity slide, complete with an interior mesh floor at the bottom for safer splashing. You can also loll on the water, safe from the sun, under the roof of the Ohana lounge platform. Small decks connect the two elements, making it a cinch to hop into the splash zone. And if you want to expand your water park, other Aquaglide inflatables attach easily. *$8,600; aquaglide.com* B

THIS SPREAD, PHOTOGRAPHS COURTESY COMPANIES

The Ultimate Pleasure Boat

The Hinckley Picnic Boat celebrates 25 years of clean lines and effortless cruising. *By Nick Voulgaris*

A Hinckley Picnic Boat in Palm Beach

Hinckley Yachts, a storied shipwright that's been building out of Southwest Harbor, Maine, since 1933, has a rule: construct no boat until it's been purchased. A client buys a boat and then works with Hinckley specialists to craft it. The results are spectacular yachts and motorboats made with carbon fiber, epoxy, beautiful woods, and up-to-the-moment technology.

But in 1994, Hinckley broke its no-building-before-buying rule for the very first Picnic Boat. The company was struggling financially when co-owners Bob Hinckley and Shep McKenney came up with the idea for a dayboat: It would look like the lobster boats that trolled Maine's rocky coves, be made of the then-newfangled Kevlar composite, and use an innovative inboard jet system to allow the hull to navigate shallow water.

Perfectly suited for sunset cruising with cocktails, the first Picnic Boat was launched in May of that year, with no interest and no buyers. But late that summer, as McKenney told me for my book, *Hinckley Yachts*: "a guy comes down the dock and asks for a ride. We're out for a bit, and when he gets off the boat he extends his arm to shake my hand and says, 'I'll take two.'" Today, the Picnic Boat is a cornerstone of the company's business and one of its best-known products—Hinckley even trademarked the name.

Now in its 25th year of production and with more than 1,200 built, the boat is available in 34-, 37-, and 40-foot variants with price tags of $1 million to $1.7 million. A "Signature" edition created in honor of the anniversary features comforts such as air conditioning and diesel generators as standard.

Hinckley, with its elegant design and use of varnished woods, "speaks to an era of boating that feels like it's been passed by in favor of bland white hulls and misshapen powerboats," says Peter Ostrega, global managing director for legal consultant Consilio, who bought a Picnic 34 in 2018. "When combined with the technology they put in every boat, it was the only boat we ever considered—and the only yacht builder we would work with in the future."

The Picnic Boat has been in such high demand, there's a backlog of orders almost two years long, according to Scott Bryant, Hinckley's vice president for sales. Chairman David Howe even notes that certified preowned Hinckleys often sell for more than the original owner paid for them—a rarity in the industry.

When customers began extending the boating season in the Northeast, Hinckley introduced YachtCare in 2019, a service that picks a boat up whenever its owners decide they're through taking it out and brings it to one of the company's 10 facilities. It returns the boat in the spring, fully serviced.

You'll know Hinckley's most popular models by their unmistakable sweeping sheer (the shape of the hull), curved transom, and lavish use of varnished teak and polished stainless steel. The inboard jet system is still standard: In it, a diesel engine is combined with an intake in the bottom and a propulsion mechanism in back that pushes and turns the boat. This setup not only allows for easy handling but also gives Picnic Boats access to shallower waters and better fuel efficiency at high speeds. The boats also feature Hinckley's patented JetStick, a joystick that allows the operator to maneuver easily in tight spaces.

"I was attracted to Hinckley's boats because they are the prettiest powerboats on the water, in my opinion," says Ostrega. "Only a beautiful monohull sailboat looks better." ●

It's a Cool, Pool Summer

Get back on the scene in clothing and accessories inspired by the shades of the ocean

By Antonina Jedrzejczak
Photographs by Hannah Whitaker

Chances are, your swimming trunks—not to mention your beach tote and towel—stayed in the back of the closet last year, right next to those long-forgotten suits and high heels. And if you were one of the lucky few to quarantine on waterfront property, we're willing to bet the setting was more of a modest affair than Miami Beach.

But as lockdowns and mask requirements continue to lift, the excitement about the upcoming season is especially tangible. "There's a real buzz in the air," says Blakely Wickstrom, the founder of swimsuit brand Galamaar in California. "Sales have been great, and they picked up about a month or so earlier than they normally do. People are ready to get out of their living rooms and onto the beach ASAP."

Clothing that takes its cues from the tranquil blues and greens of the water feels especially appropriate. Indoor fashion shows might still be some time away, which means the surf at sunset is primed to be the see-and-be-seen runway of the months ahead.

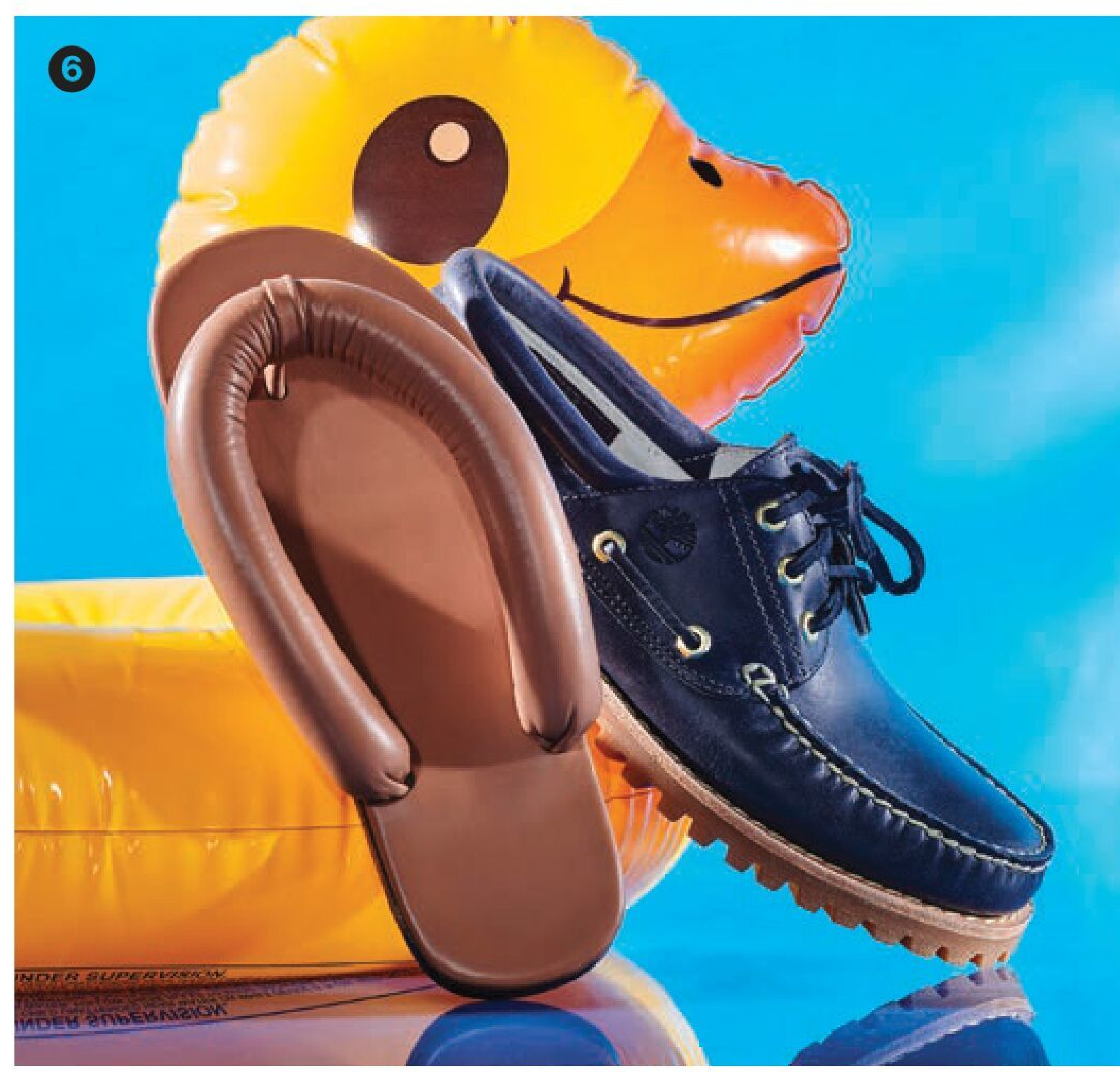
Here we've gathered a dozen pieces to upgrade your waterside look.

❶ Terry cloth is popping up in all kinds of unexpected places this season, from bikinis to bucket hats. The **Terry toweling polo shirt** in sky diver blue ($175; orlebarbrown.com) is a classic with a cozy twist: It's made from thicker, absorbent soft cotton fabric with an easy straight hem and flat placket collar. The **Marco jacket** ($350; ciaolucia.com) has a navy terry material on the outside and silk lining on the inside. With its mandarin collar and generous robe pockets, the top can seamlessly go from pool deck to roof deck for a night out.

❷ When it's time to call it a night, slip on a silk charmeuse **Stripe mask** ($98; morgan-lane.com) to keep those extra-bright dawn rays from peeking through the portholes. And while rose-colored glasses might be well and good, we'll take our lenses in a cool shade of aquamarine. Scratch- and glare-resistant with full UV protection, these stainless steel hexagon-shaped **Figueroa aviators** ($98; bonnieclyde.la) bring a touch of the Mediterranean to your morning.

❸ Staying hydrated in the sun is critical. Haul your drinks in style with the **Making Waves beverage bucket bag** ($75; seabags.com). Sewn from recycled sail cloth, the cooler has six individual bottle pockets, easy drainage, and chic nautical hemp rope handles. Whatever other precious cargo you're planning to bring on deck, stashing it in Filson's **Sportsman dry bag** ($350; filson.com) is your best bet. The carryall comes with a detachable strap and a range of versatile pockets and dividers crafted from the same durable, waterproof nylon tarpaulin used to make inflatable boats.

❹ Keep tabs on the time with the **Rolex Datejust 36** ($12,000; rolex.com)—a new 36-millimeter



steel-and-rose-gold model with an unusual palm-frond dial. Featuring a fluted bezel and jubilee bracelet, it's waterproof up to 330 feet. For a dash of marine glamour, add a swipe of long-wearing **Blue Wonder eye shadow** ($40; kjaerweis.com), where bamboo takes the place of synthetic silicones for a silky texture that's good for you and for the ocean. **Surf Mud** from EiR NYC ($24; eirnyc.com) evokes the chocolate face masks the Mayans used to protect their skin. It's packed with present-day goodies, too, such as natural non-nano zinc oxide for UVA and UVB protection—because smart sun safety doesn't mean you have to spray on reef-killing chemicals before every dip.

❺ With the **Passage Bait & Switch board shorts** ($65; roark.com) you can swim with tropical fish whether your body of water is of the Caribbean or chlorinated variety. Four-way stretch fabric, a 9-inch inseam, and a zip pocket make this pair extra practical. Can't choose between a bikini and a one-piece for that first beach outing? Opt for the best of both worlds with Galamaar's cross-front blue-and-white **Braxton one-piece** ($276; galamaar.com), which has graphic waist cutouts and an open back. The shoulder straps are deliberately broad to avoid pinching skin.

❻ Made from smooth nappa leather in a tawny brown, the **Rita sandal** ($225; staud.clothing) is an elevated take on the flip-flop with puffy straps that just might double as tiny flotation devices should the situation arise. Men's boat shoes can be painfully predictable. To shake things up, Timberland got together with Aimé Leon Dore to craft these hefty three-eye **Lug leather boat shoes** ($170; mrporter.com) in top-stitched navy leather. The gum rubber sole is a must for keeping decks scuff-free.

The view from Hydra in the Saronic Gulf

An Odyssey All Your Own

Praise Zeus! Greece is back on, and the siren call of its islands beckons once again. But you better hurry. *By Fran Golden*

On May 14, Greece became the first country in the European Union to open its doors for summer tourism. All you need to enter is a negative PCR test.

Interest in visiting has been so intense that Prior, a travel membership club, rushed to open an office in Athens last month. "We have a lot of confidence in Greece," says Chief Executive Officer David Prior, who suggests travelers trade the country's tried-and-true options for some of its countless underrated gems to avoid a crush of tourists this year.

Jack Ezon, founder and managing partner of luxury agency Embark Beyond, says his clients have been especially interested in sailing trips. The itineraries are glamorous and–suiting the moment–crowd-free. After the country's reopening announcement in April, he booked $6 million in yacht charters in just 10 days. "Almost 28% of our summer business is heading to Greece," he says. He expects this year to be the one in which Greece "gets its close-up."

But the Greek isles aren't a place you Google and go. The archipelago consists of 6,000 islands (only an estimated 227 are inhabited) and almost 10,000 miles of coastline. Weather and winds are erratic and can greatly affect routes; the strategy for navigating in those conditions varies depending on the boat you choose and where you first launch. And some of Greece's most coveted experiences–such as dining at a tucked-away taverna on a "secret" beach–require the improvisation of a skillful captain.

The standard charter lasts one week and can accommodate visits to four islands plus some isolated coves and beaches. On deluxe, six-person catamarans, a trip costs upwards of $15,000; a superyacht can go for hundreds of thousands of dollars. One broker favorite–the 181-foot, 12-passenger *Geco*–commands about $324,000. You get what you pay for: A superyacht can cut a wider swath and chart choppier waters than a sailboat, which may also be limited in range to a few hours of sailing a day.

For those who do want to sail, Heather Hatcher, charter

HYDRA: MICHAEL AMME/LAIF/REDUX. YACHT: COURTESY IYC management director at the international brokerage IYC, recommends the 75-foot luxury *Gigreca*, which sleeps eight and has a cool back-lit bar–and is almost a tenth the price of the *Geco*.

The rush is on to book. Ann Landry, senior charter broker at leading superyacht agency Northrop & Johnson, says all of 2020's canceled trips rolled into 2021, and border restrictions elsewhere have further spiked demand. "There won't be enough boats," she predicts.

Another complicating factor is that Greece requires travelers to stick to the roughly 5,000 crewed ships registered in the country, and vacationers with credits from last year have scooped up the prime inventory. More availability exists in June and September, and you can still get great weather then.

If you can't find your sweet spot, try sleeping on dry land and booking a private, captained high-speed power boat or 39-foot rigid inflatable boat. For about $2,000 a day, they allow you to island-hop within a small radius and cruise into shallow coves that larger yachts can't access.

Whatever route you take, expect a warm welcome. In 2019, 31 million people visited–and 1 in 5 jobs were attributed to tourism. Only 20% of that traffic arrived last year. As Prime Minister Kyriakos Mitsotakis said in an address earlier this year, "If we were to get 50% of what a regular year would look like, it's still going to be 100% better than last year." B

Lounging on the *Rare Find*, a superyacht available through IYC

THE CYCLADES
Home to thumping Mykonos and luxe Santorini, this group of islands is the most popular choice. Mina Agnos, whose company Travelive focuses on trips to Greece, says 85% of her clients request this barren archipelago that's dotted with charming sugar-cube houses, blue-domed churches, and tony beach clubs. In July and August, large crowds are a downside, and periodic gale winds called the Meltemi are possible, which can disrupt sailing routes.

THE DODECANESE
In-the-know Greeks would invite you to this relatively untouched archipelago near the Turkish coast. It includes historic Rhodes and the spiritual haven of Patmos, which has a multitude of preserved Byzantine monasteries amid its traditional fishing villages.

THE NORTHERN SPORADES
For waterborne adventures, look to the Northern Sporades. They're commonly accessed through off-the-beaten-path Volos, a port city on the mainland midway between Athens and Thessaloniki. The islands are home to excellent diving sites—don't miss the National Marine Park of Alonissos, where you can explore a 2,500-year-old shipwreck and spot rare Mediterranean monk seals.

THE SARONIC ISLANDS
Set conveniently against the mountainous Peloponnese peninsula south of Athens, the Saronic Gulf is poised to have a big moment. Focus on car-free Hydra, where culture-loving Athenians spend weekends mingling at art galleries and sipping cocktails on the beach.

THE IONIAN ISLANDS
West of the mainland lies the pine-forested, mountainous archipelago featured in Homer's *Odyssey*. The waters tend to be calm, but it's lively on land in culturally rich Corfu and pastoral Kefalonia. Cliff-backed Shipwreck Beach, on the up-and-coming island of Zakynthos, is the scenic oasis conjured up in most summer Greek fantasies.

Making Waves

Motorized surfboards are fun if you have more money than time. *By Jonathan Levin*

It's April in Miami, and I'm flying through the air above Biscayne Bay on an electric hydrofoil surfboard, the same yacht club toy Mark Zuckerberg was seen riding last summer. As I accelerate toward the horizon, I almost forget what it means to live in a world with gravity. Five seconds later I'm tumbling headfirst in the bay, inhaling a nose full of salt water.

JetSurf Electric

Since the pandemic began, motorized surfboards have emerged from relative obscurity to take beaches by storm, part of the boom in outdoorsy, socially distanced fun. Now they can be found almost anywhere water and wealth coexist.

I tested the two major types: an electric hydrofoil by Lift Foils ($12,000), the brand Zuck rode in Hawaii; and a couple of the more "traditional" motorized surfing options, the JetSurf Electric ($14,900) and the JetSurf Adventure DFI ($11,400), powered by a two-stroke engine. The Puerto Rico-based Lift says its global e-foil sales doubled last year, to about 2,500 units, and JetSurf says its volumes grew 60%, to 1,600 boards, most of the latter being gas-powered.

The Lift e-foil is similar to a hydrofoil boat, with a customizable winglike structure that sits under the water, attached via a 2- to 3-foot carbon-fiber mast, depending on your preference and skill level. The wings create lift as you accelerate, giving you the feeling you're soaring like Marty McFly in *Back to the Future Part II*. (In the movie, the hoverboards didn't work on water, though.)

Riders pilot the e-foil using a wireless, waterproof hand controller that has a sort of pointer-finger-operated, joystick-like trigger. As competent riders accelerate, the board levitates above the water, going as fast as 30 mph with almost no resistance—that's the essence of foiling. Even on a windy day with a lot of chop, the board cuts through the water like a knife.

As a novice, I was able to have fun almost from the outset but not quite ride it as intended: I'd get airborne for a few seconds, then—because of my poor weight distribution—the nose of the board would splash back into the water. Many times I took harmless plunges into the bay. The electric motor automatically stops, and it's not hard to climb onto the board from the back or side. For the most part, it was too exhilarating for me to pay attention to my battered ego.

After trying out the e-foil, I found the motorized surfboards from JetSurf in the Czech Republic to be relatively easy. Foot bindings and a handle with an attached trigger throttle make them natural for tight turns and tricks and aquatic-motorcross-like races. During my demo, JetSurf USA Chief Executive Officer Petr Vencovský did some pretty spectacular aerial flips off the wake of his boat. From a safety standpoint, I preferred its jets over the Lift's exposed propellers, which are a threat to the toes of absentminded novices if they accidentally engage the throttle getting on the board from behind.

Ride time is the downside: The electric JetSurf gives you about 35 minutes, and the two-stroke can go for about an hour, vs. as long as two hours on the 2021 Lift3, which also has an increased top speed that puts it close to JetSurf's models. And though the gas-powered board can be refilled in seconds with a standard fuel mix, the electric battery takes more than two hours to recharge. (Or you can spring $3,500 for an extra.)

Ultimately the products will attract different riders. If your aim is to take a leisurely tour around the perimeter of an island, you're better off foiling—it's more efficient and a smoother ride once you know what you're doing. It's quieter, too, though the JetSurf boards weren't half as loud as I imagined they would be, and most of the gas models come standard with a silencer. The motor is more present, yes—including faint fumes and engine warmth as you lie on the board—but it's not a distraction, and motorcycle buffs or extreme sports fans might consider it a bonus.

Lift3 e-foil

I came to wave-propelled surfing while living in Brazil in adulthood, and I'm pretty terrible at it. Compared with my first time doing that—and, frankly, even my last—I had a significantly better fun-to-frustration ratio on all the motorized boards. But motorized surfing isn't ever going to dent interest in the real thing, which you can get into for a few hundred bucks. Surfing is beloved for its inherent challenges: It's a serious workout and requires an excellent understanding of the ocean to excel.

Still, I suspect gas- and electric-powered surfboards are here to stay, especially around Miami and other places where water and wealth are abundant and the waves are so gentle that surfers can hardly ever rip unless a hurricane is blowing in. Ⓑ

Fast and Loose

A Boye knife is a best friend for mariners in knotty situations

Photograph by Victor Prado

Bladesmith David Boye understands how essential a reliable knife is to a sailor: His father, grandfather, and great-grandfather were all captains. No surprise then that his Sheepsfoot folding boating and rescue knife ($239) is a 2.5-ounce lifesaver. Its 3-inch blade holds an edge ferociously: In one test, it made hundreds of cuts through tough Endura Braid rigging line before needing to be resharpened. The blunt sheepsfoot-style tip is an added safety measure—it prevents you from stabbing someone (like yourself) should you slip while working on a pitching sea. Combined with a titanium marlinspike—a picklike tool used in tying and prying apart knots—it's a tool every bit as necessary as a compass.

THE COMPETITION

- The U.S. Navy issued Colonial Knife Co.'s Riggers model ($70) during World War I, and it's been an essential piece of mariner's gear ever since. Along with the marlinspike and the $3\frac{7}{16}$-inch blade, it has a shackle key with a rope lanyard, making it harder to misplace.
- The AF300 Gen 2 Captain knife ($144) from Myerchin features a chunky 2.8-inch blade and a 3-inch spike, which both fold into a natural-bone handle you can personalize with your own scrimshaw work.
- When opened, the marlinspike of Spyderco's titanium-handled Tusk mariner's knife ($400) is held in place by a distinctive ball-bearing locking mechanism. The blade, meanwhile, is made from nitrogen-alloyed, corrosion-resistant LC200N steel, one of NASA's preferred materials.

THE CASE

Boye actually wrote the book on knifemaking in 1976: His *Step by Step Knifemaking: You Can Do It!* has sold more than 200,000 copies to date. Despite that, he still maintains a lean operation—all of his knives are hand assembled in his Arizona workshop. What sets this model apart is a blade and rocker arm made of dendritic cobalt alloy that's not magnetic—so it won't affect compasses or electronics—and is impervious to rust and corrosion in saltwater. The knife even has a cadre of landbound devotees: EMTs trust it in rescue situations to slice quickly through seat belts. *$239; boyeknives.com*

There’s a Precedent for Overriding Drug Patents

By Joe Nocera

Pharmaceutical Manufacturers Association of South Africa v. South Africa

Case #4138/98 High Court of South Africa

● Did the law make a difference? Yes, but not because South Africa started importing generic HIV/AIDS drugs. Rather, the drug companies began offering the medicine, including new antiretroviral drugs, to African countries, often for free.

● Is HIV still a problem in South Africa? Very much so. According to the United Nations, the nation has one of the highest HIV rates in the world: 17% of the population from the ages of 15 to 49 has HIV, with 72,000 deaths in 2019.

ILLUSTRATION BY GEORGE WYLESOL

❶ THE ORIGIN The idea of voiding patents on Covid-19 vaccines so poorer countries can have access to them—which President Joe Biden has proposed—sounds radical, but it’s been done before. During the height of the AIDS crisis, one of the hardest-hit countries was South Africa. In 1997 the government, frustrated that HIV/AIDS drugs were too costly for its citizens, passed a law giving the state the right to import cheap generic versions without getting permission from the pharmaceutical companies that held the patents.

❷ THE LAWSUIT Furious at this assault on their intellectual property, 39 pharma companies sued, blocking the law from taking effect. Bill Clinton’s administration sided with the industry, with Vice President Al Gore even traveling to South Africa to argue on its behalf. In the suit, the industry claimed the new law violated the South African constitution. In the court of public opinion, it said the sanctity of patents is what allowed it to generate the money needed to discover the drugs in the first place.

❸ THE TRIAL It wasn’t much of a trial. From the time the suit was filed in early 1998, the publicity had been a nightmare for Big Pharma, with AIDS activists and others taking to the streets to demonstrate against the industry. On the first day of the trial, March 6, 2001, thousands of demonstrators gathered outside the courthouse and marched to the U.S. Embassy. Big Pharma’s lawyers asked the judge for some time to reconsider their position.

❹ THE SETTLEMENT Six weeks later, after extended negotiations with the government, the industry folded. According to the *Guardian*, it had come to realize not only that its stance was a public-relations disaster, but also that its legal arguments had almost no chance of succeeding. One government official told the paper that it amounted to “unconditional surrender” by the industry, which had been “shamed and humiliated.” Which goes to show that sometimes public opinion can trump litigation—something today’s vaccine makers should keep in mind. Ⓑ *—Nocera is a columnist for Bloomberg Opinion*

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