Bloomberg Businessweek

September 26, 2022 ● EUROPE EDITION

The Preposterous Success of Apple's Tiniest Accessory 40

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TUESDAY

2 hr 15 min – +

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Requires a Google account managed with Family Link parental controls.

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September 26, 2022

◀ Livestreaming gem sales in Ruili, a Chinese city on the Myanmar border

QILAI SHEN/BLOOMBERG

FEATURES

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■ COVER TRAIL

How the cover gets made

❶

"This week's cover is all about AirPods. Turns out they're big business for Apple."

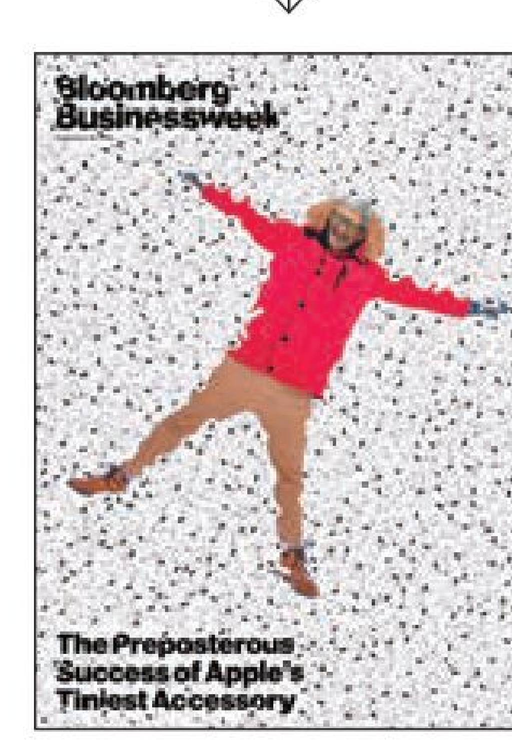
"How big?"

"Apparently, this business alone would be bigger than Adobe."

"Huh. Didn't see that coming the first time I saw them dangling awkwardly and precariously from someone's ear. Makes sense, though, I'm on my third pair now. How about you?"

"Fifth! The joys of having a dog."

"This is outrageous! How does Tim Cook sleep at night?"



Cover:
Photo illustration by 731; photos: Apple, Getty, Shutterstock

TECHNOLOGY: PHOTOGRAPH BY WILLIAM MEBANE FOR BLOOMBERG BUSINESSWEEK

IN BRIEF

By Benedikt Kammel

● Vowing to crush inflation, the Fed on Sept. 21 raised interest rates by

75

basis points, for the third straight time, bringing the benchmark federal funds rate to 3% to 3.25%. Fed Chair Jerome Powell signaled even more aggressive hikes may lie ahead. ▷ 26

● War in Ukraine

▶ Vladimir Putin announced a partial mobilization on Sept. 21, drawing on as many as 300,000 additional troops after battlefield losses underlined Russia's shortage of manpower.

▶ The Kremlin plans to stage votes in the parts of Ukraine's Donbas it occupies to approve annexation, effectively declaring the territory Russian and giving Putin political cover to proclaim he's acting in self-defense.

▶ Singer Alla Pugacheva, a household name in Russia for decades, publicly criticized the war as seeking "illusory aims" in Ukraine that have made her country a global "pariah."

● A man hauls drinking water in Cataño, Puerto Rico, after Hurricane Fiona struck the territory on Sept. 18. The storm caused up to $4 billion worth of damage and took out the electrical grid, before moving on to the Dominican Republic.

● Globally, there have been more than 613 million Covid-19 cases, over

6.5m

have died, and 12.8 billion vaccine doses have been given. Hong Kong signaled it wants to relax its Covid rules, which have made life in the territory difficult for almost three years, including switching from quarantines in hotels to seven-day monitoring at home.

● South Africa is enduring the worst power blackouts in its history.

State-owned utility Eskom Holdings can't produce enough energy at its old and poorly maintained plants to meet demand in Africa's most industrialized nation.

● Mass protests erupted in Tehran when a woman fell into a coma and died after being detained for flouting Iran's dress code.

The Islamic Republic's "morality police" have long enforced such rules for women, but a younger, more urban generation of citizens is increasingly tiring of the requirements.

● The German government plans to inject about

€8b

($8 billion) into Uniper as part of an historic deal to nationalize the gas giant and avert an energy squeeze this winter.

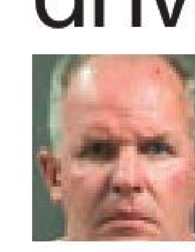
● "Claiming you have money that you do not have does not amount to the art of the deal. It's the art of the steal."

New York Attorney General Letitia James sued Donald Trump on Sept. 21 for fraudulently inflating the value of property assets to obtain better terms with lenders and insurers. The former president has denied the allegations, calling them politically motivated.

● Mark Zuckerberg has seen his wealth decline by

$71b

so far this year, the largest loss among the ultrarich tracked by the Bloomberg Billionaires Index. The slide has coincided with the decision to rename Facebook Meta late last year and the company's struggle to define its direction under the new corporate mantle.

● After a beef with another driver, Beyond  Meat Chief Operating Officer Doug Ramsey was arrested.

Ramsey allegedly bit a man's nose during an altercation after a football game in Fayetteville, Ark., on Sept. 17. The plant-based meats company suspended the executive with immediate effect three days after the incident.

PUERTO RICO: AFP/GETTY IMAGES. TEHRAN: OZAN KOSE/GETTY IMAGES. JAMES: YUKI IWAMURA/GETTY IMAGES. RAMSEY: AP IMAGES

The Crypto Winter Is a Rare Opportunity To Regulate Coins

The cryptocurrency market has granted US policymakers the opportunity of a lifetime. Less than a year ago, it was on the verge of becoming a systemic threat, gathering disciples, leverage, and political clout faster than regulators could get a grip. Then the danger miraculously dissipated: The market imploded before reaching critical mass, entering the "crypto winter" that persists to this day. The reprieve might not last long. Rulemakers should act now.

The problem areas are clear. No. 1 is stablecoins, digital tokens that purport to be worth a dollar and are used by speculators to gain leverage or to park funds between bets. At their peak, such coins had attracted more than $160 billion, which their issuers invested in assets ranging from corporate debt to Bitcoin to nothing at all. A sudden loss of confidence could trigger an exodus, as happened in May with the Terra stablecoin. The more regular assets issuers hold, the greater the chances of broader disruption—for example, in markets that real-world companies rely on to make payroll and raise working capital.

Another threat arises if commercial banks get exposed to crypto, either directly or via lending to companies and hedge funds. If major banks had been among the creditors of now-bankrupt entities Celsius or Three Arrows Capital, which at their peak had tens of billions of dollars in combined liabilities, the damage from the crypto meltdown could've been broader. Luckily, regulators appear to have averted such an outcome though they've yet to adopt any formal rules.

Beyond that, myriad digital tokens and trading venues—including the big exchanges operated by Coinbase and Crypto.com—for the most part don't face the same standards for consumer protection, disclosure, governance, safety, and soundness that traditional assets and financial intermediaries do. The market is thus rife with hacks, manipulation, self-dealing, and outright fraud, as the Securities and Exchange Commission, the Commodity Futures Trading Commission, and other regulators struggle to work out how to respond and who should oversee what.

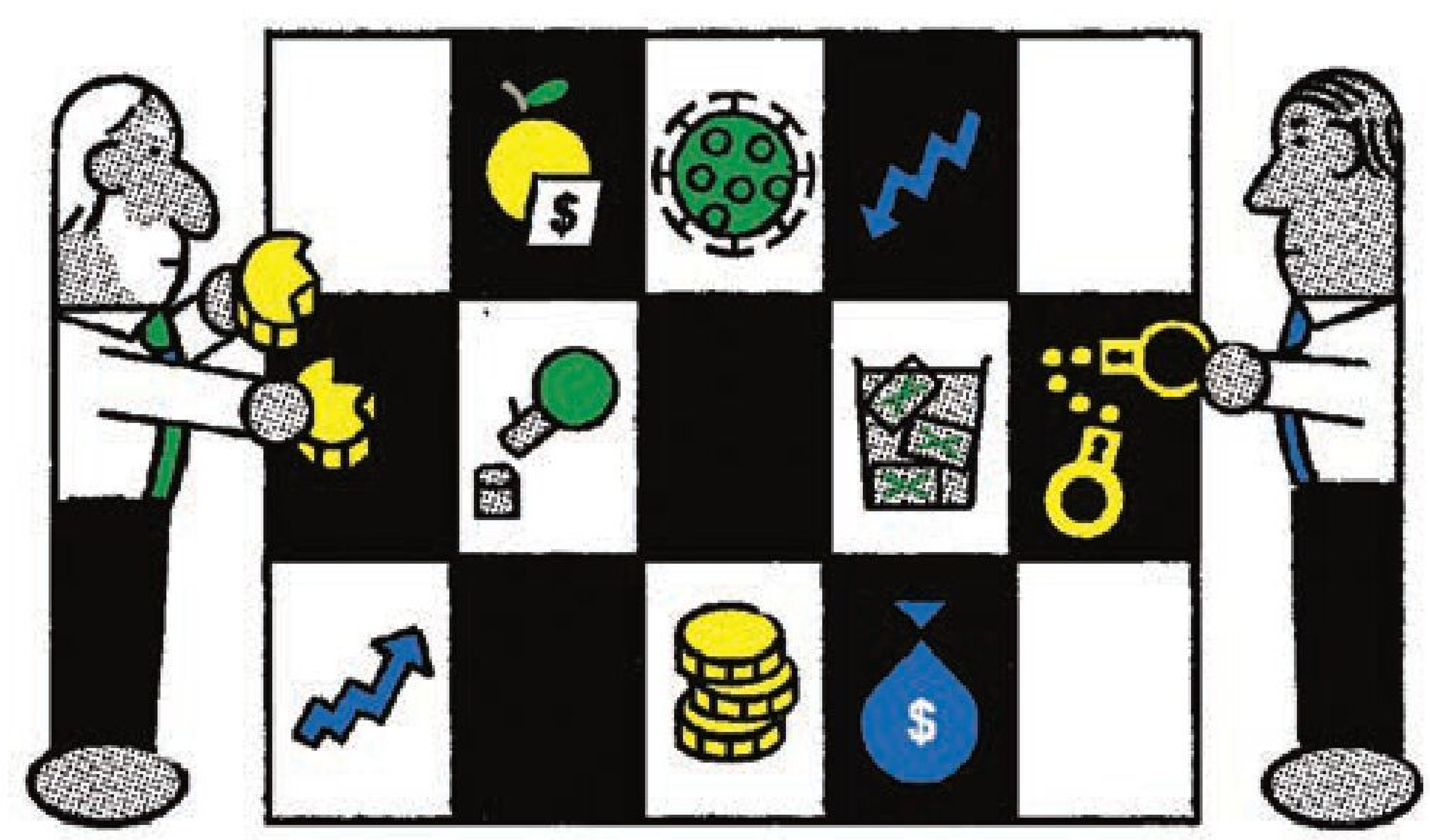
Ideally, Congress would impose some order. There's plenty of proposed legislation, some of it good, but none is likely to move forward anytime soon.

Officials needn't wait. Bank regulators, for their part, have the power to create a limited charter for stablecoin issuers: Those that met the necessary standards, including for assets and governance, could receive privileges such as access to accounts at the Federal Reserve; others would face strict scrutiny and possible sanctions. Authorities can also adopt stringent capital requirements, ensuring that any exposures to crypto are financed with equity that banks can afford to lose.

As for tokens and exchanges, the SEC and CFTC should cooperate. It hardly matters whether a thing is called a security or a commodity, so long as some semblance of transparency and accountability is established. Former CFTC Chair Timothy Massad and Harvard Law School professor Howell Jackson have a promising proposal to create an industry-funded organization, similar to the Financial Industry Regulatory Authority, that would set reasonable standards for all relevant crypto instruments and institutions. As with stablecoin issuers, entities that failed to comply would risk legal consequences.

The technology underlying crypto may yet yield benefits, but the speculative frenzy surrounding it still has the potential to do a lot of harm. Rarely has history granted authorities a second chance to head off such an obvious threat to the financial system. Don't let it go to waste. *For more commentary, go to bloomberg.com/opinion*

AGENDA



► A Second Chance?

Brazil holds presidential elections on Oct. 2. Luiz Inácio Lula da Silva, the leftist former president, leads Jair Bolsonaro in the polls. The controversial incumbent has struck a more conciliatory tone of late to win over undecided voters. ▷ 24

► Vice President Kamala Harris, traveling to Japan and South Korea Sept. 25-29, will lead the US delegation to the state funeral of former Japan Prime Minister Shinzo Abe on Sept. 27.

► EU energy ministers will hold an emergency meeting on Sept. 30. With cold weather approaching and Russia shutting off oil and gas supplies, Europe faces surging energy bills. ▷ 28

► Porsche starts trading on the German stock exchange on Sept. 29. The IPO, valuing the carmaker at as much as €75 billion, will test investors' nerves in the jittery market.

► Latvia's parliamentary elections will be held on Oct. 1. As in its neighbors Estonia and Lithuania, political discourse has been dominated by fears of a Russian attack after the invasion of Ukraine.

► NASA will make a third attempt to launch its unmanned Artemis rocket to the moon on Sept. 27. Technical issues forced it to abort two previous tries on short notice this month.

► On Sept. 30 Tesla hosts its AI Day, an event designed to attract engineering talent. CEO Elon Musk has said he hopes the company's humanoid robots will be up and running by then.

ILLUSTRATION BY JAY DANIEL WRIGHT

The SPAC King Folds

● Chamath Palihapitiya pioneered a new way of raising money. Now it all looks increasingly like a passing fad

● By Zeke Faux

In October 2020, Chamath Palihapitiya raised $2.4 billion from investors for three blank-check companies. He used a previously obscure financial vehicle known as a SPAC. All he had to do was find startups to buy, and he stood to make hundreds of millions of dollars. The Facebook-executive-turned-venture-capitalist loves high-stakes poker, and it looked as if he'd found a can't-lose bet.

Other financiers agreed, and for two years it seemed like anyone with some name recognition–including Shaquille O'Neal and Paul Ryan–had a SPAC. The same Reddit investors who made Dogecoin and GameStop Corp. soar earned huge returns by buying shares of almost any SPAC. Palihapitiya called it "IPO 2.0" and reserved the ticker symbols IPOA to IPOZ, one SPAC for each letter of the alphabet. In November 2020 he told Kara Swisher on her podcast that he was "all in."

But on Sept. 20, Palihapitiya said he was closing two SPACs and returning $1.6 billion. He said he couldn't find any companies to buy for good prices. It was as if he were folding his cards and walking away from the table. The SPAC king was saying the SPAC boom is over.

In hindsight, maybe SPACs were too good to be true. The term is short for special purpose acquisition companies, but you can think of them as big piles of money that trade on the stock market. For every $10 someone invests, they get a unit. Then deal sponsors such as Palihapitiya take the pile and typically have two years to find and buy companies. They generally get to keep 20% of the shares for themselves.

Blank-check companies date to the 1980s, but they developed a bad reputation after some deal sponsors simply pocketed the money. Then Palihapitiya used one in 2019 to take Richard Branson's space tourism venture public. Although the company had yet to bring any customers to space, its stock promptly tripled. The SPAC boom was on. Sports-betting company DraftKings Inc. and electric-truck startup Lordstown Motors Corp. went public through SPACs the next year, and financiers raised $83.4 billion for the blank-check companies.

Palihapitiya said SPACs were democratizing finance, allowing regular investors to get in early on hot companies. "Using the language of inequality, it evens the playing field," he said in a February 2021 interview with Bloomberg Televsion. "SPACs are here to stay." For a time, it seemed he was right. The share prices of his six SPACs had more than doubled on average by then.

One of the biggest perks, as far as promoters were concerned, was that SPACs had looser rules around what one could say when hyping a company. Lying still wasn't allowed, but some of the things boosters were saying weren't exactly true.

Many of the companies were startups that had yet to sell much of anything, yet they routinely projected billions of dollars of revenue. About 65% of SPACs missed their revenue projections, according to a January 2022 study that looked at performance from 2004 to 2021.

Palihapitiya talked up his SPAC companies, too. On Twitter and business television, he said whatever company he was taking public was about to revolutionize its field. When he took Virgin Galactic Holdings Inc. public, he pitched it on CNBC as a sure thing, saying the business was "largely now de-risked and ready to commercialize and monetize." The company, which projected $210 million in revenue for 2021, has still yet to make a commercial flight. Its stock is down 91% from its February 2021 peak, to about $5 a share.

The ecosystem depended on SPACs and their targets going up to keep buyers eager to buy shares in the next one. But when the Federal Reserve started raising interest rates this year and the stock market started to fall, SPAC companies fell harder. Since its 2021 peak, the De-Spac Index of 25 companies that went public by SPAC was down more than 80% as of the Sept. 20 close. Stocks that went public through Palihapitiya's SPACs have fallen 60% on average over the past year. That made startups nervous about using him to go public.

Some high-profile investors have dropped plans for SPACs, including Paul Singer's Elliott Management Corp. Still, there's a glut of SPACs that have yet to find targets. The good thing for investors is that SPACs have a built-in self-destruct mechanism: If they don't find a company to buy in time, they have to give investors their money back. More than 500 SPACs sitting on a total of $150 billion are looking for companies to buy, according to data from SPAC Research. Many will likely end up returning the money as Palihapitiya is doing.

In typical government timing, now that the party is over, the US Securities and Exchange Commission is coming to mop up. In March the SEC proposed rules that Chairman Gary Gensler said would treat SPACs the same as regular initial public offerings, requiring more disclosure and enforcing the same liability for false projections. In a statement, Gensler said SPAC underwriters "should have to stand behind and be responsible for basic aspects of their work." Hester Peirce, the lone Republican commissioner, protested, saying the changes would likely kill the SPAC market.

The last merger that Palihapitiya orchestrated was in August, when he used one of his SPACs to take public a company developing a video game cure for attention-deficit/hyperactivity disorder. "@AkiliLabs is creating a new class of medicine," he tweeted when the deal was announced. The stock has already fallen 70%. Palihapitiya likely made out just fine, though. He sold more than $300 million in stock in Virgin Galactic alone before its price crashed. A spokesman for Palihapitiya said that he and his company, Social Capital Holdings Inc., had invested hundreds of millions of dollars in his SPACs and roughly doubled it, earning $750 million.

Palihapitiya still has two smaller SPACs looking for deals with biotech companies. But in the letter to investors about the SPACs he was closing, he didn't sound like he still believed in his revolution. "Our view on SPACs remains consistent since our first deal–SPACs are just one of many tools in our toolkit to support companies," Palihapitiya wrote. He said in a recent interview that his biggest investment is now in a rooftop solar company and that he might take it public in the next few years. He didn't mention using a SPAC. Ⓑ
—*With Bailey Lipschultz*

DAVID PAUL MORRIS/BLOOMBERG

DANIEL ACKER/BLOOMBERG

Why GM Is Taking the Slow Lane in the EV Race

CEO Mary Barra says her slew of electric models due next year will prove the wisdom of the automaker's deliberate pace

Five years ago, General Motors Co. boss Mary Barra was the bold one. She announced a plan to spend $20 billion developing a fleet of electric vehicles—20 models by 2023, she promised—underpinned by a new battery pack the company now calls Ultium. Overnight, investors started to think of GM less as a 20th century relic and more like a heavyweight challenger to Tesla Inc. In the following years, GM twice increased the promised investment, to $35 billion, and by early 2021 its share price had doubled.

In the meantime, GM fell behind key rivals—namely Ford Motor Co., which introduced the Mustang Mach-E in 2019 and, earlier this year, ▶

Edited by James E. Ellis and David Rocks

◀ an electric version of its F-150 pickup, the bestselling vehicle in the US. South Korea's Hyundai Motor Corp. and Kia Corp. have come on strong with a pair of EVs priced just over $40,000. And Volkswagen AG's release of an ambitious slate of models with its own dedicated EV platform has also started with two models for global markets. Sure, Chevrolet introduced the electric Bolt compact in 2016 and an electric version of its hulking Hummer late last year, but to date Ultium has been slow to show results.

The GM faithful say nothing is wrong, that the company is simply pursuing a more deliberate strategy—that its key building blocks are a dedicated electric vehicle platform and the factories to go with it. Barra's first Ultium battery plant opened this month, and the second will arrive late next year; now comes the blitz of EVs that GM is counting on to win over consumers. Central to her plan are electric versions of its top seller, the Chevy Silverado pickup, and after that the Equinox, a small SUV. GM will price the electric Equinox at $30,000, saying it will transform EVs from a plaything for the wealthy into an accessible mode of transportation. "I feel confident that we're in a leadership position," Barra says.

In GM's telling, Ultium is really about changing the way cars are made. Rivals, the company says, largely converted existing models to make EVs, so they were faster to market but will be slower to develop a full fleet. In Ultium, the battery makes up the floor of the vehicle and can be snapped together in various ways like Lego bricks to make anything from compacts to Hummers—and allow the company to halve the time it takes to develop a new model. Forecasters such as Bank of America Corp. and LMC Automotive expect GM to take the lead in US electric vehicle sales as soon as 2025 and no later than 2028.

Earlier attempts didn't yield much success. GM started discussing a new model called the Bolt in 2012 and signed up Korean battery maker LG Energy Solution Ltd. as a partner. But GM vets were reluctant until then-CEO Dan Akerson ordered them to proceed, appointing an engineer who'd been working in human resources to oversee the effort: Mary Barra. Despite disappointing sales of GM's previous plug-in models, Akerson found inspiration from Henry Ford, who started working on mass production of cars when American roads were little more than dirt paths. "The Bolt was a dogfight," Akerson says. "But sometimes you gotta play ahead."

Barra demanded the most of her team from the jump. Steve Girsky, a former vice chairman at GM, recalls a meeting to discuss the range the Bolt would need. Some engineers suggested 150 miles would suffice, but Barra wanted more. Tesla, after all, was on the cusp of introducing the Model S, with 265 miles of range for its top-shelf version, so anything less than 200 miles would mean "we're going to embarrass ourselves," Girsky recalls her saying. The first Bolt hit the market with its range of almost 240 miles.

▲ President Joe Biden tours a GM electric vehicle assembly plant with Barra in Detroit in 2021

Barra's tenacity impressed Akerson and helped set the stage for her elevation to the top job in 2014, the first woman to hold the position at GM—or any other global automaker. But when she took over, the company was engulfed in the recall of a faulty ignition switch blamed for 120 deaths and hundreds of injuries. Once that problem had been cleaned up, she set about streamlining money-losing international operations that GM had been building since the 1920s. In 2019 she closed three plants at home, sparking a 40-day strike by autoworkers and countless angry tweets from then-President Donald Trump.

Throughout it all, Barra had to tussle with reluctant insiders accustomed to making billions selling gas guzzlers, and who had been burned by previous attempts at battery-powered cars. In 1996, GM introduced the EV1, an electric two-seater that racked up $2 billion in losses, with the company ultimately crushing cars it took back at the end of leases. The Chevy Volt, a plug-in hybrid first produced in 2010, could run purely on electric power—besting Toyota Motor Corp.'s Prius, which always burns gasoline—but somehow never took off.

Around the time Barra showed up, GM's engineers and designers had been tinkering with what would become the Ultium battery, saying it could be used in 18 types of vehicles, from compacts to luxury

▲ 2024 Chevrolet Equinox EV

▲ 2023 Cadillac Lyriq

▲ 2024 Chevrolet Silverado EV

FACTORY: MANDEL NGAN/GETTY IMAGES. EVS: GM. BOOK COVER: COURTESY HARPERCOLLINS sedans to pickup trucks. Barra was impressed and soon summoned top managers to help her decide how the plan would be presented and how many EVs GM should promise to bring to market.

With no cars ready for production, some in the room suggested stretching out the timeline so GM could tout a bigger headline number of expected models. Marketing chief Alan Batey countered that they should be conservative with any promises. With consumers showing scant interest in EVs and Tesla losing almost $2 billion in 2017, the company could more easily pull back if sales failed to take off. One idea was to announce 10 EVs and plug-in vehicles globally by 2022—without specifying that most of those would be aimed at China, where GM needed battery-powered models to meet local regulations. “It was the natural tension between the here and now and current earnings vs. investing for the future,” says Dan Ammann, a former GM president who was at the meeting.

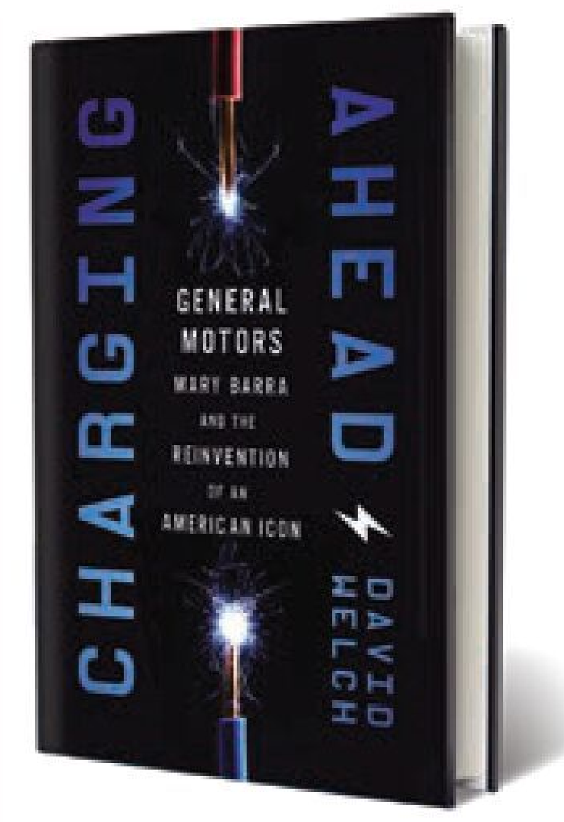
At the end of the meeting, a public-relations director named Ray Wert argued that GM should announce a more ambitious number of models and tell the world that “GM believes in an all-electric future.” Barra’s response: “I’m not sure we do.” At almost the same time, Ammann said, “But we don’t.” The meeting broke up with no conclusion.

Later, while Wert was chatting with GM President Mark Reuss, Barra stopped in and asked whether he believed in an all-electric future. Reuss, a GM lifer with a passion for racing who loves Corvettes and Camaros, replied, “Actually, I do,” saying that it would give GM a simple, straightforward mission to focus on and that the company would have to get there at some point anyway. “If you’re in, I’m in,” Wert recalls her saying.

Reuss suggested starting with a Hummer: That would show truck and SUV fans—not your typical EV buyers—that battery-powered vehicles can also be big and brawny. Josh Tavel, who led the program, said he could deliver it by 2023. Barra told him to get it ready in half that time. Tavel resisted. Barra insisted. It hit showrooms in late 2021, just as startup Rivian Automotive Inc. was introducing its electric truck. “Can you imagine if Mary had listened to me?” Tavel says. “Rivian would have been there first.”

Barra had little time to celebrate. Just as Hummer production started, a shortage of semiconductors hobbled the industry. GM suffered more than most, allowing Toyota to take the US sales crown for the first time. And batteries in the Bolt had a rare but nasty habit of igniting, forcing the company to pause the model’s sales for nine months. That didn’t speak well for GM’s EV efforts even though Ultium was not behind the problem. GM ultimately fixed the battery, and it secured enough chips to overtake Toyota in sales this year. But sentiment had soured. Even Adam Jonas, an influential Morgan Stanley analyst who’d lavished Barra and GM with praise for two years, downgraded the stock in February, saying the risks of executing the Ultium plan were “more than we previously believed.”

Barra remains unbowed. At a recent Q&A session with investors, she insisted that the market hasn’t fully understood her strategy. Once the Ultium vehicles hit showrooms—at least a half-dozen, ranging from a trio of mass-market Chevys to a $60,000 Cadillac SUV called the Lyriq—she’s certain it will. “When people look at General Motors and the EV transformation we’re right in the middle of, I don’t think they understand the power of Ultium,” she said. “It’s no compromises.” —*David Welch*



▲ This article was adapted from *Charging Ahead: GM, Mary Barra, and the Reinvention of an American Icon*, by David Welch, Detroit bureau chief for Bloomberg News

THE BOTTOM LINE GM’s planned $35 billion investment in EVs has advanced slowly, but the Ultium battery-pack technology it’s developed can be used on multiple vehicles.

No, Wall Street Can’t Ignore Walmart

● Its move into finance could chip away at some of traditional banks’ most profitable fees

Alarm bells sounded on Wall Street in early 2021 when a financial-technology outfit backed by Walmart Inc. lured two highly regarded executives away from Goldman Sachs Group Inc. The world’s largest retailer had been trying for years to expand into financial services. Perhaps, the thinking went, it was finally poised to take on big banks.

Eighteen months later, the fintech business—known as One—is emerging from the shadows with an upgraded app and a looming marketing push. For now, the venture looks less like a threat to the masters of the financial universe and more like a tool for Walmart’s push to keep pace with ▶

◀ Amazon.com Inc., which has grown beyond its e-commerce roots into a behemoth offering consumers everything from prescription drugs to their favorite television shows to groceries. But traditional financial institutions still could face trouble if the giant brick-and-mortar retailer aggressively adds banking to its line of consumer businesses.

The overarching goal for Walmart is to build an array of services that complement its low-margin retail operations while keeping shoppers inside the company's "ecosystem," as the industry lingo goes. For Walmart, that means expanding not only through banking services but also through digital advertising, health care, an online marketplace with third-party sellers, and a membership program not unlike Amazon Prime. "We're building a different business, and we're making progress," Chief Executive Officer Doug McMillon said on the company's latest earnings call in August.

Walmart still lags far behind Amazon in online sales, but it's making headway on other fronts. In banking, the aim is to boost customer loyalty by offering basic financial services and embedding itself more deeply in customers' lives. "You're trying to make your ecosystem the most convenient way to transact," says Simeon Gutman, a retail analyst with Morgan Stanley. "It keeps more eyeballs in the same place."

For One, which is majority-owned by Walmart but operated independently, the quickest route to growth probably runs through the customers Wall Street has long ignored—or milked. For instance, the nation's biggest banks collected a hefty $8 billion last year in overdraft fees, the average $30 charge they impose every time customers spend more than they have in their accounts. Customers who pay such fees again and again generate over half the profits lenders glean from their mass-market consumer checking account offerings.

Almost half of the 7.1 million Americans who are unbanked said they didn't have enough money to meet minimum balance requirements, while more than a third blamed high account fees, according to data collected by the Federal Deposit Insurance Corp.

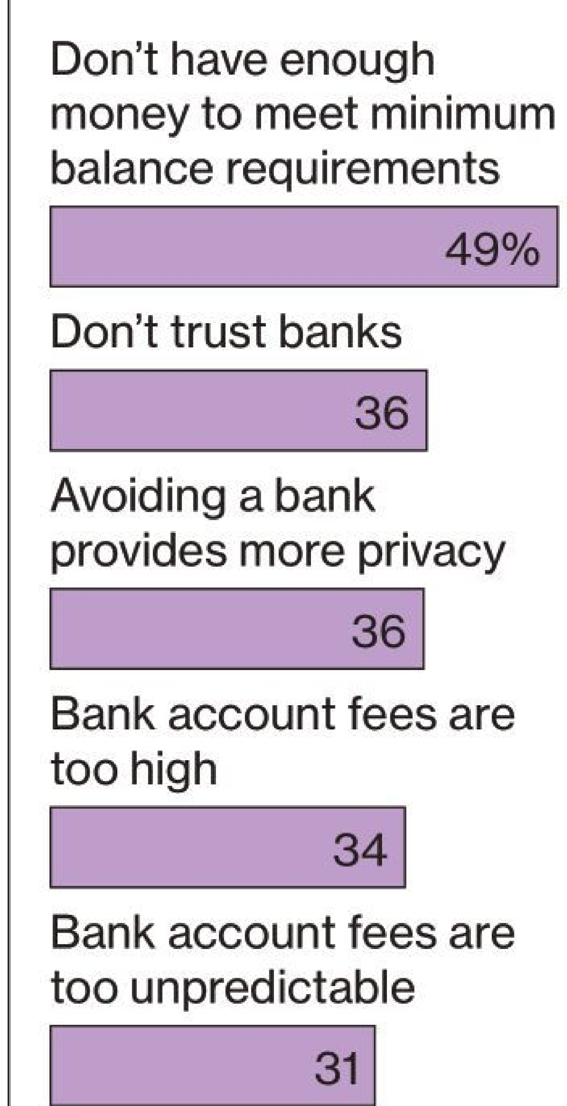
That's where One could see an opportunity. It promises not to charge any monthly fees and offers $200 in overdraft protection at no cost. Initially, it will offer a bank account and accompanying debit cards. But the company eventually hopes to offer a bevy of other products, from loans to investing, in an effort to become a one-stop shop for customers' financial needs.

For now, the main way the company will make money is from its debit card. Each time a customer uses the card, merchants pay a small fee to the bank behind it. Because One is partnered with Coastal Community Bank, that fee is even larger than it would be if the company had partnered with a large bank like, say, JPMorgan Chase & Co. or Bank of America Corp. Federal law lets smaller banks collect a higher fee.

That model is one way Walmart is likely ruffling some Wall Street feathers. In 2020 a cadre of JPMorgan and Capital One Financial Corp. executives met with the Federal Reserve to air their grievances with the way they claim regulations unfairly benefit financial-technology upstarts. Because these newcomers can partner with small banks and make more money from their debit card operations, they're able to offer checking accounts without all the usual fees that large traditional banks claim they must impose for the business to be profitable.

"There are examples of unfair competition," JPMorgan CEO Jamie Dimon mused to analysts on a conference call last year. "People who make a lot more on debit because they operate under certain things. The only reason they compete is because of that."

▼ Reasons unbanked US households don't have a bank account



For its latest foray into finance, Walmart can draw inspiration from its offerings abroad. In Mexico, the company offers a digital payments app called Cashi. In India, PhonePe—a fintech that's owned by Flipkart, which in turn is majority-owned by Walmart—offers an advanced

ILLUSTRATION BY SHIRA INBAR. FOGERTEY: JEENAH MOON/BLOOMBERG. DATA: FDIC array of financial services including payments and insurance offerings.

In the US, Walmart can also lean on more than a decade of experience with its in-store MoneyCenter locations, which already allow customers to cash checks, pay bills, access tax-preparation services, and send money overseas. The centers–which Walmart formed in 2007 after it abandoned a yearslong effort to secure a banking charter–have prime real estate in most of the retailer's stores, often housed near the front with bright yellow walls. Prices for the different services are usually displayed on a wall, akin to a fast-food menu.

To be sure, One is entering a field littered with fintechs that have come before it. Companies such as Chime and Current have plastered their names all over subway cars and billboards across America, adding millions of customers to their ranks by offering spiffy apps. Still, with One's revamped app added to the mix, banks will now essentially be going up against a fintech with a massive branch network. Walmart has more than 4,700 stores in the US, plus 600 Sam's Clubs. About 90% of the US population lives within a 10-minute drive of a Walmart store, according to the Bentonville, Ark.-based company. And the retailer has about 1.6 million employees in the US–a potential customer base that One can target without a big advertising budget.

At the helm of this brand-new financial-services competitor is Omer Ismail, who spent almost 20 years at Goldman and most recently ran the company's burgeoning consumer business. And the upstart's board includes others with expertise in consumer finance, such as Meyer Malka, managing partner of Ribbit Capital, which owns a stake in One and has made bets on financial startups like Coinbase Global, Credit Karma, and Robinhood Markets. John David Rainey, Walmart's new chief financial officer, who joined from the payments giant PayPal Holdings Inc., is also expected to sit on the board.

One is planning a deliberate start to its expansion, not a big bang. That shouldn't cause too many worries at big banks–yet. But Walmart's trusted relationship with tens of millions of Americans means it's not just another upstart. "All you have to do is walk in the Walmart and see the line at the MoneyCenter," says Tony DeSanctis, a senior director at consulting firm Cornerstone Advisors. "There's clearly a customer base there to be had." *—Brendan Case and Jenny Surane*

THE BOTTOM LINE Walmart operates more than 5,000 stores in the US. That could provide a potent network of banking locations if the giant retailer decides to go all-in on financial services.

BW Talks Katie Fogertey

Her prior life as a Wall Street analyst has given Shake Shack Inc.'s chief financial officer a unique perspective on the restaurant business. We talked to her about how the pandemic and inflation have affected the chain. —*Matt Miller*

● Holds a BSBA in accounting and finance from Washington University in St. Louis ● By the end of her 16 years at Goldman Sachs, she was lead equity analyst for the restaurant sector, with expertise on industry personnel and technology ● Named Shake Shack's CFO in June 2021

How has inflation hit Shake Shack?

We, as well as the entire restaurant industry, have had to pass along a portion of the inflation that we're facing from wages, the price of beef, dairy, eggs, even paper and packaging. Everything costs us more. We're lucky that we're highly focused on delivering a great guest experience with premium, elevated ingredients [and] continuing to separate ourselves from traditional fast food. Guests still appreciate that.

Covid did change your business, right?

This company had hardly any digital sales prior to the pandemic. When Covid hit, we went full force on digital with the app, web, [and] third-party delivery. Now we have 43% of our sales coming from digital channels—and that doesn't count our in-store ordering kiosks—even as our in-Shack business doubled.

What are the big advantages of digital?

We want our guests to think of our digital channels as a channel of choice, ordering ahead on their app or on [the] web, and picking up and doing delivery through both of those channels. They're able to sit with the menu and understand it. But then we also can target our messaging to them when we have exciting new food products, are launching limited-time menu offerings, or run promotions. We're able to get very strategic about who we're targeting digitally.

How important a role do kiosks play?

They digitize the ordering process. They have pictures of all our menu items, and it really carries the guests through the journey. Guests gravitate to kiosks because they want some time to sit with a menu, but we see that they're more likely to order our limited-time offers and premium-ize their products. They spend more with us, and we can redeploy labor. We're excited to expand them to more Shacks.

● Edited for clarity and length.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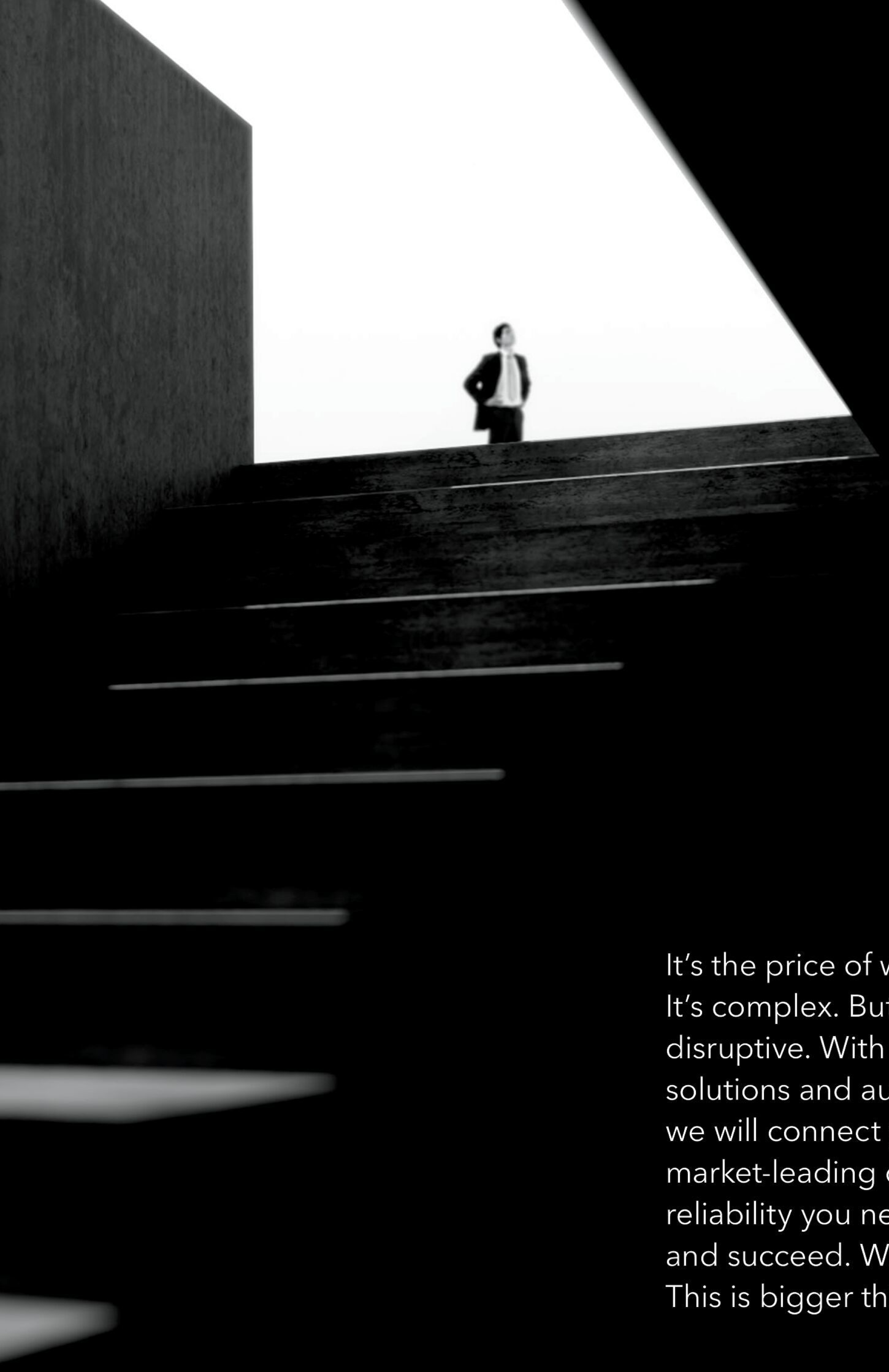
change.



2 TECHNOLOGY

Crypto's $8.6 Billion Private Eye

Chainalysis helps governments track those who may still believe that Bitcoin is anonymous

▲ CEO Michael Gronager

Edited by Joshua Brustein

In May 2021 hackers initiated a cyberattack against Colonial Pipeline Co., the company behind the US's largest gasoline pipeline. It was the kind of incident American officials had feared for years. Colonial was forced to halt operations for six days, which led to panic buying, shortages, and an increase in the price of gas. The company paid the hackers a ransom of 75 Bitcoin, worth about $4.4 million at the time.

About a month later, the US Department of Justice announced it had reclaimed almost all the Bitcoin. Criminals favor cryptocurrencies in part because they're supposedly hard to trace, but the FBI had tracked the ransom Colonial paid to an address tied to DarkSide, a Russia-linked cybercrime group associated with the attackers, and swooped in to seize it. It was a breakthrough in the fight against cyberextortion, signaling that US law enforcement could get to assets held by attackers far outside the country. "There is no place beyond the reach of the FBI," Deputy Director Paul Abbate said in a statement.

The bureau had relied on help from a company called Chainalysis Inc., which has developed software to trace the entities involved in crypto transactions and where the funds end up. The startup has become a key partner for the US and other governments investigating crypto-related crime, the establishment's private eye in an historically anti-establishment industry. "There's hardly been any case of any significance" in the world of crypto crime that "we haven't been involved in," says Gurvais Grigg, Chainalysis' global public-sector chief technology officer, who worked for the FBI for 23 years.

The company, based in New York, is a leader in a part of the crypto industry known as blockchain analytics, which also includes companies such as SoftBank-backed Elliptic Enterprises and Mastercard's CipherTrace. Blockchains are records of transactions; though they don't contain personally identifiable information, it's possible to reconstruct detailed accounts of how crypto moves between various wallets. Chainalysis gathers huge amounts of public data from blockchains, then adds information it gathers itself or gets from clients. It uses machine learning, statistical analysis, and other techniques to process the data, cluster wallets together, and understand where the crypto went.

Caroline Malcolm, Chainalysis' head of international policy, puts it this way: "It's a bit like a street map, but it's a street map without any names of the streets, without any names on the buildings. What we do is provide an overlay, which tells you what street you're on, what building that is." Chainalysis doesn't actually connect its map to the names of real people, Malcolm says, leaving that step to law enforcement professionals, who can often connect accounts to their owners by obtaining records from crypto exchanges or through other means.

Companies that do this kind of blockchain analysis put the lie to the idea that transacting in cryptocurrencies guarantees anonymity. "It's actually pretty frightening just how much they can figure out about what you're doing on public blockchains," says Roger Ver, whose early advocacy for virtual currencies earned him the nickname Bitcoin Jesus. "It's like your bank account or credit card bill is posted online so everybody can see."

Chainalysis, founded in 2014, has over 700 customers in more than 70 countries. About two-thirds of its revenue comes from public-sector clients, according to co-founder and Chief Executive Officer Michael Gronager. It also serves the private sector with Know Your Transaction, or KYT, a product that monitors transactions in real time for clients seeking help with regulatory compliance, including crypto exchanges, banks, and other businesses. The company is "basically doubling" its revenue every year, Gronager says, though it isn't yet profitable. Investors valued Chainalysis at $8.6 billion in its most recent fundraising round earlier this year, which was led by GIC, a Singaporean government wealth fund.

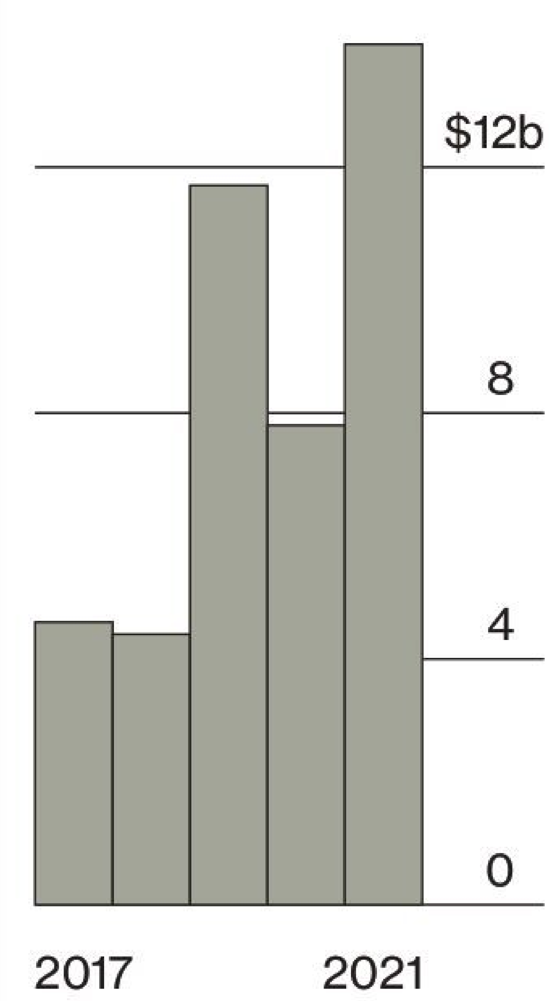
Gronager, 52, is a friendly Dane with a doctorate in quantum mechanics. He got seriously interested in crypto in 2011, at which point he downloaded the Bitcoin source code to understand how it worked. He soon helped found the crypto exchange Kraken. Gronager was working as Kraken's chief operating officer in 2014 when Mt. Gox, once the world's largest crypto exchange, filed for bankruptcy, saying it had lost almost half a billion dollars in virtual coins after a hack. The bankruptcy trustee hired Kraken to help trace the missing Bitcoin. Gronager flew to Japan to work on the probe and eventually left Kraken to work on the project full time, then began coding the prototype for Chainalysis' software.

Chainalysis soon began playing a role in many of the marquee investigations into blockchain-based malfeasance. It helped US officials recover more than $1 billion in funds connected to Silk Road, which was a prominent dark web marketplace, and track funds the North Korean hacking group Lazarus had stolen and laundered. In 2019 it helped unmask the operator of Welcome to Video, the world's largest site for child sexual abuse materials. In a report published earlier this year, Chainalysis said that illicit crypto volume reached an all-time high of $14 billion in 2021, but also that such activity accounted for just 0.15% of all crypto transactions.

Chainalysis is growing fastest in the Asia-Pacific region, where it's opened offices in Australia, Japan, Singapore, and South Korea. Gronager says the ▶

"George Orwell would be proud"

▼ Value of illicit cryptocurrency activity



PHOTOGRAPH BY WILLIAM MEBANE FOR BLOOMBERG BUSINESSWEEK. DATA: CHAINALYSIS

◀ company's continued expansion—it now employs 850 people—helps secure its dominance, because the more data it collects the more its products improve, making it harder for rivals to catch up.

Gronager and his colleagues contend they're engaged in the good fight, saying that cracking down on criminal use of crypto would bring credibility and growth to the industry. Not everyone involved in crypto agrees. Some people "think Chainalysis is the devil," says Josh Olszewicz, head of research at Valkyrie Investments, a crypto fund manager headquartered in Nashville. Other people "think they're a necessary service." He says he sees the company as a "net good" for crypto.

Ver clearly falls in the first camp. "George Orwell would be proud," he says. "I guess the NSA could claim they're increasing trust in the internet because they're spying on everybody."

Gronager dismisses such criticism as "echoes of the anarchists from the early days." But he does acknowledge the power of Chainalysis' software and says the company is sensitive about which governments it works with. It doesn't do business with sanctioned states such as Iran or Russia, and doesn't work with China, though it does have private-sector customers in Hong Kong. An ethics committee weighs in on complicated cases, Gronager says, and sometimes seeks the input of "US partners" in the public sector before deciding to take on clients.

Chainalysis' Grigg, the FBI veteran, says people have the right to financial privacy, but technology shouldn't be "warrant-proof." Some in the crypto world, though, place a higher value on creating networks where transactions are untraceable. In 2014 a group of developers released Monero, a cryptocurrency created specifically to protect privacy. If Bitcoin and Ether are the crypto equivalent of posting your credit card bill online, Monero aims to be virtual cash. Predictably, Monero has become popular for criminal activities, and it's used in darknet markets and for extortion. In 2020 the Internal Revenue Service awarded contracts worth as much as $625,000 each to two companies to create a tool for cracking Monero and the Lightning Network, a crypto payments protocol. Chainalysis was one of the recipients.

The company wouldn't comment on whether it has succeeded. Gronager, however, is less circumspect. Privacy coins are "not as anonymous as they think," he says. "No matter what you do, you leave a pattern." —*Tom Redmond, with Muyao Shen, Olga Kharif, and Allyson Versprille*

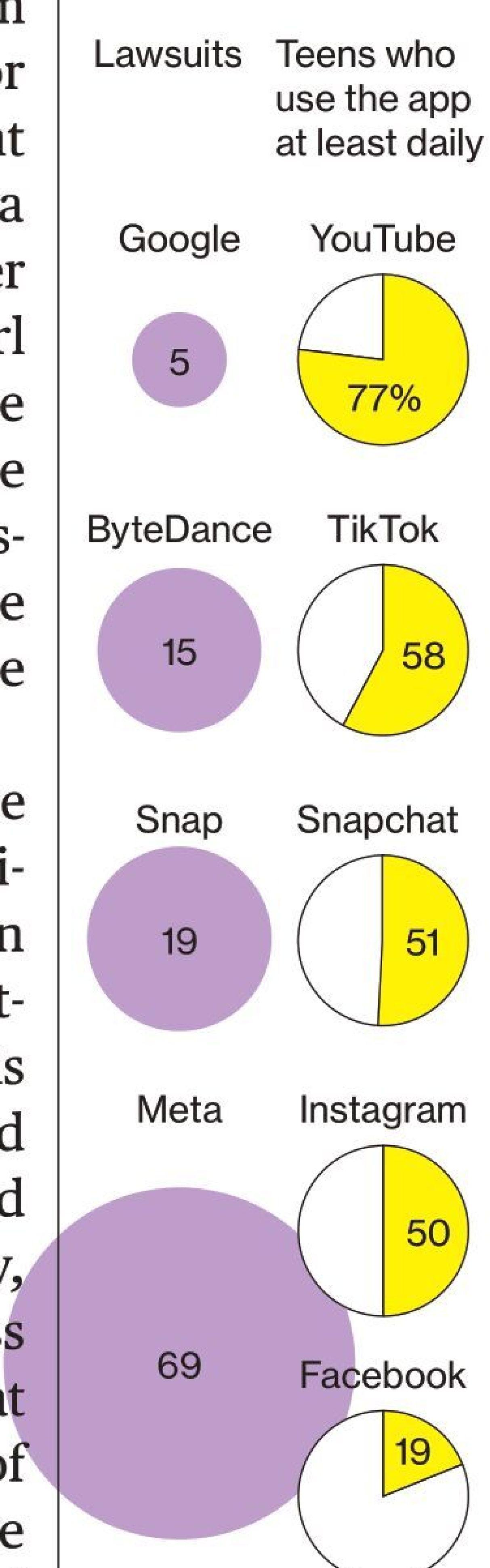
THE BOTTOM LINE Governments rely on Chainalysis to help trace targets of law enforcement, many of whom have used the technology behind Bitcoin to hide their identities.

When the Scrolling Never Stops

● Dozens of lawsuits accuse social media companies of designing addictive products that are harming young people

A 16-year-old girl in Utah becomes so obsessed with her body image after getting hooked on Instagram that she develops anorexia and bulimia. A boy from Michigan goes from watching YouTube videos for several hours a day at age 9 to binging all night on TikTok and Snapchat, then ends up sharing a nude photo of himself on Snapchat with a stranger who circulates it widely online. A Connecticut girl struggles for more than two years with an extreme addiction to Instagram and Snapchat before she succumbs to severe sleep deprivation and depression and takes her own life—at age 11. Under the platforms' terms of use, she shouldn't even have had accounts before she turned 13.

▼ Federal lawsuits filed against social media companies*



These children and others like them are the face of a novel effort to use litigation to pin responsibility for the alleged dangers of social media on the companies that run the most popular platforms. More than 70 lawsuits have been filed this year against Meta, Snap, ByteDance's TikTok, and Google centering on claims from adolescents and young adults who say they've suffered anxiety, depression, eating disorders, and sleeplessness as a result of their addiction to social media. In at least seven cases, the plaintiffs are the parents of children who've died by suicide. The suits make claims of product liability that are new to social media but have echoes of past campaigns against tobacco companies and automobile manufacturers.

The idea that social media companies shoulder responsibility for the potential damage their products cause to young people came to the fore late in 2021 when former Meta Platforms Inc. employee Frances Haugen came forward with documents about its internal operations. Among Haugen's allegations was a claim that the company was knowingly preying on vulnerable young people to boost profits. Haugen revealed an internal study at Meta-owned Instagram that found evidence that many adolescent girls using the photo-sharing app were suffering from depression and anxiety around body-image issues.

At the least, the new legal front presents a public-

ILLUSTRATION BY PATRIK MOLLWING. *SOME LAWSUITS NAME MULTIPLE COMPANIES AS DEFENDANTS. DATA: US MULTIDISTRICT LITIGATION DOCKET AS OF SEPT. 20, PEW RESEARCH CENTER relations challenge for already-embattled tech companies. Their defense relies on Section 230 of the Communications Decency Act, the 26-year-old federal statute giving internet companies broad immunity from claims over harmful content posted by users. The law has so effectively shielded them from legal claims that voices on both the political left and right have called for its reform. For good measure, the companies also cite their constitutional free-speech rights as publishers to control their content. It may be months before a federal judge rules on whether to let the litigation proceed.

"All sorts of services may be 'addictive' in the habit-forming sense–from television to video games to shopping for clothes–but the law does not impose liability simply for creating an activity which some may do too much, even where, as here, it allegedly results in tragedy," Snap Inc. argued in a court filing seeking dismissal of the case filed by the mother of the 11-year-old girl.

The lawsuits are crafted to get around Section 230 by focusing on the algorithms the companies use to curate and deliver content rather than the content itself. Jen King, a research fellow at Stanford's Institute for Human-Centered Artificial Intelligence who studies algorithmic manipulation, says there's been little clinical research into social media addiction. The legal approach may be novel enough, she says, that "it has a greater chance of success, especially after Frances Haugen's whistleblower leak."

Spokespeople for Snap and Meta's Instagram declined to comment on pending litigation. But they said in emails the companies are working to protect their youngest users, including by offering resources on mental health topics and improving safeguards to stop the spread of harmful content. Representatives for ByteDance and TikTok didn't respond to requests for comment. A Google spokesperson said it's "invested heavily in creating safe experiences for children," and cited parents' ability to limit screen time or access to certain content.

In a rare product liability case that survived a fight over Section 230, a federal appeals court in California ruled last year that a lawsuit could proceed over a Snapchat filter that recorded real-time speed and allegedly encouraged reckless driving by teens, resulting in a fatal accident. But Meta has argued in a court filing that the ruling on the speed filter isn't relevant to the case of the 11-year-old girl, because the "danger" to drivers in the Snap case was the speed filter itself, not any content created by its users.

Eric Goldman, a Santa Clara University law professor who's written extensively about Section 230, agrees that the rationale put forth in the Meta case is weak. "If anything, the argument that the algorithms are to blame really highlights what the plaintiffs are suing about is third-party content," he says. Beyond that, Goldman says it'll be difficult to prove that social media use alone is to blame for health issues in today's "complex society," in which kids are exposed to all kinds of influences.

Another hurdle for plaintiffs will be establishing that the algorithms that decide what content social media users see should be treated just like other defective "products," which typically include tangible consumer goods, says Adam Zimmerman, a law professor at Loyola Marymount University. Even if the algorithms do qualify as products, platform users might be barred in some states from suing for "pure emotional harm" if they've suffered no physical injury, he adds.

In the most extreme cases, though, the harm has been more than emotional. Janet Majewski,

whose 14-year-old daughter, Emily, killed herself, sued TikTok, as well as ByteDance, Snap, and Meta in August, saying the companies are to blame for excessive screen time that took Emily down a dangerous path.

Majewski, who lives in Grovetown, Ga., recalls checking Emily's phone a week before her death but says she didn't see anything concerning. "As parents, we're not seeing what they're seeing," Majewski says, explaining how children and teens absorb social media differently than adults. The companies' goal "is to get as much time from these kids on their product, but there's no safeguards," she says. "They need to change what they're feeding these children–change the algorithm so it doesn't take them into these dark places." —*Joel Rosenblatt*

THE BOTTOM LINE Plaintiffs are implementing a novel and uncertain legal theory in an attempt to hold platforms responsible for problematic social media use among young people.

3

FINANCE

Let the Wall Street Culls Begin

● After a pandemic pass, bosses from Goldman's David Solomon on down are cutting jobs and maybe bonuses

JPMorgan Chase and Co. executives were in a bind. Amid a flurry of job-hopping on Wall Street last year, Chief Executive Officer Jamie Dimon had told the bank's US staff it was time to return to offices on a regular basis. But with Covid-19 cases climbing at the time, some managers were reluctant to take a hard line with staff who could quit. A number of divisions were already wrestling with resignations and racing to refill positions.

So an informal strategy emerged to shield the rank and file from the CEO's dictate without antagonizing him, according to people with direct knowledge of the matter, who asked not to be named discussing internal practices.

Anyone who Dimon might possibly walk the halls looking for, such as a managing director, needed to come into the office. They just couldn't take the risk. Many others, though, were given leeway to keep working from home discreetly. The recruiters were busy enough. (Joe Evangelisti, a spokesman for the bank, says assertions that such a system existed are "false.")

One year later, as the economy slows and financial markets slump, the mood on Wall Street is quickly changing. The sense that it's an employee's job market where the rank and file can set their own terms is fading. Ignoring edicts from the C-suite is now a dangerous game. Few would dare.

At a small but growing number of firms, job cuts are back on the table. This month, in a warning shot heard around the financial world, Goldman Sachs Group Inc. CEO David Solomon, another return-to-office stalwart, resumed the firm's practice of periodically culling underperformers to make way for new talent—an unsavory ritual that had been put on hold because of the pandemic.

As Goldman goes, so go competitors, and it takes only a few of them to tip the scales back in employers' favor. Even staff at Wall Street firms that aren't known to be trimming payrolls won't be eager to risk their jobs when opportunities elsewhere are drying up.

To be clear, no one is expecting a massive wave of layoffs like what unfolded after 1987 or 2008. It's likely to be a lot smaller and more subtle than that. And yet, after years of extreme job security and fat bonuses, the shift will feel acute and act as a harbinger of what's likely to come for white-collar workers across corporate America.

Edited by David Papadopoulos

PHOTO ILLUSTRATON BY 731. SOLOMON: DANIA MAXWELL. FIGURES: ALAMY. HAND: 123RF

Wall Street executives see the culls as part of the life cycle: Let go of the laggards and enlist fresh talent for an ever-evolving business that requires energy and stamina. Unwillingness to make cuts is seen as poor financial discipline and a sign of profligacy.

"It's been this really abnormal situation where companies were in hiring mode and never letting anybody go," says Andy Challenger of Challenger, Gray & Christmas, which advises employers on workplace reductions. "The first eight months of this year was the lowest level of layoffs that we've ever tracked." But it will go up from here, Challenger says.

Indeed, in pockets throughout the banking industry, managers who were racing to fill empty seats a year ago are starting to pare back. Even minnows in the space, for example, Bank of Montreal's capital-markets division, are cutting jobs to respond to weakening market conditions. And it goes well beyond the rarefied world of investment banking.

Wells Fargo & Co.'s home-lending unit has laid off hundreds of people in the past few months in cities such as Charlotte, Des Moines, Minneapolis, and Portland, Ore., people familiar with its cuts have said. In some cases that's included entire teams and managers. Even in the banking hinterlands, a credit union in North Liberty, Iowa, recently cut 5% of its workforce as rising interest rates slowed mortgage refinancings.

Driving the shift on Wall Street is a merciless focus on the bottom line, which has managers sweating the inevitable comparisons to 2021, a year of spectacular hauls.

In this year's first half, revenue from investment banking—the business of stitching together mergers and helping companies raise debt and equity—slumped 43% at the five biggest banks. Through the first nine months, the trend is continuing, with JPMorgan recently warning that its banking revenue this quarter could be half of what it was a year earlier.

Nagging worries about the health of the economy and the Federal Reserve's raising interest rates ever higher are throttling investor demand for stocks and bonds and discouraging corporate executives from calling up their bankers to map out potential deals.

The threat of job cuts takes center stage, but another concern is creeping up: Yearend bonuses are likely to plunge.

Incentive pay for dealmakers handling debt and equity offerings may tumble more than 45% this year, while advisers on mergers and acquisitions see their bonuses drop 25%, according to a closely watched report released in August by compensation consultant Johnson Associates Inc.

"The banking business has a big component of variable compensation, so therefore you can adjust," JPMorgan President Daniel Pinto said at a conference in September. "Not just letting people go, you can adjust by reducing comp."

Last year, when the rewards ballooned, Goldman tried to politely manage expectations. It labeled a portion of pay bumps to its most senior employees as a one-off gift, partly to forewarn them that they shouldn't set a new baseline for the future.

It's another reminder of how quickly the tune can change on Wall Street—where denizens preach the virtues of cyclicality. Few industries embrace boom-time excesses so readily, only to quickly shed their ranks and slash pay when the cycle turns. And when you are out of favor, the turn can come rather quickly. *—Sridhar Natarajan and Hannah Levitt*

THE BOTTOM LINE The banking industry has reversed course from last year's scramble to hire. It could be a sign of tough times to come for employees across corporate America.

"It's been this really abnormal situation where companies were in hiring mode and never letting anybody go"

Which Lula Will Investors Get?

● Brazil's former president made Wall Street lots of money. Locals have mixed memories

Days after Luiz Inácio Lula da Silva exited the presidential palace in Brasília, Mohamed El-Erian, then chief executive officer of powerhouse bond shop Pacific Investment Management Co., published what was in essence a love letter to him. This was January 2011, the world was in the midst of a torrid commodities boom, Brazil's economy was soaring, and Pimco—along with scores of other investors—had just made a fortune investing in the country's bonds.

Lula's management style had proved so successful, El-Erian gushed in a column for Bloomberg Opinion, that it could influence political leaders everywhere, allowing "hundreds of millions of people around the world" to benefit from his presidency. "Generations of Brazilians will remember their popular president for far exceeding even the most optimistic expectations about what Brazil could achieve," he wrote.

This was the zenith of Lula as cult figure. The following decade would deliver blow after blow to his reputation: His handpicked successor was impeached; the economy tanked; poverty soared; and a corruption scandal rocked the country, ultimately landing him in jail for 580 days.

Now, as the leftist leader inches closer to pulling off a stunning political comeback—almost all polls have him leading the incumbent, the fiery nationalist Jair Bolsonaro, before the first-round vote on Oct. 2—investors are split into two camps: locals who loathe him and foreigners who welcome his return.

It's a curious dichotomy. The foreigners, many of whom, like El-Erian, piled into Brazilian markets just as the rally was beginning back in the 2000s, choose collectively to remember those go-go days and the double-digit returns they were minting year after year in stocks and bonds. (Reached by email, El-Erian said Lula would face challenges repeating his success at a time when the global economic outlook isn't as favorable.) The locals, who were forced to live on the ground through the grim hangover years that followed, choose to remember Lula as the convict-in-pinstripes blimp figure that protesters would fly high above rallies. Both are true. Lula was indeed the face of Brazil's—and Latin America's—boom and also of its bust this century.

"Foreigners, for sure, like Lula more than locals," says Bruno Pandolfi, a founding partner at SPX Capital, which oversees more than 80 billion reais ($16 billion) of assets. Any number of Brazilian traders plugged into the financial scene in New York and London, where Pandolfi now lives, will echo this. The data, while not extensive, back it up, too: Offshore investors have added about 70 billion reais to Brazilian stocks this year through Sept. 12, excluding inflows from equity offerings, according to exchange data compiled by Bloomberg. That helped offset heavy selling by Brazilians. Domestic stock funds posted outflows of 55 billion reais in the first eight months of the year.

There's a second, and equally important, explanation for this divergence: ESG. As investments that factor in environmental, social, and governance make up an ever greater share of money managers' portfolios, Brazil has been somewhat left out. That's

▼ Brazil's Ibovespa stock index, in dollar terms

■ Lula's tenure

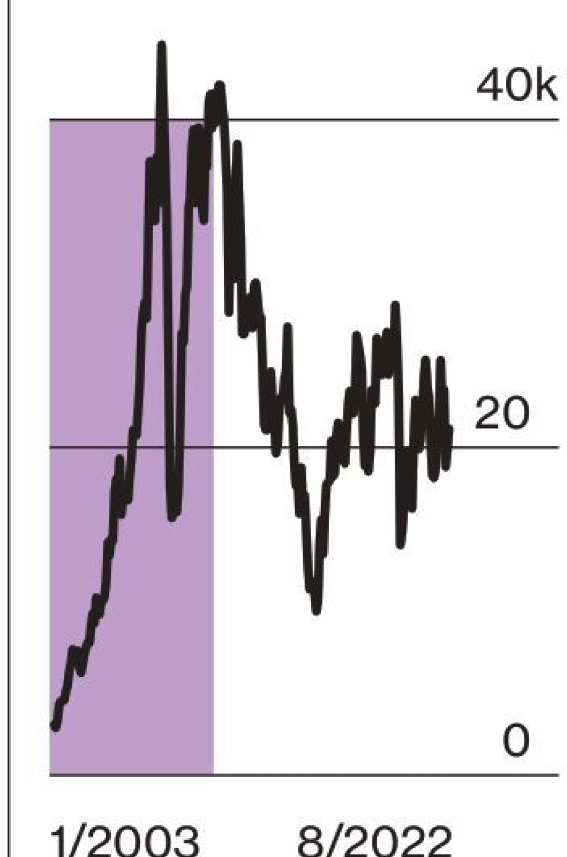


ILLUSTRATION BY FROMM STUDIO. DATA: COMPILED BY BLOOMBERG (BRAZIL); US TREASURY, INTERNATIONAL MONETARY FUND (DEBT) partly because Bolsonaro's fiery comments about hot-button topics make it difficult for conscientious investors to consider the country. "Bolsonaro scares foreigners off," says Bruno Coutinho, co-founder and CEO of Rio de Janeiro-based Mar Asset Management. "Lula is the opposite."

Coutinho offers a playbook for a Lula presidency: Buy liquid, large-cap stocks, which figure to attract much of the foreign money that pours into the market, as well as consumer stocks, which should benefit from his administration's push to bolster household spending. Emy Shayo, an equity strategist at JPMorgan Chase & Co., sees it much the same way. She puts retailers, especially grocery stores, that cater to lower-income Brazilians high on her recommendation list if Lula wins.

Pedro Jobim, chief economist at hedge fund manager Legacy Capital Gestora de Recursos, says the nation's medium-term growth prospects under Lula would deteriorate significantly. Lula could set out to make Brazil's development bank, once one of the world's largest, into a powerhouse again, possibly wreaking havoc on the government's finances, Jobim says. Brazil's reform agenda–which under Bolsonaro included a pension overhaul, cutting government payrolls, and other moves to make the economy more competitive–would also come to a halt. "His agenda is the opposite of the reform agenda that has been carried out," Jobim says.

So as Brazil gears up for what could be its most consequential presidential election in years–one that will set the state's role in the economy as it emerges from the pandemic and could determine the fate of the Amazon–the split among traders reflects the broader political polarization throughout the country. Lula draws much of his support from poorer citizens who remember the boom years; Bolsonaro is much more popular with Brazil's upper classes, including the White men who make up most of the core of the country's investing community.

Yet many are bothered by both candidates. One trader in Rio de Janeiro who's not authorized to speak publicly about the election put it this way: "Every time Lula speaks, I think about voting for Bolsonaro. Every time Bolsonaro opens his mouth, I consider voting for Lula."

Even those most disturbed by another Lula presidency know it may be foolish to bet against him. The foreigners see him differently–and it's their money, not the locals', that tends to determine the market's direction. So, they figure, better to just ride the momentum. —*Felipe Marques and Vinícius Andrade*

THE BOTTOM LINE Ahead of Brazil's upcoming election, investors foreseeing Lula's comeback are split into two camps: locals who loathe him and foreigners who welcome his return.

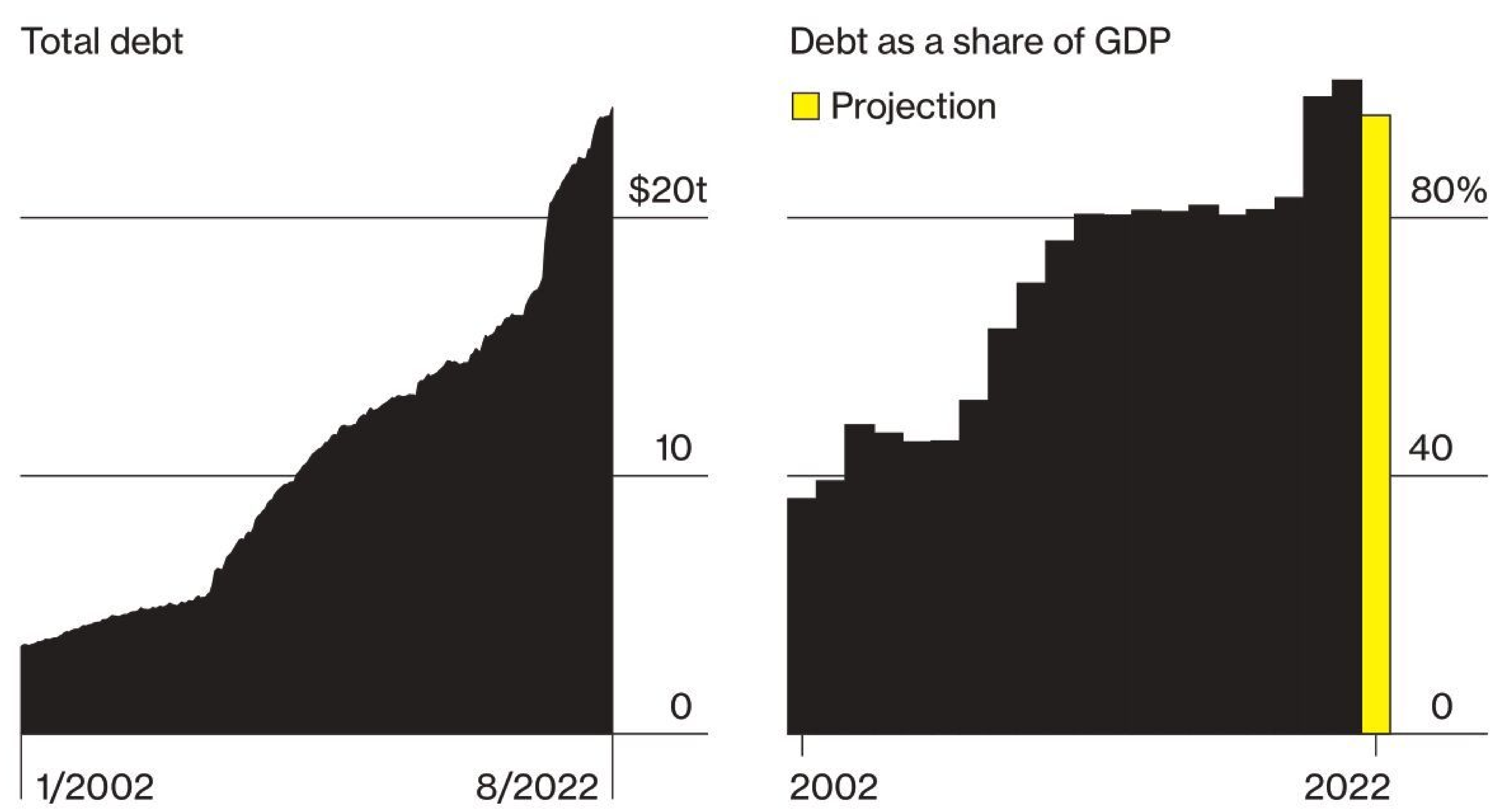
Debt Inflated Away

For all the attention that soaring inflation has gotten this year, one of its most surprising direct offshoots has gone largely unnoticed: US government debt is shrinking rapidly. —*Ye Xie*

Not in dollars-and-cents terms. No, that's growing day by day, minute by minute. But it's dropping in the way that really matters: when measured against the inflated size of the economy.

A Welcome Drop

US debt is projected to post its biggest decline in at least two decades



What It Means

● THE GOOD NEWS
This is a big break for the government and taxpayers. It makes the debt more manageable and easier to pay back.

● THE BAD NEWS
It's lousy for bondholders. The money they'll be repaid by the government will be worth a lot less than the money they put up.

Now, don't go thinking this means some new long-term trend. This year's drop was preceded by two years of explosive growth in debt-to-GDP—remember all that pandemic aid from Presidents Trump and Biden?—and economists are still fretting about the outlook. That's partly because the Federal Reserve is frantically raising interest rates to quell the surge in prices.

What's Next?

So there'll be less inflation, less economic growth, and fatter interest payments for the government to make…the perfect cocktail to send debt levels spiraling higher once again.

Beware the Hawks

Central banks are willing to sacrifice growth to tame inflation and restore their credibility

Central banks are intent on driving the world economy perilously close to a recession.

Late to see the worst inflation in four decades coming, and then slow to crack down on it, the Federal Reserve and its peers around the globe now make no secret about their determination to win the fight against soaring prices—even at the cost of seeing their economies expand more slowly or even shrink.

About 90 central banks have raised interest rates this year, and half of them have hiked by at least 75 basis points in one shot. Many did so more than once, in what Bank of America Corp. chief economist Ethan Harris labels "a competition to see who can hike faster."

The result is the broadest tightening of monetary policy in 15 years—a decisive departure from the cheap-money era ushered in by the 2008 financial crisis, which many economists and investors had come to view as the new normal. The current quarter will see the biggest rate hikes by major central banks since 1980, according to JPMorgan Chase & Co., and it won't stop there.

On Sept. 21, the Fed raised its key rate by three-quarters of a percent, responding to inflation that topped 8% in August. Sweden lifted by a full point the day earlier as banks across Europe move to tighten credit conditions.

As they slam on the brakes, policymakers are starting to lace their language with gloom in a public acknowledgment that the higher they raise rates to quell inflation, the bigger the risk they harm growth and employment. At a press conference following the Sept. 21 rate decision, Fed Chair Jerome Powell said, "We have got to get inflation behind us. I wish there was a painless way to do that. There isn't." European Central Bank Executive Board member Isabel Schnabel speaks of the "sacrifice ratio," jargon for the loss of output that will be needed to control inflation. The BOE goes as far as to predict a UK recession will be under way by the end of this year and may stretch into 2024.

Edited by Cristina Lindblad

PHOTO ILLUSTRATION BY 731. PHOTOS: GETTY IMAGES (2). POWELL: FEDERAL RESERVE

The World Bank warned in a report released on Sept. 15 that the global economy may fall into a slump next year. With central banks almost everywhere tightening policy, the risk is that "mutually compounding effects could produce larger impacts than intended," it said.

There's little doubt that the monetary medicine will hurt. The question is, how much? Analysts at BlackRock Inc. reckon that bringing inflation back to the Fed's 2% goal would mean a deep recession and 3 million more unemployed. Hitting the ECB's target would require an even bigger contraction.

Adding to the uncertainty is the lag before rate hikes affect the economy, in addition to the makeup of today's inflation, much of which stems from energy and other supply shocks that central bankers can't control.

Investors won't escape the fallout. A higher-than-expected US inflation number for August sent the stock market into its steepest dive in more than two years on Sept. 13, driven by bets on tighter Fed policy. Billionaire hedge fund manager Ray Dalio sees the prospect of a slump of more than 20% on equity markets as rates continue to rise.

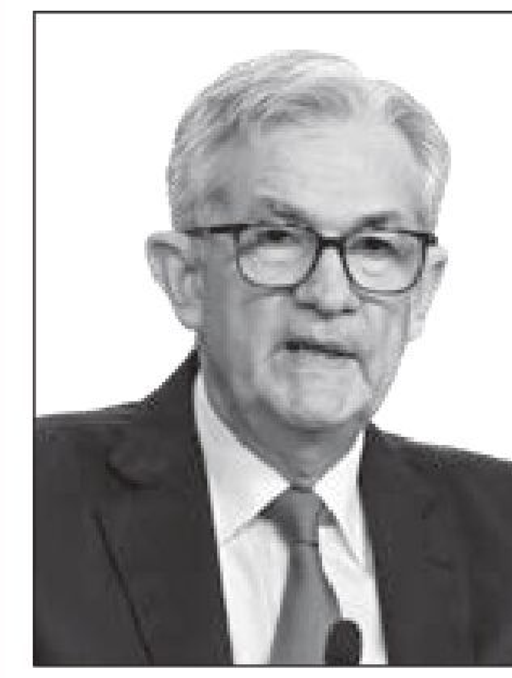
Central bankers would rather keep their economies chugging along. They may at some point dial back their aggressive policy to try to ensure that. But their overriding focus now is to avoid repeating the mistake of the 1970s, when their predecessors prematurely loosened credit in response to slowing economies without first getting inflation under control.

Anna Wong, chief US economist at Bloomberg Economics, estimates that the Fed will eventually have to take its benchmark rate to 5%—a dose of further tightening that could cost the economy 3.5 million jobs and take the unemployment rate above 5%, dealing further blows to already battered markets. For their part, Fed policymakers see short-term interest rates rising to about 4.5% by the end of next year and unemployment climbing to 4.4%.

Likely also pushing central bankers on is the idea that they're already under attack for misjudging the pandemic-era price pressures, even if Russia's subsequent invasion of Ukraine worked against them, too. A BofA survey of fund managers this month found that global growth expectations were near all-time lows.

One reason for this worry is that monetary policy works with a lag. It weakens financial markets first, then the economy, and finally inflation. So repeated jumbo rate increases become hazardous. "It takes time to cool off inflation," says BofA's Harris. "If you start talking about only focusing on current inflation as your main indicator, you're going to be late in stopping" the tightening cycle. Harris sees the UK and euro area falling into recession in the fourth quarter as surging energy costs take their toll on economies this winter, and he expects a downturn in the US next year.

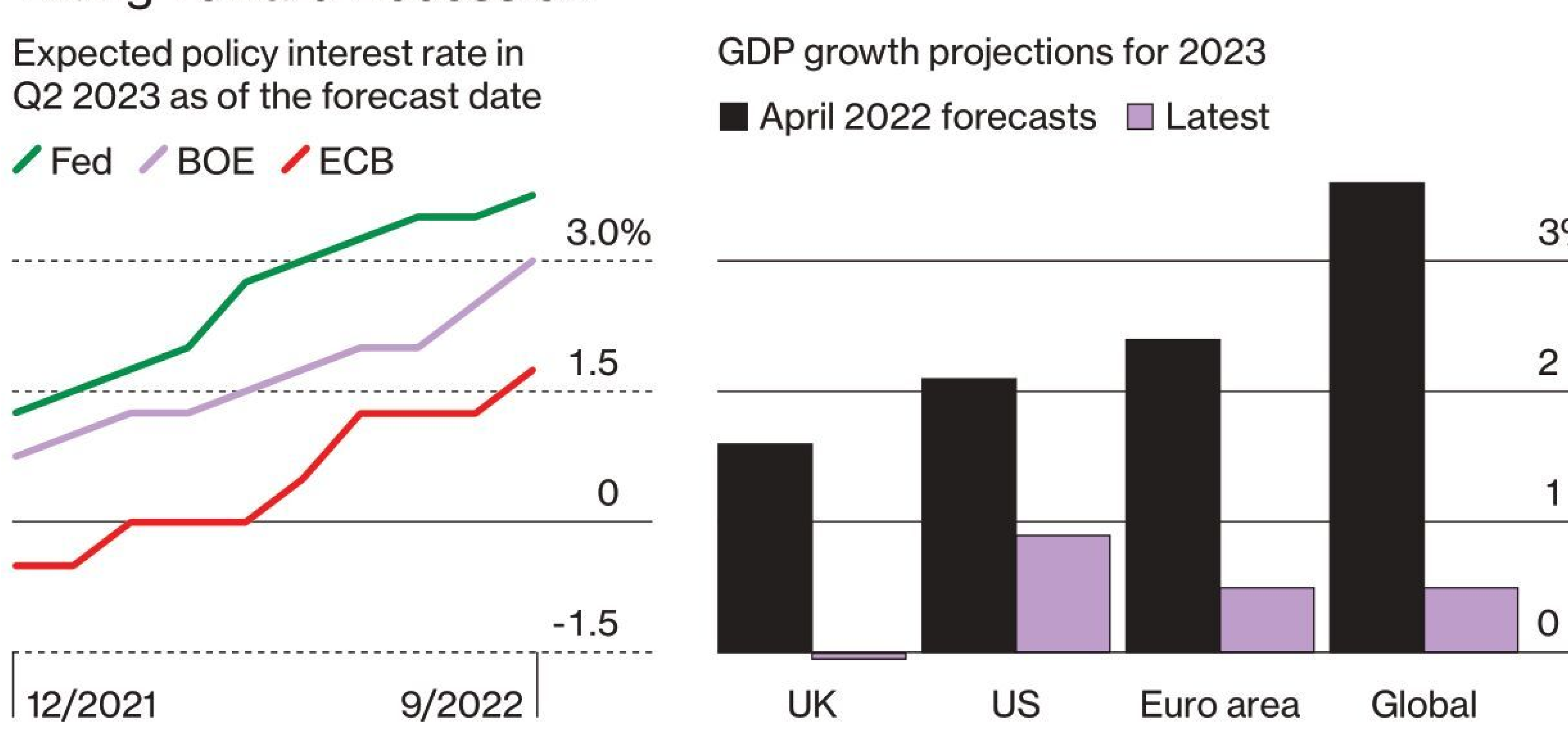
The US economy—and especially the job market—has so far proven surprisingly resilient. But economists say this simply means the Fed will have to push that much harder to cool off demand. "Inflation and the labor market have proven more resistant to higher rates than the Fed anticipated," says former Fed Vice Chair Donald Kohn. "So they need to get rates up more now."


● Powell

Until recently, it seemed like a no-brainer for the central banks to tighten policy. Inflation was sky-high, labor markets were strong, and interest rates were at rock-bottom levels. But the trade-offs are getting tougher as high rates start to take a bite out of economies already suffering from the aftershocks of a lingering pandemic and Russia's war in Ukraine.

Borrowing costs in many economies, including the US, are turning from stimulative to restrictive. A surging dollar is hurting indebted emerging markets. A steep cutback in Russian natural gas supplies is raising the risk of stagflation in Europe, as prices soar while recessions loom.

Tilting Toward Recession



DATA: BLOOMBERG SURVEYS OF ECONOMISTS, WORLD BANK

Policymakers do still express hope that they can pull off the trick of slowing inflation without completely derailing growth, and that eventually they will curb the tightening—but not yet. "You do need to think of the middle ground at some point," Cleveland Fed President Loretta Mester said on an MNI webcast this month. "But that's not a consideration at this point. That's a consideration for the future."

The single-minded focus on restoring price stability increases the chances that the Fed and ▶

◀ other central banks will overdo it. Dartmouth College professor David Blanchflower, a former BOE policymaker, accuses US central bankers of "groupthink" and charges that they're on a path to hammer a weakening economy to combat inflation that's already dissipating.

Complicating the central bankers' calculations: A big driver of inflation is surging energy costs, over which they have little or no control. This is especially the case in Europe, though it hasn't deterred the ECB or BOE from raising rates.

Central banks all over the world are pushing in the same direction, and that heightens the danger, says Maurice Obstfeld, a former chief economist at the International Monetary Fund. "They risk reinforcing each other's policy impacts," says Obstfeld, who's now a senior fellow at the Peterson Institute for International Economics. They're also effectively engaging in competitive appreciation of their currencies and, in the process, exporting inflation abroad, he says.

Since 1980 the world economy has posted an average growth rate of 3.4%. Right now, with monetary tightening adding to the drags from Covid-19 and Russia's war, Obstfeld sees a risk that it could slow to "somewhere around 1%."

Put differently, former Fed Governor Kevin Warsh, now a visiting fellow at the Hoover Institution, says, "We have all the makings of a global recession." *—Rich Miller with Philip Aldrick, Zoe Schneeweiss, Maria Eloisa Capurro, Craig Stirling, and Michael Mackenzie*

THE BOTTOM LINE Some 90 central banks have raised rates this year. The broadest tightening of monetary policy in 15 years could trigger a global downturn.

Clamping Down on Putin's Oil Profits

● A US-led plan seeks to avert a spike in global crude prices from new European sanctions

Something odd happened this spring as European governments prepped their sixth package of sanctions against Russia. Washington, which has spearheaded the international effort to ratchet up the pressure on Moscow as punishment for the invasion of Ukraine, looked at one portion of the plan and grew alarmed about the potential fallout. In the months since, US Treasury officials have been working frantically to create a workaround.

Make no mistake, the Biden administration isn't concerned about inflicting too much pain on the Kremlin. It is, however, worried the European penalties could backfire, with devastating consequences for consumers and businesses in the US, Europe, and other countries already feeling the squeeze of high energy prices. In response, the US Treasury cooked up what appears to be a clever solution—though one that could lead to a dangerous showdown with Moscow.

The sanctions in question target Russian oil. In addition to prohibiting almost all seaborne imports of Russian crude, European Union nations agreed in June to ban companies in the 27-country bloc from providing maritime services for tankers transporting the controversial cargo anywhere in the world, effective Dec. 5. The UK and Switzerland have said they would follow suit.

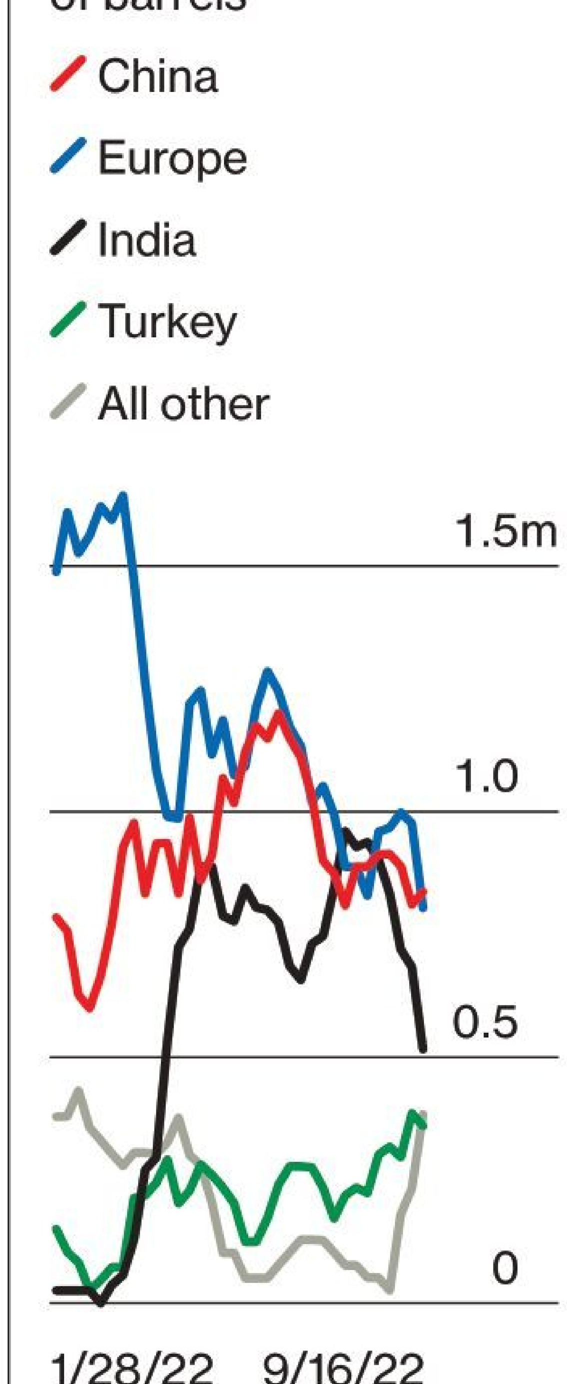
Given that European and UK companies dominate the business of insuring and financing oil tanker cargo, US Treasury staff estimated Brussels' ban could keep a significant portion of Russia's ocean-bound oil exports off the global market. Benchmark oil prices could surge north of $140 a barrel as a result.

That would spell economic and political trouble across much of the inflation-wracked world. Recall that when the average price of gasoline ticked above $5 a gallon in the US this June, President Joe Biden's approval rating and Democrats' prospects for retaining Congress this November both took a hit. And at that point oil was trading at $120 a barrel. "If this sixth package goes into force, it's going to be very disruptive," says Helima Croft, an oil market analyst at RBC Capital Markets.

Here's how the Treasury's plan would work around that: A coalition of governments, while continuing to forswear Russian oil, would endorse an exception to the European shipping services ban for buyers who negotiated a price below an agreed cap. The ceiling would be set above Russia's cost of production, just high enough to provide Moscow with the incentive to keep exporting oil. That would prevent the dreaded price spike while sharply reducing Russia's revenue, thereby crimping the Kremlin's ability to prop up the economy and fund the war in Ukraine.

The concept went public in May after finance ministers from the Group of Seven countries discussed the idea at a meeting in Bonn. Yet for weeks proponents made little real progress, even as US Treasury Secretary Janet Yellen and her staff doggedly lobbied for it around the world. A major

▼ Russian crude buyers, 4-week moving average of barrels



SERGEI BOBYLEV/SPUTNIK/AP PHOTO. DATA: BLOOMBERG breakthrough came at the next G-7 finance ministers' meeting, held via video conference on Sept. 2, when the group formally endorsed the plan.

Yet plenty of hurdles—plus enormous skepticism—remain. The EU nations must unanimously agree to add the price-cap exception to its sanctions, and some member governments, notably Hungary, seem unconvinced it's necessary or appropriate. On top of that, many analysts, traders, and energy executives clearly expect the plan to fail. Gal Luft, co-director of the Institute for the Analysis of Global Security, a Washington think tank, dismissed it in a July interview on CNBC as "a ridiculous idea."

For starters, Western companies have been barred from insuring or financing Iranian oil shipments on and off since 2012, but that hasn't stopped the sanctioned crude from reaching willing Chinese buyers. So if China and India, the two biggest remaining consumers of Russian oil, won't get on board with the price cap, the plan is bound to fail, say critics.

That view, however, fails to understand that Treasury wants Russian crude reaching buyers, even if it goes entirely around the ban on services and the price cap. "The whole goal is to prevent a major market disruption," says Croft, who has attended briefings on the price cap with Treasury officials. "The measure of success is whether Russian barrels continue to flow to Asia."

This might not rob the Kremlin of as much revenue as Washington would like, but it would avert a price surge. Moreover, with the EU and most of the G-7 buying very little seaborne Russian oil, meaningful demand can come only from China, India, and Turkey—hardly an ideal situation for President Vladimir Putin.

"If there are just three big buyers left for Russian crude, that gives them huge bargaining power over prices," wrote Julian Lee, an oil strategist for Bloomberg. "They're unlikely to squander that advantage." (There are hints that Russia already is offering discounted deals to Asian buyers.)

Treasury officials have been touting this very scenario as one they'd welcome. "Whether that happens by selling under the price cap at a prescribed level, or whether that happens through increased leverage by consumers of oil, really is fine either way," Assistant Secretary Ben Harris said in a panel hosted by the Brookings Institution on Sept. 9.

But some seasoned Kremlin watchers believe that another, far more dangerous scenario lies ahead. Craig Kennedy, an associate at Harvard's Davis Center for Russian and Eurasian Studies, estimates that "at least half" of Russia's exports, currently totaling 7.5 million barrels a day, could be trapped in Russia by the European penalties, because prospective buyers who've opted out of the price cap will not be able to procure shipping services from other sources.

▲ Putin and Xi during their meeting on Sept. 16

"If Russian officials think they can do a few fly-ins and persuade dozens of Asian shippers, insurers, and governments to shift hundreds of billions of dollars of liability coverage to some new Russian-led international insurance club—just so they can pay higher oil prices to Russia—then I think they'll be disappointed," says Kennedy, a former vice chairman at Bank of America Merrill Lynch in London.

"If there are just three big buyers left for Russian crude, that gives them huge bargaining power over prices"

Should Kennedy prove correct, Russia would face a difficult choice: Sell oil into the price-cap system—which Putin has scoffed at—or significantly throttle back oil production, sending global prices skyrocketing. That's not an easy choice for Putin. Not only would he lose more oil revenue, but it may also cause significant, long-term damage to Russian wells.

Kennedy says he wouldn't be surprised if Putin threatens to dial back on oil and gas exports before December, when the price cap would take effect, in an attempt to weaken Western resolve. "The best way to achieve that," he says, "is to precipitate an energy crisis." Putin wants to send the message, says Kennedy, that "these actions will hurt you, the West, more than Russia. We have greater will, we will win."

Europe and the US will then have their own difficult choice to make: Either back down from the sanctions and price cap in humiliating fashion or risk the very crisis the US plan sought to avoid in the first place. —*Christopher Condon*

THE BOTTOM LINE US Treasury officials say their plan will prevent European sanctions from locking Russian oil out of the market. Its success could depend on Putin going along.

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Business Schools

Ranking the Best

Stanford again takes the top spot, followed by Harvard and Chicago in second

Transitional may be the best way to describe the past two-plus years for MBA students and schools running full-time professional programs.

Since 2020, with Covid-19 cases spiking around the world, business school leaders, educators, and employees have been in a state of constant adjustment. Schools developed protocols and tested digital tools for remote learning, aiming to ensure seamless education at the level expected with a high degree of flexibility. For many of the 117 programs in this year's Best B-Schools list, the past few months have marked the fullest return to normalcy since the onset of the pandemic. What does a return to campus look like—and are the pandemic adjustments fully a thing of the past?

"The Covid-19 outbreak, combined with new opportunities offered by technology and different expectations from professionals, has accelerated trends that we started to apply long before the crisis," says Jan Hohberger, associate dean of the full-time MBA program at Spain's Esade (No. 10 in the European ranking). For example, the school has extended its online program offering. Similarly, at Howard University School of Business (No. 28 among US schools), Dean Anthony Wilbon notes that the most lasting change has been the ongoing use of virtual events for instructional and meeting purposes. "Use of technology has continued to be an effective tool for communications, but there is a need to be more strategic in its usage."

"Collaboration," "culture," "collegiality" pop up throughout the comments provided by students and alumni responding to questions in this year's survey. Clearly, real-life connections remain paramount. Other constants: the high value placed on learning and the ▶

ILLUSTRATION BY XAVIER LALANNE-TAUZIA

Edited by
Dimitra Kessenides
and Rebecca Penty

Top 30 US B-Schools

The complete list of schools and a detailed methodology are available at bloomberg.com/business-schools/

Rank	School	Compensation	Learning	Networking	Entrepreneurship	Diversity	Overall Score
1	Stanford	1	6	1	1	18	88.0
2	Chicago (Booth)	2	29	4	9	23	85.6
2	Harvard	4	14	3	5	13	85.6
4	Northwestern (Kellogg)	5	24	6	13	14	84.8
5	Dartmouth (Tuck)	3	10	5	39	43	84.4
6	MIT (Sloan)	8	29	31	10	20	83.5
7	Pennsylvania (Wharton)	7	71	11	29	8	83.2
8	Columbia	9	39	18	32	27	82.9
9	Virginia (Darden)	10	10	23	19	32	82.8
10	Yale	13	7	8	20	21	82.7
11	Cornell (Johnson)	12	17	15	32	25	82.2
11	NYU (Stern)	6	64	37	46	27	82.2
13	Duke (Fuqua)	15	48	11	56	12	81.5
14	UC at Berkeley (Haas)	11	59	46	11	33	81.1
15	Michigan (Ross)	14	61	31	42	22	80.8
16	USC (Marshall)	18	19	8	6	39	80.3
17	Emory (Goizueta)	16	2	17	57	57	79.6
18	Georgia Tech (Scheller)	26	22	18	16	31	78.5
19	Texas at Austin (McCombs)	20	49	33	24	40	78.2
20	UCLA (Anderson)	17	72	29	43	34	78.1
21	Washington in St. Louis (Olin)	27	14	39	3	29	78.0
22	Indiana (Kelley)	28	8	2	37	54	77.5
22	North Carolina (Kenan-Flagler)	25	8	21	35	61	77.5
24	Washington (Foster)	21	51	49	35	44	77.2
25	Carnegie Mellon (Tepper)	19	46	26	13	77	77.1
26	Georgetown (McDonough)	24	47	27	22	55	77.0
27	Rochester (Simon)	29	34	51	58	9	76.6
28	Howard	39	39	23	55	1	76.5
29	Rice (Jones)	22	74	55	48	37	76.3
29	Vanderbilt (Owen)	22	39	48	64	64	76.3

◀ opportunity to build meaningful networks.

A stumbling block remains the lack of gender, racial, and ethnic diversity in MBA programs as companies come under more pressure to create a C-suite that looks more like the society around them. The second year of the ranking's Diversity Index counted seven US schools that achieved gender parity (relative equality in numbers and proportions of women and men); Black students are near or above parity at 11 schools.

This year, Stanford is again the top-ranked US school, scoring highest in compensation, networking, and entrepreneurship. The University of Chicago's Booth School tied with Harvard Business School for second. Rankings were based on 18,504 surveys from students, alumni, and recruiters, as well as compensation and employment data from each school. —*Dimitra Kessenides*

THE BOTTOM LINE B-schools and students continue to adapt as they confront new challenges brought on by the pandemic. Real-life connections remain key.

Embracing Stakeholders

Business schools are moving beyond shareholder capitalism

On the role of business in society, the trend lines are clear: Shareholder primacy is out, and stakeholder inclusion is in. Jamie Dimon and Larry Fink, the chief executive officers of JPMorgan Chase & Co. and BlackRock Inc., respectively, were among the scores of corporate luminaries who in 2019 publicly made "a fundamental commitment to all of our stakeholders," including the environment, employees, suppliers, and communities, as members of the Business Roundtable. Similar pledges are popping up everywhere from global gatherings of the business elite to advertisements for the Australian toilet paper maker Who Gives a Crap Ltd., which uses recycled materials and spends half its profits on building toilets and improving sanitation in the developing world: "Wipe your bum, change the world."

Business schools have been slow to reflect this zeitgeist, but they're rapidly making up for lost time. In September, the University of Pennsylvania's Wharton School became the first large MBA program to offer a major in environmental, social, and corporate governance, standards used by socially conscious investors to vet companies. Harvard Business School (HBS) offers courses that ask students to question the very purpose of capitalism. And Columbia Business School has set an ambitious goal to become the nation's top generator of leadership in the burgeoning field of social entrepreneurship.

"Since I started teaching this class three years ago, there's been this huge shift away from making the case for why businesses should act," says Harvard assistant professor Ethan Rouen of his popular elective Reimagining Capitalism, created by colleagues Rebecca Henderson and George Serafeim. "All of a sudden, that was no longer a question for students—of course businesses should act. Now it's more about how, about the toolkit business leaders need to actually implement ESG strategies."

MBA programs are largely reacting to demand. Studies have consistently shown that millennials want a strong sense of purpose in their work. Among the younger Generation Z workers, 95% want a meaningful job that goes beyond making ends meet, according to a 2021 study by career experts at Zety; 71% would even take a pay cut to get it. Typical of today's business school applicants, says Barbara Coward of MBA 360° Admissions Consulting, is a young woman at a medical tech firm who wants to attend HBS in hopes of moving to a startup that makes wearable technology to improve public health. "I think a lot about, 'What is a business school?'" Coward says. "When applicants write essays about their goals and the reason they've chosen their schools, it almost sounds like they're looking for a public policy degree."

Today's B-school students want a career with meaning, says Witold Henisz, vice dean and faculty director of Wharton's ESG Initiative. "They want to stand for something," he says. "They don't want to be part of the next scandal, whether it's ▶

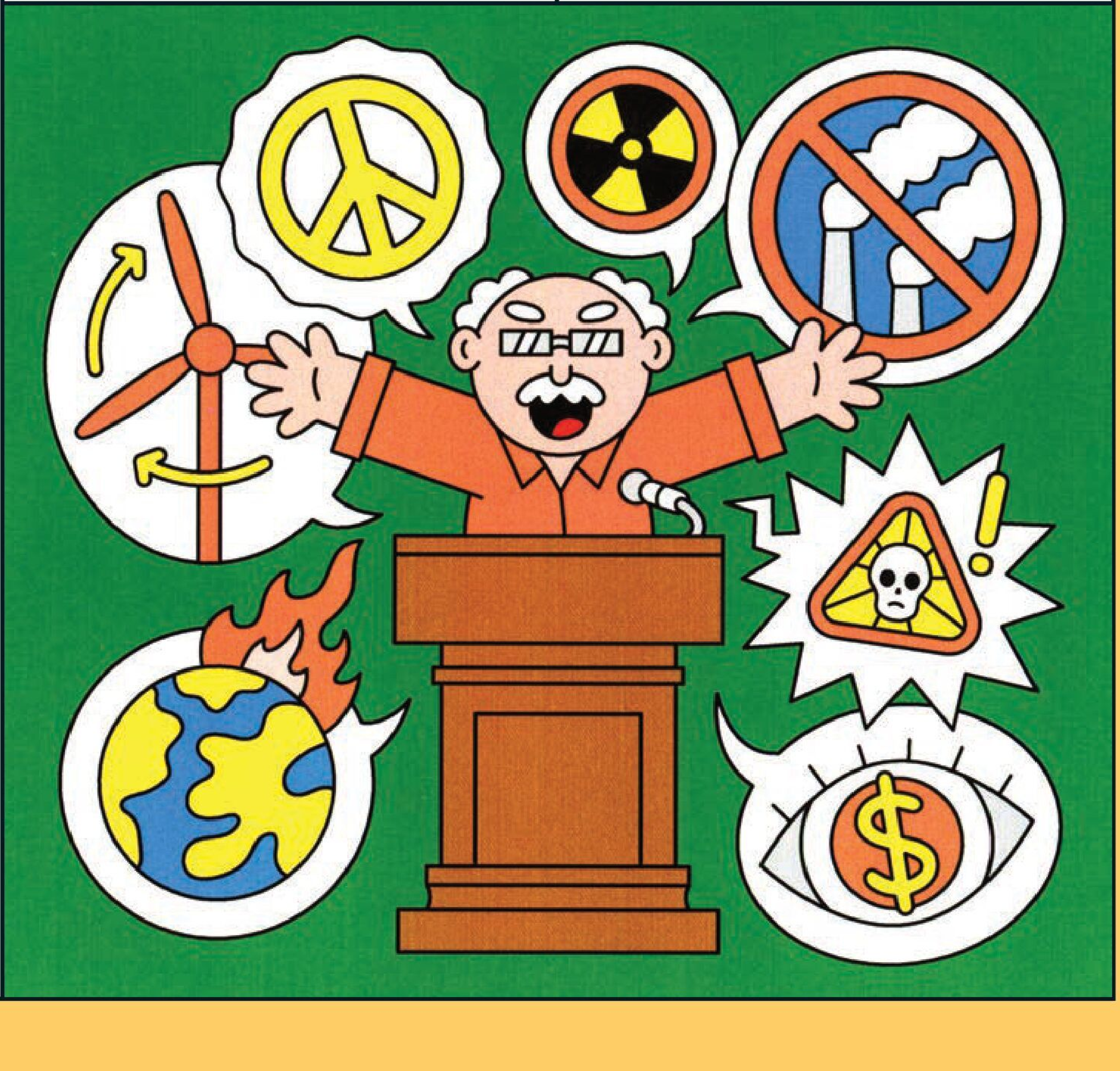


ILLUSTRATION BY XAVIER LALANNE-TAUZIA

◀ opioids or teenage depression from social media. They want to feel they're creating value and doing good." To serve such students, the school offers more than 30 courses dealing with sustainability, ethics, and stakeholder theory, double the number five years ago.

Fifteen years ago, Columbia had just one-quarter of its MBA students enrolled in courses on the social and environmental impact of business, delivered by its Tamer Center for Social Enterprise. Today, that number has swelled to 50% of the school's roughly 1,000 students. Such courses include Bridging the American Divides, designed to help students understand the causes and consequences of social polarization, and Business and Society: Reconciling Shareholder and Stakeholder Interests. The latter course, says Dean Costis Maglaras, "really makes students think about things like inequality, technology and algorithmic bias, climate change, and financial services for people that don't have access to the banking system."

In many ways, MBA programs are simply returning to their roots. When industrialist Joseph Wharton founded Penn's business school in 1881, he wanted to help companies "solve the social problems incident to our civilization." At its founding, HBS's mission was to train leaders who "make a decent profit—decently." Such noble ideals eroded over the ensuing decades until a series of influential academic papers in the 1970s, most notably by the famed economist Milton Friedman, washed them away completely. Friedman argued that business has only one major responsibility: to maximize profits for shareholders. Belief in shareholder primacy has prevailed in business education for most of the past half-century, though pockets of resistance formed as early as 1984. That's when philosopher R. Edward Freeman published his seminal book, *Strategic Management: A Stakeholder Approach*, which urged companies to find ways to harmonize the interests of all stakeholders.

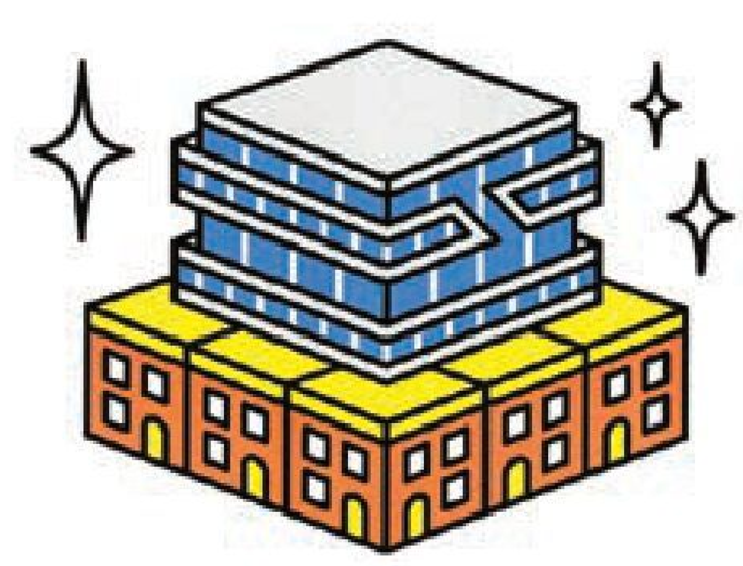
Today, Freeman's approach has gone mainstream, though some argue that business schools aren't moving fast enough to adapt to this new reality. The vast majority of courses in areas such as ESG and social entrepreneurship are still offered as electives rather than part of the core curriculum. "Many professors in the United States still believe the bottom line is everything," says Simon S.M. Ho, president of Hang Seng University of Hong Kong, which runs the city's largest B-school. He advocates an overhaul of management education to make the multistakeholder model central to the entire curriculum—as Hang Seng does—so students can "rediscover the purpose and responsibility of business."

Wharton's Henisz agrees that modifying the core curriculum is the next step, though he cautions that it will take "a huge institutional commitment." In an ideal world, he says, "this content would be part of our management courses, part of our finance, legal studies, and marketing courses. So instead of offering just one or two classes, it would be sprinkled throughout the core curriculum."

For MBA programs, the stakes are high. Society's persistent questions about the very purpose of business create an existential dilemma. "You see all these statistics about how the younger generations are having doubts about the efficacy and benefits of capitalism," says Harvard's Rouen. "I've had conversations with senior leadership about this. If people think that capitalism is not worth studying, then we go out of business."
—*Paul Keegan*

THE BOTTOM LINE MBA programs have yet to change their core curriculum to reflect a shifting focus to prioritize all stakeholders.

Building Its Future

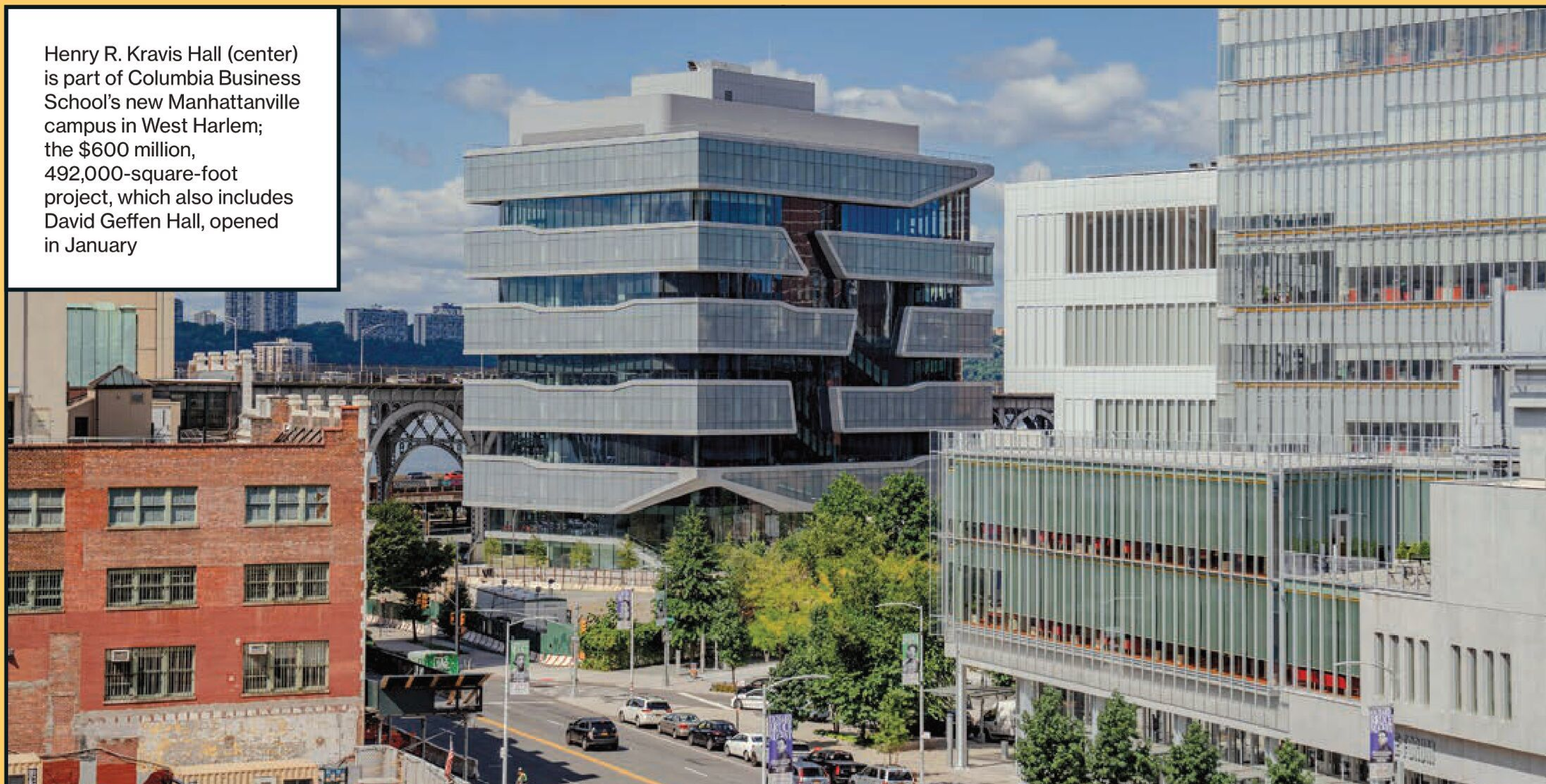


Columbia Business School's new Manhattanville campus will define its evolution

What does it take for a business school founded 106 years ago to reposition itself?

One step might be a new campus, removed from the school's historical base but still close enough to participate in the intellectual activity of its Ivy League parent. Add to that sustainable state-of-the-art buildings that reject traditional school designs in favor of spaces connecting students with the local and global communities they'll one day work with and lead in.

Columbia Business School finds itself in the midst of such a repositioning—or, as Dean Costis Maglaras puts it, a "reimagining" of the ambitions of faculty,



Henry R. Kravis Hall (center) is part of Columbia Business School's new Manhattanville campus in West Harlem; the $600 million, 492,000-square-foot project, which also includes David Geffen Hall, opened in January

administrators, and students. Two new buildings on Columbia University's Manhattanville campus in West Harlem embody those aspirations for the next half-century, Maglaras says. "It's an opportunity to renegotiate our relationship to each other, to the neighborhood, and to the school."

City streets run through Manhattanville—distinct from Columbia's main campus—and the buildings are transparent, a defining facet, says lead architect Charles Renfro, a partner in the firm Diller Scofidio + Renfro. The transparency is intended to show how faculty, students, and the public co-mingle and move through the structures.

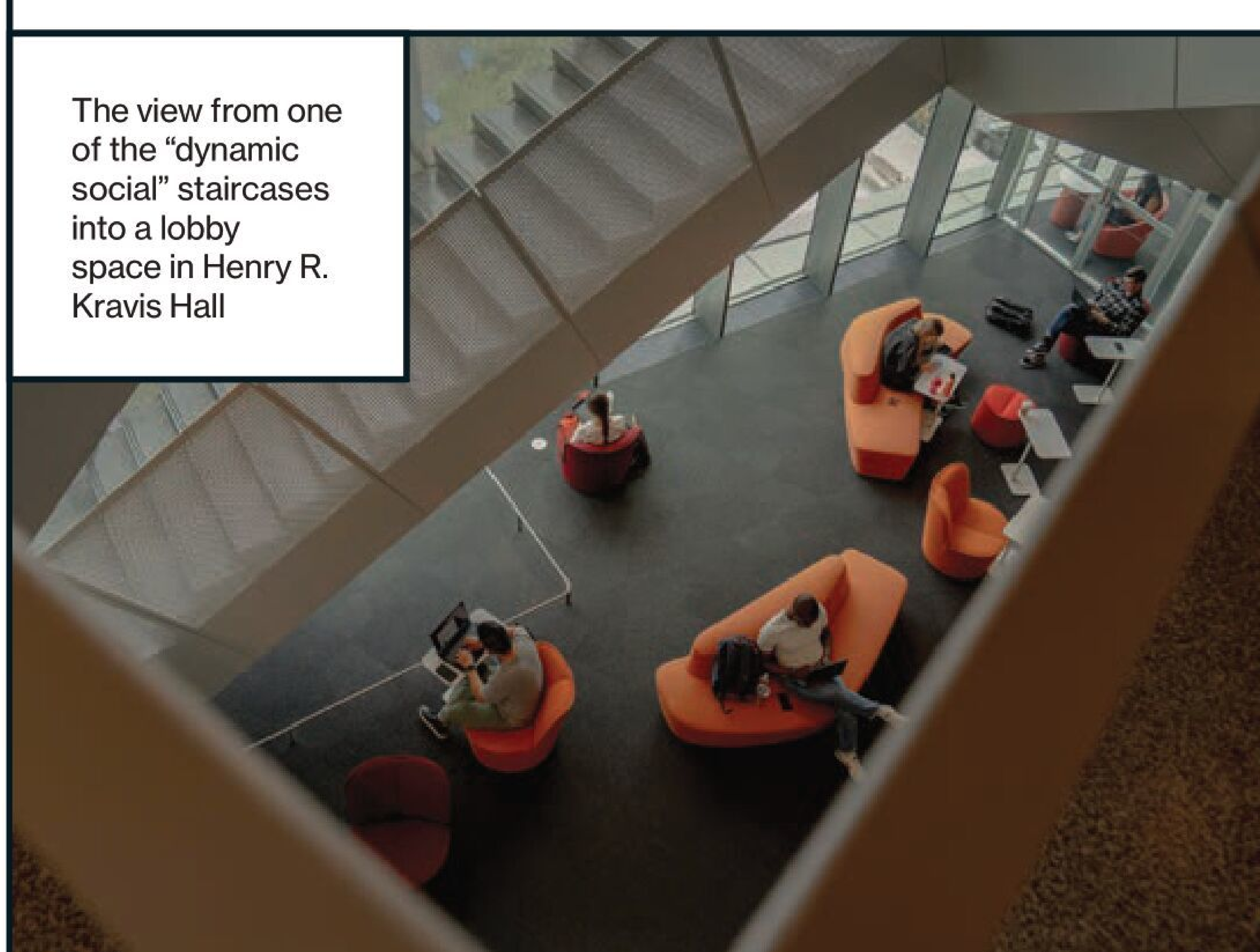
Henry R. Kravis Hall and David Geffen Hall officially opened for faculty, employees, and students in January while the world was still grappling with Covid-19 lockdowns as the omicron variant spread. "Our attention from mid-2020 over the next 12 months was hijacked through the various sequential pivots we were making in how we were educating our students," Maglaras says. "It was quite intense to complete the last two years of construction during the pandemic."

Columbia's 629 new B-school students are now attending classes on campus, the biggest step toward normalcy in two-and-a-half years. Experiencing the spaces will further strengthen everyone's commitment to in-person learning. "The new campus was known but not visible to people when they were applying last year—and they could not visit it," Maglaras says. Now, a prospective student can come and experience the school in the context of the wider campus and neighborhood it's part of.

"Dynamic social stairs," as Renfro describes them, link levels in each building and connect to learning spaces, including formal classrooms and informal lounges. The stairs, he says, "become the image of the building at the same time that they allow the business of business education to take place."

Covid-19 might have raised questions about the mission and teaching methods of educational institutions broadly. But, from what Maglaras has seen and what other schools are reporting, "students want to be in person, they thrive from that physical interaction," he says.

"There was never a question about 'Will we pivot back to in person?'" he adds. "It was a question of how soon."
—*Dimitra Kessenides*



The view from one of the "dynamic social" staircases into a lobby space in Henry R. Kravis Hall

THE BOTTOM LINE Designed by Diller Scofidio + Renfro, Columbia's new B-school in the neighborhood of West Harlem seeks to be an integrated part of the community that surrounds it.

ILLUSTRATION BY XAVIER LALANNE-TAUZIA. AMIR HAMJA/BLOOMBERG (2)

Q&A

My MBA 'Could Help Me to Stand Out'

How business school changed a GM employee's career path

In almost 30 years at General Motors Co., Crystal Windham has left her mark on the cars Americans drive—and on the auto industry itself. In 2008 she made GM history as the first Black woman appointed to serve as a design director. Today, as the automaker's global executive director of industrial design, Windham has the final say on the colors, materials, finishes, interior hardware, and more for every GM vehicle.

Windham started at the company as an intern while studying industrial design at the College for Creative Studies in Detroit and was hired after finishing her undergraduate degree in 1994. Two years later, spurred on by her mom, she enrolled at the University of Detroit Mercy's College of Business Administration. She attended night school off and on for seven years before graduating in 2003. The lessons came to life at the office—giving her a deeper understanding of what she was studying.

Here, Windham talks about how her business school studies shaped her career. The interview has been edited for clarity and length.

Did any colleagues in the design group at GM also have an MBA, or was that unusual?

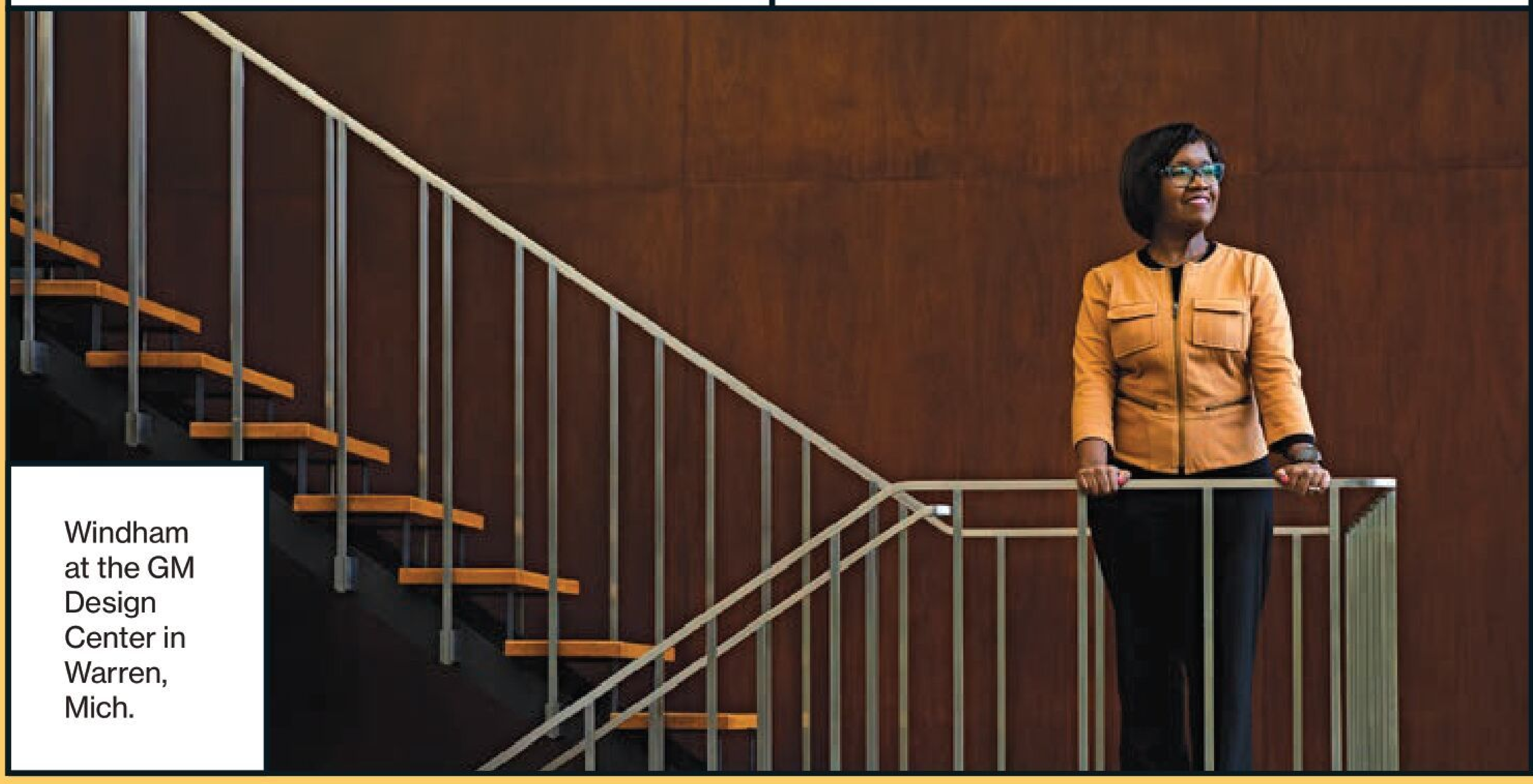
Unusual. Part of being competitive is putting yourself in a situation where you're out of your comfort zone. Pursuing an MBA did just that for me. It could help me stand out if I wanted the opportunity to lead a group.

Was there anything in particular you hoped to study?

Learning more about business ethics was extremely important. I feel like the university was ahead of the curve on the importance of that. Now they have an entire master's of science in ethical leadership. It's a great program that incorporates both diversity and sustainability.

Which class stood out to you as being especially meaningful?

A favorite was a course on entrepreneurship and how to start your own business. At the time, real estate was a big, big thing—having a second and third home and renting out homes. I was thinking how to set something like that up. But how to start your own business, what it takes to really frame it up, and who you want to have on your team—all of those elements of entrepreneurship can be applied to "intrapreneurship" if you're working within a company.



Windham at the GM Design Center in Warren, Mich.

Did your trajectory at GM change?

I went from being the supporting designer to a lead designer. Then I had the opportunity the year that I graduated to lead a larger team as an interior manager. As I moved up, putting into practice those skill sets—organizational behavior and development, building effective teams—helped me become an effective leader. Then, after about 10 years of being on interiors, I started learning more about the foundation of exterior, which led me to be a design manager on exteriors for a project with China. That was pretty exciting, because they see something in you that can help the organization differently in another area.

Did University of Detroit Mercy help you overcome obstacles that a Black woman might face in an industry traditionally dominated by White men?

What helped me tremendously was having examples before me. When you see someone like you, it helps you believe that it is possible. In my internship, I was connected with a Black female designer here at General Motors, Marietta Ellis, and she became my first mentor. Being able to ask her questions—to watch her and how she navigates—was very beneficial.

Can business schools do better in enrolling people who've historically been excluded from the business world?

It starts with an individual like myself: What am I doing to make sure that I'm not the first and only? I'm on the advisory board of the business school. I help fund a scholarship for minorities. The next is mentorship. We have a really detailed mentorship program for GM employees with African ancestry that I've been a part of for many years. Make sure you're reaching back and are part of the solution.
——*Robb Mandelbaum*

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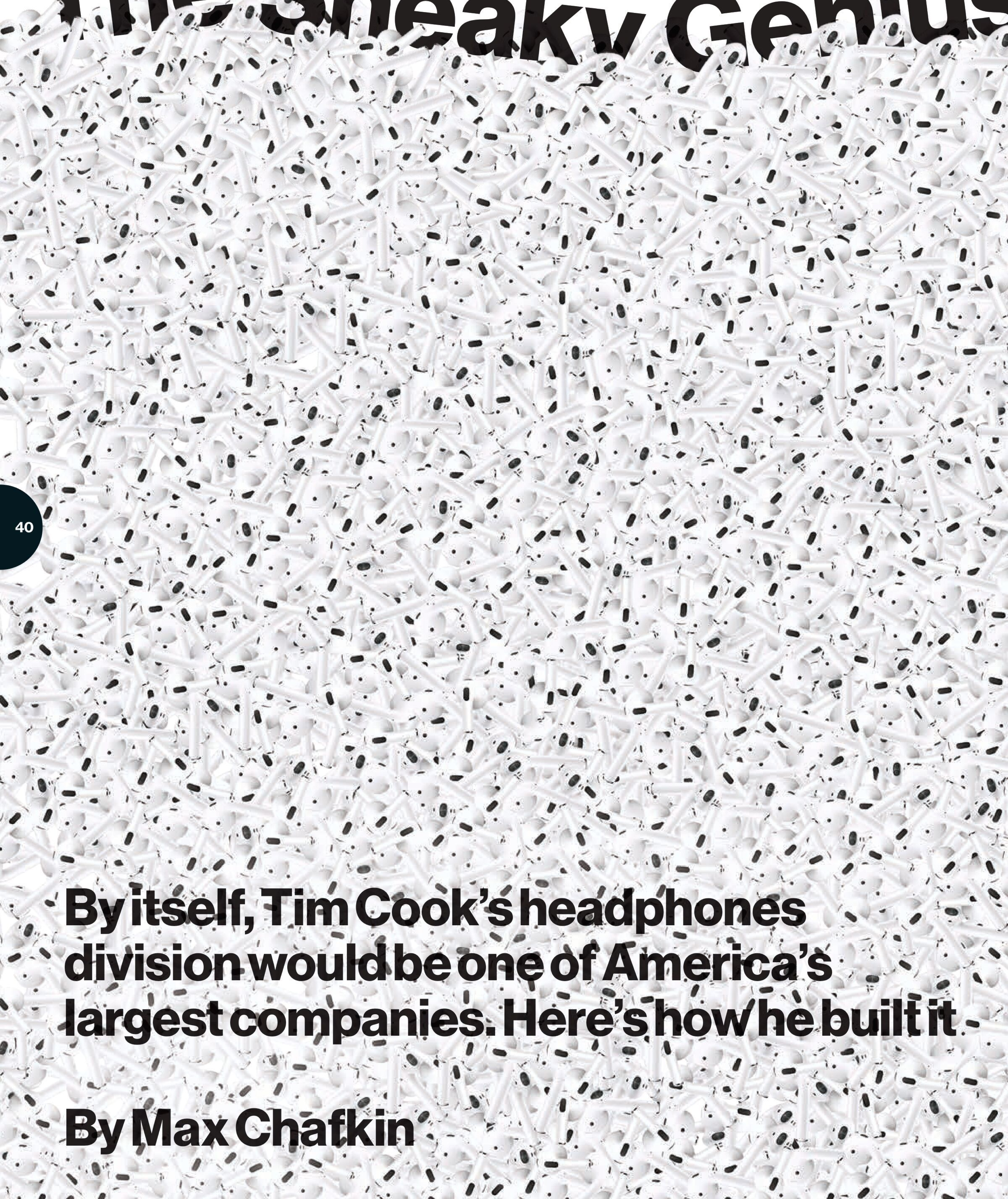
HOLLYWOOD

JACK WELCH COLLEGE
OF BUSINESS & TECHNOLOGY
Sacred Heart University

The Sneaky Genius



By itself, Tim Cook's headphones division would be one of America's largest companies. Here's how he built it

By Max Chafkin

s of Apple’s AirPods

Sometime next year, Tim Cook will appear before the Apple Inc. faithful and unveil the company's next major computing platform, a headset that mixes virtual reality and augmented reality. Its code name is N301, though trademark filings suggest its real name may be the Apple Reality Pro. Those filings, and the early word, hint that the device's components will probably blow away the VR headsets made by Facebook, Sony, and HTC. Apple's version of VR seems likely to look better, run faster, and feature more immersive graphics. It's also almost guaranteed to be a letdown, at least at first.

Apple has been working on its headset for seven years, and the project now has about 2,000 employees, including the guy who was previously running VR development for NASA. Today's VR market, however, is still minuscule by Apple standards. Facebook, which renamed itself Meta Platforms Inc. as part of an expression of its commitment to the metaverse, as VR is sometimes described, accounted for almost 80% of headsets sold last year, according to market research firm IDC. The entirety of that business represents a little more than 0.5% of Apple's overall revenue, which sounds less like a fundamental strategic shift and more like what the company makes selling fancy iPhone cases.

Ten years after the failure of Google Glass, Apple's headset will have to prove itself to become a mainstream hit. That makes the Reality Pro a tempting target for anybody who wants to opine that the company has lost its way. We know this because similar declarations have met pretty much every move Cook has made in the 11 years since Steve Jobs died.

Critics tend to summon Jobs's ghost to argue that Cook's tenure as chief executive officer has been about managing extremely lucrative decline. The argument goes like this: Sure, Apple's market value has increased sevenfold, to more than $2.5 trillion, since Cook took over, but the iPhone is more than 15 years old and can't supply that kind of growth forever. Apple has lent this theory more weight with annual phone updates that feel like dutiful, perfunctory cash grabs. Also, the 14th anything is going to start feeling a little played out.

But while everyone has been yawning over the last few new phones, Cook has quietly created arguably the tech industry's biggest success story of the past decade: AirPods. Those weird little ear dongles are both a punchline and everywhere. The latest version, a $249 model slated to hit shelves on Sept. 23, made only a brief appearance at the most recent iPhone unveiling. More than anything else Apple sells, however, they illustrate why the company has prospered so much under Cook and why it's unlikely to see real challengers anytime soon.

AirPods are fragile, have just-OK bass, and look like the result of a horrific Q-tip accident. They're easily clogged with earwax, lost in subway grates or couch cushions, and—at least in a handful of cases—swallowed in the wearer's sleep. But even if you don't ingest them, your AirPods will need to be replaced every few years, because their lithium-ion batteries can't be removed once they've run their course. While Apple has said newer versions use more recycled materials, AirPods remain costly both to the environment and our wallets, especially compared with the wired EarPods that came free with the company's products for most of the past two decades. And yet, as anyone who's been out in public lately can attest, people love 'em.

Apple doesn't disclose sales of its headphones—its quarterly filings lump AirPods in with its watches, home speakers, and other accessories—but outside analysts say it sold 120 million or so pairs in 2021. IDC and Bloomberg Intelligence estimates suggest that AirPods account for roughly half of sales of what Apple calls "Wearables, Home and Accessories," its fastest-growing line of business. From 2016 to 2021, sales in this category rose by 245%, to $38 billion. Piper Sandler Cos., the investment bank, estimates that 3 in 4 US teens own AirPods. Apple has set the standard for wireless headphones and turned a free pack-in accessory into a $200 must-buy.

Of course, AirPods aren't really a standalone product. They're an extension of Cook's larger project: a mutually dependent ecosystem of hardware, software, and services that keeps customers spending more all the time.

When Apple first introduced AirPods six years ago, alongside the iPhone 7, most wireless earbuds were crowdfunded and buggy at best. Samsung Electronics Co. had launched its own version two months earlier, but the battery life and controls both stank. By contrast, Apple promised sorcery. Phil Schiller, then the company's head of marketing, said at the unveiling that AirPods users should expect "truly an Apple magical experience."

Mostly he meant that they worked out of the box, no setup necessary. At the time, other wireless headphones required you to hold down a button on your earpiece for a few seconds, wait for the LED indicator to flash purple, which signaled the headphones were in pairing mode, then open the settings app on your phone, select the right Bluetooth signal, and, sometimes, enter a PIN. But iPhones recognized AirPods right away, thanks to Apple's proprietary version of Bluetooth, and did all that for you as soon as you opened the charging case near your phone. (If you wanted to pair AirPods to an Android phone or Windows PC, of course, you had to go through the longer process.)

Reviewers found little to recommend about AirPods beyond their vertical integration. "I don't think they're fully cooked yet," Lauren Dragan, the Wirecutter's headphones editor, told the *New York Times*. The first model wasn't water-resistant, meaning you couldn't work out while wearing them lest they be ruined by sweat, and normal headphones sounded better, too.

But something else made Apple's wireless headphones more appealing: The company made wired ones worse. The iPhone 7 was the first to jettison the traditional headphone jack in favor of a proprietary version that connects to the charging port. To plug in the old headphones, you'd need an adapter that

PHOTO ILLUSTRATION BY 731; PHOTOS: APPLE, BLOOMBERG protruded from your phone in an ungainly fashion. Schiller suggested the idea was to push customers to buy AirPods, and also that the design team was just thinking of the greater good. "It really comes down to one word: courage," he said. "The courage to move on, do something new that betters all of us." Schiller's woo-woo grandiosity was an instant target of ridicule, but he and Cook had the last laugh. The sabotaging of the headphone jack and AirPods' no-fuss setup proved enough to sell them to millions of people, many of whom then bought more.

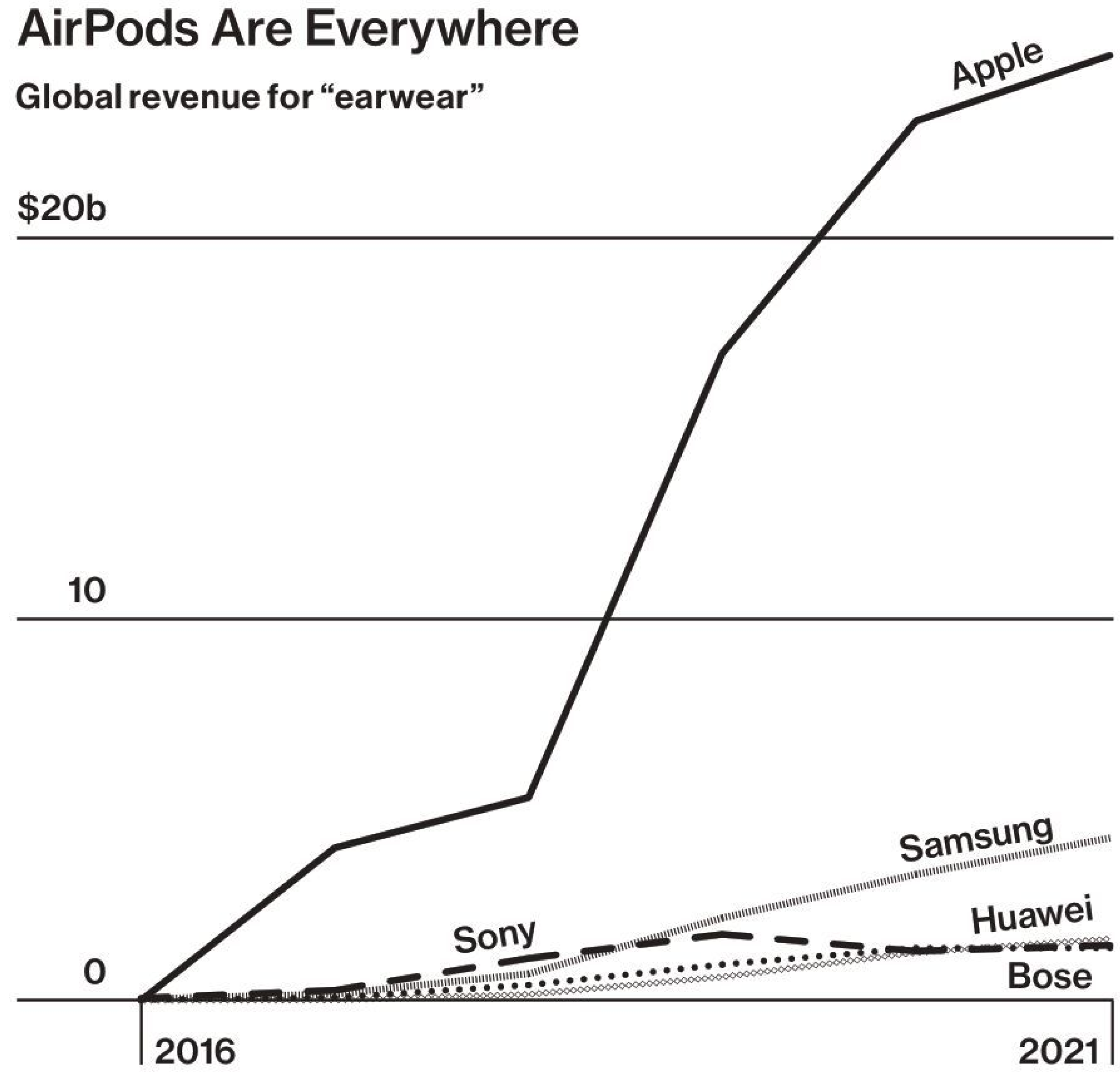
That includes me. Over the past three years, for reasons I can't entirely explain, I've bought three pairs of the things, even though I don't really like them. I worry they'll drop out of my ears and break (like my first pair) or start glitching if I get them wet (like my second pair). Early on, I felt antisocial wearing them in public, and reflexively tucked them away when I walked into a store or the office. Now I just leave them in. What's the point of being polite when nobody else is? And why bother hunting for something that might be better when I don't have to think much about whether these will work?

This success, which probably accounts for at most 5% of Apple's total revenue and arguably represents a triumph of inertia, sums up the company's success after Jobs. Apple introduces a product that works well with the iPhone, then does what it can to make competing products compare poorly.

The $120 a year I pay for my iCloud subscription is the same sort of thing. The premium version of iCloud hasn't been useful enough to make me cancel my Dropbox subscription, but I need it to keep the photos on my phone backed up. Is this truly a perk and a separate business, or is it just a subtle way to raise prices on iPhone users?

AirPods Are Everywhere

Global revenue for "earwear"



DATA: IDC

For years, Apple's rivals have argued that the iPhone ecosystem violates antitrust law. During a Senate hearing last year, Kirsten Daru, a lawyer representing Tile Inc., accused Apple of "systemic abuse of its market power and platform dominance." Tile makes a little fob you attach to your keys so they don't get lost. Shortly before Apple released its own version, called AirTag, it stopped selling the other company's products in its retail stores. An AirTag is as easy to set up as AirPods are, whereas competitors like Tile don't get access to that kind of setup shortcut. At the time, Apple said its success was the product of innovation and that, if anything, it was fostering competition.

At other times, the company has undermined this message. For more than a decade now, texts between iPhones have used an Apple-only system called iMessage. Texts from iPhone users show up in blue bubbles and include a few special features, like the three dots that undulate when the person you're chatting with is typing, while texts from non-Apple phones appear in green bubbles sans extra features. This is both annoying for Android users, who can be left out of group chats or miss messages from iPhone users, and a subtle (and dumb) way to signal status. Among online dating's many indignities, a green bubble can mark a person as undesirable. As a *New York Post* headline put it, "Sorry Android users: These iPhone snobs won't date you."

Apple could fix this, but it doesn't want to. In internal emails that were made public in a lawsuit brought by Epic Games Inc., senior Apple executives discussed making iMessage available to Android users, but rejected the idea because, among other reasons, they worried that doing so would make it easier for parents who owned iPhones to buy their kids cheaper alternatives. An email Schiller forwarded to Cook in 2016 noted that "iMessage amounts to serious lock-in." Google seized on these disclosures to complain that Apple is "using peer pressure and bullying as a way to sell products," as one executive put it.

On the same day the latest AirPods were announced, Cook appeared onstage at a tech conference, where an audience member complained that his mother couldn't see videos he was sending her, and suggested that Cook could fix this by adopting a nonproprietary, Google-backed messaging standard known as RCS. Cook offered a simpler solution. "Buy your mom an iPhone," he said.

If Apple were merely trying to create the best devices, RCS would be a no-brainer. Cook's company just isn't really in that business these days. As much as the iPhone is an $800 phone, it's also a constellation of subscriptions and accessories that can easily add up to $800 a year or more. There's the monthly payment for your phone ($33, financed on your Apple Card), your insurance in case it breaks or gets stolen (an extra $9 a month for AppleCare+), your cloud storage (starting at $1, but you'll want at least the $3-per-month iCloud plan), your music ($10 a month for Apple Music), and, of course, your new, soon-to-be-obsolete AirPods Pro ($249). It's true, you could stick with the old white wired headphones. But since 2020, Apple has been charging extra for those, too. Ⓑ *—With Mark Gurman*

China’s Covid Zero Frontier

8

In Ruili, the next pandemic lockdown is always just a single case away

By John Liu with Claire Che
Photographs by Qilai Shen

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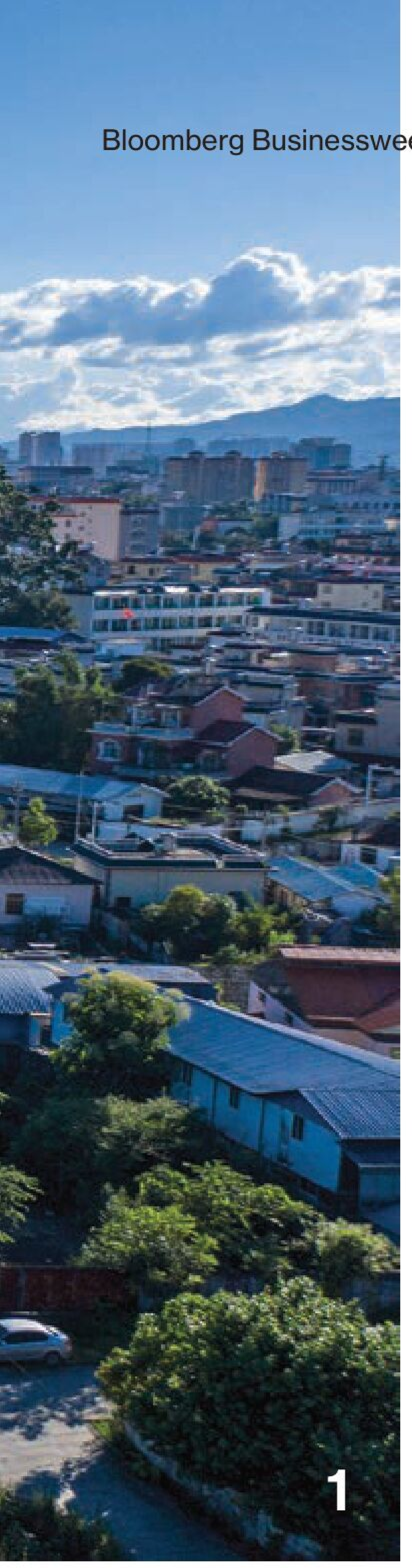


1 Fencing along the Ruili River, on the Chinese side of the border

2 Razor wire at a checkpoint near Ruili

3 Swabbing travelers at Changshui International Airport, the main transport hub for Yunnan province

4 Phone screen showing a purple (abnormal) health code at a checkpoint

5 Public hand-washing station in Ruili

6 The gem trade at Duo Bao Zhi Cheng market

7 Boxes of collected swab tests at a local community center

8 Checkpoint near Jiegao Port

China's 1,300-mile border with Myanmar traverses some of the most rugged landscapes in Asia. Mountains rise as high as 19,000 feet above sea level, fast-running rivers flow between steep cliffs, and dense forests shelter giant hornbills, snub-nosed monkeys, and elephants. The region has never been an economic development priority for either country, and it has few roads and even fewer large settlements. Ruili, a Chinese city of a little more than a quarter-million people located on one of the only areas of flat land, is the exception. The city hugs the border, which divides it from Muse, a smaller city on the Myanmar side. Together they constitute a binational urban area—an analog to El Paso and Juárez on the US-Mexico boundary—and a crucial node for commerce. For decades, throngs of people crossed every day: Burmese workers looking for factory jobs, Chinese residents visiting relatives, and traders of both nationalities carrying a huge range of goods, some legal, some not.

That traffic has come to an almost complete halt. One of the key planks of China's Covid Zero policy, which views even a single infection as an unacceptable risk, is the closure of the country's borders, sealing it off from a world that has overwhelmingly decided to live with the coronavirus. Nowhere is the impact of the strategy more obvious than in Ruili. With the pandemic going largely unchecked in Myanmar, last year local officials began putting up spans of sheet metal, barracks for guards, and fences topped with razor wire along the boundary with Muse—structures the mayor dubbed a "Steel Great Wall." When the local government discovered infections, it imposed some of the harshest restrictions in China. Ruili residents endured seven separate lockdowns from March 2021 to April 2022 and spent a total of 119 days barred from leaving their homes. Mandatory testing has been so frequent that, according to one Chinese news site, a baby there was swabbed six dozen times by his first birthday.

Like most Chinese cities, Ruili (pronounced "ray-lee") has officially recorded precious few deaths from Covid-19. Stamping out the virus has been a genuine public-health achievement, but it has come at a major economic and social cost. When *Bloomberg Businessweek* visited recently, boarded-up storefronts lined many streets, idle construction sites baked in the subtropical sun, and jade markets, the city's best-known tourist attraction, had far more merchants than customers. Local economic output contracted 15% in 2021. And after six months with no recorded cases, which allowed the authorities to relax most day-to-day restrictions, parts of Ruili went back into lockdown in mid-September in response to an infection in a quarantine center. There's been no indication of when—or if—the border will reopen. The Steel Great Wall may well be permanent.

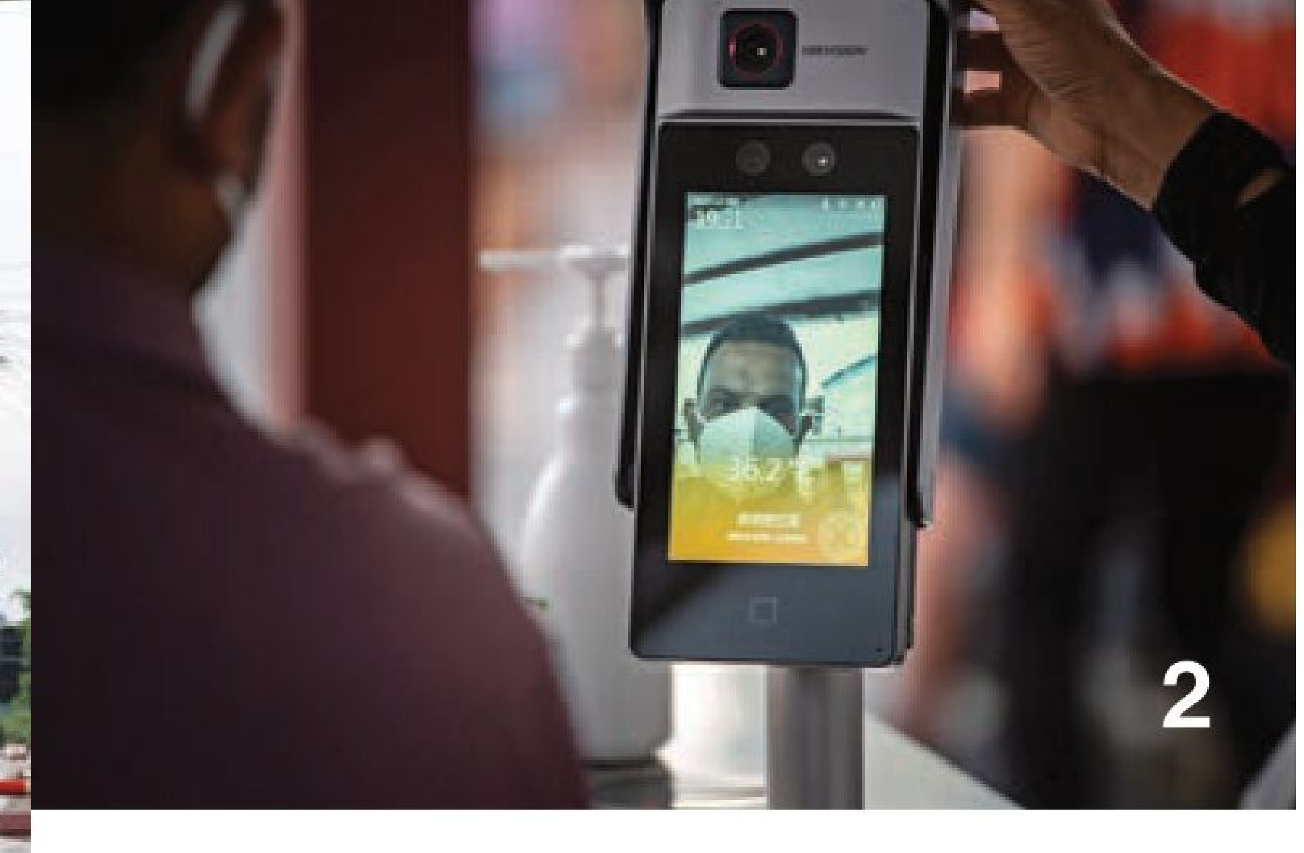
Although Ruili's pandemic policies have been extreme, they've been in line with China's overall posture. Every other nation that took a zero-tolerance approach to the coronavirus, including Australia and Singapore, has removed restrictions and reopened to the world. But in China, President Xi Jinping, who's expected to have his leadership extended by at least five years at the Communist Party congress in October, frequently trumpets his country's minuscule death toll—only 5,200 fatalities counted so far—as evidence of its political system's superiority. He's said repeatedly that he has no intention of abandoning Covid Zero, even as it has hammered domestic consumption and snarled international supply chains, threatening global growth.

Barring a change of heart or an end to the pandemic, that means the 1.4 billion people Xi rules will have to adapt to indefinite constraints on trade and travel, and to be prepared for further lockdowns. Already, severe restrictions on movement are becoming commonplace, with recent lockdowns targeting Shanghai, Shenzhen, and Chengdu, among dozens of other cities.

Amy Gadsden, associate vice provost for global initiatives at the University of Pennsylvania and a former special adviser on China to the US Department of State, says the moves in places like Ruili reflect a long history of local party officials striving to be exemplars of policy implementation, regardless of the efficacy and costs of their actions. "The pandemic has crystallized and resurrected patterns of political and social engagement that have deep roots in Communist China," she says. Covid Zero "has offered a stark reminder of the party state's ability to intervene in citizens' lives in absolute and even cruel ways."

In the rural areas around Ruili, the border between China and Myanmar zigzags alongside rice and sugar cane fields. It was once informal enough that locals—many of them members of the Dai and Jingpo minorities, Indigenous groups whose ancestral territory spans both sides—crossed easily and undetected along so-called paths of convenience. The border's fluidity still shapes life in Ruili today. In 2018, the most recent year for which data is available, some 50,000 Myanmar citizens were officially registered to live in the city, though this was almost certainly an undercount. Chinese authorities have never condoned illegal crossings, but nor have they done much to stop them, likely in part because many businesses in Ruili depend on cheap Burmese labor.

The border's fluidity also shaped the pandemic's course in Ruili. On a cloudy morning in September 2020, a woman identified in government releases only by her surname, Yang, set off from Muse with her three children and two nannies to visit her sister in Ruili. Although the national border had been closed to travelers since the end of March, Yang was able to easily cross the city's namesake Ruili River, entering China. A few days after arriving, she found she'd lost her sense of taste and smell. Eventually Yang's sister took her to a hospital, where she was found to have Covid. It was the first time officials had identified someone who'd tested positive



after crossing illegally into China from Myanmar.

Chinese officials were at the time taking considerable pride in having contained Covid after the initial outbreak in Wuhan. As official propaganda pointed out ceaselessly, they'd protected their population while Europe and the US recorded deaths in the hundreds of thousands. After Yang tested positive, the Ruili government swung into emergency mode. Officials set up checkpoints around the city, barring anyone from leaving or entering. All residents of its central districts were ordered to stay home while the entire population was tested. The testing campaign turned up only a single other infected person—one of the nannies traveling with Yang—and the lockdown was lifted.

In the aftermath of the Yang case, Ruili authorities built a fence along the stretch of border that was in their jurisdiction, but they emphasized that it was a temporary structure, to be removed once the situation was determined to be safe. They also allowed the primary checkpoint for goods coming from Myanmar to stay open, maintaining supplies of lumber, jade, and farm produce that are important to the regional economy.

Ruili reported its next Covid case six months later, in late March 2021. Like Yang, the infected person was a citizen of Myanmar. (It isn't clear whether the individual, who wasn't identified, had crossed into China legally). In Beijing the central government viewed the case as a failure by local officials to police the border—one that put the entire country's pandemic strategy at risk. Ruili's Communist Party chief, a well-regarded young official named Gong Yunzun, was fired and then named and shamed on national television, serving as a warning to administrators all over China about the consequences of allowing infections.

Gong's replacement, Zhai Yulong, increased virus-control spending sixfold, bringing it up to 2.12 billion yuan ($303 million) for all of 2021. In the 12 months through April 2022, the city imposed six more lockdowns, at least four of them linked to cases among Burmese nationals. Businesses such as electronics stores and car repair shops remained shut for a year, along with schools, while all shipments from Myanmar were halted and orders were given to build the border wall. Thousands of guards now patrol the structure, and heat-sensing cameras monitor it; inside Ruili, the city set up a system that tracks the movements of all residents and visitors, partly by using facial recognition cameras at the entrances of venues where crowds might gather. It remains in use.

When *Businessweek* reporters visited Ruili in early August, local government staff insisted on accompanying them almost everywhere, an indication of how politically sensitive its Covid policies have become. They were present during most of the interviews conducted for this article, and though they didn't interfere, it's hard to know how their presence might have affected what people said.

At the Daxing Supermarket, one of the city's largest grocers, manager Qiu Meizhi said she'd kept coming in to work throughout the lockdowns, noting with pride that the store, a branch of a regional chain, had refrained from raising its prices. Chinese lockdowns have been far more restrictive than anything attempted in Western countries, with residents not allowed to leave their homes for any reason apart from mandatory testing. Ruili officials were particularly enthusiastic enforcers of those rules. Restaurants and small food markets were shut down, with groceries available only through deliveries from large retailers such as Daxing. Qiu and her staff typically filled as many as 500 orders a day. During the most difficult stretches, she said, she received periodic calls from customers claiming to be completely out of food. Qiu assumed they were exaggerating. "They couldn't have nothing," she remembered thinking. She still tried to prioritize their orders, just in case.

In October 2021, a former deputy mayor of Ruili, Dai Rongli, published a blog post titled "Ruili Needs the Mother Country's Love." In it he argued that, because of its position on the border, the city was bearing a disproportionate burden in keeping the virus out of China. In a subsequent TV interview, Dai said that some of his ex-colleagues in the municipal government were so overwhelmed with preventing infections that they hadn't been home for months. Dai's statements were the first many Chinese citizens had heard of the situation in Ruili, and they prompted an outpouring of sympathy on social media, with commenters expressing shock at the extent of lockdowns and testing there. It was a rare barometer of the national popularity of Covid Zero policies in a country where opinion polls are heavily restricted. (In a statement issued the day after Dai's blog post was published, the Ruili city government said his descriptions of the situation were out of date. ▶

1 Facial recognition and ID checkpoint while departing the city

2 Temperature check at the Delong night market

◀ He didn't respond to requests for comment.)

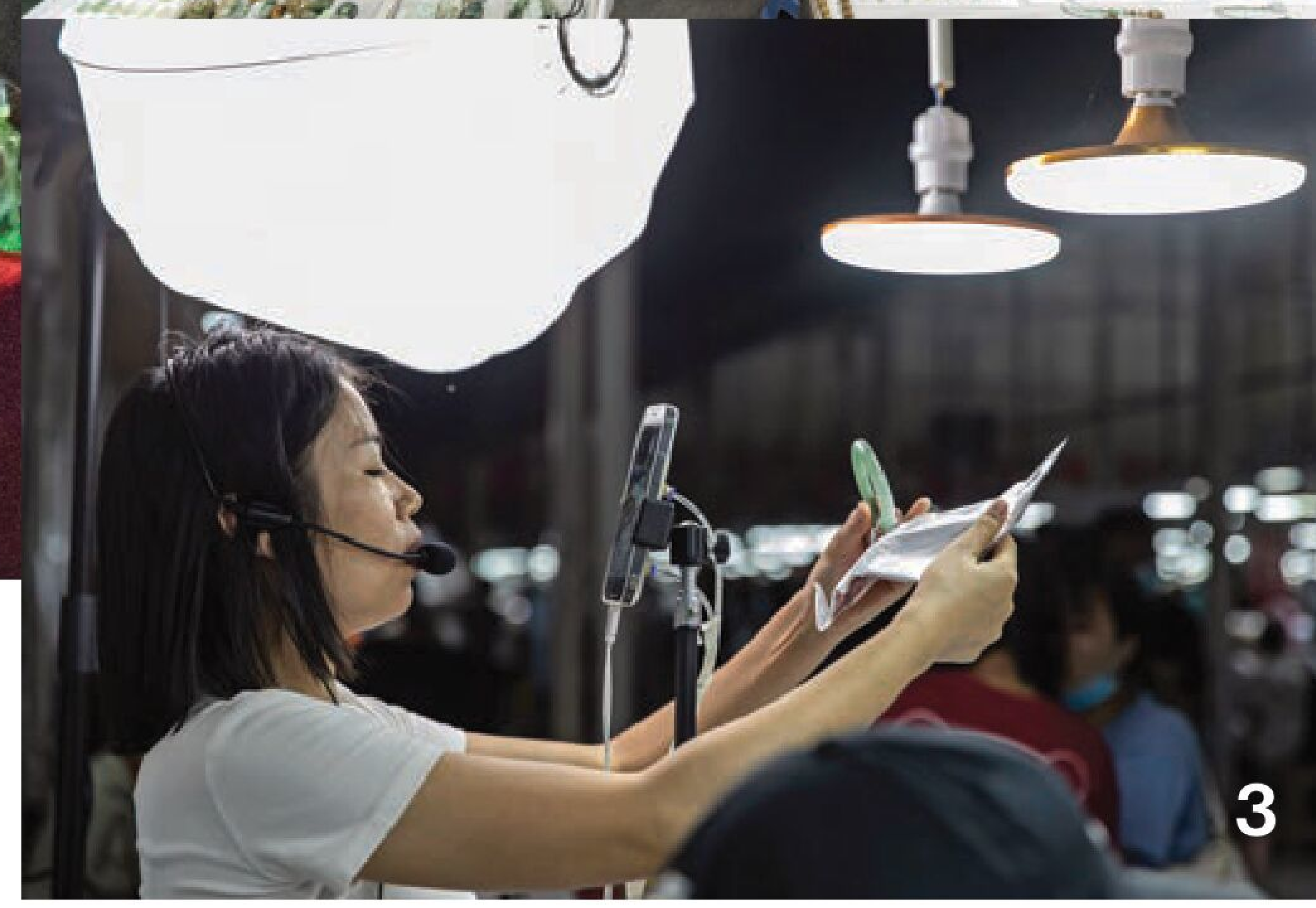
China's leaders are well aware of the economic repercussions of their policies. The lockdowns that began in Shanghai in March this year paralyzed the country's wealthiest and most vibrant metropolitan area for two months, significantly slowing the national economy and showing that no one would be exempt from the harshest forms of viral control. Gross domestic product barely rose in the second quarter, and youth unemployment has hovered near a record 20%. Immigration consultants have reported a boom in business, as wealthy residents seek to move abroad. National officials have taken steps in recent months to cut quarantine times, promote spending and investment, and punish local bureaucrats for overzealous enforcement, but these measures have amounted to minor tweaks.

Curiously, even though the government has shown no hesitation about imposing coercive measures such as lockdowns, it has stopped short of requiring vaccination. Only 61% of citizens over 80 have had two shots—all of them with Chinese-made vaccines that have proven less effective than those used in the US. And the risk from the virus remains high. Hospitals are underresourced, especially outside big cities, and a large outbreak would severely strain the health-care system. In an analysis published in May by *Nature Medicine*, researchers at Fudan University in Shanghai estimated that, with almost no natural immunity in the population, if the omicron variant were to spread in China without mass testing and lockdowns, it could result in as many as 1.6 million deaths. A viral catastrophe on that scale would severely test the reputation for administrative competence that the Communist Party has placed at the core of its political pitch since the 1990s.

In July, Xi told officials that he believes China's approach continues to be the right one. "We have protected people's lives and health to the maximum extent," the president said, "and achieved the best performance in the world in coordinating economic development and epidemic response."

Everbright Headwear, which supplies hats bearing the logos of the New York Yankees, the Dallas Cowboys, and other teams to Buffalo-based New Era Cap LLC, opened a factory in Ruili in 2019. The company was following an increasingly common path for Chinese manufacturers as wages rose and the working-age population was constrained by the legacy of the one-child policy, in force from 1980 through 2015. Hiring had been difficult in Jiangsu, the heavily industrialized province where Everbright has its headquarters, but in Ruili the company could employ large numbers of Burmese workers who were in China legally. It could house them in on-site dormitories and pay them about $450 a month, half of what a Chinese employee would demand.

The long-term plan, factory manager Chen Xile told *Businessweek* reporters, was to expand the plant from 400 staff to more than 1,000, who would account for 40% of Everbright's overall production capacity. (The company sometimes fills custom orders for top athletes, among other services; Chen can recall LeBron James's head size from memory.) But the pandemic and the border closure brought attrition. When workers returned to Myanmar, whether to visit family or, in some instances, because a loved one had been killed in the country's ongoing civil conflict, they couldn't come back. By Aug. 11, Everbright was down to fewer than 300 personnel, leaving Chen desperate for replacements. He joked that his staffing policy



now amounted to "If you're human, you're hired." Ruili locals didn't appear to have much interest in making hats for relatively low wages, forcing Everbright to move much of its production abroad, to Haiti and Laos. Its factory in Laos, which opened in 2021, has grown to 4,000 workers and is now the company's main production base. "We'd rather be in China," Chen said. But access to labor was crucial. "It's all about volume. If you can't get volume up, everything is hard."

Apart from manufacturing, Ruili's economy revolves largely around jade, which has long been prized in China, particularly for jewelry. Myanmar is by far the largest jade producer in the world, and Ruili is the traditional conduit for shipments heading north. At the Duo Bao Zhi Cheng market, Ruili's largest for jade jewelry, many merchants were already shifting their operations at least partially online prior to the pandemic, part of a broader transformation for the social media age. Jade dealers have become some of China's most enthusiastic livestreamers, creating what are essentially smartphone-optimized QVC broadcasts, with hosts interacting constantly with viewers through a chat function. See a bracelet you like? Text the host any questions you may have and then haggle for a better price, perhaps inspiring some theatrical shouting. Jade sales have the added appeal of being streamed from crowded, lively markets, providing local color that some buyers find irresistible.

One of the sellers at Duo Bao Zhi Cheng market, who would give only his surname, Li, said he'd started with a traditional jade stall. Then his daughter tried running some livestream sales during her summer break from vocational school. The money she made in a month was enough to persuade her to drop out and for her father not to stop her. In 2019 they sold as much as 100,000 yuan of jade per day, 70% of it online.

1 Customers shining specialized flashlights to inspect raw stones at the Delong night market

2 Dealers at the night market

3 Livestreaming gem trades

4, 5 Factory floor at Everbright Headwear

In the spring of 2021 Ruili officials shut down the jade market, fearful that livestream sessions, which can attract dense groups of spectators, would spread Covid. Livestreaming from home was impractical, not least because of the difficulty of sending orders to customers from locked-down apartment buildings, and the trade more or less shut down for over a year. The Chinese government also halted cross-border shipments, insisting, contrary to international scientific consensus, that Covid can be spread on the surfaces of consumer products.

The jade market reopened only this April 28, and cross-border shipments have resumed in small volumes. "When they said the market was reopening, I was so excited," Li recalled. "I'd been sitting at home for a year." He was hopeful he'd soon get back to pre-pandemic levels of business.

But for everyone in Ruili, as in the country beyond, normality is precarious. It took just a single positive test for the government to initiate the September lockdown, which covered about half the city. Earlier in the month officials confined the 21 million residents of Chengdu to their homes after a flare-up of infections, shutting down a vibrant hub of industry and culture in Western China. Any positive test in Ruili could provoke a similar response, yet again.

For the time being, China's leaders are willing to pay the high price of Covid Zero, and citizens have no choice but to go along. A 32-year-old jade dealer, one of the few Ruili residents *Businessweek* managed to interview without supervision from local officials, was fatalistic. Whenever the virus appears again, he said, he plans to do what the government tells him. There's no other choice, he said, and no point worrying about a future over which he has no control. "Ruili is now the safest place in China," he asserted, half-joking, "because we stopped everything." —*With Linda Lew* Ⓑ


NIKOLA

What Was Really Under the Hood at Nikola?

Trevor Milton was on top of the world with a hydrogen electric truck startup valued higher than Ford and a newly minted billionaire status—until a product designer, an engineer, and a short seller decided to become whistleblowers

By Allie Conti Illustrations by Martin Groch

Bob Simpson crouched and waited for his cue. When the silk sheet finally slipped off the truck, the engineer scurried behind the curtains, crawled underneath the stage, and plugged in the power cord. The Nikola One prototype, a colossal red-white-and-blue semitruck, lit up, prompting hundreds of investors to clink their Champagne glasses and take videos with their phones. "Oh, that thing is so awesome," said Trevor Milton, Nikola's chief executive officer, with the controlled energy of a youth pastor. As he paced back and forth on stage at Nikola Corp.'s Salt Lake City headquarters, rubbing his hands, he almost did sound like he was pushing a new religion. "We've been waiting so long to show this to the world," he said. "You have no idea. It's hard to even contain."

Simpson and his business partner had been contracted as engineers to design and build the prototype's electric drivetrain. Simpson was excited to be working on a vehicle that had long been considered a clean energy white whale by investors, environmentalists, and the industry as a whole: a mass-produced hydrogen-electric hybrid freight hauler that would have far more range than a Tesla and could be refueled in about the same amount of time as an internal combustion model.

But he soon realized the job wouldn't be nearly as thrilling as he'd imagined. He'd mostly be connecting batteries he'd built himself at home to Nikola's truck. Then, about halfway through his eight-week contract, he began to suspect he was brought in to make something that only looked like it worked.

That feeling was confirmed earlier on the day of the big reveal—Dec. 1, 2016—when Milton held an all-hands meeting and made clear that no Nikola workers were allowed to talk to investors about the truck at the after-party. Simpson also noticed a new stencil on the prototype, a big "H2." As far as he knew, there wasn't even hydrogen technology in the building, never mind in the project he'd been working on for the past two months. When a Nikola executive asked him to plug in the prototype on stage, he was so shocked that he went along with it, he now says. "I was kinda smiling, but I was kind of gritting my teeth and thinking, 'What is going on here? This is just too weird,'" he says.

As the governor of Utah climbed onstage, Simpson says he felt simultaneously proud and embarrassed. After all, he'd built most of a good drivetrain with the few resources he'd been given. He could have flown home early, but he wanted to stay and see what would happen—what Milton could possibly say about a project that wasn't even close to completion. Still, he was taken aback when Milton told the audience that the truck was fully functional, running on hydrogen fuel cells.

After the presentation ended, Simpson wove through the crowd trying to read his co-workers' faces to see if they were just as freaked out as he was. But true to ▶

◀ the instructions they'd received, no one said anything. Simpson drank a glass of wine, picked at some catered barbecue, and left for the airport.

By 2020, Milton's narrative about the five-year-old truck startup had metastasized into a frenzy. The former door-to-door salesman had parlayed the prototype into a deal with a special purpose acquisition company, which gave Nikola new status as a publicly traded entity with a market capitalization bigger than Ford Motor Co.'s. On paper, he became the 188th-richest person in the world, according to the Bloomberg Billionaires Index. General Motors Co. announced plans to take a $2 billion stake in the company. Milton appeared on CNBC that March to explain that his plan was to make not only trucks, but also the hydrogen fuel cells that powered them, and a network of 700 stations where drivers could refuel those cells. Billionaire investor and Nikola board member Jeff Ubben sat next to him and called it the "next $100 billion company."

Then, in June 2020, just weeks after Nikola went public, Bloomberg News published a story about Milton embellishing the Nikola One's capabilities. A few months later, a short seller named Nate Anderson of Hindenburg Research produced a devastating report on Milton and Nikola, describing entrepreneurial hubris, investor exuberance, and echoes of Elizabeth Holmes and Theranos. Milton's criminal trial, for two counts of securities fraud and two counts of wire fraud, began on Sept. 12. He contests the charges. Milton's lawyer, Marc Mukasey, said in his opening argument that the case was "a prosecution by distortion" and Milton was a victim of short sellers. "The truth is that all of the facts were fully and accurately disclosed to anyone who wanted to invest in Nikola," said Mukasey. After the US Department of Justice's case is decided, a civil complaint brought by the US Securities and Exchange Commission will go to trial.

In the years leading up to the SPAC, Milton had been known to make frequent appearances at Nikola's headquarters—relocated to Phoenix—with his dog. But after the company went public, he no longer came around posing his favorite question to his 400 employees: "Y'all havin' fun?" The answer was, many were not. Former Nikola engineers told me they spent their days doing mind-numbing and sometimes dubious work, like connecting off-the-shelf converters and then, as alleged in the Hindenburg report, covering their labels with masking tape to make them look proprietary. But they didn't dare question what Milton was asking them to do—many had quit previous jobs and relocated. If it turned out they were working on a mirage, as some suspected, it might haunt their careers.

Meanwhile, Milton was posting YouTube videos about his wife's wine cellar and off-roading adventures. When he rang the Nasdaq Stock Market closing bell in a virtual ceremony marking Nikola's SPAC listing in June 2020, Nasdaq's chief client officer remarked that Milton's "people and culture reflect[ed] the virtues of American entrepreneurism." And Milton's improbable ascent did represent a version of the American dream. He grew up Mormon in a two-stoplight town in southern Utah, got a GED diploma, went to college to meet girls and learn how to socialize, and left after a semester. "I didn't even [graduate college], because I wanted to pay people to do my homework. That's what real CEOs do," he once said on Instagram Live.


Milton at a 2019 Nikola event in Turin, Italy

He started his first company, which sold home security systems, in 2004, at the age of 22. Two years later he sold it to a man who later said Milton misrepresented the financials, according to CNN. (Milton denies this allegation.) But he'd barely scratched the surface of his entrepreneurial desires. By 2019, Nikola had unveiled plans for five vehicles, including a personal watercraft, an all-terrain vehicle, and an all-electric semi called the Tre. The company announced in the fall of 2020 a strategic partnership with GM to build an electric pickup called the Badger. It's unclear what motivated GM: Maybe it was Tesla FOMO, maybe it was that a former GM executive had helped Milton take Nikola public. (A representative for GM declined to comment for this article.) Either way, the deal helped elevate Milton's place in the automotive industry cosmos, putting him right up there with Elon Musk.

While Simpson, the engineer instructed to plug in the truck, had no interest in becoming a whistleblower, in the weeks immediately following Nikola's SPAC listing, his business partner decided it was finally time to speak out. Paul Lackey set up a Twitter account—@InsiderNikola—to push back against Milton's story. He teamed up that summer with Hindenburg's Anderson, along with Mike Shrout, a former business partner of Milton's, and attorney Mark Pugsley, to file a whistleblower complaint with the SEC. Two days after the GM partnership was announced, Anderson's firm published his explosive report, accusing Milton of repeatedly lying to investors and possessing no proprietary technology of his own.

The YouTube commentariat jumped on the case, deeming Nikola a shell of a company that painted its own logo on preexisting auto components. That September, investors filed at least three class-action lawsuits against Milton, who stepped down from his executive chairman role and deleted his Twitter account. Then came sexual assault accusations made by both his cousin and a teenage former employee. (Milton told CNN he denies these allegations.) Nikola stock plummeted 50% by October. The SEC, the Postmaster General, and the Justice Department started investigating. In late

MASSIMO PINCA/REUTERS PICTURES

November 2020, GM dropped its plan to take a stake in Nikola.

Milton called Anderson's report a "hit job for short sale profit driven by greed." It's true that an activist short seller has a financial interest in Nikola's failure: Both the criminal and civil cases sprang from the whistleblower complaint. If the verdict of either trial requires Milton to pay fines and penalties to the agencies, all the whistleblowers stand to make millions. That could mean an additional windfall for Anderson, who already took an aggressive short position on Nikola before essentially tanking its stock with his report. (Lackey also made $600,000 off the report.)

Milton declined to talk to *Bloomberg Businessweek* for this article, citing rules of the Southern District of New York, which is prosecuting the criminal case. But he says the whistleblower allegations are untrue. "Your email is full of false information that has been given to you, and we can't comment on anything until after trial," he replied to *Businessweek* in an email. Once the case closes, he says, he is "happy to respond to every one of these [claims] and set your record straight." In an interview with Bloomberg News in July 2020, Milton stated emphatically that he hadn't exaggerated claims about the truck. "I never once ever told anyone that the Nikola One was powered by fuel cell," he said. "It was not a pusher [an inoperable vehicle]."

The story of Milton's stage-prop truck is, by this point, legendary in certain corners of the retail investing internet. But what happened afterward, revealed here for the first time with exclusive interviews, is a tale at least as rich, or at least as weird: aggrieved left-brain types and an activist short seller accusing a Silicon Valley-style billionaire of lying and stealing. According to the whistleblowers, some of Milton's alleged attempts to dig up dirt on them are as ridiculous and half-baked as the fraud he's been accused of; others are simply baffling. As John Scott-Railton, an internet security researcher who's been dragged into the saga, puts it: This "campaign is a mixture of well-done and ham-fisted. It's one of the least technologically sophisticated cases I've ever investigated—and that's what makes it interesting."

Mike Shrout had every reason to think he could make lots of money. It was the late Aughts, the cost of diesel had just spiked, and his home state was full of natural gas wells. A self-taught product designer, he'd just figured out a way to convert diesel engines out of his garage in St. George, Utah. He could make one run on compressed natural gas for four or five grand ▶

◀ a pop, a no-brainer for anyone who spent a lot of time on the road, which was basically everyone who lived in a town hemmed in by the Mojave Desert and the Great Basin, hours away from the nearest midsize city. He quit his job running a truck accessory shop out of a strip mall, put up a giant sign, and waited for the dollars to pour in.

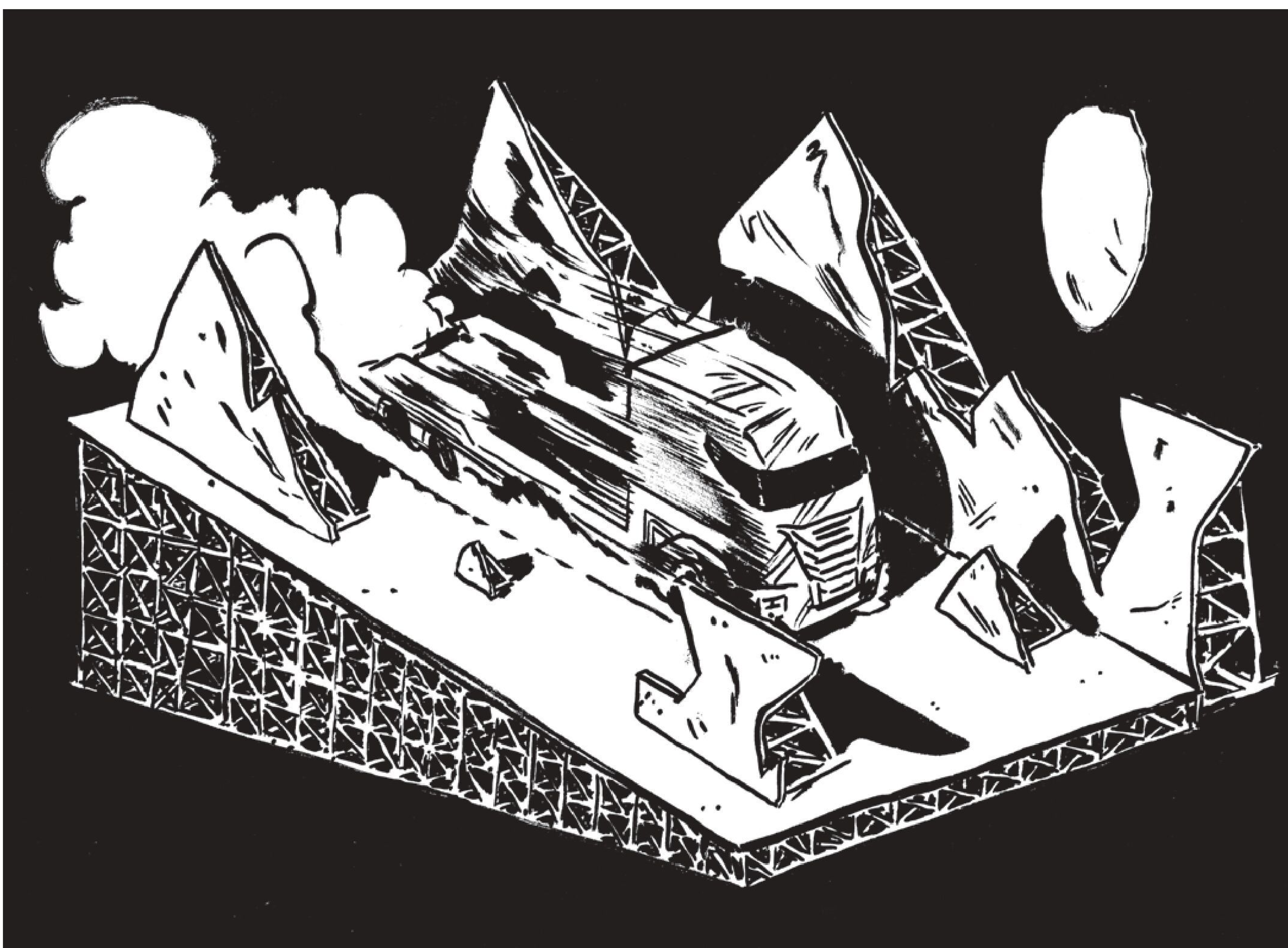
He'd also figured he'd never again lay eyes on the guy he knew from the door-to-door alarm system company that operated a couple of doors down from his old gig. But one day in 2009, while working out at the gym, Shrout ran into the fast-talking salesman, Milton, who was wearing street clothes. "The more I think about it, it wasn't a chance encounter," Shrout says.

Milton asked Shrout to convert his late-model pickup to a hybrid, then suggested the two go into business together. They verbally agreed on their roles for a new venture called dHybrid, in which they would share equal ownership. Shrout would furnish the drawings of his engine while Milton would provide marketing acumen and connections.

Shrout wasn't sure he could trust Milton, but he was desperate for money. He told Milton he could file a provisional patent application on the pair's behalf, but filmed a video of himself explaining the situation and documenting that the drawings were his. The next day, Nov. 24, 2009, Milton began setting up the company and issued 1 million shares to himself. There was just one problem: He didn't have enough knowledge to actually fill out the patent application. He asked Shrout to look it over and provide a technical review. That's when the product designer saw that Milton had taken his drawings and credited himself as the sole inventor. Shrout slipped his name in as co-inventor and sent the application back to Milton's attorney.

Shrout says Milton agreed to issue him 50% of dHybrid's shares, but there were always excuses for why the process was taking so long. In 2010, when Milton secured a $2 million development deal to convert 10 trucks with Swift Transportation Co., a shipping company in Phoenix, Shrout says he still didn't have any shares. According to Shrout, Swift's executive team was blown away by his design—it would save the company 61% per mile if it were implemented into its fleets. (Swift declined to comment.) Milton promised Shrout an eventual million-dollar payout if he signed an agreement transferring all ownership of the intellectual property to dHybrid. Shrout signed.

But he continued being so hard up for cash, he couldn't afford to drive to the office he and Milton had rented and



worked on the engine prototype in his driveway. Milton, meanwhile, upgraded his house, boat, and truck—and also started spending almost $100,000 per month to advertise his side business, a classifieds site called uPillar.

Finally, Shrout refused to do any more work until he received his shares. Milton acquiesced, but then issued 5.5 million additional shares to uPillar on the same day, thereby diluting Shrout's stake. In June 2012, Milton told Shrout that dHybrid was out of money. His paychecks would come to an end, and he'd be locked out of the company's email system.

A few months later Shrout discovered that Milton and his father had incorporated a new company called dHybrid Systems LLC. Several companies later, in 2015, Milton would launch a similar business with a name that finally seemed to capture the grandiosity of his ambitions: Nikola.

In the winter of 2017, Paul Lackey, the former contractor behind what would eventually become the @InsiderNikola Twitter account, texted a former colleague who'd just quit his job at Nikola and asked: “So how did they do that video?”

Lackey was referring to a promotional spot that featured the Nikola One speeding down a flat, two-lane desert highway. There was no narration, no visible person. Its message was simple and clear: This thing is for real. But the contractor, having worked on that very vehicle, knew that couldn't be true. “I figured they'd green-screened it,” says Lackey.

The former colleague confirmed the semi didn't, in fact, run on its own. But almost three years later, it still nagged at Lackey: How did they pull off the video? He texted the ex-Nikola employee again, who confessed the company had rolled it downhill, but he didn't know exactly where.

That's when Lackey decided to conduct a little research. He recognized from the landscape that the video was shot in Utah, which is mostly subsumed by mountains and the Great Salt Lake, and bisected by a handful of roads in the middle. He poked around on Google Maps, looking near the 1,400-mile Mormon Trail. It was a wild guess, but he found what appeared to be the video's setting. And damned if this stretch of highway actually wasn't flat—it looked like it had just a tiny bit of a grade. Given that he was on the other side of the country, he needed to find somebody local to check it out in person.

By around this time, an attorney in Utah named Mark Pugsley had already been in touch with Lackey. Years earlier, Pugsley had developed a specialty practice dealing with affinity fraud among Mormons, many of whom had gotten ripped off after investing with members of their church. Utah had the highest rate per capita of such crime in the US, but prosecuting these cases wasn't exactly fruitful. “It's not like with public companies where they have hundreds of millions of dollars on hand to satisfy investors,” Pugsley says. “It's more like a guy down the street who thinks he has a great idea, so he borrows money from everyone who goes to church with him and promises these great returns. By the time I find out about these cases, there's no money left for me to recover.”

Now Pugsley was in the whistleblower business. Anyone he represented who came forward with information that led to a successful conviction could earn 10% to 30% of a settlement. When a colleague tipped him off about Milton, he already knew the type. Milton had grown up Mormon and had done two years of missionary work in Brazil. “If you're Mormon, you spend two years going door to door and selling religion,” Pugsley, a former member of the Church of Jesus Christ of Latter-day Saints, explains. “And if you can sell religion, you can sell pretty much anything.”

Lackey asked Pugsley about having someone check out that “flat” stretch of highway. Within a few days, someone drove to the spot. The guy put his Honda Pilot SUV in neutral to see how fast he could get it rolling in a two-mile stretch. He texted Lackey a picture of the speedometer: 56 mph.

Ecstatic, Lackey reached out to a couple of journalists, but neither pursued the lead. Then he approached Bloomberg News reporter Ed Ludlow, who had already started looking into the claims being made by Nikola and Milton in interviews and regulatory filings about its technology and speed to market. Ludlow, having spoken to multiple people familiar with the matter, broke the story: Not only was the Nikola One a nonfunctioning truck, he wrote, it was missing essential components that would have made it capable of operating. Milton threatened Ludlow and Bloomberg with a libel suit. “This was clearly done with the intent to wrongfully harm Nikola using knowingly false information to construct a blatant hit piece,” Nikola's chief legal officer wrote in a statement that was posted to Twitter.

Lackey hatched his @InsiderNikola Twitter account, where people in Milton's orbit could find each other through direct messages. Meanwhile, Pugsley was collecting his whistleblowers—including a short seller he had once worked with who could stand to make them all a lot of money.

When Nate Anderson launched Hindenburg Research in 2017, it was just him sitting in front of a computer on the Upper West Side of Manhattan, sniffing out a new breed of sketchy startup. Questioning SPACs such as DraftKings Inc. and Clover Health Investments Corp. eventually made him a breakout star of the short-selling world.

By the winter of 2020, when one day he found himself sitting on a park bench in Manhattan with a woman who called herself Natalia and a supposed new whistleblower named Frank, Anderson had already written up the Nikola report—his highest-profile get so far—and was just a few months out from being crowned the “last sane man on Wall Street” by *New York* magazine.

Anderson went undercover once before, in 2019, when he pretended to have a limp to infiltrate a seminar in which a company called Predictive Technology Group Inc. peddled suspect stem-cell-derived miracle cures. But this felt different. Now he was actively pretending to be ▶

◀ someone else—specifically, the whistleblower known as @InsiderNikola, who played a key role in Anderson's report.

There were a couple of indicators that made this woman, Natalia, seem suspicious from the jump. Her email address contained the numbers "007." She claimed she was a reporter who covered "Russian spies." And the paper she said she worked for was "the *Guardians*"—she kept using the plural. "I can also influence to get a good article out and achieve popularity," she first wrote to @InsiderNikola in October 2020. "Does this interest you?" She included a link to what she claimed was information that might help further implicate Milton in some sort of fraud.

The actual @InsiderNikola, Lackey, immediately suspected this email was Milton trying to track him down. He'd heard that a former senior US Drug Enforcement Administration agent, who once worked on El Chapo and MS-13 campaigns, was door-knocking around Utah, apparently looking to squash potential leaks from Nikola. A former employee had his cell hacked. A video game designer named Jonathan Holmes had given @InsiderNikola a heads-up that a bounty was out for his true identity on a janky-looking Facebook page called Operation Identity. So Lackey was proceeding with caution. After a few emails, Natalia suggested an in-person meeting. He forwarded the exchange to Anderson—with whom Pugsley had already worked on another case involving Mormons getting defrauded—to ask his advice on how best to proceed.

Anderson agreed that Natalia seemed suspect. He forwarded the email to his buddy John Scott-Railton, a researcher at a nonprofit who studies digital security. Scott-Railton immediately sensed an opportunity that had eluded him his entire career: "For a decade, I've investigated bad people who hack journalists and whistleblowers. But the big problem is typically the people who hack are different from the people who do in-person things." And because hackers typically live overseas, beyond US jurisdiction, he explains, "that means that the people who hack almost always get away with it." This case, on the other hand, had something more tangible—the possibility of meeting face-to-face, "a chance to pull back the veil a little bit."

Anderson and Scott-Railton concocted a plan to pretend to be @InsiderNikola and a third whistleblower, and to meet Natalia in New York together. They set a date and suggested moving from email to cellphones. Anderson went to Best Buy and bought a burner phone so his home address couldn't be tracked. When they finally spoke, Natalia told them that at the in-person meeting, her whistleblower, Frank, would hand over a thumb drive with damning evidence against Milton. On the day of the meeting, Anderson put on a Nikola hat and headed to a bench near the designated spot in Manhattan's Madison Square Park with Scott-Railton. He also hired a former Black Cube intelligence operative to monitor if anyone else was watching them or filming the encounter.

Although Anderson had done all kinds of research to crack open Nikola—including obtaining a satellite photo of the headquarters in Phoenix to prove that it wasn't, contrary to Milton's claims, powered by solar panels—this was out of his depth. "I was scared out of my mind," he says. He sat on the park bench for five minutes. Ten. Finally Natalia, a blonde in her late 30s, walked up with Frank. Natalia looked nervous. Her voice quavered, and she avoided eye contact. Her behavior struck Anderson as more in line with that of a journalist than a spy. Maybe, he thought, he was wrong. He tried to make small talk about the weather, just to feel her out.

"What's your beat?" Anderson asked. "What do you cover?"

"Actually, I wrote a story about Ukrainian spies," she said in a heavy Eastern European accent. By the time she explained that the alleged story was published "on the internet," Anderson was grateful he was wearing a pandemic mask—she wouldn't be able to tell he was trying not to laugh. She was a spy after all, he realized, just not a skilled one.

Anderson asked Natalia how she met Frank, the silent man next to her. "The internet," she said again. He had documents, pictures, emails, and multimedia on a thumb drive he'd brought, she added.

By this point, Anderson was confident the whole thing was just a harebrained setup. There was no journalist named Natalia, no whistleblower named Frank, and no evidence. It was just a couple of randos paid to get @InsiderNikola to show himself. "This was the Kmart version of the PI world, which was surprising because Trevor Milton is a billionaire, and it seems like he could get some advice on a talented group of private investigators," Anderson says. "We were prepared for high-level chess, and they came out playing Candy Land."

Frank then complained that he was unable to hear the conversation, because everyone was wearing masks. He kept leaning closer to Anderson and Scott-Railton, as if trying to get them to speak into a hidden microphone. Eventually, he persuaded the group to lose the masks. Anderson expected the spies to see his face and recognize him as the Hindenberg Research short seller, Nikola's most famous critic. "I thought it would be a mic drop moment, but Natalia just had a blank face," Anderson says.

Then Natalia inexplicably said she wouldn't continue to speak without a lawyer. Frank, for his part, was completely unsure how to react. It was almost like they'd never researched the history of the company they were working for and had no idea why they were there.

The meeting ended unceremoniously. The Black Cube guy let Anderson and Scott-Railton know that someone was outside the park in a sedan recording them. Scott-Railton approached the vehicle while holding a GoPro camera, but the car peeled out, almost hitting him. Anderson returned to Scott-Railton's hotel to put the newly obtained USB stick in a

Ziploc bag, then went back to his Upper West Side apartment, put his daughter to bed, and ate a bowl of Cheerios.

Hiring private investigators to suss out potential enemies is a textbook move for billionaires. Musk used PIs to research both his own corporate whistleblowers and, in an episode that was bizarre even for him, a British diver he picked a fight with over how best to rescue a Thai soccer team trapped in a cave.

Months after the meeting in Madison Square Park, Anderson was still trying to expose the identities of the spies—there are, after all, untold millions of dollars riding on the whistleblowers' ability to prove that the former Nikola CEO will go to any means possible to protect his company.

So far, Anderson and Scott-Railton believe they have successfully tracked down the people in the park: an ex-detective with the New York Police Department (the guy in the sedan, whose plates they ran), a polygraph expert who's been sued for allegedly manipulating the financial performance

of his own company (the man who went by Frank and was identified through facial recognition technology), and the woman who called herself Natalia. Scott-Railton helped figure out her identity after a couple of false starts that included finding her profile on the Russian version of Facebook, where she claims to live east of Tel Aviv. In reality, she lives in Miami, where she recently answered the phone at a used-car lot. I obtained my private investigator license on a lark in 2021, and when I asked if she'd ever worked as one, the woman on the other end of the line, Julia Dudenko, laughed. She said that while she wasn't licensed, she had worked as a spook exactly once: in December 2020, at a park in New York City.

As she put it, a Ukrainian man came into her office one day and told her she "looked brave." He then asked her if she'd fly to New York that weekend for $2,000, paid up front. Dudenko said the only explanation she'd received was that she'd be meeting with someone who "posted things online that they shouldn't have." She claimed to have never heard of Nikola nor sent any emails to @InsiderNikola. "I'm not sure I'm supposed to be talking to you," she said, before hanging up.

"Natalia" was probably not the first choice. One PI in Los Angeles told me he was approached about looking into Anderson, but he claims to have passed on the assignment because he used to work as a journalist and sympathized with the targets. Still, he was able to theorize on the basic mission: If Nikola was somehow able to tap into the computer of either the short seller or one of the other whistleblowers—or otherwise dig up some dirt on any of them—that might help sway a jury. He also confirmed the essential truth of what Scott-Railton told me: that some of these efforts are impossible to trace back to the source. "The big firms launder their lying—they hire a PI who hires another PI so nothing can ever really be traced back to the client," he says.

In July 2021, about six months after the botched fact-finding mission, Milton was indicted on two counts of securities fraud and one count of wire fraud. The US Attorney's Office claimed that he used social media, in particular, to promote false claims about his proprietary technology, which led people to invest—and then lose—tens and sometimes hundreds of thousands of dollars. In December, Nikola agreed to pay $125 million to settle an SEC civil fraud case over its representations to investors. The whistleblowers all breathed a little easier, assuming that since the feds were after Milton, they must be monitoring his behavior, too.

Milton's attorneys are arguing that any misrepresentations their client made weren't in official filings, but on social media—and that they happened before Nikola became a publicly traded company. Meanwhile, Milton caught another charge in June. Prosecutors say he defrauded a man who sold him a ranch in Utah by persuading him to accept Nikola stock options as payment.

Despite all this, Milton's company is still alive. In August, Nikola named a new CEO, Michael Lohscheller, who previously worked at GM and Volkswagen. It's hiring at its Phoenix headquarters, which currently employs about 900 people. Its stock is trading at around $5 a share, a far cry from its all-time high of $79.73 in June 2020, while the company is producing small batches of battery-electric semis.

Milton, who no longer has an official role at Nikola, has offloaded more than $317 million in shares of the company. At his trial, which began on Sept. 12 and is expected to last through mid-October, new details continue to emerge. Already, a former Nikola engineer told the jury that the company's Badger pickup prototype was made partly of components from a Ford F-150 Raptor. But the startup's true believers, who can still buy a $65 Nikola-branded hoodie or $55 polo shirt at the company's online store, point to Nikola's recent acquisition of another company as evidence that its original vision is within reach. On Aug. 1, Nikola bought a California-based battery maker, Romeo Power Inc., which also went public through a reverse merger. At the time, it was courting big automakers trying to compete with Tesla Inc. and was valued at $1.33 billion. But the SPAC feeding frenzy is over; Nikola scooped it up for just $144 million.

FOOD SHOULDN'T BE AN IMPOSSIBLE CHOICE

Hunger Action Month

FEEDING AMERICA

For tens of millions of people in America, a daily meal isn't a choice between different dishes. It's a choice between food and other crucial needs—like medicine. How will you choose to end hunger?

Join the Fight to End Hunger at FeedingAmerica.org/HungerActionMonth

PURSUITS

The New Shape of Comfort

Bold contemporary seating design is reinventing what it feels like to feel good. *By Monica Khemsurov Photographs by Sarah Anne Ward*

Designer Ara Thorose's Ulu chair is not for slackers. The backrest cradles your tailbone, but the low profile promotes good posture: The longer you sit in it, the more effort it takes to sit up straight. *$10,000; arathorose.com*

DESIGN SPECIAL

September 26, 2022

Edited by
Chris Rovzar

Businessweek.com

Chairs are often a bellwether of broader societal shifts. What makes one seem comfortable, or covetable, evolves with time and taste: Stiff Chippendale chairs suited the formal dining habits of wealthy Americans in the 1800s, but in leisure-obsessed 1960s and '70s Europe, seating turned softer and more colorful. "Design is meant to suit the way we live now," says Emma Scully, who runs a furniture gallery on New York's Upper East Side. "When our chairs change, it's typically because the way we live is changing."

After more than two years of the Covid-19 pandemic, our definition of comfort is definitely in transition. It can mean the traditional cocooning feel of a La-Z-Boy, but just as often it's simply something that you like to look at.

Furniture stores are packed with chairs right now that appear to be art objects rather than something you might actually sit on. With its plush appearance and dramatic cantilever, Ara Thorose's Ulu lounge chair (previous page) almost looks like it would collapse if sat on. But it's supremely solid, constructed around an undulating steel frame and encased with foam, then wrapped in a tube of wool upholstery. It's comfortable, too, in a bouncy, springy way that gives you a break before you're back on your feet. "We're living in a time with new sources of stress," Thorose says. "We want chairs that hug us physically and emotionally."

Patricia Urquiola, who's designed interiors for the Mandarin Oriental in Barcelona and Il Sereno on Lake Como in Italy, says that comfort now might be just as much about a seat covered in squishy foam as it is about having something colorful or unexpected in your home.

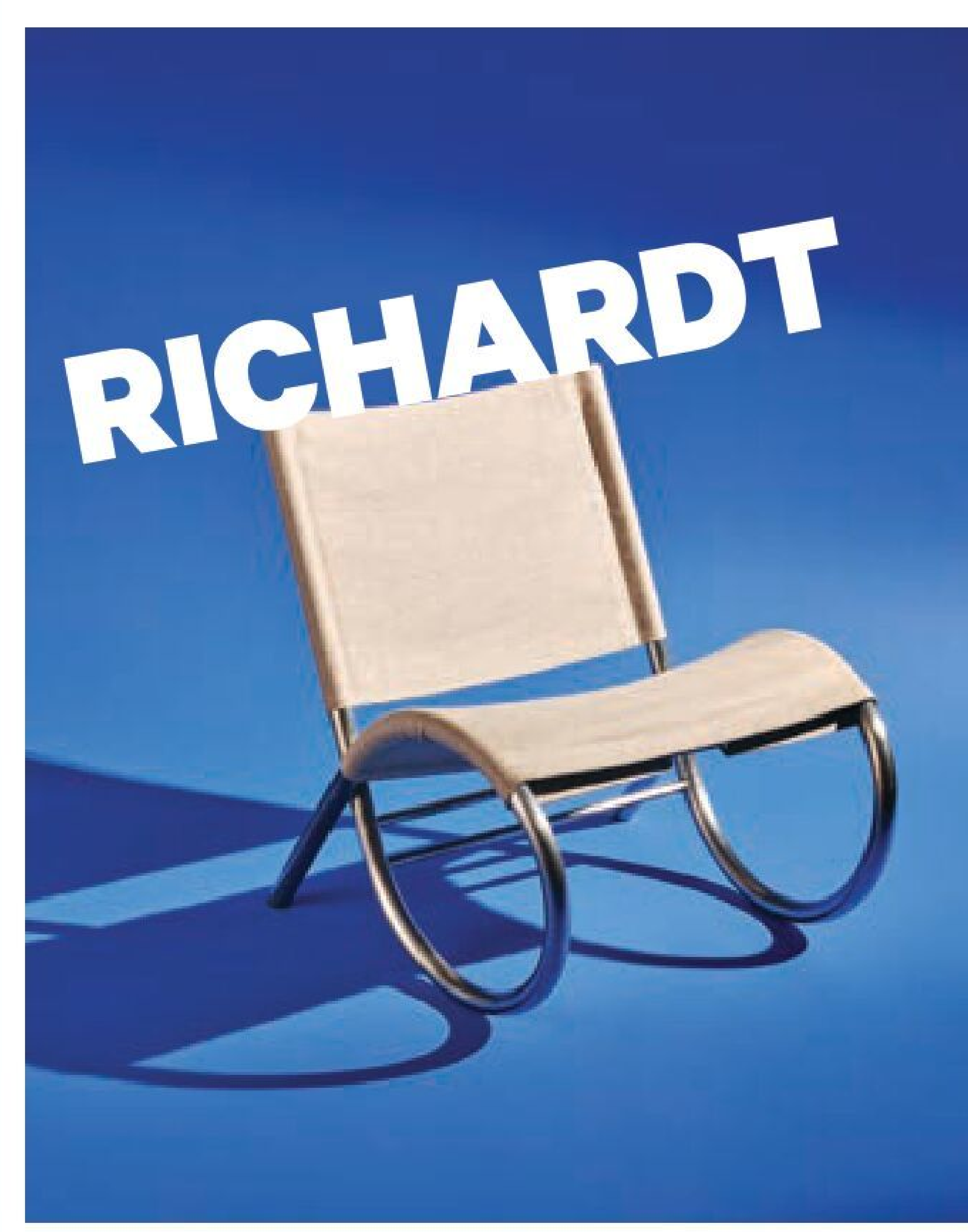
"I like not only the physical comfort but also the mental comfort," Urquiola says. A comfortable chair, like her Dudet design for Cassina (right), "allows you to obtain a different ergonomics. It doesn't have to be an office chair. It doesn't have to force you to a single position. It should give you a visual comfort as much as a tactile comfort. It should let you find your comfort zone, moving and adapting to your changing postures."

This sort of thing has happened before, and relatively recently. In 1972 a little-known Norwegian designer named Terje Ekstrem created a bizarre-looking, spiderlike foam chair. Compared with the austere wooden seats that were popular in Scandinavia at the time, like Hans Wegner's Elbow or Alvar Aalto's E60 stool, it represented not only a novel aesthetic but also a totally new way of sitting: Its design encouraged users to move and slouch around freely, which Ekstrem believed was more comfortable for the human body than being forced to sit still. Yet the chair looked so odd that he couldn't persuade a single furniture company to produce it until 12 years later, when the ascent of postmodernism and a spike in Scandinavians' disposable wealth made it a hit.

Forty years after it was introduced, it's surging in popularity again, but this time for different reasons—it's gone viral on Instagram. On social media, where we increasingly put our homes on public display, there's cultural capital in owning unique pieces that showcase your personality. "There's a sense in which these objects now function as props," Scully says. "When you're taking pictures of yourself, the unusual things just stand out more."

That said, we did sit-test the chairs you see here—all of them, except the Ekstrem, newly designed—and can confirm that they feel every bit as good as they look.

RIFF ON A CLASSIC
A puffy, three-legged seat is not a common sight, but the Dudet chair by Spanish designer Patricia Urquiola references an iconic 1970s design: the Pigreco by Tobia Scarpa. Where the Pigreco has a slim wooden frame and a separate cushioned seat, though, the Dudet is one continuous, cozy hug of a chair. Its allover padded upholstery and wraparound arms fully envelop you. But despite its seamless appearance, a hidden zipper in the seat cover means it can be taken apart and recycled at the end of its life, so you can rest easy in more ways than one. *$2,235; cassina.com*



THE LOUNGER
Danish designer Kim Richardt's unusual lounger for Copenhagen brand Frama had an equally unusual inspiration: a simple looped metal keychain with two protruding ends. "I looked at it and thought, 'This could be a chair!' " he says. "But only if it was nice to sit in." He and Frama spent two years trying to achieve that, eventually landing on a low, Bauhaus-style seat with a looped tubular-steel frame and an upwardly curved canvas seat. It slides your body back into a relaxed position that's perfect for late-night friend hangs or a lazy Sunday with a book. *$3,698; 180thestore.com*

THE SLING, REIMAGINED

For years, Slash Objects founder Arielle Assouline-Lichten has been making austere benches, tables, and lamps out of slabs and cubes of solid marble. But for her first chair, she combines the stone's cool, sculptural presence with a seat that's actually comfortable: a padded mohair sling that conforms to your body and lets you sink in between its arms. "It has a cocoonlike feeling," Assouline-Lichten says. Even the stone itself, available in white, black, and travertine rosso (above), is surprisingly cozy: Its surface feels almost velvety to the touch. *$8,950; slashobjects.com*

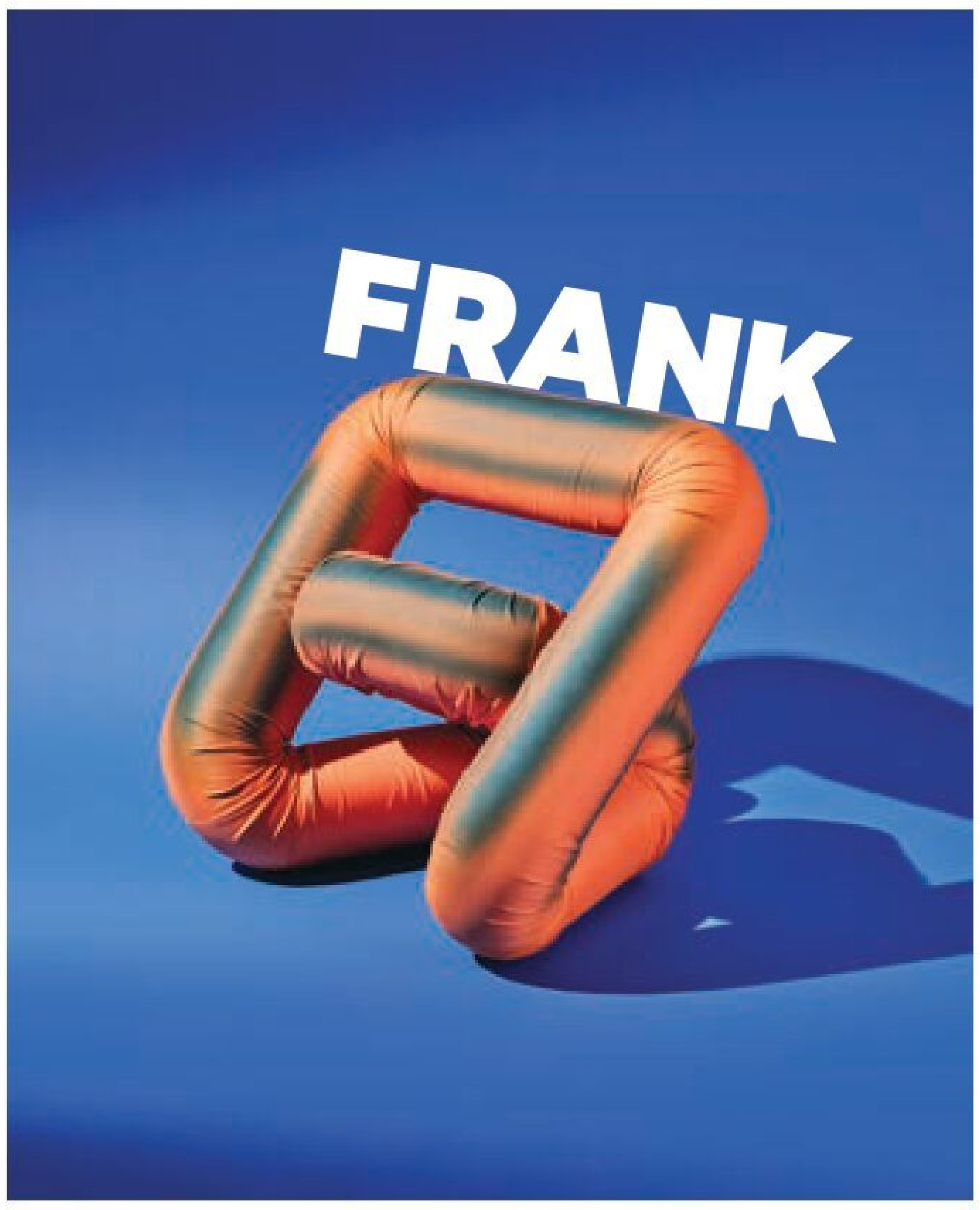
"When our chairs change, it's typically because the way we live is changing"

A STRAIGHT-BACKED ALTERNATIVE

Last year, Gregory Beson decided to give himself a challenge: Could he make a comfortable chair out of a few simple pieces of walnut? The result was the GB100, which looks stiff and spartan but feels good to sit in because of its barely perceptible, eight-degree backrest recline and T-shaped construction. It makes your body "feel as though it's floating," Beson says. The minimal shape is suitable for pretty much any use, whether as a dining chair or an occasional perch in the entry hall. Options with a padded seat are also available. *$2,750; gregorybeson.com*

THE BACK-IN-VOGUE REBEL

First released in 1984, the Ekstrem chair has become a major status object again: Fashion influencers, real estate agents, and design brands are all posting pictures of it holding court in their living rooms and showrooms. Few of them know that for Norwegian designer Terje Ekstrem, it was as much an art piece as a manifesto, a rebellion against chairs that force us to sit in one position. Its unique shape allows you to sit forward, sideways with your legs up on the armrests, or backward with your torso against its backrest—or to fidget among all three, as Mother Nature intended. *$2,999; dwr.com*



THE ALMOST RECLINER

Created for the "Anti Chairs" exhibit at Emma Scully Gallery this summer, Bradley Bowers's Frank hardly resembles a chair at all—there's no obvious seat, and the tubular frame gives it a psychedelic pool noodle vibe. Yet the Brooklyn, N.Y., designer obsessed over its ergonomics and optimized the central opening so it's just big enough to rest your bum without getting stuck. He also streamlined its diameter to be cushy but not bulky. The sense of mystery was intentional: "I don't want someone to immediately understand how to use it," Bowers says. "I want them to discover it, then realize how much they like it." *$12,000; emmascullygallery.com*

ONE THAT SEEMS WOBBLY, BUT ISN'T

The Split Circle chair by Study Hall looks like a cross between a child's toy and a Constantin Brancusi sculpture, as if a yoga ball had been filled with cement. Playfully constructed from three primary shapes and rendered in solid ash, it's elevated by its minimal, totemic form and palette. For its designer, Taylor Hall of Study Hall, the chair's comfort is less about how it feels on your backside and more about a holistic sensation of support. "Sitting on it you feel super-grounded because of its strong central core," she says. It's useful as a chair to meditate in, but it makes a great living room accent chair, too. *$2,200; studyhall.us*

Don't Call It Low Flow

New showerheads are able to get a lot of pressure out of a little water. The result is big savings for the environment. *By James Tarmy*

People in California are not noticeably dirtier than other Americans, and yet residents of the country's most populous state use less water than many of their fellow citizens to bathe, wash their hands, and flush their toilets. Showerheads in California use a maximum of 1.8 gallons of water every minute; Texas residents, on the other hand, are inundated with 2.5 gallons, the most the Environmental Protection Agency allows. California's toilets use no more than 1.28 gallons per flush even though the federal cap is 1.6.

Now, in the face of extreme drought across much of the US, states and municipalities are reappraising their standards. In 2019, Hawaii and Washington passed laws restricting showerhead flow to match that of California's. Last year, Massachusetts passed a law cutting showerhead volume to 2 gallons per minute. Other states, including Utah, have undertaken similar legislation. "On a state level, California has been the most stringent in terms of what is allowed with indoor fixtures," says John Berggren, a water policy analyst at the nonprofit Western Resource Advocates. "But other states are starting to catch up."

The transition toward a water-restricted future is being eased significantly by bath brands themselves. "They've invested time and effort to make water-efficient showerheads," says Gary Klein, a sustainability consultant. And they've funded this research and development themselves. "If you're a company and you've made that investment, wouldn't you want lots of people to buy it?" he asks.

The goal is to make water conservation feel effortless, but that's easier said than done. "People think, 'It's a showerhead, it's not rocket science,'" says Steffen Erath, who leads innovation and sustainability at Hansgrohe, headquartered in Schiltach, Germany. "But when you do go deep, it's actually close to rocket science."

Sometimes the science involves modifying the nozzle size and number of holes to boost distribution and pressure. Hansgrohe uses what Erath calls microthin outlets in its PowderRain mode, putting three to five holes in every nozzle instead of just one. "That increases speed and pressure in a way that doesn't hurt," he explains. "It feels like a soaking spray."

Even talking about flow rates can be counterproductive. "People think less water means less shower pleasure"—the phrase "shower pleasure," or *duschvergnügen*, makes frequent appearances in Hansgrohe's marketing materials—"so they think the more the better."

That's a wasteful misconception. Erath says a good showerhead with low flow can achieve the same coverage as a bad showerhead connected to a geyser.

Efforts to modify Americans' water usage go back at least to the 1970s, when California, a liberal state with a systemic

Showers With Power

RAINDANCE SHOWERHEAD
Using Hansgrohe's proprietary PowderRain technology, the Select S model turns 1.75 gallons per minute into an immersive experience. The company says its "micro droplets," formed by putting several holes in every nozzle, create a fine spray rather than a single jet of water. *$191; hansgrohe.com*

AERO RAIN SHOWER
A new release from Toto uses its Aero-Jet+ technology, which adds air to each water droplet to create larger drops so you'll feel wet no matter your pressure bandwidth. It also pulses the water to increase the perception of volume. *$1,238 for a 12-inch fixture with chrome finish; totousa.com*

ANTHEM DIGITAL CONTROL
Specify the exact temperature of your shower and save time running the tap with this interface. There's also a warm up and pause feature, which purges cold water and holds heat in the system before you turn it on. *$420 (control only), about $3,000 (entire system); kohler.com*

PHOTOS: COURTESY COMPANIES
ILLUSTRATION BY LINA MÜLLER

water problem (the movie *Chinatown* is based on the early 20th century water wars in the region), established an energy commission that had the right to set appliance and building standards. Faucets, showers, toilets, and urinals fell within its purview. It then took about 20 years for the federal government to implement its own caps via the Energy Policy Act, "but the Energy Policy Act built its mathematics on what California did for years," Klein says.

In older homes, you can still find relics from before the law came into effect in 1994: toilets that use 5 or 6 gallons per flush; showerheads where the water comes out like a firehose, occasionally topping as much as 5 gallons per minute.

While national water consumption has sunk, California's has plummeted. In 1990, per capita consumption in the state was 231 gallons a day. Thirty years later, it's fallen 61%, to just 91 gallons a day, though there's been a push for further cuts. Earlier this year, the Metropolitan Water District of Southern California announced drought-related targets in an effort to get the number to about 80 gallons per person. Idaho, by contrast, has at times used the most water, notching 184 gallons per capita in 2015.

Part of the drop seems to be behavioral: It's difficult to take in a megadrought's burnt lawns, dry wells, and vicious wildfires without feeling some glimmer of personal responsibility as you turn on a tap.

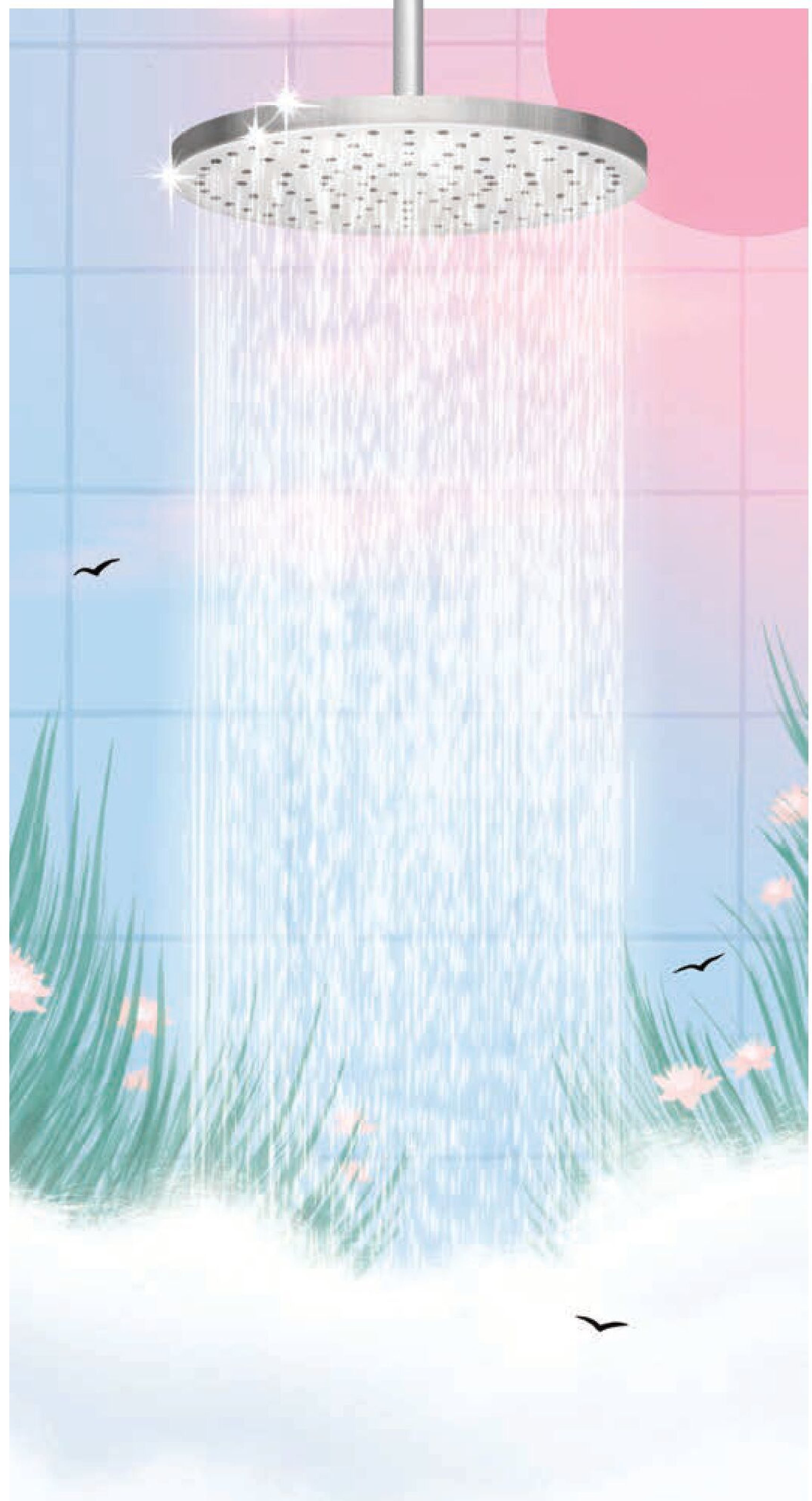
But again, manufacturers have made it easier, and on occasion, impossible, not to save water. One solution helps make individual water droplets larger by mixing them with air. Kohler's air-induction line is called Katalyst. "To the consumer, it means you get a bigger feeling of coverage," explains Thomas Sindelar, marketing manager for performance showering.

The technology is always being refined, but at this point it's ubiquitous–the next time you're at a faucet, fill a glass. "If you put a lot of air inside, the water looks white," Erath says. "If it's white and it comes out of the faucet, that means it's aerated."

Other advances feel so intuitive they don't seem like innovations at all. Kohler discovered that its most water-conscious users will turn off the water when they put in conditioner or soap up, then turn it back on to rinse off. It's a responsible approach but also an unpleasant one: Things can get cold, fast. So the brand developed a knob (dubbed a "variable flow lever"), which allows a user to throttle flow from 1.5 gallons per minute to just 0.5. They still have the warmth of running water with a third of the waste.

The brand has also developed a digital control interface, called Anthem, that allows you to program a temperature on a touchscreen like a thermostat. Not only does this eliminate the timeworn and incredibly wasteful process of turning on the shower, waiting for it to warm up, and then adjusting it three times until it's the right temperature, it also allows you to pause the hot water until you're ready to step in and measures how much water you use.

Once people become aware of how much they're wasting, Sindelar says, they tend to cut back: "That bit of knowledge



influences behavior and helps shape how we use water."

But there are limits. No matter how good showerheads get, Americans need to actually replace their old fixtures, which tend to last for decades. More important, continuing to water millions of acres of unused lawns and filling tens of thousands of swimming pools ensures that water will remain in short supply, whatever we do in the bathroom.

"Our level of innovation, and the physics of water and how it reaches the body–we're beginning to reach the point of diminishing returns," says Bill Strang, president of corporate strategy, e-commerce, and customer experience at Toto. "What's also important is that a wider range of applications need to be put in place, because these drought conditions happening today in Western Europe and China and the US–it's likely that it's going to be an ongoing condition." B

Home Sweet Hotel

Six designers explain how to replicate a resort look in your own abode

By Jackie Caradonio

Predictability used to be the most desirable quality in a hotel. Luxury chains promised the same crisp bed linens, sparkling marble bathrooms, and generic artwork whether you were bedding down in Tokyo or Toronto. But no longer: Hotels' calling cards are now more individualistic—and more homey. "The worlds of home and hotel design have completely merged," says Tara Bernerd, a London-based designer whose projects include the Rosewood Munich and Thompson Chicago.

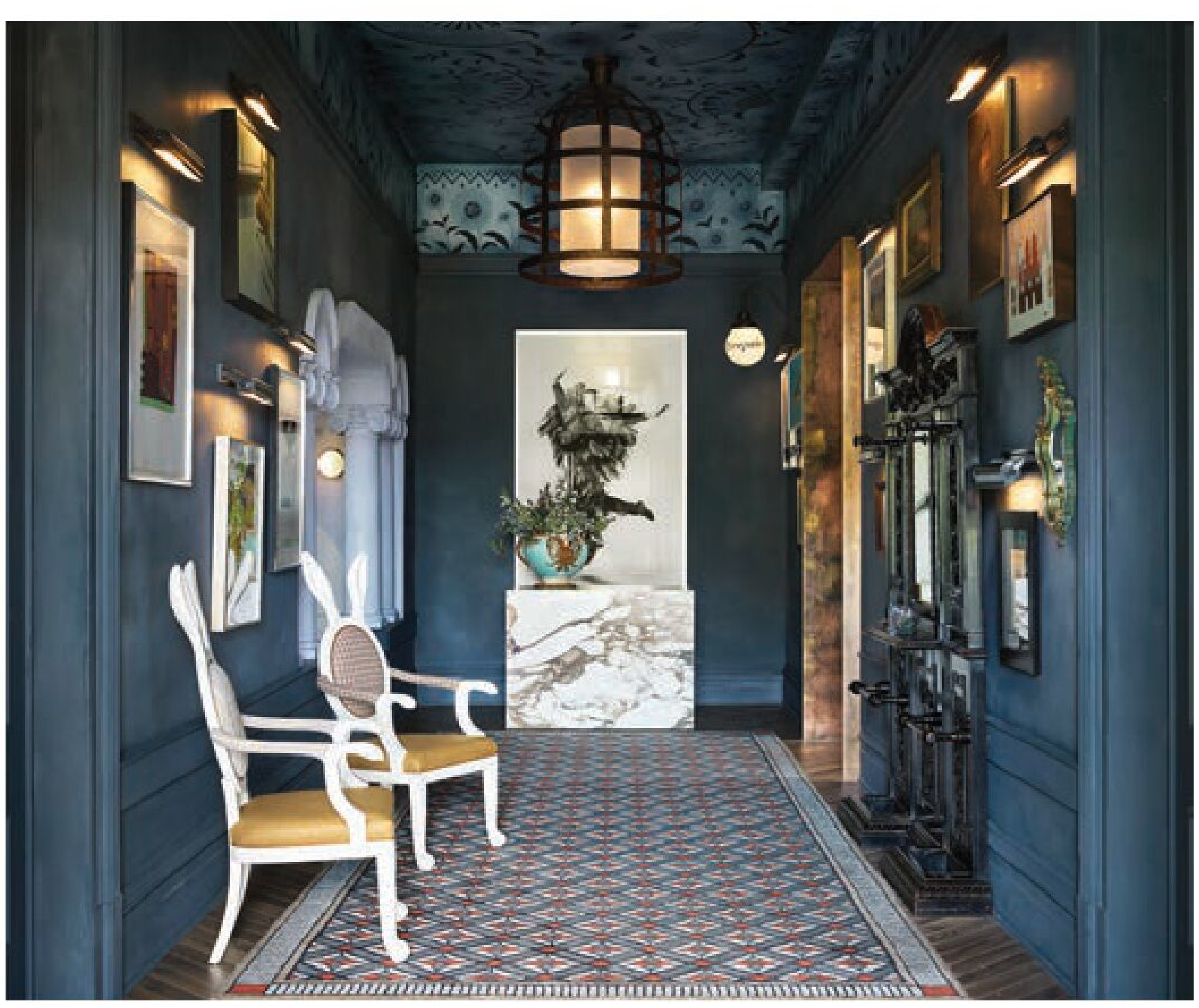
The numbers bear out that claim. A report in July by the Highland Group consulting agency found that the segment comprising boutique hotels, which generally have fewer than 100 rooms and prioritize a personalized experience, is growing much faster than the industry overall and generates more revenue per available room than traditional hotels.

There are major differences between designing a hotel of 200 rooms and designing your house, which has just a few, but the biggest is that a home can use more delicate materials. "In a commercial environment, you have to make sure everything can withstand a lot of wear and tear," says London-based architect and designer Martin Brudnizki, who has Eden Rock St Barths and Pendry West Hollywood on his résumé. On the flip side, the average hotel stay is between two and three nights, so he feels free to make bolder choices. "You can always be more experimental because people are only there for a short time."

That more audacious approach, says San Francisco-bred designer Ken Fulk, is precisely the reason that many of his private clients are inspired by their favorite getaways. "Hotels—the good ones, anyway—are transportive places that imprint on our memories. And for many of us, we want to bring that feeling home," he says. "There's magic in those special spaces, and it's no longer outside the realm of possibility to live that way every day."

We talked to six designers about their latest hotel projects and their tips for achieving a similar style at home.

MAKE AN OPENING STATEMENT



Designer Jay Jeffers first dipped a toe into the hospitality world when he became co-owner of the 19th-century Madrona hotel in Sonoma, Calif., which reopened in April. He treated its entryway like one of his residential projects: with an abundance of color and details. "In many ways, the entryway is the most important space in a hotel or a home, because it's your first impression," he says. That meant a gallery-style collection of artworks and a hand-painted mural over a slate-blue base paired with a graphic rug—a wall-to-wall, top-to-bottom look he'd replicate in almost any home. "People tend to go minimal in hallways, but you can be bolder because they are circulation areas," he says. "You don't spend a lot of time in them, so why not take some risks?"

ADD ANTIQUES WITHOUT LOOKING ANCIENT

For his renovation of the Commodore Perry Estate, an Auberge resort, in Austin, Fulk found inspiration at Texas' Original Round Top Antiques Fair. "I love antiques because they imbue a character and a sense of history in every project," he says. "And, frankly, there is something nice about not creating more stuff." But the designer admits flea markets can be daunting. He suggests first putting "in words what you are aspiring to for your space, like a movie script. Then come armed with a list of items you need." Although the list is meant to be a framework, it shouldn't be thought of as a strict guideline. "Finding something you never expected is part of the fun. After all, who doesn't love a plot twist?"

PHOTOS: COURTESY COMPANIES

CREATE A VISTA ON THE INSIDE

Bernerd approached the lobby of the Four Seasons Hotel and Residences Fort Lauderdale as she would any living space: by establishing a collection of vignettes, or what she calls vistas. The large lobby was surrounded by floor-to-ceiling windows, so she designed double-sided bookshelves to create clusters—a table for two, a lounge area—without disturbing the open feel. "I think of rooms like storyboards," she says. "Each vignette that we create has to live on its own, as a lovely little shot." But they also share common threads, whether materials or colors or a recurring detail like gold or oak.

PUT WHITES IN THE RIGHT LIGHT

For his renovation of Capri's 200-year-old Hotel La Palma, Francis Sultana leaned in to the isle's whitewashed look, but picking the right shade proved an enormous task. "They all come with different warmth and coolness and can look different every hour of the day and every day of the year," he says. Sultana suggests taping swatches or spot-painting on different walls to monitor the change over a few days. "Look for a shade that's not stark white," he says. "The total absence of color is not calming at all." But a white that's pearl or grayish, or with a stone or beige tint, "creates an elegant bedroom no matter your style."

OVERSTUFF SMALL BEDROOMS

The Swedish visionary behind some of the world's most stylish hotels, Brudnizki is not one for subtlety. His new project, Le Grand Mazarin, is housed in an old Parisian aristocratic estate in the Marais. Rather than pare down its pint-size rooms, he filled them with color, texture, and pattern. Tapestries drape over beds like royal canopies, bunches of patterned curtains layer over vibrant walls, and graphic throws add tiers of texture. "You can make up for a lack of space with a lot of atmosphere and design detail," he says.

MISMATCHED CAN BE WELL MATCHED

At Downtown L.A. Proper's new location, layers upon layers of pattern and color—a Kelly Wearstler trademark—are everywhere: checkered ceramics over tiled tables; sofas upholstered in mix-and-match fabrics and topped with striped pillows; beds dressed in no fewer than four different linen styles. Worrying about mismatching, she says, is an outdated concern. "While patterns and textures might clash at times, if there are uniting elements, such as monochromatic colors or complementary graphic patterns, it's in a good way," she says.

Ferrari Crosses Over

The stylish Purosangue offers utility, storage, and comfort. Just don't say it's an SUV. *By Hannah Elliott*

Before he left the company in 2014, Ferrari SpA Chairman Luca di Montezemolo was notorious for telling reporters, "No SUVs while I'm the boss!" Clearly, he's no longer the boss.

Unveiled on Sept. 13 in Maranello, Italy, the Ferrari Purosangue is a four-seat, four-door crossover with a throaty engine, ample storage space, and a mission to overtake the wildly successful Lamborghini Urus and the sportier versions of the Aston Martin DBX. The allure of tapping the automotive segment with the largest margins and proven potential to double sales—that is, SUVs—has finally become too strong for the bean counters at Ferrari to ignore.

The Purosangue isn't the first prancing pony to fit four; Ferrari introduced the 2+2 formation with the stylish 250 GT/E in the early 1960s. The 330 GT, the 365 GT, and the 365 GTC/4 2+2s soon followed, all the way through the quirky GTC4Lusso in the 2010s.

In more recent times, Ferrari has buttered its bread with superfast sports cars meant for two, the SF90 Spider and the F8 Tributo among them. Its resistance to developing an SUV-like coach became harder when archrival Automobili Lamborghini SpA began growing at an unprecedented pace, reporting record revenue after the good-looking and mighty Urus arrived in 2018. Last year, Lamborghini sold 5,021 of them globally, more than half its total sales, broadening its appeal beyond sports cars. Porsche, too, has experienced rampant success with its Cayenne and Macan. The vehicles are credited with saving the brand from financial disaster when they arrived in 2002 and 2014, respectively. And people still line up to buy the coupes.

Purists concerned that a high-rise hatchback (Ferrari brass still won't deign to call it an SUV) will somehow dim the magic the brand has poured into sports cars since 1939 needn't worry. The $394,890 Purosangue—"thoroughbred" in Italian, literally "pure blood"—comes with a naturally aspirated V-12 engine configured to unleash 715 horsepower and hits a top speed of 193 mph. That's more power than any previous four-seat Ferrari, and it beats both the 641-hp Urus and the 542-hp DBX. Plus, it goes from zero to 62 mph in 3.3 seconds, faster than any other crossover in the segment.

Independent four-wheel steering, eight-speed automatic dual-clutch transmission, and a new active suspension come standard. The Purosangue features a unique, ultralight and superstiff chassis, a carbon-fiber roof, and soundproofing throughout the body.

It's the vehicle's aesthetic, though, that best evokes its sports car heritage. The Purosangue echoes the elongated angular headlights of the Ferrari Roma and mimics the extravagant length of a Ferrari GTC4Lusso. Its silhouette runs smoothly from a steeply curved hood to the rear screen and spoiler, which extends midair and is bolstered on either side by the taillights. Forged wheels give it an edgier look, as do the dual front air intakes, which help cool the brakes. Standing 62.5 inches tall, the Purosangue rides lower than the Urus and DBX, while its 473-liter trunk and space offered by folding rear seats will—unlike any other Ferrari—hold enough luggage to get you through more than just a holiday weekend.

Questions of how to get in and out of the thing played prominently in the brains of the vehicle's designers, who gave it conventional front doors that open wider than usual and rear-hinged back doors that swing even more expansively.

The cabin, per usual, evokes a jet cockpit, but one with heated seats, air quality sensors, and Burmester 3D Surround Sound. In the launch version, 85% of the interior trim comes sustainably produced, with elements made from recycled polyester and used fishing nets. Leather is also an option—as is carbon-fiber woven with copper or a bulletproof, military-grade fabric renowned for its durability.

If the Purosangue is anywhere near as good as Ferrari promises it'll be, Lamborghini would do well to start stretching: The race is on. Deliveries start in 2023. Ⓑ

COURTESY FERRARI

Tents of Adventure

Heimplanet's inflatable Kirra shelter offers simple solace for tired hikers

By Matthew Kronsberg
Photograph by Gabriela Herman

Some activities put relationships to the test more than others. Road trips. House painting. Playing host during holidays. But no task is more daunting than the finale to a long day of hiking: setting up a tent. The two-person €899 ($899) Kirra four-season tent from German outfitter Heimplanet is designed to keep campfire conditions convivial. That's because you won't have had to test your patience struggling with a thicket of poles. The setup of the Kirra requires nothing more than a small hand pump (like the brand's €49 double-action floor pump) to inflate the geodesic airframe in a mere 30 seconds.

THE CASE
Heimplanet has been making inflatable-frame tents since 2009, when it introduced the Cave, which could withstand winds as high as 112 mph. The smaller, simpler Kirra weighs 8.4 pounds, so it's better suited to those looking for less hassle than the lightest possible pack. There are 45 square feet of space inside, plus plenty of sewn-in pockets and a removable compartment against the ceiling that can hold a light and serve as additional storage. It comes in three-season and four-season (pictured) versions: Both are constructed from a water-repellent, flexible, and almost puncture-proof 40D Nylon Ripstop DWR fabric that's so strong it's often used as a sailcloth. *€899; heimplanet.com*

THE COMPETITION
• For those who'd rather bike than hike, try the $450 two-person Fly Creek HV UL2 Bikepack Solution Dye tent from Big Agnes. Its 12-inch Shortstik Poleset can be packed into a manageable size and strapped to handlebars, panniers, and saddlebags.
• At just 2 pounds, 10 ounces, Black Diamond's $399 Distance tent with Z-Poles is an ultralight three-season shelter that gets its support from a pair of Distance Carbon FLZ-AR trekking poles, which are included.
• It would be hard to beat the versatility of the Switch, from New Hampshire-based Nemo. The $300 two-person tent can be reconfigured as a sunshade or a screenhouse that lets you see out while still giving protection from bugs and rain.

This Is What a Cash Flow Problem Looks Like

By Shuli Ren

Private equity firms are supposedly masters of the business universe, spotting the hottest trends and giving survival tips to their portfolio companies during economic downturns. But do they know how to manage their own cash flows? Investors are taking a hard look at some of the industry's biggest names.

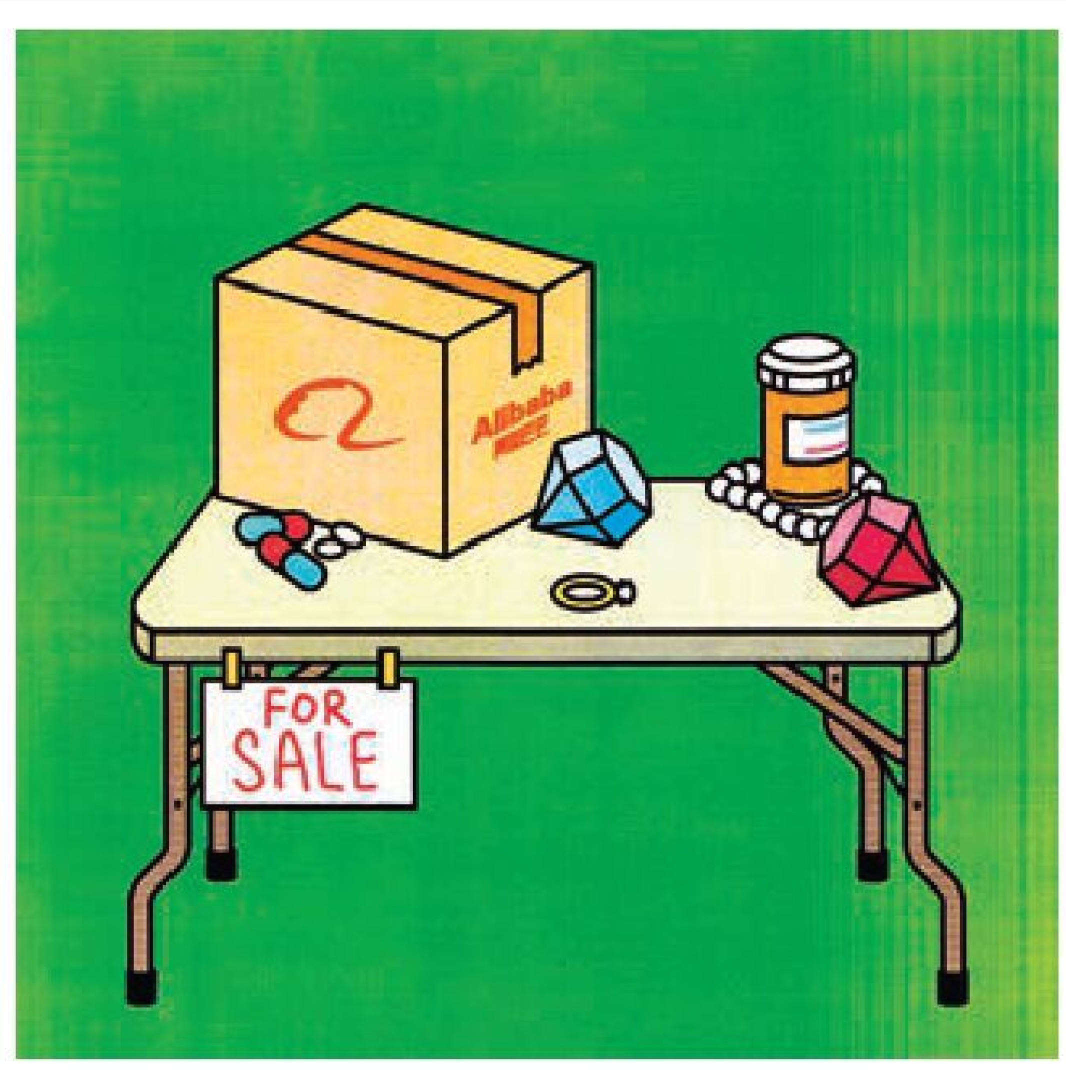


ILLUSTRATION BY GEORGE WYLESOL

Take SoftBank, which is using "prepaid forward contracts" to monetize some of its prized Alibaba shares. In August, the tech investor said it decided on an "early physical settlement," which cut exposure to its most valuable asset by almost half, when the shares were roughly 70% below peak.

One possible explanation for the transaction may be that SoftBank is at risk of breaching a covenant with its lenders, which states that it must not report two consecutive years of losses. SoftBank lost $15.5 billion in its fiscal year ended March 2022, only to take a $23 billion blow a quarter later.

SoftBank estimates it can record about 4.6 trillion yen ($32 billion) in gains as a result of its decision to make physical settlement of the forward contracts. As such, on accounting terms, this move can offset heavy losses at its two Vision Funds. SoftBank has said this has nothing to do with its financial covenant, which it has "countless ways" to address.

As SoftBank drew investor ire, Shanghai-based giant Fosun International Ltd., whose empire includes an English football club, Portugal's biggest bank, and French resort group Club Med, is scrambling. In September its $450 million bond due Jan. 29 whipsawed, falling as low as 80¢ on the dollar. A Moody's ratings downgrade citing refinancing risks contributed to the bond selloffs. But equally important was Fosun's recent decision to pare back holdings in its core pharmaceutical unit, which, according to Bloomberg Intelligence, accounts for 18% of its $37 billion gross asset value. Just as with SoftBank, investors were surprised Fosun would divest its crown jewel investment.

At the core of the issue is that neither private equity powerhouse can generate enough cash to cover even its monthly interest repayments, not to mention operating costs such as compensation. At SoftBank, the largest recurring income is the dividend from its domestic telecommunications unit. Yet that can pay for only about 60% of its interest expense. The situation is similar at Fosun, with the added uncertainty that its cash on hand isn't enough to cover its short-term debt and that about 45% of its debt will mature within a year, according to Moody's. SoftBank says it's always managed to keep an ample cash position, while Fosun says it remains the controlling shareholder of its pharma unit.

With a private equity house, outside investors would normally look at the loan-to-value ratio as the main gauge of its liquidity. At only 14.8% and 41.5%, neither SoftBank nor Fosun seems troubled. But these are not normal times. Selling crown jewel assets now, even before a recession lands, smells of desperation. Neither house has proper liquidity management in order. Ⓑ —*Ren is a columnist for Bloomberg Opinion*

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