Bloomberg Businessweek

July 18, 2022

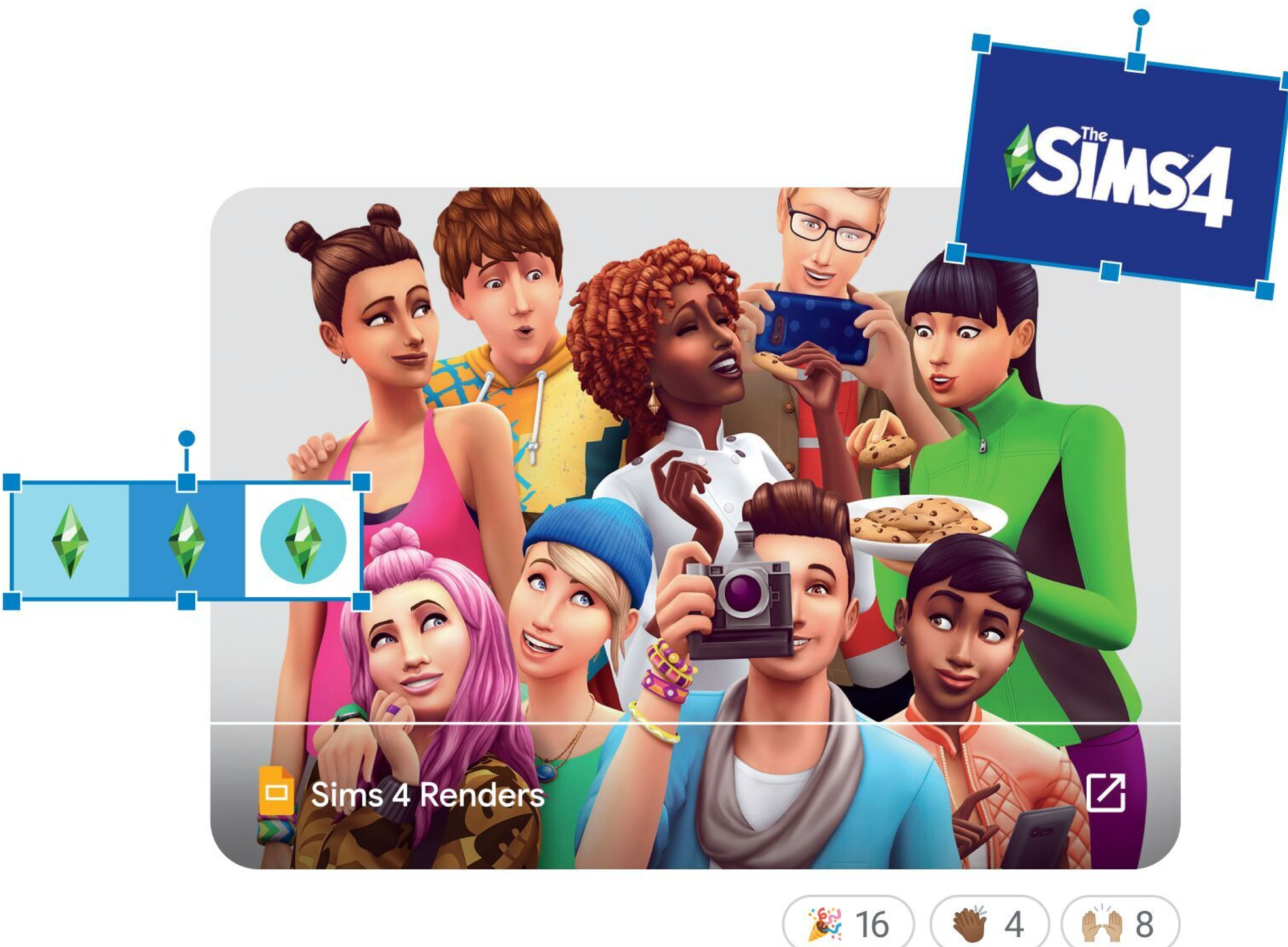
WHAT DOES $500 BILLION BUILD IN THE SAUDI DESERT?

A royal fantasy brought to you by Crown Prince Mohammed bin Salman

40

How Electronic Arts builds immersive worlds

38



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◀ Noami Grevemberg, a writer and podcaster, in the van she lives in with her partner and her dog, at the Kift coworking community in Lakeport, Calif.

FEATURES

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■ COVER TRAIL

How the cover gets made

❶

"This week's story is all about Mohammed bin Salman's $500 billion project in the middle of the Saudi desert. It's a futuristic city called Neom that takes architectural inspiration from *World War Z* and *I Am Legend*!"

"I can't tell if you're joking."

"Did I mention it's in the middle of the desert? Not a whole lot of water there, evidently."

"That's going to be hard to work around."

"And they're offering tax-free salaries at 20 times what the average Saudi makes."

"Intrigued..."

"But also there are very real human-rights concerns."

"Ah, yes. That. So what's the likelihood of this thing actually getting built?"

"I think it can best be described by the 1995 hit by Miss Mariah Carey."

"Huh?"

"It's just a sweet, sweet fantasy, baby..."

Cover: Photograph by Iman Al-Dabbagh for *Bloomberg Businessweek*

ECONOMICS LEFT: DAVID FALCONER/NATIONAL ARCHIVES; RIGHT: GENE J. PUSKAR/AP PHOTO


Doing
Finance
ramp

By Benedikt Kammel

● US inflation rose to 9.1% in June from a year ago, the highest reading since 1981.

The Labor Department's July 13 report makes it all but certain that the Fed will go for a big rate increase at the end of the month. The prospect of higher rates has helped lift the dollar, and on July 12 the euro dropped below $1 for the first time since 2002. ▷ 10

● Worldwide, there have been almost 560 million Covid-19 cases, more than

6.3m

people have died, and 12.2 billion vaccine doses have been given. Cases are ticking higher in Shanghai, fueling fears that the city is headed back into lockdown, only five weeks after exiting a bruising two-month ordeal.

● NASA unveiled images from the new James Webb space telescope on July 11. They mark the first time that human beings have been able to capture in vivid detail a distant galaxy cluster as it appeared more than 4 billion years ago.

● Klarna Bank's valuation was slashed to

$6.7b

in its latest funding round, down from the $45.6 billion it achieved in June 2021. The drop marks a dramatic reversal for one of Europe's highest-profile startups, which lets consumers spread payments for purchases in installments.

● Peloton will stop making its own bikes and treadmills.

The erstwhile darling of the pandemic workout-from-home era continues to seek ways to reduce costs. The company, which lost 75% of its market value this year, has already cut 3,000 jobs.

● London's Heathrow Airport will limit takeoff capacity to

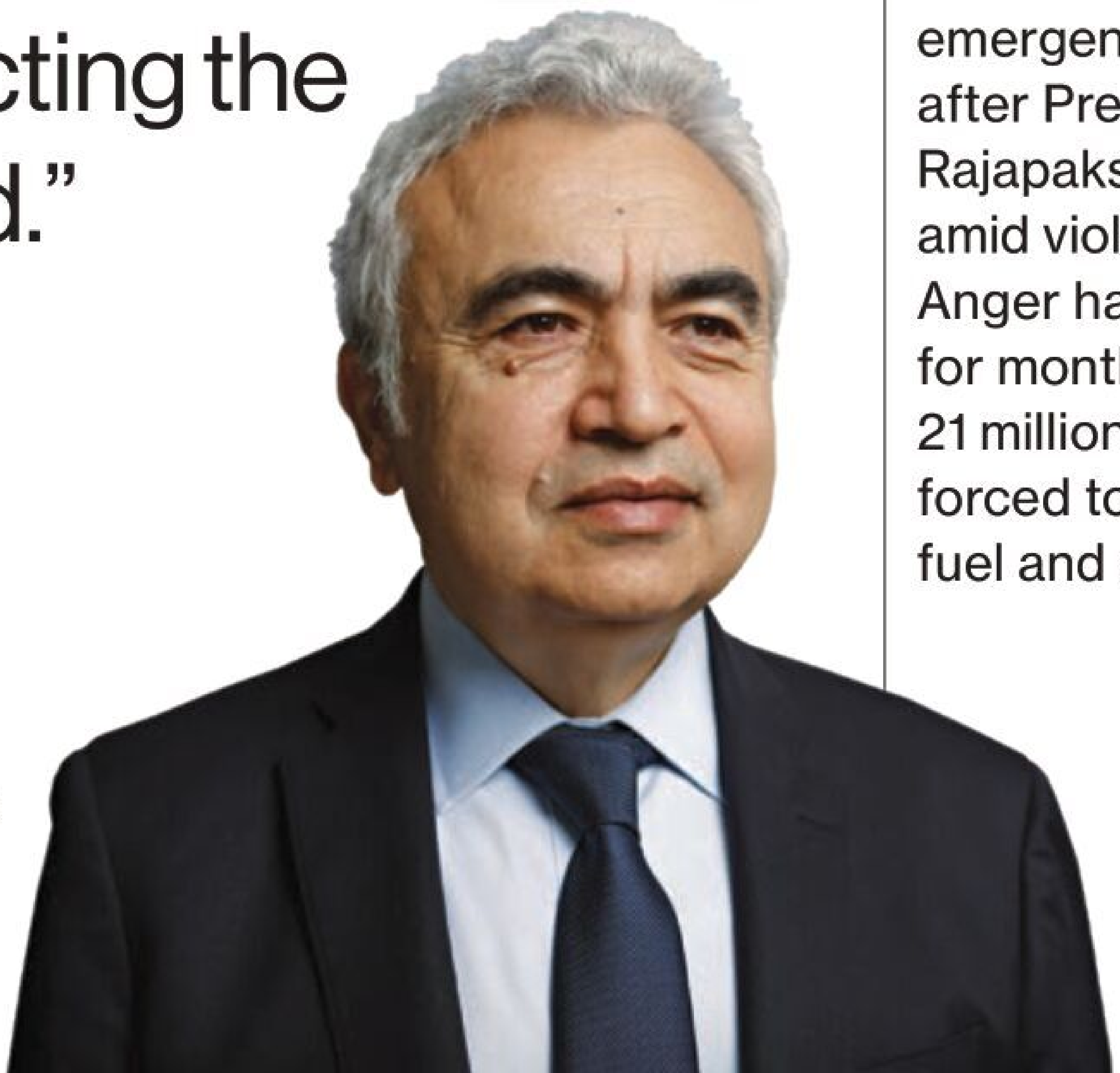
100k

daily passengers until mid-September to alleviate the travel chaos gripping the region. The move will lead to further flight cancellations during the busiest travel season of the year.

● Japan's ruling coalition expanded its majority in an upper house election.

The vote on July 9 occurred under the shadow of the assassination of former Japanese Prime Minister Shinzo Abe, who was shot two days earlier while delivering a campaign speech for the Liberal Democratic Party in the western city of Nara.

● "We might not have seen the worst of it yet. This is affecting the entire world."



Fatih Birol, executive director of the International Energy Agency, warned on July 12 that the global energy squeeze will continue. ▷ 30

● Sri Lanka descended deeper into political chaos, with the government announcing a state of emergency on July 13 after President Gotabaya Rajapaksa fled the country amid violent protests. Anger has been building for months, as the nation's 21 million people have been forced to wait for hours for fuel and daily necessities.

● In Australia, a head of lettuce is selling for A$10 ($6.75), and avocados cost A$1.

Cold, wet weather has driven up the price of crops including lettuce, while a glut of avocados means they're going for a quarter of what they went for in 2016.

GALAXIES: COURTESY NASA. ABE: KENT NISHIMURA/GETTY IMAGES. BIROL: JASON ALDEN/BLOOMBERG. LETTUCE: GETTY IMAGES

No One Really Knows How Much Covid Relief Was Stolen

In some respects, Congress's response to the Covid-19 pandemic amounted to a striking bipartisan success. Amid crisis conditions, legislators passed six laws doling out more than $5 trillion in relief measures, helping to keep businesses open, households afloat, and the economy from outright collapse.

Unfortunately, it also wasted money on an historic scale.

A recent study by the Department of Labor's inspector general examined just one aspect of Covid relief: enhanced unemployment benefits. At the pandemic's US onset, in mid-March 2020, initial unemployment insurance claims stood at 282,000. That figure surged to more than 6 million in the first week of April. The Cares Act compounded the workload by expanding eligibility for benefits, extending compensation deadlines, and adding additional weekly supplements.

Such generosity was surely defensible at the time. But the result, as the study put it, was "a perfect storm." Overloaded state unemployment offices were forced to rely on self-certifications of eligibility. The immense sums being dispersed proved irresistible for criminal gangs, while the sheer volume of claims meant that even rudimentary fraud controls were often ignored. "As time went on," the report found, "one fraudster could have been issued several UI debit cards, with tens of thousands of dollars on each card."

All told, at least $163 billion out of $873 billion in total outlays was improperly spent, "with a significant portion attributable to fraud." Outside estimates have put the figure almost two and a half times higher. Meanwhile, as of March, the government had recovered just $4 billion or so. Most of the misbegotten funds are likely gone for good.

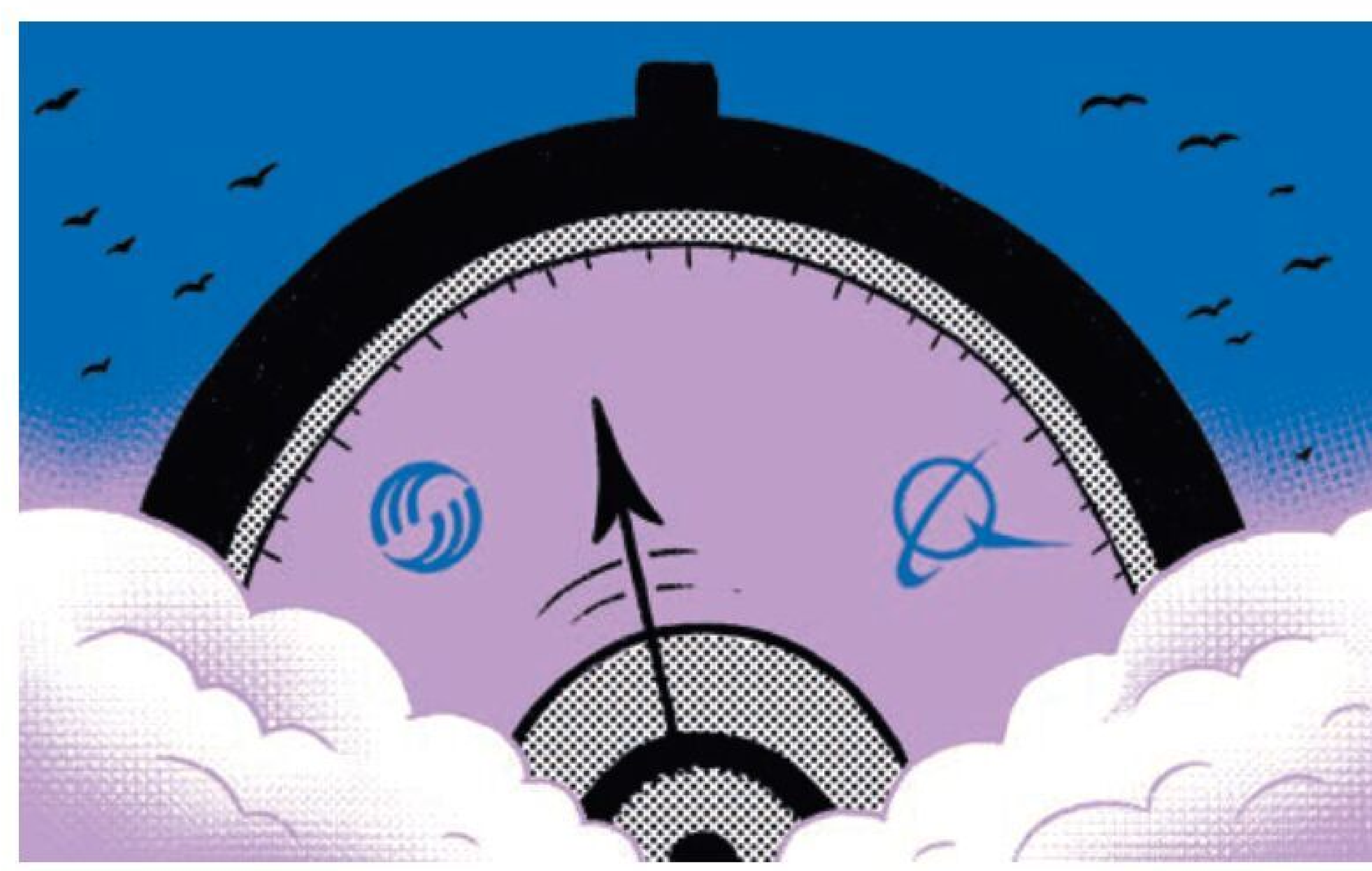
Nor was this the only program subject to such waste. One study analyzed 11.5 million loans disbursed under the Paycheck Protection Program. It found that about 1.4 million—or fully 12%—showed some indication of fraud. The authors estimated that "total suspicious lending" may have exceeded $117 billion. Another inspector general report found that the Small Business Administration may have approved $78.1 billion in improper loans. That's to say nothing of the workaday waste—from antiquated technology, poorly trained staff, duplicative processes, and so on—that marred the wider pandemic response.

Now the government is attempting to claw back some of its misplaced cash. The Pandemic Response Accountability Committee—a panel of 21 inspectors general charged with oversight of relief funds—has been using machine learning to examine data for signs of fraud. A task force of federal agents has been empowered to act on its findings and track down suspected crooks. It's a good start: Combined with other law enforcement efforts, this approach has been helping to bring charges against a steady stream of offenders.

But what about the money? Last month a group of House Republicans introduced a bill that would allow states to keep 25% of any recovered funds from Covid programs so long as they directed it toward improving their unemployment systems and administration. This approach would have two benefits. It would finally offer states a real incentive to track down misappropriated federal payments, and it would help address glaring weaknesses in the US unemployment system—which even before the pandemic had been "neglected to the point of obsolescence," as one analysis put it. Again: not a comprehensive solution, but progress all the same.

Any big federal outlay will lead to attempted swindles. Yet, even by government standards, the sheer scale of Covid fraud has been remarkable. Congress owes it to taxpayers to find out what went wrong—and to recoup as much of their money as it can. *For more commentary, go to bloomberg.com/opinion*

AGENDA



▶ Up in the Air

England's Farnborough International Airshow, July 18-22, will be the first big post-lockdown aviation expo. It's a chance for Airbus and Boeing to vie for multibillion-dollar orders and test the health of the global travel industry.

▶ As the UK scrambles to fill the vacancy left by Prime Minister Boris Johnson, the Tories hoping to replace him are holding their first televised debate on July 18.

▶ When it meets on July 21, the European Central Bank is expected to begin lifting interest rates for the first time in more than a decade, to tame mounting inflation.

▶ On July 19, Netflix reports second-quarter earnings. The streaming giant is trying to bounce back after losing subscribers for the first time in more than 10 years earlier this year.

▶ Bank of America and Goldman Sachs report second-quarter earnings on July 18. The period's wild market swings probably brought them double-digit trading gains.

▶ Leaders in business, government, and social advocacy gather at the National Urban League's annual conference in Washington, D.C., July 20-23.

▶ Comic-Con runs July 21-24 in San Diego, bringing together the far-out worlds of comic books, sci-fi and fantasy-related movies and TV shows, and other popular arts.

ILLUSTRATION BY CHAU LUONG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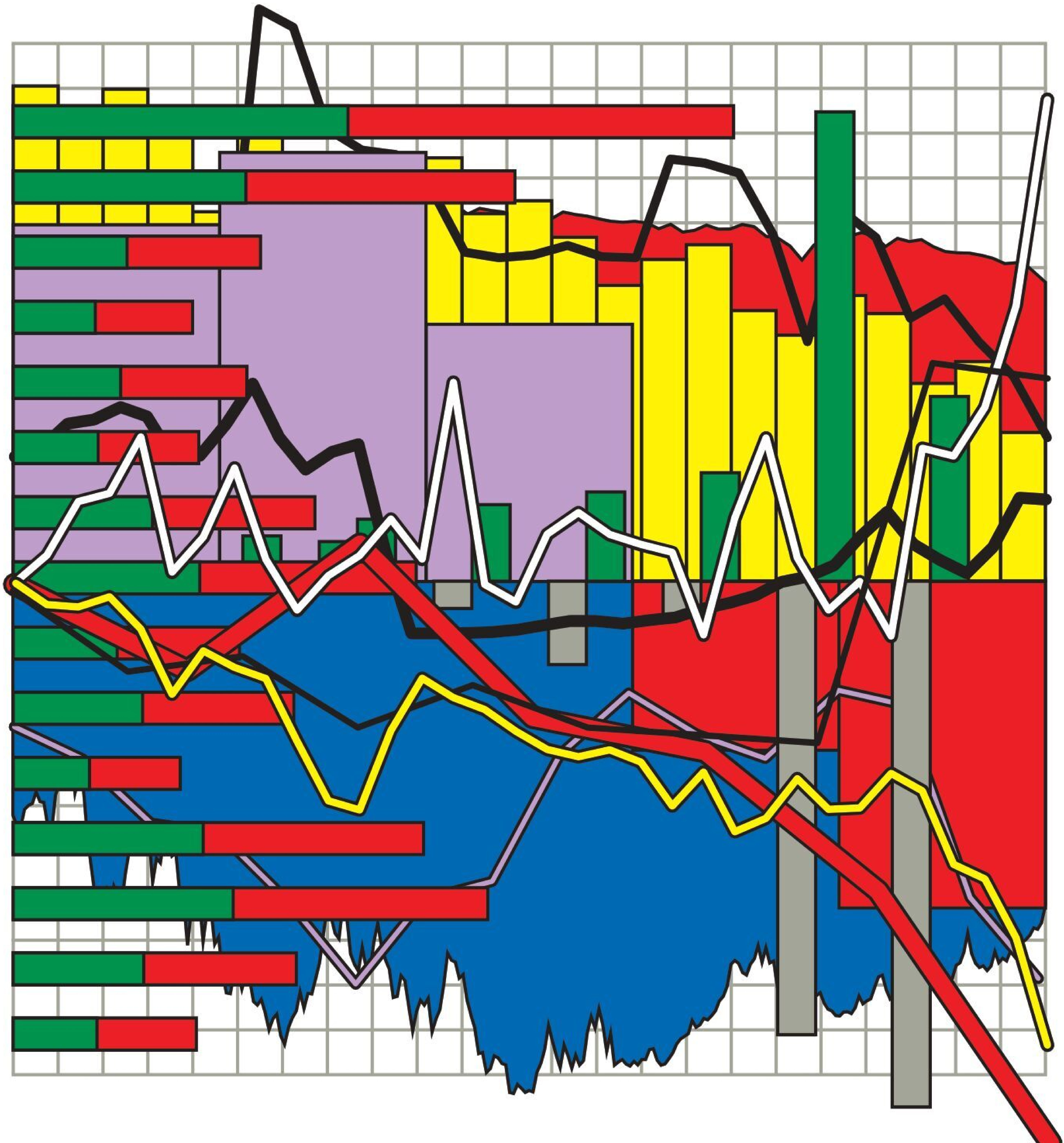
Let's go.
kyndryl.com/alliances/microsoft



Mixed Signals

ILLUSTRATION BY 731

● The US economy careens between glee and gloom with each data release

● By Rich Miller

The economy is putting out very mixed vibes. One day there's an indicator that points toward US recession. The next day, talk of the expansion's demise is dismissed as exaggerated after another stellar jobs report. "It's really odd to think of an economy where you add 2.5 million workers and output goes down," said Federal Reserve Governor Christopher Waller on a July 7 webcast. "I don't know what kind of world does that."

Former White House economist Jason Furman admits that he, too, is baffled by the contradictory signals. "There's so much uncertainty and confusion," says the Harvard professor. Perhaps it shouldn't come as a surprise that even the experts can't get a clear read. After all, we're still grappling with a once-in-a-century pandemic and its economic aftershocks. Add to that the first major war in Europe since 1945, a 40-year-high inflation rate, and the biggest Federal Reserve interest rate increase since 1994, and it's no wonder the path ahead is uncertain.

With the second half of 2022 under way, now is a good time to take stock of what we know (or at least think we know) and what we don't know about this puzzling economy.

Growth is slowing significantly. But that's to be expected: Gross domestic product jumped 5.7% last year, its fastest pace since 1984, powered by an assortment of government programs—stimulus checks, extra unemployment benefits, an enhanced child tax credit—that are no more. Still, the deceleration has been sharper than anticipated. The International Monetary Fund on July 12 cut its forecast for US growth this year to 2.3%, down from its April prediction of 3.7%.

Blame for the markdown goes to skyrocketing inflation and the Fed's tightening of monetary policy in response. Driven in part by Russia's invasion of Ukraine, higher prices for gasoline, food, and a passel of other products are squeezing household budgets—even those still padded by last year's government support. The Fed's repeated interest-rate increases have undercut the stock and housing markets. That leaves the economy more vulnerable to outside shocks, such as a renewed oil price spike or a downturn in Europe, a major destination for US exports, especially as the pandemic's pent-up demand for travel abates.

The US isn't in a recession—at least not yet. The working definition for a recession is two consecutive quarters of negative growth. Yes, GDP contracted 1.6% in the first quarter, and the Atlanta Fed's economy tracker has it shrinking again in the second. (A preliminary estimate of second-quarter GDP will be released on July 28.) But hold on. Domestic demand was actually so strong in the first quarter that it sucked in lots of imports. The way GDP is calculated, that ends up as a big negative for growth.

What's more, the official arbiter of US recessions—a committee of private economists working under the auspices of the nonprofit National Bureau of Economic Research—focuses on a slew of statistics along with GDP in determining whether a downturn has begun. And many of those, including monthly data for payrolls and industrial production, aren't flashing red.

On to the unknowns: A big one is how the slowdown will affect inflation, which has repeatedly defied policymakers' predictions that it will soon peak. "I think we understand better how little we understand about inflation," Fed Chair Jerome Powell said on June 29. With a downshift in growth, forecasters are again looking for inflation to moderate after it clocked in at an eye-popping 9.1% in June. And there are signs it eventually might. Gasoline prices are falling as Americans cut back on driving (page 34). So are commodity prices such as corn, wheat, copper, and zinc. Freight costs are down, too.

But inflation could well prove sticky. The still-tight jobs market will keep upward pressure on wages—businesses' biggest cost. Inflation expectations are shifting higher after a year of accelerating price hikes. That could prompt workers to press for higher pay increases in the future and spur companies to push through yet more price hikes to compensate for rising payroll costs, leading to a wage-price spiral like the one that helped sustain inflation in the 1970s.

How will the Fed respond to an ebbing economy? Powell and his colleagues have made no secret of their desire to use higher interest rates to curb demand and douse inflation. Since jacking up the key short-term rate by three-quarters of a percentage point in June, half of the 18 members of the Federal Open Market Committee have publicly backed another similar-size increase this month. Yet in the wake of June's inflation number, some traders are betting the FOMC will go even bigger and raise rates by a full percentage point.

Policymakers have signaled their determination to keep tightening until they get results, with Powell declaring that they want to boost rates to levels that clearly restrict growth. But such tough talk is easy when the labor market is strong. As unemployment starts to tick up, the Fed's resolve will be put to the test. How it responds will go a long way in determining whether the US tumbles into a recession or skirts one. It could also help decide how much inflation Americans will end up living with in the years ahead.

Of course, there are even bigger known unknowns outside the immediate economic sphere. A broadening of the Russia-Ukraine conflict could clobber growth—and push up inflation. The emergence of a new, more virulent strain of Covid-19 would also turn things upside down, again.

It's not pleasant, but more whiplash likely lies ahead. Powell, for his part, has said the Fed will need to be nimble in responding to the incoming data. Companies, consumers, and investors will have to be, too. Ⓑ

1 BUSINESS

ESG Is *So Hot* Right Now

Edited by James E. Ellis

● The fast-fashion business model of Shein, a top global startup, is also its biggest threat

Like many Shein customers, Jaleesa King doesn't expect the Chinese fast-fashion giant's clothes to last longer than it takes to post a good selfie on Instagram. The 26-year-old reckons she spends as much as $500 twice a month on about 20 to 30 clothing items she'll barely wear. "Maybe just once or twice, that's all," she says, laughing, as she browses Shein's San Francisco pop-up shop, a special marketing event for the usually online-only retailer. "If I can get a good picture, definitely at least once."

Turbocharging fast fashion's business model has turned Shein into the face of the industry and one of the world's top startups. But as environmental, social, and governance issues become important to investors, the retailer's embrace of disposable fashion may become the biggest threat to its future. A vast network of contract manufacturers allows Shein to pump out thousands of youth-friendly styles daily at barely believable prices—a few dollars for a dress and even less for a pair of bike shorts.

With sales of at least $16 billion in 2021, up from $10 billion in 2020, and a valuation of about $100 billion, the company has catapulted into the same league as Elon Musk's SpaceX and TikTok parent ByteDance Ltd. But Shein's business model is also the source of a potentially toxic image problem that's sparked allegations of environmental damage, worker exploitation, and copyright theft. Indiana University, which announced a Shein partnership just months ago, has put new plans on hold as a result of concerns about the company. While many of its young customers don't seem to care, the people and institutions with real power over Shein's future—investors, regulators, and politicians—have little choice but to pay attention.

As part of its latest fundraising round earlier this year, Shein told existing investors that it hopes to have an initial public offering in the US as soon as 2024, people familiar with the company's thinking told Bloomberg. Hoping to justify its astronomical valuation, the retailer is rushing to shed its reputation as an ESG villain. A team of new executives is focused on changing the company's image.

Some of the criticisms Shein faces apply to its rivals, too. Fast fashion is an enormously wasteful business, exacerbating the fashion industry's environmental impact, according to a 2019 report by the World Bank, which said the number of new garments produced had doubled from the 50 billion made in 2000. But as ESG's place in the public consciousness has grown, Western apparel giants such as Inditex SA's Zara and Hennes & Mauritz AB have made efforts to clean up their image through recycling drives, "eco-friendly" clothing collections, and similar initiatives. To survive among the biggest players, Shein may need to undertake a similar overhaul.

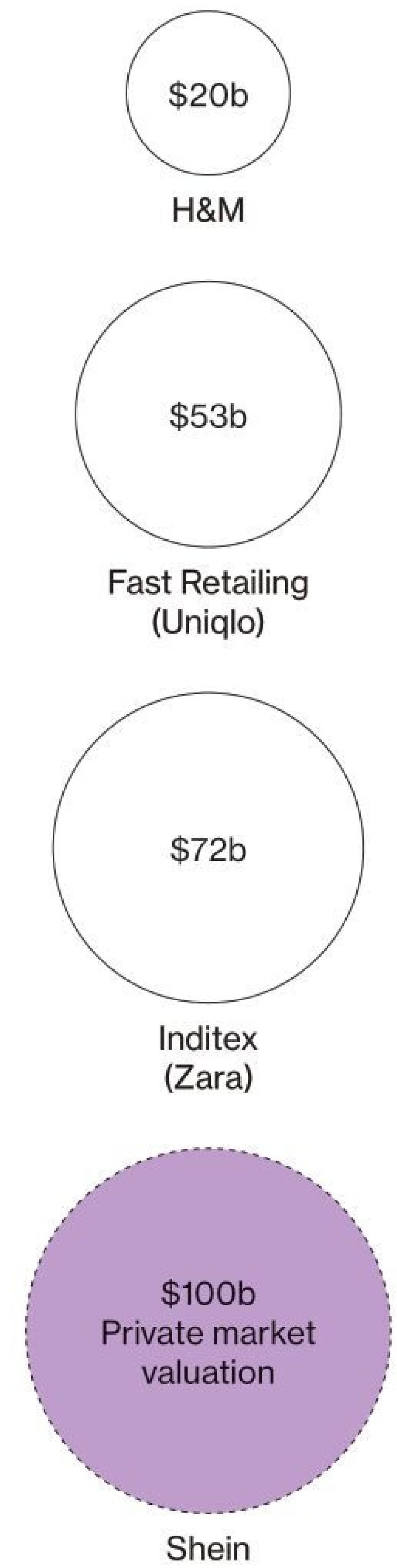
One thing the retailer can't change is its Chinese roots, which bring additional scrutiny as the fractious US-China relationship becomes even more difficult. In the fashion world, those origins also raise the issue of Xinjiang—the region that produces about 85% of China's cotton and whose name has become synonymous with forced labor allegations. The factories Shein uses are not in that region. But the situation is muddied because of the huge number of suppliers the company uses.

And Shein stands accused of numerous offenses. Activists allege that some goods sold by Shein are made by low-paid employees working excessively long working hours and in dangerous conditions, while regulators and activists say throwaway fashion is so wasteful that no one who cares about the environment can endorse it. "Shein is like a red flag to anyone focused on sustainability," says Garik Himebaugh, founder of Eco-Stylist, an Austin-based social enterprise group that scores companies on their commitment to sustainability. It gave Shein zero points out of a possible 100 in its most recent analysis. Zara and H&M each got about 30 points.

Accusations of copyright theft have become another problem. Since the start of 2021, Shein has been hit with at least 40 US lawsuits alleging that it infringed plaintiffs' intellectual property. That's more than three times as many as Urban Outfitters, H&M, and Zara combined, data compiled by Bloomberg show. The Chinese company says its suppliers certify that they do not infringe on intellectual property.

As part of its counteroffensive, Shein last year added executives, most notably Adam Whinston, its new global ESG chief. Whinston's goals include strengthening sustainability and reframing Shein as a misunderstood green champion. According to Whinston, introducing thousands of items a day is a feature, not a bug, in the company's sustainability model. The retailer minimizes waste by producing its goods in small batches and then waiting to see how consumers respond before it ramps up production, he told a conference in June. "We believe if the rest of the industry follows this model, it would almost immediately result in 20% less production," he said at the conference. This approach is part ▶

▼ Market value of fast-fashion companies



"Shein is like a red flag to anyone focused on sustainability"

PHOTO ILLUSTRATION BY 731; PHOTOS: GETTY IMAGES (4). DATA: COMPILED BY BLOOMBERG. PUBLIC MARKET VALUES AS OF JULY 11 CLOSE

◀ of "an innovative and unique business model approach that has enabled us to be a more sustainable company since our founding," Whinston told Bloomberg in emailed answers.

Shein's labor policies are also under scrutiny. In November an investigation by Swiss nongovernmental organization Public Eye found that some manufacturers supplying Shein's products subjected employees to dangerous workplace conditions and 75-hour workweeks.

These issues pale in comparison to the controversy over Xinjiang cotton. Concerns over forced labor spurred companies such as H&M and Nike to boycott the material back in 2021, and products from the region are now banned from the US unless the importer can prove they were made without forced labor. So far, Shein hasn't run afoul of Xinjiang sanctions as well as Trump-era tariffs on Chinese imports, thanks in part to a loophole in US trade law that allows companies to ship up to $800 of goods duty free from foreign nations directly to consumers in the US. Many Shein products are purchased online and shipped to customers, allowing them to qualify for this exemption.

The company has introduced its own requirements for manufacturers, saying it won't tolerate child or prison labor or the underpayment of workers. Still, "with fiercer competition and weaker demand, many apparel producers are struggling to survive," says Lin Feng, general consultant of the Guangdong Optimal Supply Chain Association. "Apparel brands are working to persuade factories to raise their ESG credentials, but the factory owners and workers don't have strong incentives to do that," Feng says. "What they want desperately now is to keep the job and keep more cash." —*Bruce Einhorn and Daniela Wei, with Dong Cao and K. Oanh Ha*

THE BOTTOM LINE China's Shein has a private value of about $100 billion. But cashing in fully on a mega-IPO could hinge on improving its ESG reputation.

Another CEO Falls Into the Gap

● Sonia Syngal's dismissal after two years highlights continuing turmoil at the retailer

When Sonia Syngal took over as chief executive officer at Gap Inc. in early 2020, she inherited a business with lagging sales and poor inventory management. Just over two years later, she's leaving the company in a similar state. Gap's board on July 11 bid her farewell and began a search for another CEO—who will be the retailer's third in less than five years.

The owner of Gap stores, Old Navy, Athleta, and Banana Republic must find a leader who can refresh the company's brands and revive sales while competing with fast-fashion rivals that have reshaped the apparel landscape. That'll be no easy task amid the highest US inflation in decades and a pandemic that's roiled demand and intensified the focus on online shopping. Moreover, with the retailer's shares down more than 50% in the last 12 months, the new CEO will be under intense pressure to right the ship quickly. "Anyone who accepts that role will have to understand that there are a lot of challenges, and it's not going to be an easy turnaround," says Neil Saunders, managing director of GlobalData's retail division.

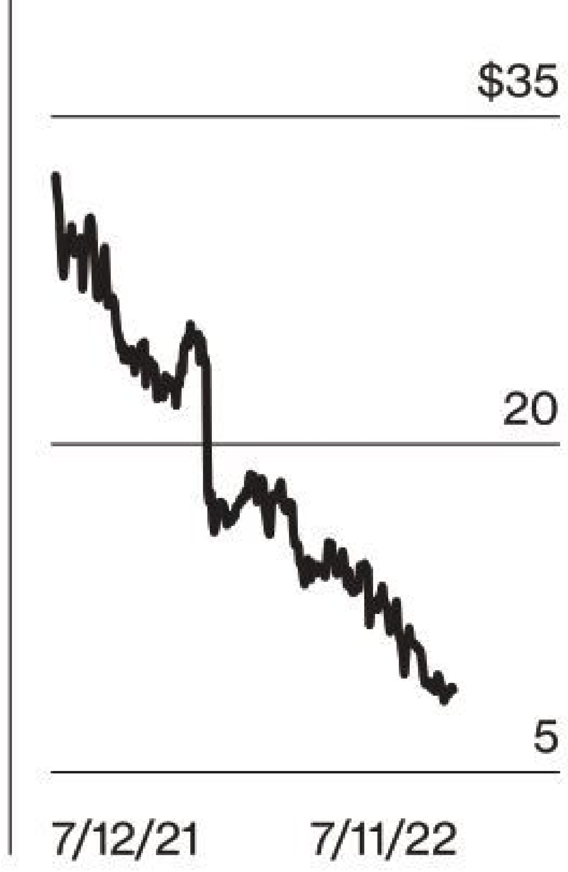
Gap faces a litany of woes. The retailer expects a sales decline in the fiscal second quarter, which ends July 30, in the high-single-digit percentage range. It's alerted Wall Street that it will incur about $50 million of air freight expenses in the quarter, as it feels the effects of inflation on raw materials and freight. And the company recently lowered its expectation for its second-quarter operating margin percentage to zero to slightly negative.

Management turmoil isn't new at Gap. Syngal's predecessor, Art Peck, who was promoted from within the company in 2015, departed in 2019 after he scrapped a plan to spin off Old Navy and failed to reignite sales. During his tenure, Gap's namesake brand was hindered by excess inventories, resulting in the firing of the unit's top manager. That's similar to what happened this year at Old Navy, whose highest-level executive left after an expansion in plus-size women's apparel left it with an inventory glut it'll have to mark down, eroding profit.

Veterans have been the norm in Gap's corner

● Syngal

▼ Gap share price



SYNGAL: STEVEN VLASIC/GETTY IMAGES. JACOBSON: EMILY ELCONIN/BLOOMBERG. DATA: COMPILED BY BLOOMBERG office. Peck worked 15 years at the company, and Syngal was there for 18, leading Old Navy before taking the CEO job. But Gap could use a fresh pair of eyes and should strongly consider looking outside its ranks for a leader, according to an executive recruiter who asked not to be named to speak frankly while preserving professional relationships. The board has failed on the last two CEOs, who were both internal hires, says this person, who isn't involved in the current search.

Saunders says that Gap has failed to innovate and that it's been "very resistant to change," pointing to a string of executive departures. Overseeing four distinct brands with their own problems also complicates the role, he says.

The San Francisco-based company rose to prominence in the 1990s as America's go-to khaki emporium. Since then, the namesake chain has struggled to reinvent itself, and fast-fashion companies including Forever 21, H&M, and Zara have overtaken it as preferred shopping destinations among younger consumers. A partnership with Kanye West to design apparel, one of the biggest initiatives announced under Syngal, created buzz initially but has yet to generate meaningful results.

Old Navy, which generates more than half of the parent company's sales, is a central part of Gap's growth strategy. The company sees the discount clothing chain reaching $10 billion in sales by 2023, but a series of cuts to earnings guidance have now cast doubt on that business, as well. The new CEO will need to focus on correcting Old Navy's supply-chain problems, Saunders says.

Morningstar analyst David Swartz says the parent faces a "tough" search and should consider wooing an executive from the discount-apparel world to lure back the value-driven customers it's lost. Gap's appointment of Horacio "Haio" Barbeito, a former Walmart Inc. executive, to the CEO slot at Old Navy is a start. "Old Navy was going in the wrong direction, and that can't happen because it's so critical to the overall business," Swartz says. Still, he believes Old Navy's problems can be fixed quickly. "It's just a matter of selling the unwanted merchandise, like from the plus-size line, and going back to what has made Old Navy what it is," he says.

In contrast, the mid-tier and heavily mall-based namesake brand faces a tougher road as it struggles to keep pace with more fashionable rivals. "The Gap brand is probably never going to be what it was," Swartz says. *—Allison Nicole Smith, with Nancy Moran and Matthew Boyle*

THE BOTTOM LINE Reviving Gap has proven to be particularly challenging: Fashion preferences and modes of retailing have changed dramatically since the days when khaki was king.

BW Talks Paul Jacobson

As General Motors Co.'s chief financial officer, Jacobson must make sure the company has the wherewithal to transition to an electric future, putting him at the center of everything from supply chain chaos to technology shifts. —*David Westin*

● Jacobson holds a bachelor's degree in aviation management from Auburn University and an MBA from Vanderbilt University ● After joining Delta Air Lines as a financial analyst in 1997, he served as senior vice president, treasurer, and CFO ● He moved to GM in October 2020

The automotive industry has been hit hard by supply chain shortages, especially in chips. How do you make sure that won't happen again?

In the short term, all the senior leaders of the company get together once a week to talk about what the forecast is, what we're going to do to mitigate it, and how we're going to respond. For the intermediate and longer term, we're simplifying the chip structure and going to three chip families. That will put us in a position where we're not as beholden to hundreds and hundreds of chips, depending on which vehicle, where any one of them might hinder production.

How radically will EVs change GM?

It's fundamentally going to change the way we make money at General Motors. The overwhelming majority of our profits come from the time that we sell a vehicle to a dealer, right? And that vehicle enjoys a lot of revenue for very different companies over the life of it on the road. What the electric and connected vehicles are going to do for us is increase the revenue opportunities over the life of that vehicle—second owner, third owner, fourth owner—because we're going to be able to offer over-the-air updates, subscriptions, various services, insurance packages, lots of ways that we can interact with a customer that historically we haven't been able to.

What are the financial implications for that transformation?

We've talked about doubling our revenue while expanding our margins by 2030. I think 60% to 70% of customers buying a Hummer [EV] are new to General Motors, and we're getting a lot of interest from the coasts where we've typically underperformed. Going forward, that means a whole suite of customers that are focused on subscriptions and services, which changes our revenue portfolio. So what we talked about is $20 billion to $25 billion a year of revenue in 2030 around these services that we can provide. It's a massive growth.

● This interview was edited for clarity and length.

workday

This Is Your Company on Elon

Any questions?

ILLUSTRATION BY 731. MUSK: LIESA JOHANNSSEN-KOPPITZ/BLOOMBERG

Edited by Joshua Brustein

Elon Musk once presented his proposed buyout of Twitter as far more than a business deal. In April he claimed the social network—tiny compared with Facebook or Instagram but beloved by journalists, politicians, and Elon Musk—was "the de facto town square" and crucial to the cause of global freedom. Musk said Twitter Inc. had been overrun by spammers, was unfairly biased against conservatives, and had been infected by something he called "the woke mind virus." It was these important factors, he said, not the profit motive, that led to his offer of $54.20 per share, a significant premium on the company's share price at the time. "I don't care about the economics at all," he said at the TED conference on the day he made his offer.

Then the stock market dropped, Musk's net worth contracted, and suddenly he cared very much about the economics of the deal. In a July 8 letter, his lawyers announced he was pulling out of the acquisition in part because, they claimed, Twitter had understated the level of spam on its platform. The company's board responded by pointing to a binding merger agreement that gives Musk no such wiggle room. Four days later, Twitter sued to try to force him to pay the agreed-upon price. The legal battle, in which a judge will decide whether Musk has to follow through with his offer, promises to be a continuation of the reality show-esque circus that's surrounded the buyout. Like everything about Musk lately, it's a weird edge case, and who'll win remains to be seen. But it's already clear who's lost: everyone but Musk himself.

The most obvious victims are Twitter's shareholders. Some are undoubtedly Musk superfans who bought in based on the promises made by their entrepreneurial icon. But after seeing the price reach nearly $52 per share, they, along with pension fund managers and everyone else, were forced to watch as the world's richest man used his Twitter following—101 million and counting—to disparage his future employees and mock the company's feeble efforts to get him to abide by its nondisclosure agreement.

Eager, it seems, to find a pretext that would allow him to avoid overpaying, and perhaps a bit bored with the whole escapade, Musk began to denigrate the company he'd once praised. He said the social network wasn't a free-speech bulwark but just a spam factory, with bots accounting for as many as 90% of its daily users. Never mind that he'd offered no evidence to back up that claim, or to disprove the figure Twitter had disclosed, less than 5%. And never mind that one of his stated reasons for buying the company in the first place was that it had too much spam.

Twitter's stock price dropped more than 11% on the first day of trading after Musk's lawyers attempted to cancel the deal. Shares are now worth about $37, more than 30% below Musk's offer. They'll likely fall even further if he's able to wriggle away. Musk took a bumbling but clearly valuable company and turned it into a corporate laughingstock. "He's vaporizing shareholder value left and right," says Dennis Kelleher, chief executive officer of Better Markets, a Washington, D.C., nonprofit that advocates for reining in Wall Street and corporate excesses. In its suit, Twitter accused Musk of creating a spectacle and then refusing to honor legally binding obligations. "Musk apparently believes that he—unlike every other party subject to Delaware contract law—is free to change his mind, trash the company, disrupt its operations, destroy stockholder value, and walk away," it wrote. Musk has yet to respond formally. "Oh the irony," he tweeted shortly after the suit was filed. "Lol."

Shareholders who feel Musk hurt the company have some recourse in the Twitter suit and in possible class-action lawsuits if Twitter's board lets Musk walk or negotiates a lower price. But they aren't the only ones these antics have hurt. "He's also playing with the livelihoods of employees in a way that's disgustingly cavalier," Kelleher says. Since Musk made his offer the company has dispatched top executives, enacted a hiring freeze, and laid off a third of its recruiting team. Product development is effectively on hold in anticipation of a takeover that may never happen. If Musk prevails in court, employees will see the value of their stock options collapse; if Twitter's board prevails, they'll be working for a mercurial CEO who's spent months dunking on them.

And then there's Twitter's place in the larger media landscape—the thing Musk was supposedly so concerned about. He wasn't wrong when he suggested Twitter plays an important role there. Because of the company's influential user base, its policy decisions have political consequences. Conservatives who lauded Musk as a righteous crusader against censorship should feel betrayed by his turnabout. ("He's another bullshit artist," former President Donald Trump said of him at a rally in Alaska on July 9, summing up the sentiment.) And though liberals might feel a sense of relief, Musk's behavior has weakened Twitter and will make it harder for the company to crack down on right-wing misinformation. The digital town square is poorer for this episode, no matter the eventual outcome. ▶

● Musk

The Market Digests the News

		Change in share price	
		Twitter	Tesla
4/4/22	Musk says he's become Twitter's largest shareholder	▲ 27.1%	▲ 5.6%
4/5	Twitter announces Musk will join the board	▲ 2.0%	▼ 4.7%
4/10*	Oops! Musk won't join the board after all	▲ 1.7%	▼ 4.8%
4/14	Musk proposes an acquisition at $54.20 a share	▼ 1.7%	▼ 3.7%
4/25	The company accepts	▲ 5.7%	▼ 0.7%
5/13	Musk says the deal is "on hold"	▼ 9.7%	▲ 5.7%
5/16	In a tweet, Musk sends the CEO of Twitter a 💩	▼ 8.2%	▼ 5.9%
6/21 to 7/1	Musk takes a break from tweeting	▲ 1.2%	▼ 4.1%
7/8*	Lawyers for Musk say he's ditching the deal	▼ 11.3%	▼ 6.5%

*SHARE PRICE CHANGE MEASURED ON FIRST FULL TRADING DAY AFTER NEWS. DATA: COMPILED BY BLOOMBERG

◀ Musk has decided, as the social hive mind likes to say, to tweet through it. On July 11 he posted a meme suggesting his decision to back out of the deal was designed to get Twitter to disclose embarrassing information in legal discovery. Then he posted a picture of Chuck Norris playing chess. His followers and some within conservative media seemed to eat this up, as have allies in Silicon Valley, who've urged Twitter's board to let Musk walk away and write the whole debacle off as Elon being Elon.

Wall Street is already thinking ahead to the inevitable initial public offering of Musk's rocket company, SpaceX, and the commissions that will come from whatever else he attempts to buy. "The guy is still worth billions and billions," says Susan Wolford, a former investment banker who ran the tech group at Bank of Montreal, explaining the general mood among bankers. "You can't not take his phone call when he wants to do the next deal."

That's why what happens in Delaware matters. Over the past four years, beginning with his baseless claim in 2018 that he had the "funding secured" to take Tesla Inc. private, Musk and his enablers—investors, lawyers, and media figures—have ignored basic business norms, attacked financial regulators, and promoted a cryptocurrency that's lost 90% of its value since May 2021. The lawsuits that have resulted from these shenanigans are ongoing, and Musk had to pay a settlement to the Securities and Exchange Commission.

So far, none of this has stopped him from gleefully carrying on. If he prevails in court or finds another way to get out of a merger agreement based on what seems an extremely flimsy pretext, that will send a message to other would-be norm breakers. "The top-tier companies are relying on a small number of lawyers and bankers," says Kelleher. "If they see people getting away" with it, he says, "it will change their risk-reward calculations." In other words, if Musk wins, he won't be the last billionaire to toy with a public company for his own amusement. —*Max Chafkin, with Liana Baker*

THE BOTTOM LINE Elon Musk's weird attempt to buy Twitter has left shareholders, employees, and others worse off, no matter what happens next.

The US Pulls Israel Away From China

● A pressure campaign is cutting Beijing off from a crucial source of advanced technology

On July 13, Joe Biden began his first presidential visit to Israel. The country doesn't see eye to eye with the US on a number of crucial foreign policy issues, such as the Biden administration's attempts to revive the Iran nuclear deal or its tough stance on Russia over the war in Ukraine. But the trip could give Biden a chance to highlight real progress in another geopolitical arena: the US rivalry with China over advanced technologies.

A long-running US effort to steer Israel's tech industry away from China had yielded only patchy results, but now it seems to be working. Ties between Israel's tech sector and China have eroded in recent years, threatening to cut off a key remaining option for Beijing to access strategically important technology.

Despite its size, Israel is an essential focus for geopolitical maneuvering over tech. It's a major hub for cybersecurity companies, many staffed by veterans of elite military intelligence units. About 40% of the private global investment in cybersecurity now takes place in Israel, according to the country's National Cyber Directorate. Hundreds of foreign companies have also set up research and development centers in the country.

Before 2018, China had been positioning itself as an important international partner for the Israeli tech industry, which sought capital and access to one of the world's biggest markets. Chinese investors were far from its most vital sources of capital—they invested $424 million in Israeli startups in 2018, about 5% of the total investment into the sector—but their connections to Israel were deepening. Chinese giants such as Alibaba Group Holding Ltd. and Huawei Technologies Co. were also building research centers in the country.

In October 2018, Israel's then-Prime Minister Benjamin Netanyahu hosted Vice President Wang Qishan and Alibaba co-founder Jack Ma at a meeting of the Israel-China Joint Committee on Innovation Cooperation in Jerusalem.

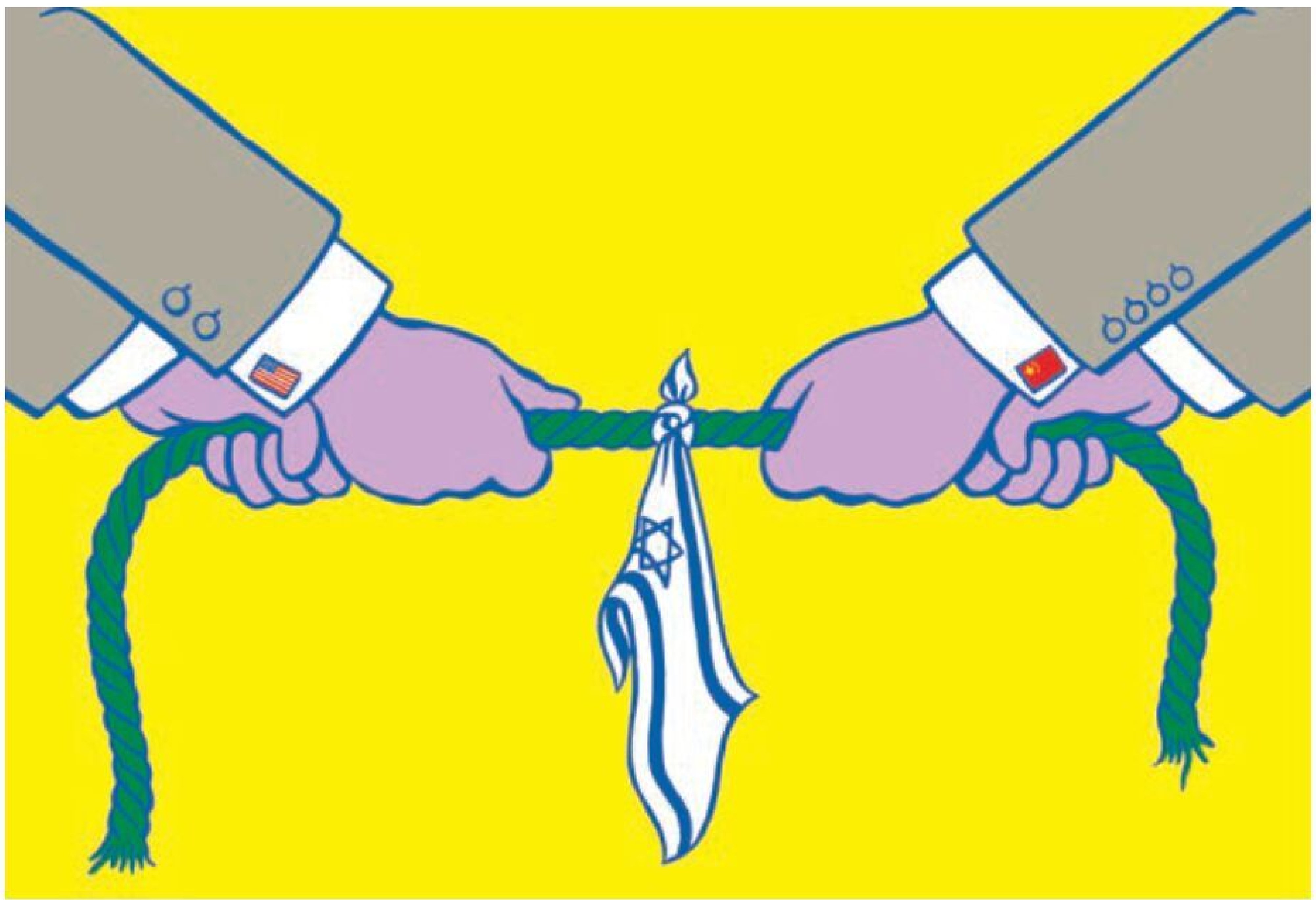
In retrospect, that may have been the high-water mark. Last year, Chinese capital accounted for only 1% of investment in Israeli startups, data from the IVC Research Center show. This could be a strategic disadvantage for Beijing, which has been grappling with growing hostility from the West. "China is still very much interested in Western-style technologies" but is finding itself increasingly locked out of the US and Europe, says Junhua Zhang, a senior associate at the Brussels-based European Institute for Asian Studies. "So the only option is Israel."

That option is looking shakier than ever. This is partly because of the pandemic and concerns about China's approach to tech, given the crackdown on its own tech industry. Companies in Israel that once welcomed Chinese financiers, particularly in sensitive deep-tech sectors, are now hesitant to do business with them because of the potential political consequences in other markets. Under pressure from its US and European backers, one supplier of electric vehicle components this year abandoned plans to take Chinese capital in exchange for access to the world's biggest EV market, according to a person with knowledge of the matter. US investors in an Israeli chip company would allow it to sell products in China only if it promised not to conduct research there, said another person, who asked not to be named while discussing a sensitive matter. Nevo Alva, whose sale of his QR code company Visualead in 2017 marked one of Alibaba's first acquisitions of an Israeli startup, says he'll accept Chinese investors for his new endeavor, Acumen, only if they already have a Western presence. Alibaba shut its Tel Aviv research center, which emerged from the Visualead purchase, in June.

The chill dates to the Trump administration, which put sanctions on Huawei and other Chinese companies, and leaned on allies to block exports of chips and sensitive software. At the same time, the US pressured Israel to set up a review process modeled after the Committee on Foreign Investment in the US, or Cfius, which gives officials power to block or put conditions on deals with national security implications. In 2019, Israel did set up that review process, but only for areas such as infrastructure and energy, leaving out the tech sphere.

Israel has continued to move toward the harder line of some of its traditional allies. "We are still more welcoming than the Americans or several European countries," says Doron Ella, a research fellow at the Institute for National Security Studies, an Israeli think tank. "But in the last one or two years, this welcoming environment is becoming less welcoming."

The Biden administration continues to work to cut China off from key technologies. Bloomberg News reported on July 7 that the US was attempting to persuade the Netherlands to ban ASML Holding NV, a Dutch company that makes equipment for chip production, from selling China even mainstream technology essential to chip development. In Israel the administration keeps pushing for the Cfius-like reviews into tech, accusing China of buying or stealing technology that could further its military ambitions. "We would like to see Israel's investment screening system strengthened and expanded, especially in the field of high tech," says a US Embassy spokesperson, who accused China of forced technology transfer and industrial espionage. "We have been candid with our Israeli friends over risks to our shared national security interests."



In part, Israeli startups may be getting pickier because they find it easier to attract investors than they have in the past, says Ehud Levy, a general partner at Canaan Partners Israel and also a partner at China's Lenovo Capital. And even if it hasn't yet succeeded in getting Israel to adopt its entire policy agenda, the US has convinced many Israeli entrepreneurs of the need to choose sides. "If you have a term sheet from a Chinese investor and you have a term sheet from a US investor, the CEO is going for the safe option," Levy says. "It's not like a governmental guidance or anything like that. It's purely a commercial decision." *—Sarah Zheng and Coco Liu, with Daniel Avis and Alan Crawford*

THE BOTTOM LINE The US is pushing Israel to scrutinize tech deals with China, but Israeli companies are turning away from Chinese capital even without the formal policy.

ILLUSTRATION BY PATRIK MOLLWING

When HODL Failed

Three Arrows Capital, the most important hedge fund in crypto, set off a digital-asset contagion

Days before Bitcoin fell decisively below $40,000, and two months before his hedge fund went bankrupt, Su Zhu sat down for an interview in the Bahamas, one shoeless foot tucked under his leg. An investor as legendary as they come in the decade-old cryptocurrency industry, he had a message that matched his relaxed demeanor. "When there's a lot of despair, you can start buying," he said at a podcast recording for the FTX exchange. "You don't have to follow the despair."

That kind of steely optimism isn't hard to find in a crowd that turned the typo "HODL" into a mantra for never selling. But Zhu wasn't just any laser-eyed crypto trader. With his schoolmate Kyle Davies, he

ILLUSTRATION BY INKEE WANG. ZHU: PHOTOGRAPH BY JULIANA TAN FOR BLOOMBERG BUSINESSWEEK. DATA: COMPILED BY BLOOMBERG

Edited by
Pat Regnier

◀ Zhu

ran the hedge fund Three Arrows Capital. With a few billion dollars under management, it was far from massive by Wall Street standards. But in digital assets, it was a heavyweight.

More than that, Zhu and Davies were an integral part of the crypto market's densely woven web. Their fund was a venture investor in crypto startups and, in some cases, manager of their corporate treasuries. It was both an aggressive borrower from large lenders and a shareholder in some of those lenders. It was a corporate parent for other fledgling funds. The duo were social media influencers as well as brokers of deals and introductions.

Zhu first made his name in late 2018 by rightly calling the end of the last "crypto winter," which saw the price of Bitcoin fall about 80%. So when Bitcoin fell from its peak of more than $68,000 this year, buffeted by rising interest rates that sent investors fleeing from risky assets, he remained sanguine. With borrowed cash, Three Arrows placed big bets that the cryptocurrency would rebound. Instead, the market kept sinking. The fund started missing margin calls from the companies funding its trades in mid-June and declared bankruptcy on July 1, as Bitcoin traded below $20,000.

In filings for the US bankruptcy case, advisers in charge of liquidating the fund say that Zhu and Davies haven't cooperated with them and that the founders' whereabouts were unknown. Zhu tweeted that a "good faith" effort to work with the liquidators "was met with baiting." Zhu, Davies, and their lawyers didn't respond to requests for comment.

The rise and fall of 3AC, as the Singapore-based fund was known, parallels the transformation of crypto. What started with speculation on a few well-known coins such as Bitcoin and Ether became an interdependent industry of tokens linked to other tokens, crypto companies acting like banks offering depositors double-digit yields, and lots of borrowing by traders looking to juice their returns. The rapid growth of this infrastructure helped push up crypto prices and 3AC's fortunes; when prices turned, 3AC unraveled and may have accelerated the decline.

Crypto trading platforms including BlockFi and Blockchain.com have since disclosed exposures to 3AC. Canadian-listed Voyager Digital Ltd. has gone under after 3AC defaulted on a loan worth more than $650 million. Voyager's customers, which include many ordinary investors, have had their crypto accounts frozen and are unlikely to get back all their assets. It turned out that almost everyone had lent to, as many have called it, the Archegos Capital or Long-Term Capital Management of crypto.

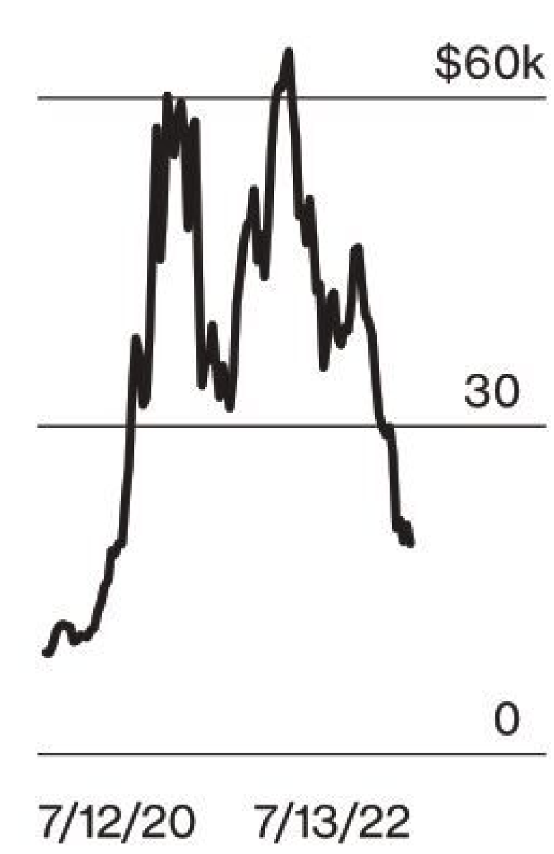
Crypto is vaunted for its transparency: Transactions are recorded on a public blockchain database, and many transactions are governed by open source software rules. But at the big money levels at which 3AC played, borrowing was largely a matter of relationships, not much different from the way typical hedge funds rely on the confidence of their bankers. Without disclosing much about its finances, 3AC borrowed from the biggest crypto lenders. Zhu's and Davies's online personas were populist billionaires who tweeted, "Only boomers trade stocks btw." But among the pros, no one quite expected them to make such wild wagers. They turned out to be "degens," crypto slang for degenerate gamblers, like everyone else, says one trading-firm executive who asked not to be named.

The duo's background before crypto was conventional for finance. After graduating from the elite Massachusetts boarding school Phillips Academy and later Columbia, Zhu and Davies cut their teeth trading derivatives at Credit Suisse Group AG in Tokyo. In 2012 the two friends, then in their mid-20s, started their own hedge fund; it was a tiny operation that took advantage of price gaps across emerging-market currency derivatives, picking up the pennies in between while hoping those pennies would add up across lots of trades.

As digital assets started to take off in 2016, Zhu and Davies saw that the nascent crypto market was even more rife with the kind of pricing gaps they profited from in currency contracts. For example, there was the Grayscale trade. The Grayscale Bitcoin Trust, or GBTC, allows people who can't or don't want to hold Bitcoins directly to instead buy shares in a fund that invests in them. For a while, GBTC was one of the few US-regulated crypto products, so it had the market to itself. It was so popular that its shares traded at a persistent premium to the value of the Bitcoin it held.

Big investors such as hedge funds had a way ▶

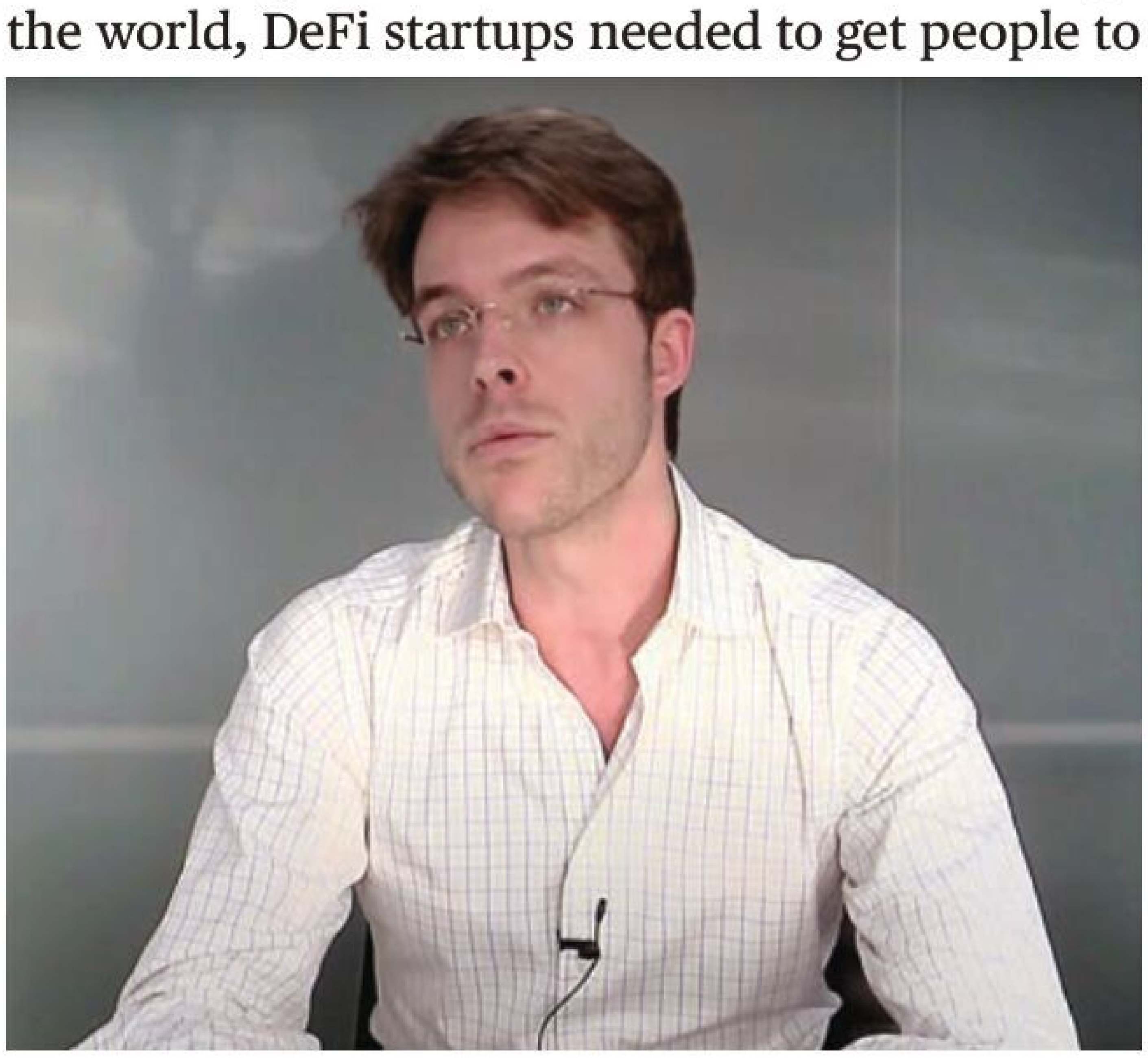
▼ Bitcoin price



◀ to buy GBTC shares for less than what ordinary traders were paying, however. Grayscale allowed them to purchase shares directly by giving Bitcoin to the trust. An easy way to make money was to borrow Bitcoin, exchange it for shares, and then sell those shares at the premium price. At the time of its last filing at the end of 2020, 3AC was the largest holder of GBTC, with a position then worth $1 billion. But the strategy had a snag: The shares bought directly from Grayscale were locked up for six months at a time.

Starting in early 2021, that restriction became a problem. GBTC's price slipped from a premium into a discount—a share was worth less than the Bitcoin backing it—as it faced competition from similar products. As the months went on, the discount got wider and wider. In early June, TPS Capital, which often brokered 3AC's borrowing, tried to persuade other speculators to snatch up GBTC shares, according to two trading-firm executives who heard (and ignored) the pitch. They didn't want to be named talking about private discussions. Timothy Chan, chief executive officer at TPS, says 3AC came up with the trade and asked for referrals. At the time his company wasn't aware of financial distress at 3AC, he says, and, to his knowledge, the pitch fell on deaf ears.

Still, for a while the crypto world kept filling up with strange new arbitrage opportunities that looked like ways to collect free money. Especially in the buzzy corner dubbed decentralized finance. DeFi aspired to build a new Wall Street—with all of its deposit-taking, trading, and borrowing, but less of its regulation—on the blockchain. To change the world, DeFi startups needed to get people to



entrust their crypto tokens to them. At a time when savings rates on bank accounts were almost zero, DeFi platforms were boasting double-digit yields for depositors, generated in various ways. Like many others, 3AC both borrowed and deposited.

The hottest fad in early 2022 was the Anchor Protocol, which offered a 20% rate. To earn that, you had to hold TerraUSD, a token that a crypto influencer called Do Kwon conjured, which was linked to another coin he created called Luna. Earning yields on Anchor, 3AC also invested $200 million in Luna in February, Davies told the *Wall Street Journal*. The whole system counted on Luna being worth something, which assumed a future in which everyone used the technology Kwon developed to trade tokens and digital art.

That future didn't come soon enough. As crypto prices plummeted, the comedown for DeFi was brutal. At their height, Luna and TerraUSD were worth a combined $60 billion. But when the price of Luna collapsed, it all vaporized.

Jitters spread. Trying to generate yield from a technical process called staking, 3AC was also investing Ether on a platform called Lido Finance. Lido's innovation is that when its depositors' Ether is locked up, they get another token called stETH. For most of this year, stETH has traded at par with ETH, but after Luna crashed, the price slid to as low as a 7% discount as traders rushed for the exit. And 3AC was one of them. (Trades are traceable on the public blockchain and were described by former employees who declined to be named because they aren't authorized to speak publicly.)

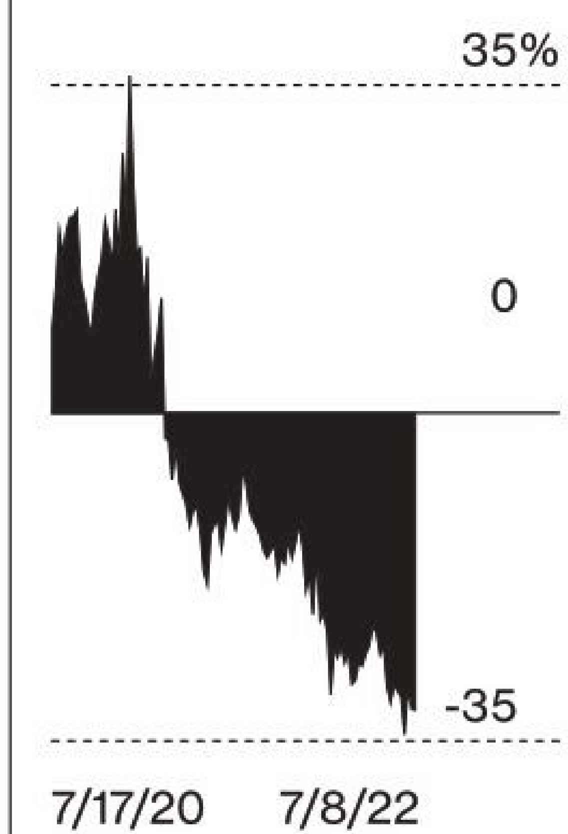
It was a classic crisis dynamic: When prices fell, people became desperate to get out, even at a loss, sending prices still lower. "That's what happened in 2008," says David Fauchier, a crypto fund manager at Nickel Digital. "This is your very typical liquidity crunch." But there was no central bank to step in. As 3AC began to unravel, Zhu and Davies met with executives from several crypto exchanges to discuss the possibility of a bailout—with no luck, say people with direct knowledge of the matter.

To many cryptopians, something like 3AC's collapse isn't supposed to happen. Investments would be visible on the blockchain, and reputations would be irrelevant. Losing bets could be liquidated without mercy, with no one waiting around for a margin call. But the crypto financial crisis of 2022 turned out to be a familiar case of too much trust as asset prices rose, followed by a sudden collapse of confidence.

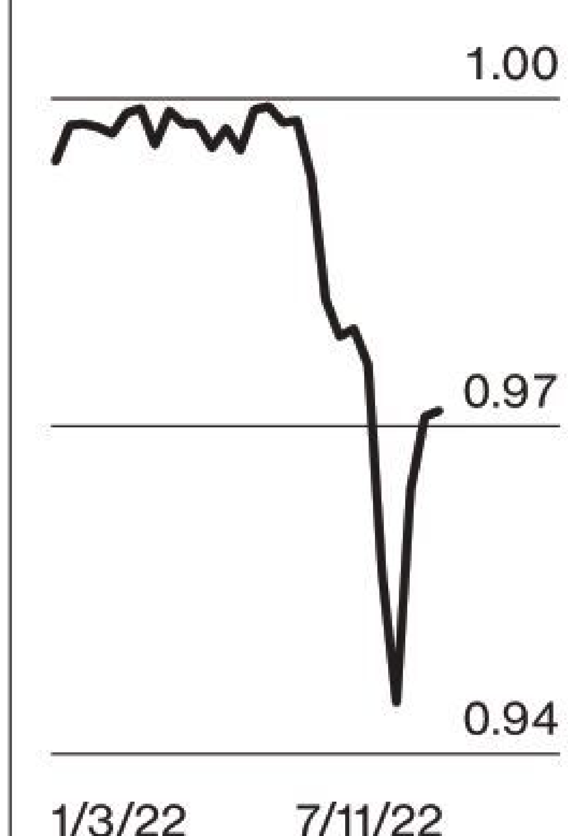
Zhu's big thesis was the "supercycle," an extended rally fueled by a blockchain revolution. In May, Zhu called his theory "regrettably wrong." He's removed hashtags of protocols such as Luna from his Twitter bio. His header image remains: three arrows pointing up, with the words "up only."
—Justina Lee, Muyao Shen, and Ben Bartenstein

THE BOTTOM LINE For all the complexity of the new crypto ecosystem, it proved to be a giant, leveraged wager on the simple idea that there would always be more buyers for tokens.

▼ Grayscale Bitcoin Trust share price relative to underlying value of holdings



▼ stETH price in ETH



◀ Davies

DAVIES: OPALESQUE TV/YOUTUBE. DATA: COMPILED BY BLOOMBERG (GRAYSCALE), COINMARKETCAP (STETH)

A $490 Gun Can Cost A Lot More

● Credova's buy now, pay later deals are putting guns in consumers' hands quickly

Last year, Jennifer White, a 44-year-old single mother in Georgia, wanted to buy a $415 Glock G44 for self-defense. Through the website Guns.com, it was possible to finance the pistol without adding a penny to her credit card balance, which she'd just finished paying off. With a 10-round magazine plus shipping, taxes, and some other fees, the total was $490. Nothing was due up front. The payments were about $87 a month, and White figured it would take her about five months to pay it off.

The financing was arranged through Credova Financial LLC, a financial technology company in Bozeman, Mont., in the burgeoning "buy now, pay later" business. Like better-known BNPL businesses such as Afterpay Ltd. and Affirm Holdings Inc., Credova works with both online and brick-and-mortar retailers to give consumers the option at checkout to break up their purchases into smaller payments.

But Credova is different from most other BNPL companies because it not only allows but embraces gun sales, alongside other sporting goods. Its seemingly frictionless payment option—the Guns.com site says customers can get "approvals in seconds"—shows how gunmakers and retailers are using the instant-gratification techniques of internet marketing to satisfy the American appetite for firearms. Guns.com says Credova customers can "get protected now, pay later." The retailer GrabAGun.com, which also uses Credova, has trademarked the slogan "Shoot Now Pay Later."

BNPL programs represent a sliver of US gun purchases: Most of the biggest companies, including Affirm, Afterpay, Klarna Bank, and Zip, don't finance guns. And even consumers who finance instantly online have to get a background check through a licensed dealer and pick up their gun at a physical store. Still, adding BNPL to the mix makes gun-buying easier—and that's Credova's stated mission. "We've made it extremely easy to go through the checkout process, no different than maybe just using a credit card at checkout to get a loan with us," Dusty Wunderlich, Credova's chief executive officer, said in a shooting-sports trade show interview posted on YouTube in January. He added that Credova looks beyond credit scores, at things such as checking account data. "We try to do that so we're not saying no to consumers just because of a credit score." Credova declined to comment for this story.

BNPL's popularity in general has raised concerns about consumers taking on debt too easily, but its emergence in gun retailing also has public-health implications. Mass shootings in Uvalde, Texas, and Highland Park, Ill., have called attention to how easy it is to legally buy guns in the US, though neither incident has been linked to BNPL financing. The Uvalde killer used a debit card. (Everytown for Gun Safety, which advocates for gun-safety measures, is backed by Michael Bloomberg, majority owner of *Bloomberg Businessweek* parent company Bloomberg LP.)

In addition to such high-profile events, research shows that the presence of firearms in a home increases the chances of suicide and homicide without a quantifiable benefit to a gun owner's safety, says David Hemenway, a professor of health policy at the Harvard T.H. Chan School of Public Health. Offering instant credit on firearms is "a little like lowering the price in the sense that it makes it more likely that people will be able to buy," he says.

Paying off the gun may be a different matter, because there's a potential catch to promises of fast financing. Some of the deals Credova offers are more complicated and potentially much more expensive than the payment plans BNPL ▶

ILLUSTRATION BY BAPTISTE VIROT

◀ is best known for. A popular offer these days is "pay-in-four," a loan that's paid in four installments over a couple of months, with no interest. Credova in June announced it was starting to offer pay-in-four through certain merchants, without saying whether those included gun sellers.

The financing White got wasn't a short-term loan but a 12-month "closed-end consumer product lease" on her gun. At the end of the lease she can make a final $73 payment to own the gun outright, at which point she will have paid $1,123, the equivalent of 129% interest. Credova on its website refers to such excess costs as "leasing fees." White says it came as a surprise to her when she realized her automated payments had started to add up to more than $490. "You're assuming when you finance something you're buying it for the stated price," she says.

A copy of White's agreement, which was emailed to her and which she shared with *Bloomberg Businessweek*, says she signed it electronically when she confirmed its terms. It lays out the terms and the total cost over the life of the contract. If she had paid off the gun in the first 30 days of the lease, her cost would have been $490. Once that deadline passed, she could buy out the lease early, but it would cost 75% of the remaining payments.

Other gun owners have taken to social media to urge people to read their Credova agreements with care. "This is my fault for not reading more carefully," wrote one pseudonymous poster on the r/Firearms Reddit forum, who said he was able to pay off his gun in time to get out of a lease. "Please, don't make a mistake like I did and use this company. If you have to finance a gun, then you probably can't afford that gun."

Along with its new pay-in-four product, Credova also puts some customers into longer-term installment plans that may charge interest. It's not alone in this. Big BNPL companies including Affirm and Klarna offer longer-term loans, particularly for expensive items such as furniture and exercise equipment. Affirm's platform also works with third-party lease-to-own providers such as Katapult Holdings Inc., which can offer financing to customers who don't qualify for Affirm's other offers.

Retailers tout the idea that Credova financing can be interest-free. "90 Day Interest Free Financing*" says a banner on Guns.com. The asterisk notes that not all customers will get this offer and that it depends on their credit profile. A FAQ section on the site further explains that if buyers don't pay off the gun in 90 days, they'll be responsible for any interest accrued in that time. Credova's June statement said it would be phasing out such 90-day interest-free promotions in favor of pay-in-four.

On its website, Credova positions itself as a BNPL company for "the outdoor lifestyle," financing not only guns but also gear for hunting, fishing, camping, and other sports, and even for pets. But guns are a distinctive part of Credova's business. "Financial services in the shooting sports industry is a real problem," said Wunderlich in the trade-show interview. "We're trying to address this demand for good financial services products and back the industry as well."

Credova is part of an expanding network of often-obscure companies performing different roles in online finance. Like other BNPL companies, Credova is an intermediary. Its pitch to stores is that its technology can help them turn browsers into buyers. In June, Credova said it was offering long-term installment plans through Cornerstone Bank in North Dakota, with annual percentage rates of as much as 36%.

Another cog in Credova's network is debt collector Monterey Financial Services LLC in Oceanside, Calif. That's where White's lease ended up. According to her contract, the lessor on her pistol was Guns.com, but the retailer says it doesn't decide the individual rates agreed between Credova and customers. White's payments were immediately assigned to Credova, and then they went to Monterey, which specializes in buying up or servicing consumer debts on things including timeshares, hearing aids, and jewelry. Monterey has worked with Wunderlich in the past. A different business Wunderlich ran until 2017 also offered leases on pets and other big-ticket items such as wedding dresses, often to people who might not qualify for traditional credit, according to a Bloomberg article. Monterey handled many of that company's leases.

A spokesperson for Monterey says the company isn't involved when sales are made and doesn't set the terms of the contracts it collects on. One thing that distinguishes Monterey from its competitors, according to a 2021 investor document deep in its website, is that "it will make unlimited phone calls in order to collect monthly payments." Monterey says this means that it doesn't have preset caps when it's collecting on behalf of outside clients and that its communications comply with federal and state laws and regulations. The document also says the company is always looking for new markets to diversify into: "Monterey considers every Business to Consumer opportunity." *—Michael Tobin and Max Reyes*

THE BOTTOM LINE Buy now, pay later financing can get some consumers in over their heads, but its emergence in gun sales also raises public-health concerns.

"If you have to finance a gun, then you probably can't afford that gun"

● Wunderlich

PHOTOGRAPH BY MICHAEL FRIBERG FOR BLOOMBERG BUSINESSWEEK

Expensive Oil Is Here to Stay

The world is struggling to produce all the oil it needs, and the impact on global economics and politics will be profound

On July 6 the global benchmark for oil slid below $100 a barrel for the first time since April, raising the hopes of politicians, business owners, and drivers around the world that the days of high fuel prices were coming to an end.

We're not there yet.

In fact, the underlying dynamics of oil supply and demand point to a prolonged period of higher prices, lasting months if not years. Demand for fuel is still growing as the world picks up where it left off before Covid-19 lockdowns. There's a shortage of refineries to turn oil into fuel. And the world's largest oil producers are hitting up against the limits of what they can drill. All this as Vladimir Putin's war suppresses exports from Russia.

"The world has never witnessed such a major energy crisis in terms of its depth and its complexity," Fatih Birol, executive director of the International Energy Agency (IEA), said at a forum on July 12. "We might not have seen the worst of it yet—this is affecting the entire world."

The impact on global economics and politics is profound. A 41% runup in gasoline prices this year has already driven inflation in the US to the highest in a generation and helped put the Republican Party on course to retake Congress in this year's midterm elections. High fuel costs are sparking unrest in countries from Peru to Sri Lanka. The energy transition world leaders have been talking about for years is at risk of being sidelined.

At the most fundamental level, the world is now struggling to produce all the oil it needs. It's a sharp reversal from the spring of 2020 when the pandemic sent demand plunging to the lowest level in decades and crude prices fell below zero. Next year global oil consumption is set to surpass pre-pandemic levels, growing more than 2%, according to the IEA.

Supply will have a tough time keeping up. In June, JPMorgan Chase & Co. painted one apocalyptic scenario in which Putin holds back millions of barrels of Russian oil from the market and prices rocket to $380 a barrel. Although the nation has found willing buyers in China and India, Russia's overall production has fallen by more than a million barrels a day, weighed down by sanctions and a broad reluctance to do business with Moscow.

The prospects for finding production growth outside of Russia are dim. OPEC, which produces about 40% of the world's crude, is finding it difficult to meet production targets. Aging infrastructure, years of historically low investment, and political trauma have combined to hold back output. In May, OPEC+ (the Organization of the Petroleum Exporting Countries and allies) produced 2.7 million barrels a day less than its collective target.

Hopes for more oil supply rest on the two members with surplus production capacity: Saudi Arabia and the United Arab Emirates. President Joe Biden has pushed both to pump more. In a testament to how desperate he's become to reduce oil prices, Biden planned to visit Saudi Arabia this month and meet Crown Prince Mohammed bin Salman—a man he had previously refused to speak with, even by phone, partly because of his role in the murder of columnist Jamal Khashoggi.

But it's not clear how much more crude Saudi Arabia, or the UAE, has to give. Aramco, Saudi Arabia's state oil giant, claims it can pump 12 million barrels a day. It has hit that rate only once.

As for the UAE, French President Emmanuel Macron was caught on camera at a Group of Seven meeting saying the nation's president had told him it was already at maximum production.

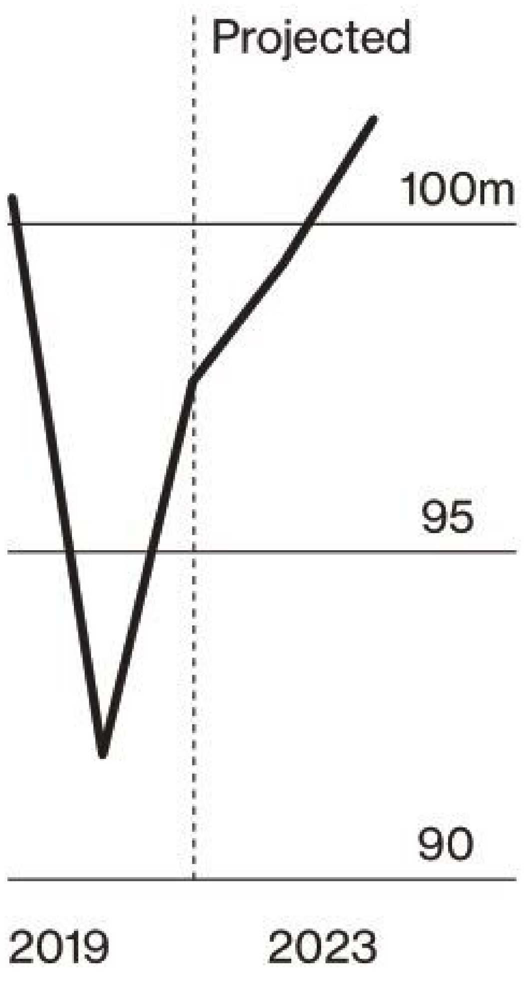
There are no signs that America's shale industry is ready—or willing—to bail out the world. True, production is rising in the giant Permian Basin of Texas and New Mexico. But the rest of the US oil industry is stagnating. Overall US output is still about 1 million barrels a day short of its pre-pandemic peak.

It's not just that oil producers can't produce more oil. Some don't want to. The world's five largest oil companies plan to invest $81.7 billion this year, half of what they spent in 2013. US shale drillers have been trying to rein in spending after years of burning through cash with little to show for it. European oil majors are diverting capital ▶

Edited by Lynn Doan

ILLUSTRATION BY CHOI HAERYUNG. DATA: INTERNATIONAL ENERGY AGENCY

▼ Global oil demand, barrels per day



◀ away from oil and toward lower-carbon energy.

There's also the refining bottleneck. The pandemic forced several aging, inefficient refineries to shut for good, leaving the world so short on capacity that the price of crude, which once almost single-handedly dictated prices at the pump, is no longer an accurate gauge of what consumers are paying. In the past month the price of oil in the US has fallen 21%, as of July 12. Gasoline prices have meanwhile fallen a mere 7.6%.

Against all the supply-side woes is the surge in demand. After two years of Covid restrictions, people are taking to the roads and air by the hundreds of millions. Halfway through summer, demand is already close to matching pre-pandemic levels. And China hasn't even fully emerged from lockdowns yet.

Sure, central bankers are raising interest rates, and the prospect of a global recession has investors concerned that demand is about to fall off a cliff. But economic downturns have rarely caused fuel demand to tank. Outside the pandemic-induced contraction, the only modern example of a major decline is the global financial crisis. More typically, consumption simply rises more slowly.

Some will say a high oil price is what the world needs to wean itself off fossil fuels. But the reality is it makes a transition even more challenging.

In times such as these, even the most climate-conscious governments tend to buckle, granting tax breaks and spending billions of dollars to keep conventional fuels affordable. More than 20 countries have created subsidies to provide relief at the pump, according to data compiled by Bloomberg News. And because expensive oil is driving up inflation and prompting interest rate increases, renewable energy companies face a higher cost of capital.

The world's 20 million electric cars aren't enough to cut oil demand. BloombergNEF, which issues a long-term EV forecast annually, expects crude demand from road transport to peak in 2027.

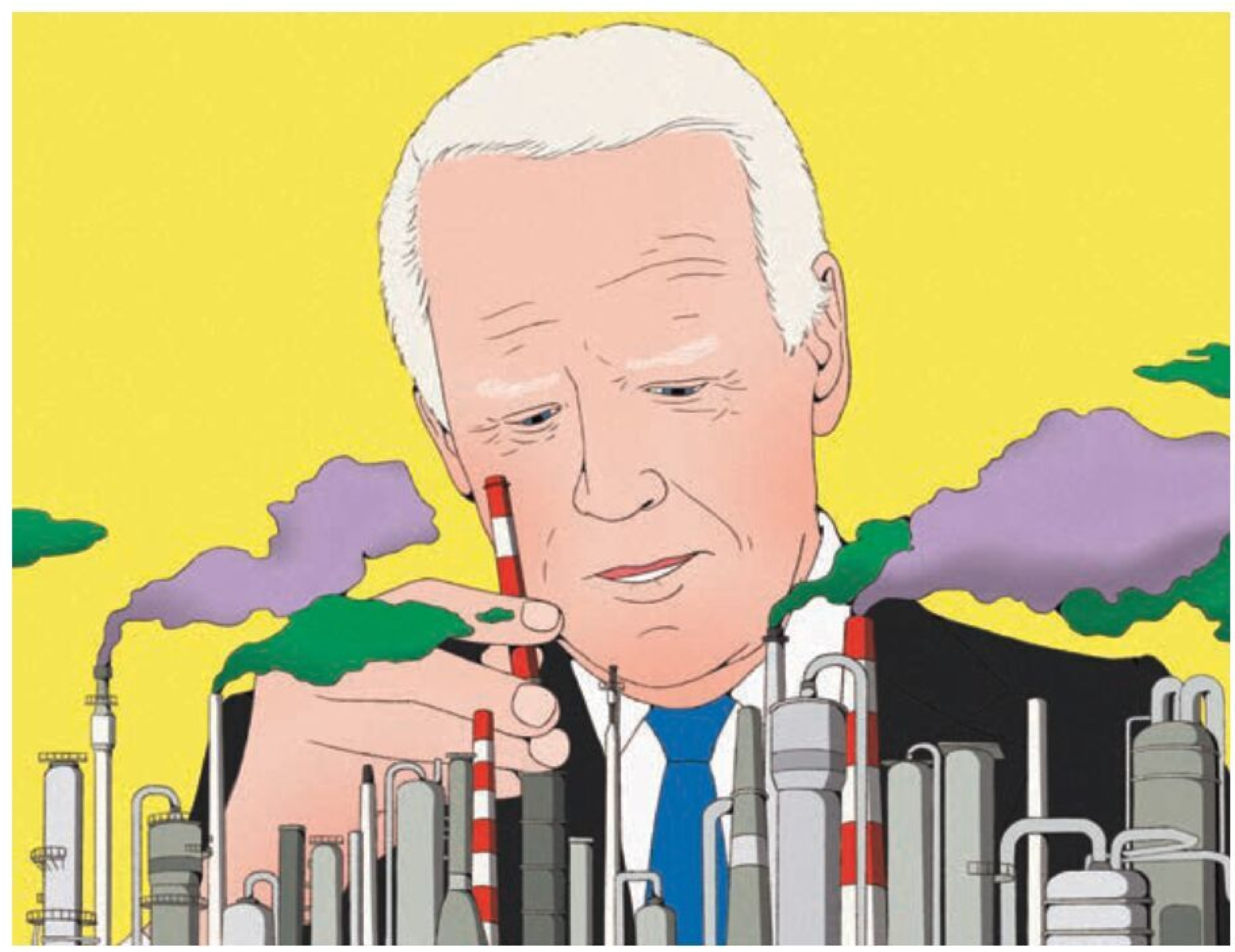
Not everyone is a bull. Citigroup Inc. published a recent note that predicted oil could tumble to $65 a barrel in the event of a recession. Oil demand may drop only in "the worst global recessions," the bank said. "But oil prices fall in all recessions."

On July 8, Putin warned of the opposite. Western nations made a mistake when they sanctioned his nation's energy supplies, he said. Should they continue, he said, the global energy market faces "even more severe, without exaggeration, even catastrophic consequences." —*Will Kennedy*

THE BOTTOM LINE Don't let the recent decline in the cost of oil fool you. Demand is rising, and there are no signs that production or refining capacity can keep up.

Refineries Are the Real **Problem**

● Biden is facing two dilemmas: A world short on oil and a nation short on refineries



No US president has been reelected with gasoline prices above $4 a gallon, and the price at the pump is almost $4.70 this summer. It's the single biggest economic threat to Joe Biden's presidency.

Biden's first response was urging OPEC to raise global oil supplies, with some success. He tried to shame US shale drillers, too, for failing to put rigs back to work, with less success. Then administration officials began to confront an arguably bigger and longer-term obstacle to reining in the fuel prices that have sent inflation to the highest level in decades: America's refining complex is in decline.

During the pandemic, plants that distill crude into gasoline, diesel, and jet fuel shut down around the world, and construction of new ones was postponed. The closures were especially acute in the US, where old facilities suffered irreparable damage from breakdowns and hurricanes while others were converted to produce renewable diesel. Over the past three years, the nation's refiners have shut—or announced plans to shut—about 2 million barrels of capacity a day, wiping out enough gasoline production to fuel an estimated 30 million cars.

In June, as prices at the pump shot past $5 a

▼ Change since Dec. 31, 2021

West Texas Intermediate crude futures

Retail gasoline price, US average

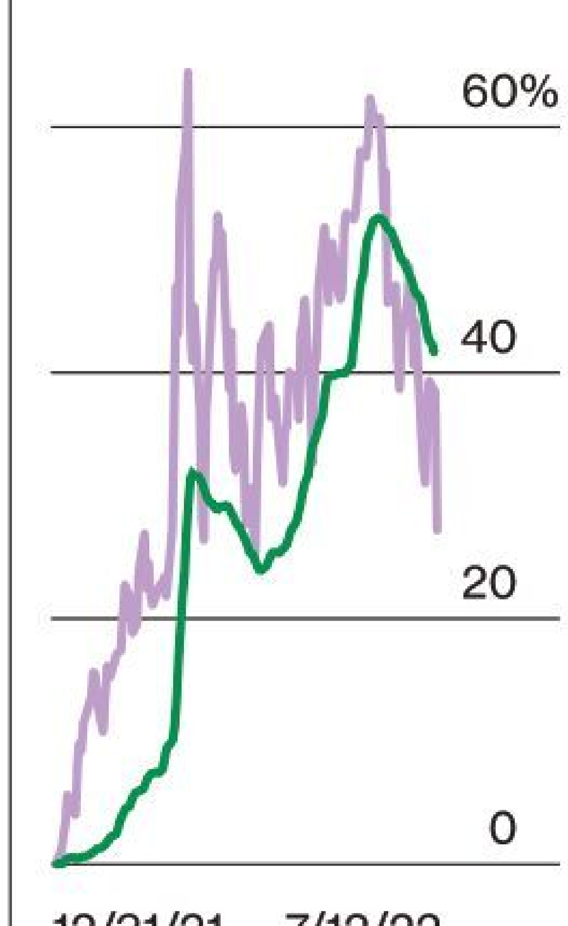


ILLUSTRATION BY CHOI HAERYUNG. DATA: COMPILED BY BLOOMBERG gallon, Biden officials met with top executives from the nation's largest fuel-making companies. The comments they made, industry insiders say, displayed a woeful–perhaps willful–misunderstanding of the refining business. In one Zoom-based session with a refining executive, White House officials soberly suggested that, with profit margins so large, oil companies should be able to recoup the costs of a new refinery in a year.

Biden economic adviser Heather Boushey rejected assertions that the president's approach has been naive in a July 7 interview with Bloomberg Television, saying Biden was using every tool at his disposal to address gasoline prices. But to long-timers in US refining, the idea that companies would invest billions of dollars in a new refinery based on a few months of high profits was almost laughable.

At a separate closed-door discussion on June 23 in Washington, Chevron Corp. Chief Executive Officer Mike Wirth walked through the economics, supply logistics, and constraints of US refining with Secretary of Energy Jennifer Granholm and other officials. The meeting ended with everyone agreeing on one point: The shortage of refining capacity will persist. And it could get worse.

The US hasn't built a full-scale refinery since 1977. Designing and constructing the labyrinth of pipelines, tanks, and distillation columns would easily cost $10 billion and take as long as a decade. There are some expansions under way by Exxon Mobil Corp. and Valero Energy Corp., but together they'll barely make up for the loss of a single refinery. Meanwhile, the sharp, pandemic-driven decline in fuel demand led to the announced shutdown or repurposing of at least six refineries, including LyondellBasell Industries NV's Houston facility, which is capable of making 3.7 million gallons of gasoline a day and is set to close by next year.

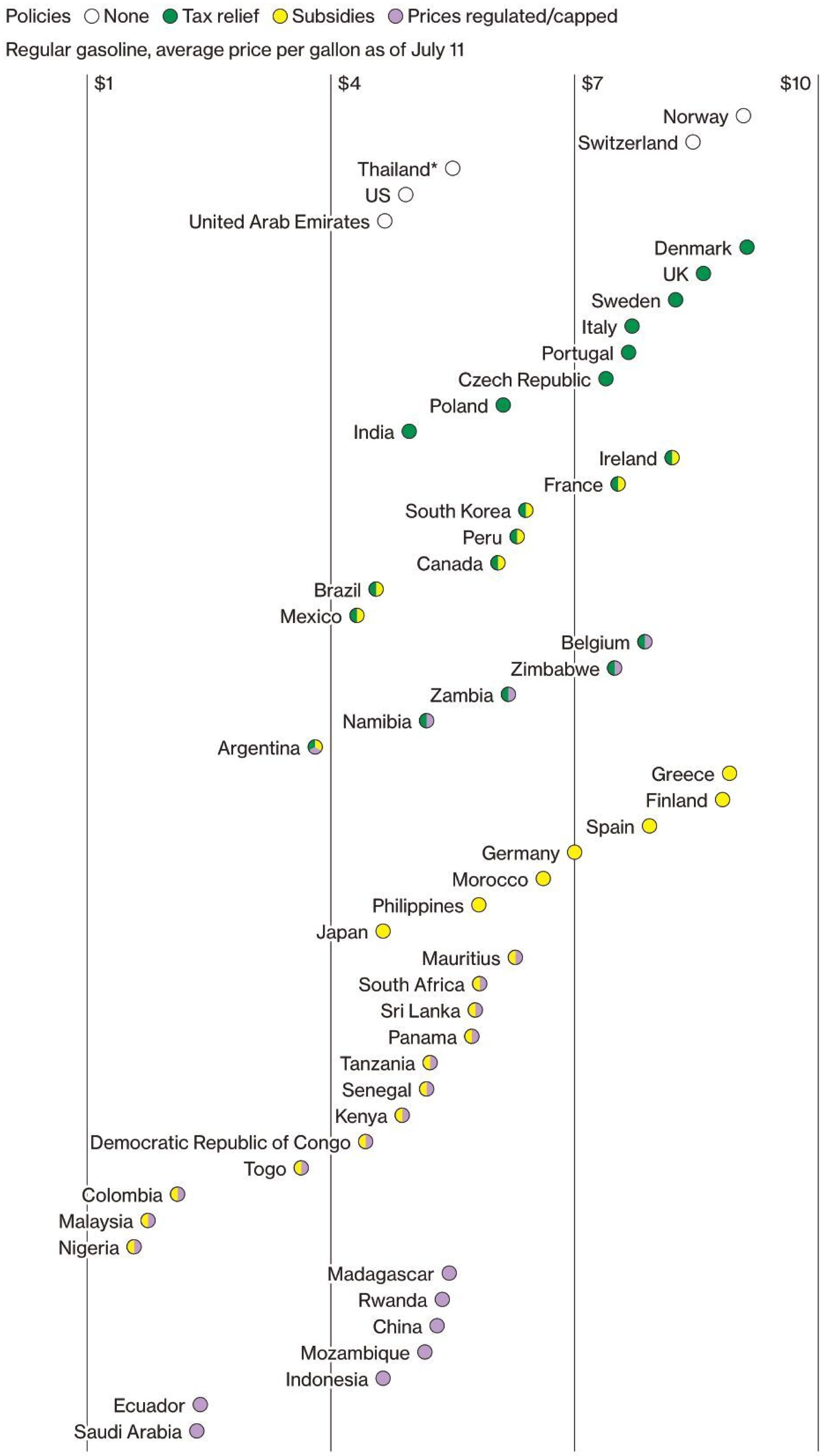
"My personal view is there will never be another new refinery built" in the US, Wirth said in an interview with Bloomberg TV in June. "You're looking at committing capital 10 years out, that will need decades to offer a return for shareholders, in a policy environment where governments around the world are saying, 'We don't want these products.'"

For a look at how challenging it will be for Biden to solve the refining shortage, consider this: He once tried to help save a refinery–and failed.

That refinery, in Philadelphia, not far from Biden's hometown, used to account for almost a third of the refining capacity in the US Northeast. After running for more than a century, the site began falling apart. Aging equipment, more costly environmental regulations, and weaker demand contributed to heavy losses. Supporters of the refinery ▶

Relieving Pressure at the Pump

This year's surge in fuel prices has governments around the world searching for ways to offer relief and, in some places, suppress uprisings. Many already have subsidies in place and are expanding them. Some governments have long regulated prices. Across much of Europe, fuel taxes have been slashed. Other nations are doing nothing at all. Here's a look at the policies in force in 51 countries around the world. —*Bloomberg News*



*PRICE CAPS, SUBSIDIES, AND TAX RELIEF ARE IN EFFECT FOR DIESEL. DATA: GLOBALPETROLPRICES.COM, BLOOMBERG REPORTING

◀ implored then-Vice President Biden to help save it from closure, but their efforts proved futile. It eventually succumbed to a series of breakdowns and explosions and is now being dismantled. There are plans to turn the site into an e-commerce and life sciences business park.

In more normal times, a shortage of US refining would have meant relying on imports or drawing down stockpiles. But the rest of the world is struggling, too. Sanctions on Russia, along with China's efforts to limit exports of its own petroleum, add to the global scarcity. Gasoline stockpiles in the US are at the lowest seasonally in six years, and distillate reserves have fallen to a 17-year low.

The past few weeks have brought some relief. The national average price for a gallon of gasoline retreated to $4.66 as of July 11, a decline of 7% from an all-time high of $5.02 a gallon on June 13. But that is not as large as the fall in oil prices, because fuel manufacturing is in such short supply. Refining now accounts for 26% of the cost of a gallon of gasoline, up from 14% previously, according to the US Energy Information Administration.

One powerful storm in the Gulf of Mexico could halt production at some of the largest refineries for weeks. "If there was a major hurricane in the midst of summer, I think we would just blow through $5.50" a gallon, says Patrick DeHaan, head of petroleum analysis at the gasoline price-tracking company GasBuddy.

US fuel producers are racking up profits from high gasoline prices. Marathon Petroleum, Valero Energy, and Phillips 66–the three biggest independent refiners–plus Exxon and Chevron are forecast to make a record $10.4 billion in the three months through June 30 from refined products. Exxon's US refineries will make more in the second quarter than the previous nine combined.

It's not enough to change their minds about mothballing plants. About a third of the refinery shutdowns in recent years are a result of owners converting them to produce renewable diesel. This process will allow them to satisfy some environmental requirements while claiming a $1 tax credit on every gallon they produce.

Refining additions in Asia and the Middle East may ease global shortages, but they also stand to increase US dependence on foreign supplies at a time of supply chain uncertainty.

For now, Biden's options for quickly bringing down gasoline prices are limited. He planned a visit this month to Saudi Arabia to press for more oil production. Energy Department officials are exploring the possibility of easing anti-smog rules. Refiners are trying to maintain, or even slightly increase, the amount of oil they're processing to take advantage of high prices–though at 94%, they're essentially already running at maximum capacity.

Biden is asking Congress to suspend the federal gasoline tax through September.

The only real, long-term solution is to reduce demand, says Jesse Mercer, a senior crude analyst at Enverus Intelligence Research Inc. "Maybe remote work is what we need right now, get cars off the road, subsidies for EVs," he says, because "this crunch with refining capacity here in the US is going to be here for the long run."
—Kevin Crowley and Jennifer A. Dlouhy, with Chunzi Xu and Barbara J. Powell

THE BOTTOM LINE Refineries across the US are retiring, limiting gasoline production and leaving drivers increasingly vulnerable to price spikes.

The Start of Demand Destruction?

Soaring gasoline prices are making a dent in fuel demand. The question now is whether it sticks

The US was only two weeks into its traditional summer driving season when soaring gasoline prices began taking a toll on a quintessential American pastime: the summer road trip.

Gasoline demand trended lower in three out of the past four weeks, an unusual move for this time of year. The four-week rolling average for US gasoline consumption slid 2.9% to 8.73 million barrels a day as of July 8. Aside from 2020, when the pandemic sent the world into lockdown, it marks the lowest seasonal demand in 21 years. While just a week's worth of data, it raises questions about the resilience of fuel demand and whether prices have been high enough for long enough to bring a meaningful lasting change in consumer behavior.

The gasoline Americans burn to get to work and back makes up the majority of demand, and there's been no sign of a reduction in commuter consumption. But the once-a-year boost from casual summer travel is taking a hit. As Linda Giesecke, an analyst with ESAI Energy LLC, says, "We've simply shaved off the seasonal increase."

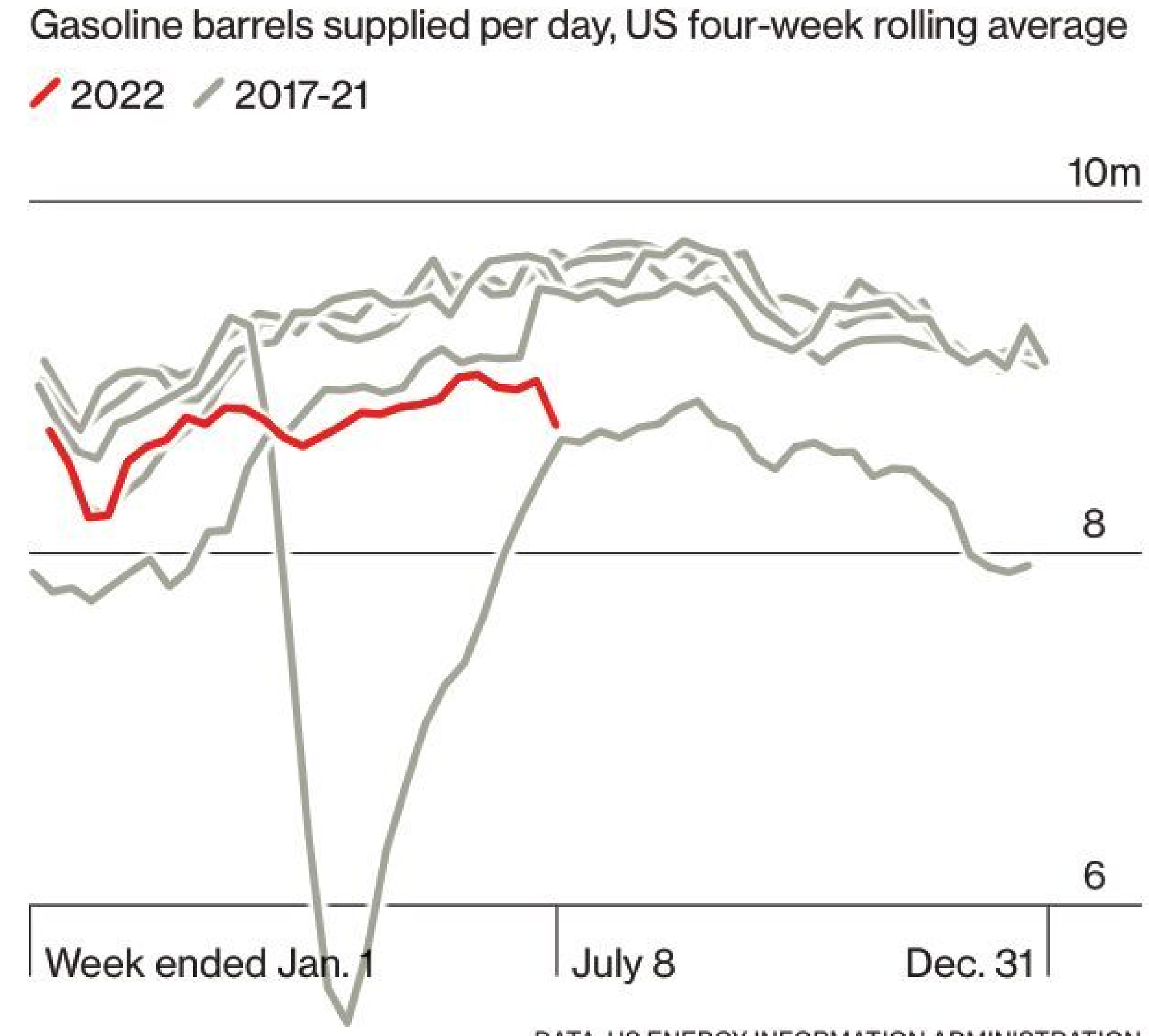
Early signs of demand destruction—a lasting decrease brought on by a prolonged period of high prices—have been especially pronounced in California, where pump prices average more than $6 a gallon as of July 12. Gasoline inventories there are 10% above the five-year average, suggesting a drop in demand is swelling supplies. California drivers "appear to have reached their breaking point," says John Kilduff, founding partner of energy hedge fund Again Capital.

It's possible US demand will pick up again if prices fall back below $4.

There is plenty of skepticism about whether real demand destruction is taking place. Despite the "recent weakness" in US consumption, Morgan Stanley said earlier this month that it expects demand growth to slow as opposed to an outright decline. RBC Capital Markets noted that protracted demand destruction events are historically rare.

"Over the past 30 years leading into the pandemic, there were 39 individual months in which retail gasoline prices increased by more than 30%," RBC said in a July note. "Of those instances, we have seen gasoline demand fall by 2% or more on only 12 of those occasions."
—Chunzi Xu

Gasoline barrels supplied per day, US four-week rolling average



DATA: US ENERGY INFORMATION ADMINISTRATION

ILLUSTRATION BY CHOI HAERYUNG. COURTESY MEG JACOBS

The Political Perils of High Gas Prices

● Three oil shocks as seen through the eyes of a US historian

Meg Jacobs's *Panic at the Pump* was well received when it was first published in 2017, but it's even more of a must-read today. There are no lines at gasoline stations these days like there were in the 1970s and no US president would dare go on national television to counsel viewers to turn down their thermostat in winter and drive at lower speeds. But there's plenty that resonates: Inflation is running at four-decade highs, in part because of soaring fuel costs; surveys show that consumers believe oil companies are raking in profits at their expense; and politicians disagree on what role–if any–government should play in tamping down prices. Here, Jacobs, a historian who's on the faculty at Princeton University, discusses energy crises past and present with *Bloomberg Businessweek* economics editor Cristina Lindblad.

History doesn't repeat itself, but often it rhymes, said Mark Twain—supposedly. What rhymes for you about the 1970s and today?

I find myself thinking about the 1970s all the time, whether it's gas prices that seem to be rising every minute at the pump, or the threat of trucker strikes, or the sort of general malaise that Americans are experiencing. And, of course, we hear all the time that we have not had rates of inflation this high since the 1970s.

So let me flip the question. What's different about this moment?

Inflation in the 1970s was triggered by these dramatic oil shocks. One that started in 1973, with the Arab embargo, and one toward the end of the decade with the Iranian revolution that led to a decrease in oil supply. In some ways that feels somewhat similar today, because Russia's invasion of Ukraine has disrupted international oil markets. But beyond that superficial level, there are important differences. For instance, in the 1970s, ambivalence over how to fund the Vietnam War, which was unpopular, played a role in driving inflation. As for today, we had a once-in-a-century pandemic that destabilized the economy. And what we're seeing is that this remarkable recovery in employment has not been entirely matched by a return of the supply chains that we need.

In your book you show the tools that Presidents Richard Nixon and Jimmy Carter used to rein in gas prices backfired in a big way. Why did policies that were judged to have worked well during World War II fail some three decades later?

The reason that price controls were so popular in WWII is that Americans believed that they were about what Franklin Roosevelt called "the equality of sacrifice." Ration coupons served as a guarantee that you would go to the butcher and get your slab of meat. And you knew exactly what you were going to pay for it.

Under Nixon, price controls were implemented in what I would describe as a cynical and incomplete fashion, which means they were almost guaranteed to fail. Instead of ration coupons, like you had in the 1940s, you had rationing by inconvenience. If you wanted to secure gasoline, your only solution was to just line up at the pump. And you had gas lines littering the American landscape, which bred a lot of popular frustration. And so the experience, especially after the Carter-era oil shock in the summer of 1979, eroded confidence in this previously popular tool for combating inflation.

One of the things your book really brings out is how divisive energy policies were politically, creating rifts not just between opposing parties but inside them, too. Any echoes of that today?

California Governor Gavin Newsom has pushed for inflation relief spending in the state of California. Others will critique that, as well as the idea of a gas tax holiday that [Joe] Biden has put forward and that states are advancing, arguing this will only fuel inflation. Biden has been jawboning the frackers to produce more and has opened some federal lands and waters to oil development. But what the oil industry really desires is greater certainty. The way the price of oil dropped at the start of the pandemic was really scary for producers. So this idea that was discussed at the recent Group of Seven meeting of forming a buyer's cartel as a way to cap Russia's revenue from oil exports, well, that's an idea that could have a certain appeal for the industry overall, because it might ensure a certain level of price stability.

● Jacobs

+ SOLUTIONS

Prognosis

A Modern Spin on Dieting

Weight loss companies promote healthy habits instead of prescriptive eating, but it's hard to overcome the yo-yo effect

Dieting has never been fun, but it used to be more popular. About a quarter of US adults report being on a diet, compared with 31% in 1991, says market researcher NPD Group. Sales of diet books, once reliable bestsellers, have fallen by almost half since 2004, according to data from NPD BookScan. People are moving away from restrictive eating because of a growing recognition of its limited effectiveness in keeping weight off, as well as greater advocacy for accepting all bodies and more awareness about mental health considerations. And the $192 billion-a-year weight loss industry is responding to the shift.

Companies say they can help people slim down through a holistic lifestyle approach, with healthy habits like exercise, getting adequate sleep, and eating plenty of fruits and vegetables. Noom Inc. says users of its app can stop yo-yo dieting and "get healthy again." Rival app Wellory says its clients can "dump dieting for good." Weight loss chain Simply for Life promises results without gimmicks or quick fixes.

Modern programs dangle a better relationship with food, more energy, and new

July 18, 2022

Edited by Rebecca Penty, David Rocks, and Rick Schine

exercise habits. But dietary changes, calorie counting, and regular weigh-ins can still play a major role. It's also not clear the approaches are any better than old-school dieting for long-term weight management. Noom often cites a study that found 78% of users sustained weight loss over nine months, though the study also found that only about 24% kept weight off for longer periods, as a psychologist's analysis of the data pointed out.

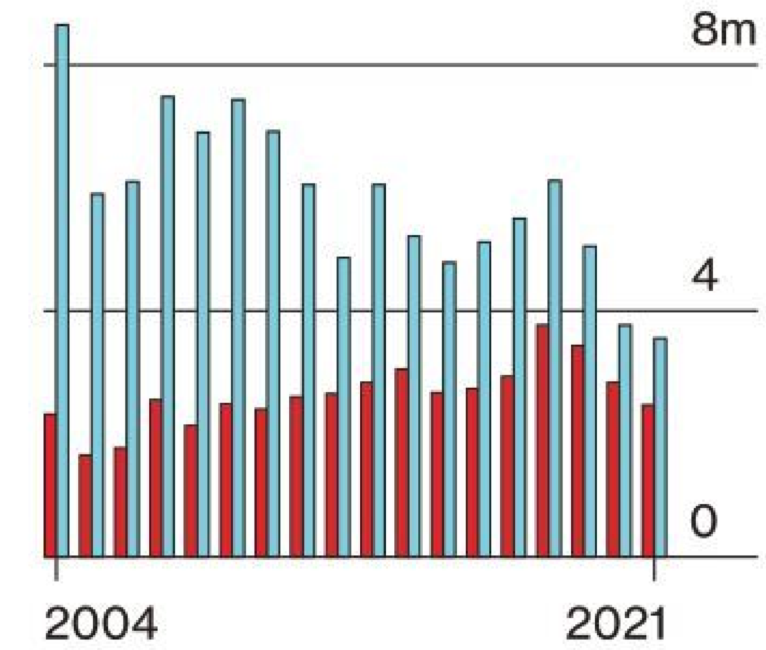
Noom, a New York City startup that introduced its weight loss app in 2016, has users set a weight loss goal, then offers daily lessons and help tracking weight, meals, and physical activity. A coach provides information and encouragement, and users join support groups while earning virtual tokens for staying engaged. The program sorts foods into color-coded categories and incorporates calorie tracking. Noom's millions of users pay about $60 a month for a subscription. The company says it brought in about $400 million in revenue in 2020, about twice that of 2019, and that it expects revenue of more than $600 million for 2021.

Artem Petakov, Noom's president and co-founder, says the app helps people take charge of their health. Many diets are short-term programs or tell people exactly what to eat, "and Noom doesn't believe in any of those things," he says. "We believe in long-term interventions, very much based on science and very much with not a prescriptive mindset, but rather the mindset of what will work for you."

Weight loss companies count on people repeatedly attempting to shed pounds. When Weight Watchers went public in 2001, it said its customers in North America enrolled an average of four times. The company rebranded as WW International Inc. a few years ago after hearing that customers wanted programs that would better fit into their daily activities and address health more holistically, says WW Chief Scientific Officer Gary Foster. WW introduced tools to track activity, improve mindset, and help members form support groups.

Since the overhaul, WW's stock has plunged about 90%. "They probably went too far by taking out the weight loss messaging," says Brian Nagel, a senior equity research analyst at Oppenheimer & Co. who rates the company neutral, the equivalent of a hold. In the first January after the rebranding—an important time to sign up people with New Year's resolutions tied to weight loss—WW didn't attract its core demographic, says Nagel, who says overcomplicated programming and marketing were also among the missteps.

Sima Sistani, who took over as WW chief executive officer in March, has said she wants to simplify the organization and improve the digital experience for WW users. "Our goal is absolutely to change a person's weight and improve their health—if they so desire," Sistani said in a statement, adding that the company has almost 60 years of weight loss experience and that its approach has been widely studied.



Traci Mann, a psychology professor who runs the University of Minnesota's Health and Eating Lab, says today's weight loss plans are still effectively diets, and the goal remains to change the number on the scale. The problem, she says, is that diets don't keep weight off long term. "People need to realize that weight regain is a predictable part of dieting," Mann says.

A Noom spokeswoman says users maintain medically significant loss of at least 5% of their body weight over the course of a year, pointing to a 2021 study that found about 80% of active participants had moderate or high weight loss. She says that Noom is running a two-year weight loss study that ends in 2023 and that it's constantly experimenting to find the best ways of helping people.

Americans have a long history of fighting losing battles with their waistlines. The average American is about 20 pounds heavier than in the late 1980s, government statistics show. Modern lifestyles, with high-calorie foods and less physical activity, are partly to blame. But while a higher body mass index is linked to such ailments as heart disease and diabetes, the relationship between weight and health is complex. Even as dieting remains a key component of medical treatment for obesity, that may start to change as new medications emerge and a growing body of research points to the limitations of restrictive eating.

Some doctors who specialize in treating obesity argue that dieting isn't enough for everyone and that prescription drugs and surgical interventions may be needed, but those can have drawbacks, including cost. Members of a small but vocal contingent of researchers in the field say it may not be helpful to focus on weight at all.

Mann supports lifestyle changes such as eating vegetables and getting more exercise, but notes they won't necessarily make a person thin. People can be healthy at almost any body mass, says Mann, whose lab is studying ways to reduce weight stigma while helping people stick to healthy behaviors and be happier with their bodies. "Something that we actually can solve is how to make people healthier," she says. That, she says, is much easier "than it is to make people thinner." —*Emma Court*

THE BOTTOM LINE People looking to slim down today can take their pick of lifestyle plans that aim to be more holistic. Critics of the programs say they're still diets, and that fixating on the scale is a problem.

ILLUSTRATION BY JASJYOT SINGH HANS. DATA: NPD BOOKSCAN

New Ideas for Curbing Gun Violence

Awash in firearms, Chicago turns to public-health measures

Two weeks after Congress enacted the most significant gun control measures in decades on the heels of mass shootings in New York and Texas, a gunman opened fire on a Fourth of July parade in Highland Park, Ill., killing seven and wounding three dozen. The latest carnage only added to a sense of hopelessness in a nation looking for answers.

"In a country with 400 million guns already in circulation, US gun policies are not going to be a panacea," says Roseanna Ander, founding executive director of the University of Chicago Crime Lab. "What other levers do we have?"

High-profile mass shootings represent only a small fraction—1% to 2%—of shooting deaths in the US, says Andy Papachristos, who researches gun violence at Northwestern University. Most shooting deaths go unnoticed and unremarked on beyond local communities, often in poor or marginalized urban areas.

Now experts are turning their focus to public health and prevention as funding begins to loosen up after two decades of gun industry lobbying to block such programs. The Centers for Disease Control and Prevention has begun backing programs such as ShootSafe, an interactive website that aims to teach children how to avoid accidental shootings. And researchers are collecting surveillance data with the aim of reducing injuries in large urban communities with high levels of gun violence. Others are looking at hospital-based prevention programs that connect gun violence victims with firearm safety counseling.

Researchers at the University of Chicago and Northwestern have been awarded about $2 million in funding from the National Institutes of Health to study Readi Chicago, "a new intervention for men at the highest risk of gun violence" who receive cognitive behavioral therapy, transitional paid jobs, and professional development counseling. According to preliminary results, the program has brought reductions in arrests for shootings and homicides among Readi Chicago participants.

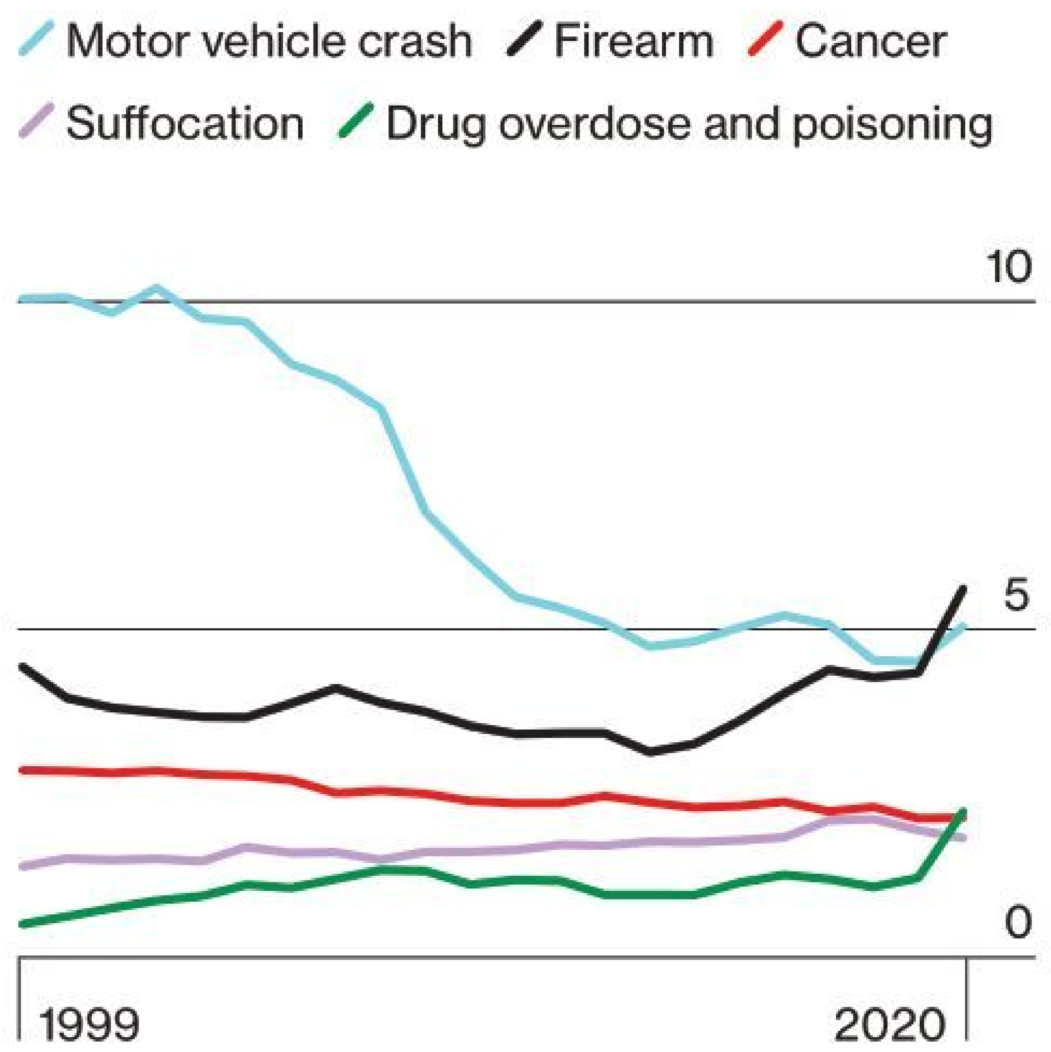
Judith Moskowitz, a researcher at Northwestern, has also received funding to develop a program to help outreach workers involved in the Readi program cope with stress, trauma, and burnout.

"A public-health response leverages all assets within an ecosystem to minimize or to contain a disease," says Chico Tillmon, executive director of Readi Chicago, which has received backing from the NIH and the US Department of Justice. "If you think about the way we approached Covid, we utilized every sector and involved everybody to control it. But we're still not really taking that approach with gun violence."

Public-health workers have a lot of ground to make up after years of getting shunted aside by the gun lobby. As early as the 1980s, the US identified gunshots as the leading cause of death among young Black men aged 15 to 24. Since then gunshots have become the leading cause of death for children and teens under the age of 19. For all Americans younger than 44, they're among the top five leading causes of death, according to data from the CDC.

Despite those sobering statistics, research on gun violence still receives far less funding than other public-health threats such as cancer, auto accidents, and Covid-19. To speed the process, Tillmon says Readi is preparing to share its findings with other cities. Says Tillmon: "Many other cities don't know anything about violence prevention—or even where to start." —*Madison Muller*

Deaths per 100k US children and adolescents



DATA: CENTERS FOR DISEASE CONTROL AND PREVENTION FIGURES COMPILED BY RESEARCHERS AT THE UNIVERSITY OF MICHIGAN

THE BOTTOM LINE Some experts believe the best way to get a handle on gun violence is to treat shootings as a public-health crisis.

PHOTO: COURTESY FLAGSHIP PIONEERING. ILLUSTRATION BY DANIEL ZENDER

Crunching Covid's Code

Apriori Bio uses AI to predict variants

As pharmaceutical companies struggle to keep up with the rapidly mutating coronavirus, a startup in Cambridge, Mass., says it can help them by using artificial intelligence to predict future variants. Apriori Bio models the ways a virus might change and predicts how it will behave. The company says it's harnessing that information to design "variant-proof" vaccines and treatments that can fight current and future strains—and provide an early warning to governments, sort of like a hurricane alert, to guide the public-health response.

After honing its technology, called Octavia, for more than two years, the fledgling company is formally launching with $50 million in funding from Flagship Pioneering Inc., the incubator behind Moderna Inc. We spoke with co-founder Lovisa Afzelius, a computational chemist—and Pfizer Inc. veteran—who serves as Apriori's chief executive officer. Here are edited excerpts.

What problem does Apriori aim to solve?

Right now the virus is in the driver's seat. Infectious diseases have put such a strain on humanity for so many years, and we almost seem to accept that power dynamic. We should be in the driver's seat. We need to be prepared.

Why is it so hard to predict a virus's changes?

From the original wild type of SARS-CoV-2 to omicron, there are 30 mutations. If you do all theoretical permutations of potential variants, you end up with the number of atoms in the universe. While many have tried to predict the next variant, it's almost impossible. Artificial intelligence can help.

What does your system do?

It allows us to look at any sequence and determine its threat profile. That information can be used as an early warning and answer questions like "Should we impose lockdowns?" or "If you're vaccinated, can this variant escape its protection?" We can also run the engine in reverse to design variant-proof vaccines and antibody therapies. And we can use it to look at people who have, say, cancer or autoimmune diseases or HIV, and understand their current risk level or what therapy they might need.

How does Octavia come up with those insights?

We look at the virus and identify strains from over the years to see how it's evolving. We isolate a key protein and use that to create libraries of millions of synthetic variants. The system can test how each variant binds to antibodies generated as a response to an infection or a vaccine, or those delivered via drugs. These tests create billions of data points, and we apply machine-learning techniques to build models. Artificial intelligence is an extremely powerful tool to predict how variants would behave in real life and determine which ones pose the greatest threat.

Afzelius

What is a synthetic variant?

It's a made-up virus. We have a computational team integrated with an experimental team, and they turn to our systems to test whether it's even a possibility for these made-up viruses to exist.

How quickly can Octavia evaluate a variant?

Octavia assesses the risk of a new SARS-CoV-2 variant in seconds. The sequence of the new variant is inserted, and the engine instantly returns an assessment of how well it might express and bind to the human receptor, as well as its predicted escape from antibodies. If the sequence is outside of the current model space, we generate more data to expand the model, which could take weeks to months.

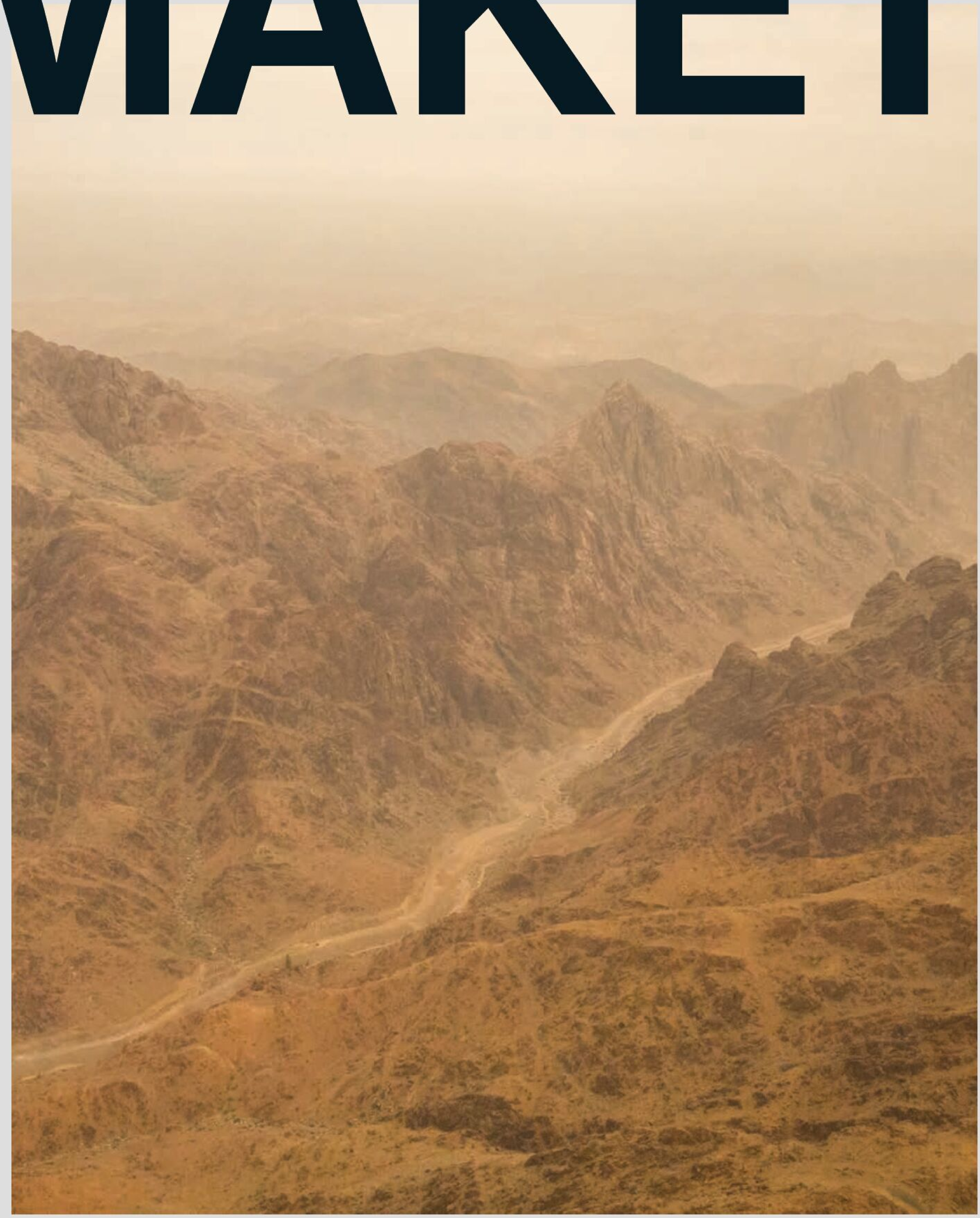
Have you provided your discoveries to others?

We have shared insights with many private and public entities in the US and UK, believing this pandemic was a situation in which it was important to do so. From an early warning perspective, we think a lot of different parties want to understand the risk assessment of emerging variants.

What's the most important lesson you've learned from developing this platform?

Our experimental capabilities and understanding of machine learning are at a pivotal point, where we can actually start getting ahead of the virus. You couldn't do that during the Spanish flu. We should seize the opportunity. —*Riley Griffin*

MAKE IT



In the Saudi desert, Crown Prince Mohammed bin Salman is building a $500 billion sci-fi monument to his rule

SO

A rendering from an internal "style catalog" for the planned high-tech region of Neom that was seen by *Bloomberg Businessweek* ▼

It's getting weird
By Vivian Nereim
Photographs by Iman Al-Dabbagh

One day last September, a curious email arrived in Chris Hables Gray's inbox. An author and self-described anarchist, feminist, and revolutionary, Gray fits right into Santa Cruz, Calif., where he lives. He's written extensively about genetic engineering and the inevitable rise of cyborgs, attending protests in between for causes such as Black Lives Matter.

While Gray had taken some consulting gigs over the years, he'd never received an offer like this one. The first shock was the money: significantly more than he'd earned from all but one of his books. The second was the task: researching the aesthetics of seminal works of science fiction such as *Blade Runner*. The biggest surprise, however, was the ultimate client: Mohammed bin Salman, the 36-year-old crown prince of Saudi Arabia.

MBS, as he's known abroad, was in the early stages of one of the largest and most difficult construction projects in history, which involves turning an expanse of desert the size of Belgium into a high-tech city-region called Neom. Starting with a budget of $500 billion, MBS bills Neom as a showpiece that will transform Saudi Arabia's economy and serve as a testbed for technologies that could revolutionize daily life. And as Gray's proposed assignment suggested, the crown prince's vision bears little resemblance to the cities of today. Intrigued, Gray took the job. "If I can be honest with how I see the world, I'll pretty much put my work out to anyone," he says.

Gray had signed on to a city-building exercise so ambitious that it verges on the fantastical. An internal Neom "style catalog" viewed by *Bloomberg Businessweek* includes elevators that somehow fly through the sky, an urban spaceport, and buildings shaped like a double helix, a falcon's outstretched wings, and a flower in bloom. The chosen site in Saudi Arabia's far northwest, stretching from the sun-scorched Red Sea coast into craggy mountain badlands, has summer temperatures over 100F and almost no fresh water. Yet, according to MBS and his advisers, it will soon be home to millions of people who'll live in harmony with the environment, relying on desalination plants and a fully renewable electric grid. They'll benefit from cutting-edge infrastructure and a regulatory system designed expressly to foster new ideas—as long as those ideas don't include challenging the authority of MBS. There may even be booze. Neom appears to be one of the crown prince's highest priorities, and the Saudi state is devoting immense resources to making it a reality.

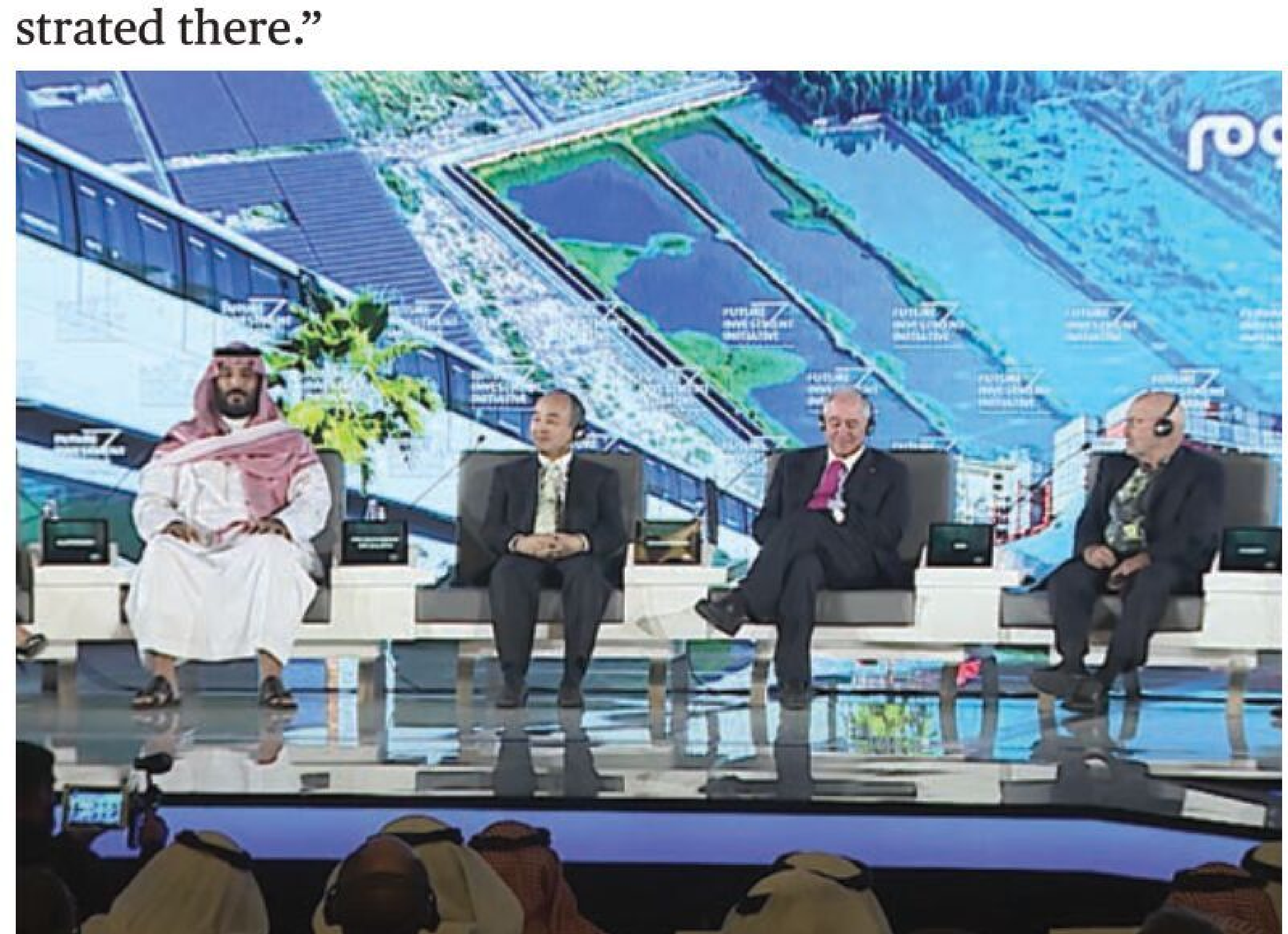
Yet five years into its development, bringing Neom out of the realm of science fiction is proving a formidable challenge, even for a near-absolute ruler with access to a $620 billion sovereign wealth fund. According to more than 25 current and former employees interviewed for this story, as well as 2,700 pages of internal documents, the project has been plagued by setbacks, many stemming from the difficulty of implementing MBS's grandiose, ever-changing ideas—and of telling a prince who's overseen the imprisonment of many of his own family members that his desires can't be met.

Efforts to relocate the indigenous residents of the Neom site, who've lived there for generations, have been turbulent, devolving on one occasion into a gun battle. Dozens of key staff have quit, complaining of a toxic work environment and a culture of wild overspending with few results. And along the way, Neom has become something of a full-employment guarantee for international architects, futurists, and even Hollywood production designers, each taking a cut of Saudi Arabia's petroleum riches in exchange for work that some strongly suspect will never be used. Few are willing to speak on the record, citing nondisclosure agreements or fear of retribution; at least one former employee who criticized the project was jailed in Saudi Arabia. (He's since been released.)

It would be unfair to entirely dismiss Neom as an autocrat's folly. Parts of the plan, such as a $5 billion facility to produce hydrogen for fuel-cell vehicles and other uses, are rooted in current economic realities, and building a global hub almost from scratch isn't without precedent in the region; even 30 years ago, most of Dubai was empty sand. Since he became Saudi Arabia's de facto ruler in 2017, MBS has demonstrated a talent for imposing dramatic change, doing away with large swaths of the religious restrictions that used to bind every aspect of daily life. Women are pouring into the workforce, and teenagers are able to dance at sold-out music festivals—events that were previously unimaginable.

Nonetheless, the chaotic trajectory of Neom so far suggests that MBS's urban dream may never be delivered. The same is true of his broader plans for economic transformation. In the crown prince's telling, Saudi Arabia will soon be a center of innovation and entrepreneurship, free of the corruption and religious extremism that have long held it back. But to his critics, this promised future is a veneer, a layer of technological gloss over a core of repression, kleptocracy, and—above all—indefinite one-man rule.

"I was not alone in realizing that it was spurious at best," Andy Wirth, an American hospitality executive who worked on Neom in 2020, says of the project. "The complete absence of being tethered to reality, objectively, is what was demonstrated there."



YOUTUBE

▲ MBS unveiling Neom in 2017

Debris from demolished buildings in Sharma ▶

MBS introduced Neom at the inaugural Future Investment Initiative, a glitzy conference for international investors held in 2017 at Riyadh's Ritz-Carlton Hotel—the same hostelry that days later would become a five-star prison for businessmen his government accused of corruption. Everything about Neom, which is a portmanteau combining the Greek word for "new" with *mustaqbal*, Arabic for "future," would be cutting-edge. The difference between it and an ordinary city, MBS declared from the stage, would be as stark as the gap between an old Nokia and a sleek smartphone.

In an interview the same day with Bloomberg News, MBS explained that Neom's most important innovation would be its legal framework. He said that in a place like New York, there's an inconvenient need for laws to serve citizens as well as the private sector. "But Neom, you have no one there," he said, omitting mention of the tens of thousands of Saudis then living in the area. As a result, regulations could be based on the desires of investors alone. "Imagine if you are the governor of New York without having any public demands," MBS said. "How much would you be able to create for the companies and the private sector?"

The idea of an authoritarian polity run for the benefit of international capital had a certain appeal to the Davos class. Steve Schwarzman and Masayoshi Son, the chief executives of Blackstone Inc. and SoftBank Group Corp., respectively, were among the international financiers who endorsed the project. Klaus Kleinfeld, the former CEO of Alcoa Inc., was appointed to lead it. Architects and planners were also interested, seeing a rare chance to shape a metropolis from the ground up—even if some wondered whether the money might be better spent improving existing Saudi cities. Neom looked like a "pace-setter in terms of new kinds of thinking around mobility and energy," says John Rossant, the chairman of NewCities, a nonprofit focused on urban issues, who joined its advisory board. Its model makes room for blue-sky ideas; some employees say they view the project as a sort of urban skunk works, providing a rare opportunity to test futuristic concepts even if they're likely to fail.

Although the Neom site was in a region few Saudis have ever visited, MBS made clear that he expected it to become a hub for national life. Within a few months of the Ritz-Carlton announcement, satellite images showed that a series of large buildings was already under construction, surrounded by expanses of greenery that stuck out sharply from the desert. It was a new palace for the crown prince, where he'd soon be spending much of his time.

Less than a year after MBS declared his intentions for Neom, the *Washington Post* columnist Jamal Khashoggi walked into Saudi Arabia's consulate in Istanbul and never walked out. A US intelligence assessment found that MBS likely ordered the writer and government critic's murder; the crown prince denied any involvement. But the ensuing outrage cast a pall over foreign investment in Saudi Arabia, and many businesspeople cut ties with the kingdom—and with Neom. Among others, the British architect Norman Foster, former Y Combinator President Sam Altman, and ex-US Secretary of Energy Ernest Moniz all left the Neom advisory board. MBS was undaunted. At the second gathering of the Future Investment Initiative, held three weeks after Khashoggi was killed, he hosted some of the remaining advisory board members for a late-night audience at his palace. According to Rossant, who was in attendance, MBS described Khashoggi's death as a "tragedy" that should never have occurred. He also delivered a clear message: Neom would go on no matter what.

It would, however, be an increasingly Saudi-led project. Kleinfeld had lasted less than a year as CEO and was replaced a few months before the Khashoggi murder. His successor, Nadhmi Al-Nasr, came from Saudi Aramco, the state oil company. A chemical engineer by training, Al-Nasr had a reputation at Aramco for executing complicated plans. He'd also learned to navigate the demands and sensitivities of Saudi Arabia's rulers. And at Neom, understanding the preferences of the man at the top is paramount. "His Royal Highness," Al-Nasr says, "has been with us, and I am not exaggerating, almost daily."

Neom's first major development was planned for Sharma, a modest town of car repair shops and concrete houses scattered around a placid bay. The goal was to create a community inspired by the Côte d'Azur, with an initial population of almost 50,000. To plan it, Neom executives turned to an unusual source, according to internal documents and two former employees: Luca Dini Design & Architecture, an Italian firm that specializes in superyachts. Luca Dini's designers tweaked and retweaked their proposals with feedback from a committee headed by MBS. The result was a concept called Silver Beach. Instead of mere sand, the seaside would be lined with crushed marble, planners noted, which would shimmer in the sun like silver. Bound by tight deadlines to begin construction, Neom staff and consultants worked overtime for weeks to refine the design, which also included a yacht club, an electric-car racing circuit, and more than 400 mansions, some as large as 100,000 square feet.

Then, in the first quarter of 2019, the project was abruptly shelved, several former employees say. Two of them recall being told that the concept, even with its lustrous seaside, wasn't imaginative enough for Neom's leadership. Real ▶

◀ estate development can involve considerable trial and error, and many designs never see the light of day. But to the employees, scrapping Silver Beach was part of a pattern of working furiously on ambitious, expensive plans that were quickly abandoned—such as one of Neom's early initiatives, a $200 billion solar field that was canceled soon after being announced. "If I had to put a bottom line for all the work that I did in this era, it was presentations and PowerPoints that went into the garbage the next week," says a former manager who worked on Silver Beach. "It was the least productive part of my whole life in terms of doing real things and the most productive in terms of the money I got."

The work could indeed be phenomenally lucrative. Neom offered tax-free salaries of $700,000 to $900,000 for some senior expatriates—more than 20 times the income of the average Saudi—and a broad range of other perks. With pay packages like that, it had little trouble attracting foreign staff, especially once the initial furor over Khashoggi subsided. Most were required to live on the project site, where Neom had constructed temporary housing—comfortable if basic apartments in the desert, with an army of migrant laborers taking care of food, cleaning, and laundry. Remote work was discouraged during the pandemic; in 2020 the government chartered flights from London to bring Neom staff to Saudi Arabia.

As more of them arrived, foreign employees began describing their experiences with a joke: When you start at Neom, you bring two buckets. The first is to hold all the gold you'll accumulate, and with so many living expenses taken care of, it will soon grow heavy. The second bucket is for all the shit you take. When that bucket is full, you pick up your bucket of gold and leave. It often doesn't take long; many people Neom hires last less than a year.

Former employees say one of the chief sources of aggravation is Al-Nasr, whom they describe as having a volcanic temper. Several recall him openly berating subordinates, sometimes issuing threats unlike anything they'd experienced in their careers. In one particularly tense moment, after two e-sports companies canceled partnerships with Neom, citing human-rights concerns, Al-Nasr said he'd pull out a gun and start shooting if he wasn't told who was to blame, according to two witnesses to the exchange. Al-Nasr disputes these accounts. "Not anyone can stand the pressure of the demands of the day, and there are people who leave because it's more demanding than anything they have done before," he says.

Among the misdeeds most likely to anger Al-Nasr, the former employees say, was failing to spend enough money. Three of them described Al-Nasr keeping a diagram showing which department heads were disbursing less than their budgets allowed, which the ex-staff half-seriously referred to as a "wall of shame." There were few constraints on hiring outside consultants—both McKinsey & Co. and Boston Consulting Group Inc. have worked extensively on Neom—and some plans were developed so fast that the firms hired to assess them would provide cost estimates with 40% buffers. One former senior manager says he was so disturbed by what he saw as financial waste that it kept him up at night. (In response, Al-Nasr says that "we don't do it this way" and that Neom evaluates employees based on their progress implementing plans, not how much they spend.)

Wirth, the American hospitality executive, was hired to work on a particularly expensive project: a Neom ski resort. The idea is slightly less absurd than it sounds. Temperatures

◀ One of Neom's housing complexes for employees

sometimes dip below freezing on the region's higher mountaintops; with enough snow-making equipment, it could be possible to facilitate a winter ski season. But Wirth soon grew alarmed by the environmental implications. The resort plans called for building an artificial lake, which would require blowing up large portions of the landscape. The Vault, an adjacent hotel and residential development, would occupy a man-made canyon, essentially "a massive open-pit mine," Wirth says. It was a landscape that might have been lifted from *Foundation*, an Apple TV series set thousands of years in the future that MBS has said he enjoys. (Loosely based on novels by Isaac Asimov, it tells the story of a mathematician's quest to protect human knowledge from the collapse of a dying galactic empire, whose three genetically identical monarchs live in a sprawling palace while their subjects toil below ground.) "We couldn't even estimate the build cost," Wirth says. "We were hanging buildings on the side of cliffs, and we didn't even know the geology." He decided faster than most that his No. 2 bucket was overflowing. Wirth resigned in August 2020, five months into the job.

The main residential camp for Neom's 2,000 employees is tucked among rocky hills two miles from the coast. To enter, I had to pass two checkpoints manned by private security guards. My face was also scanned by machinery bearing the logo of Zhejiang Dahua Technology Co., a company accused by activists of helping the Chinese government surveil Uyghurs in Xinjiang.

Past the barbed-wire fence, Neom Community 1 unfolds in a series of neat lawns and identical white homes. Each is about the size of a shipping container, identified by a series of letters and numbers—Block 15, C-83, for example. Meals are served in a central dining hall, and employees zip between buildings on electric scooters. The overall aesthetic might be described as a cross between a Google campus and a minimum-security prison, albeit one with a small population of children: Community 1 has a school, and some employees have moved their families in.

Neom's marketing is everywhere. One poster in an office building instructs employees to embody a "champion mindset," emphasized with inspirational quotations from MBS and Nelson Mandela. (The poster gives them equal billing.) That means maintaining "an unshakable belief in yourself and Neom, challenging the status quo, demonstrating an innovative ethos that enables everyone to seek and become a CATALYST FOR CHANGE."

▲ On the road to Neom

Many staffers seem to have genuinely bought into that message. Jan Paterson, a British-Canadian who heads planning for Neom's "sports sector," says she wants her grandchildren to grow up in the city, which she hopes will be the most physically active urban center in the world. Three years in, she's one of the longest-serving employees. "I joined because, in my working career, no one has ever said, 'Do you fancy setting up a semi-autonomous state using your passion as a tool for positive social change?'" Paterson explains. "It's as simple as that." Her eyes light up as she describes an ideal day in the Neom of the future. Imagine a sixth grader, she says. When he wakes up, his home will scan his metabolism. Because he had too much sugar the night before, the refrigerator will suggest porridge instead of the granola bar he wanted. Outside he'll find a swim lane instead of a bus stop. Carrying a waterproof backpack, he'll breaststroke the whole way to school. Paterson actually means this; Neom says it's considering an idea for canals filled with swimmable water, creating a novel aquatic commuting option. If all goes well, she says, residents can expect an extra 10 years of "healthy life expectancy."

Living and working in their camp, Neom executives have little contact with the indigenous inhabitants of Tabuk, as the broader area is called. Its coastline has long been one of Saudi Arabia's more neglected territories; some towns weren't hooked up to the electric grid until the 1980s. Many of its people are members of the Huwaitat, an historically nomadic tribe, now settled in the region where Saudi Arabia, Jordan, and Egypt meet. From the start, there was no place for them in Neom's plans, and thousands were told in early 2020 that the state would require their land.

As officials went house to house months later, surveying the properties to be cleared out, a man named Abdulraheem Al Huwaity greeted them angrily. He began recording a series of videos with his phone, which soon went viral. His wiry beard streaked with gray, Al Huwaity faced the camera head on, speaking in a steady voice as he accused the government of intimidating residents into signing over their homes. He also broke almost every taboo of Saudi political speech. MBS's reign amounted to "rule by children," he said, and the government's clerics were "silent cowards." Al Huwaity declared he was waiting for the authorities to arrest or kill him. The measure of a life, he said, isn't time spent on Earth; rather, "a stand of one day can equal 90 years." In mid-April 2020 heavily armed police arrived at his house and a gunfight ensued. When it ended, Al Huwaity was dead and two officers injured. The government said he had weapons in his home and had opened fire, ignoring demands that he surrender.

After Al Huwaity's death, officials expanded the compensation packages provided to removed residents, promising ▶

◀ to grant them land elsewhere in the region. For larger properties, residents say, the payments can reach 1 million riyals ($266,000), though the owner of a simple home might receive just 100,000 riyals—less than the monthly salary of some Neom employees. Neom is also offering training programs for local youth and funding a scholarship program that sends students from Tabuk to the US, after which they receive jobs at the project. "We want to make sure the locals here feel the value of Neom," Al-Nasr says.

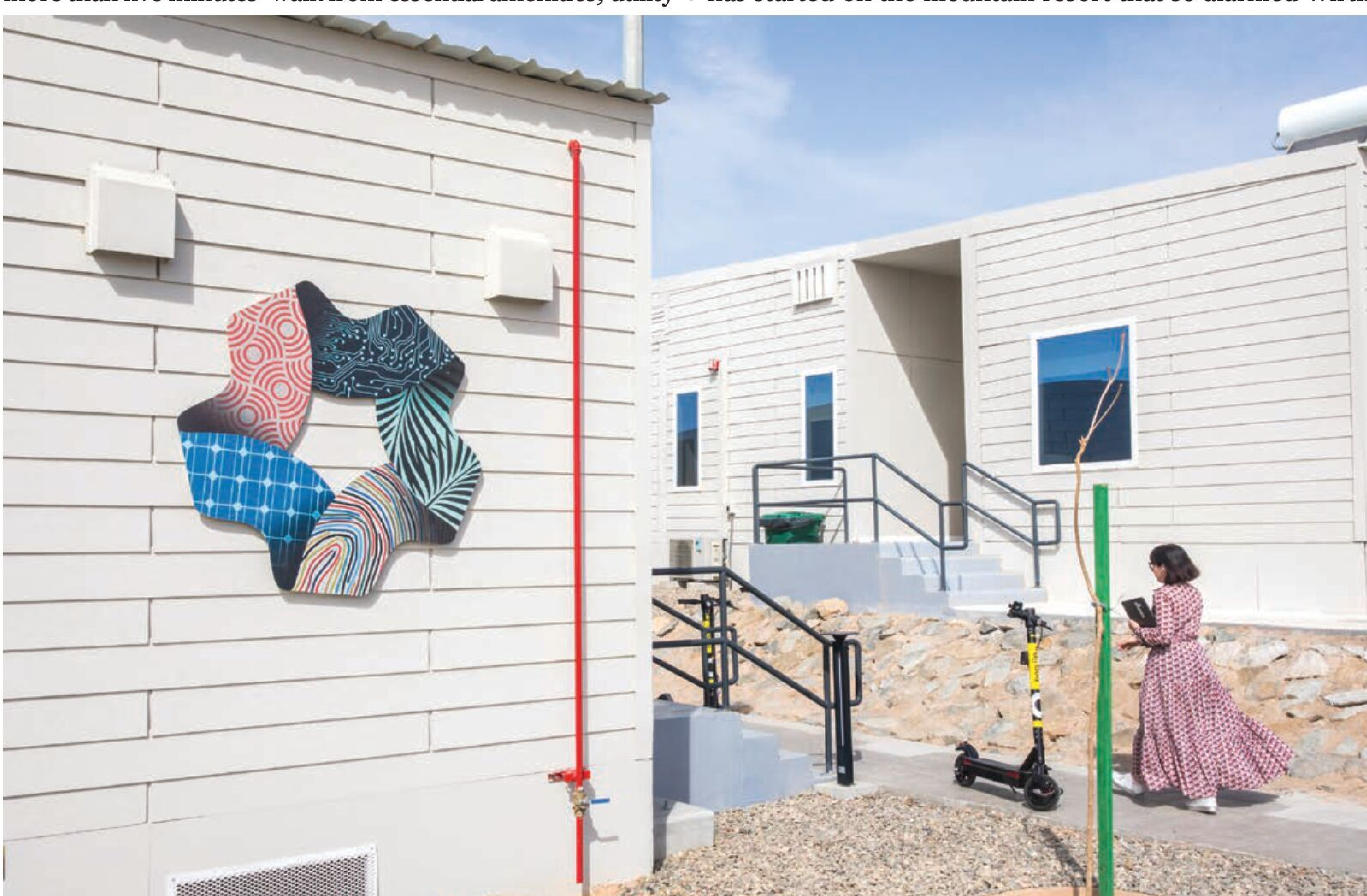
The town of Sharma, where Silver Beach was supposed to be, has been flattened, along with Alkhurayba, where Al Huwaity lived. On a recent visit, a lyric from an Arabic love song had been spray-painted on one of the few walls still standing: "He's unjust, but?" The word for "unjust," *dhalim*, can also mean "tyrant." One Huwaitat man, who asked not to be identified because he fears retaliation, says he resisted relocation at first. But after Al Huwaity was killed and the authorities cut off the electricity and closed the schools, he realized he had no choice. He's waiting for his compensation payment. "What can we do?" he asks. "We want to live."

In January 2021, MBS appeared on Saudi television to introduce Neom's most far-fetched element yet, a "civilizational revolution" called the Line. A "linear city" 100 miles long, it would generate zero carbon emissions. Its 1 million residents would occupy a car-free surface layer, with no one more than five minutes' walk from essential amenities; utility corridors and high-speed trains would be hidden underground, along with infrastructure for moving freight.

The concept carried echoes of an idea originated in the 1960s by Superstudio, an Italian architectural collective, for a structure so enormous it would wrap around the entire planet. This "Continuous Monument" was never a real building proposal; it was intended as a critique of excessive urbanization and of the modernist megaprojects then in vogue. One of Superstudio's last surviving members, when asked about the Line by the *New York Times*, dryly noted that "seeing the dystopias of your own imagination being created is not the best thing you could wish for."

Within Neom, the Line was being overseen by Antoni Vives, the head of urban development. A former deputy mayor of Barcelona, Vives had been hired in 2018 and quickly became one of Al-Nasr's closest allies. But two weeks after the plan was announced, a judge in Vives's home country found him guilty of charges of malfeasance relating to his time as an official, according to *El Pais* newspaper. Vives was sentenced to two years in prison, which was reduced to community service. He returned to Neom soon after. (Vives didn't respond to requests for comment; Al-Nasr says that Neom doesn't penalize employees for "their own country's business or politics" and that Vives is "an honest person, putting his time and his life to this job.")

Neom staff are still working nonstop to deliver the Line and to move forward with other projects. Early construction has started on the mountain resort that so alarmed Wirth,



▲ Temporary office buildings

◀ Employees heading for a meal

which will require the removal of more than 20 million tons of rock—three times the weight of Hoover Dam. At Oxagon, a vast industrial zone to be built partly on pontoonlike structures floating in the Red Sea, workers are digging the foundations of a hydrogen plant, while cranes swing back and forth over an almost finished data center. And according to Al-Nasr, Neom's legal and political framework is nearly complete. An entity called the Neom Authority will govern the region, its head appointed by the Saudi king—almost certainly MBS, once he succeeds his 86-year-old father, King Salman. It may be demarcated from the rest of the country by a "digital border," allowing entry only to those with authorization. Residents will be represented by an advisory body, though it's not yet clear whether its members will be elected.

To Neom's backers, such detailed planning is all part of a serious effort to create a hypermodern city—a bold initiative but not a ridiculous one. Ali Shihabi, a commentator close to the government who sits on the Neom advisory board, says he divides its components into two categories: those that could make a realistic near-term difference to Saudi Arabia, such as improved desalination technology, and those that he concedes are more "aspirational." Neom "has a huge amount of research and thought and strategy and substance behind it," he says.

At the same time, Neom executives and their array of consultants continue to generate yet more ideas, some of them informed directly by Hollywood. Over the past several years, Neom has commissioned work from Olivier Pron, a designer who helped create the look of the *Guardians of the Galaxy* films, and Nathan Crowley, who's known for his work on the *Dark Knight* trilogy. It's also hired Jeff Julian, a futurist with credits on *World War Z* and *I Am Legend*, movies that depict a zombie apocalypse and the aftermath of a pandemic that's wiped out most of humanity, respectively.

Gray, the Santa Cruz author, was hired to help conceive a high-end tourism zone called the Gulf of Aqaba, which internal documents say will feature luxurious homes, marinas, nightclubs, and a "destination boarding school." MBS told its designers that he liked the aesthetic of "cyberpunk," a sci-fi subgenre that typically depicts a dark, tech-infused future with a seedy underworld—think William Gibson's novel *Neuromancer* or the Keanu Reeves vehicle *Johnny Mnemonic* (also based on a book by Gibson). "I was a little surprised to hear that the prince was very interested in science fiction, but many people are, of all sorts of political persuasions," Gray says. He and a team of other consultants were soon working long hours to research the aesthetics and implied culture of cyberpunk's many iterations, which fed into a taxonomy of science fiction atmospheres that Neom employees were developing.

An internal document from this exercise listed 37 options, arranged alphabetically from "Alien Invasion" to "Utopia." After input from a panel of experts, 13 advanced to the next phase of consideration—almost all of them cyberpunk-related in some way. These were divided further into "backward-looking" and "forward-looking" categories and laid out on a spectrum from dystopian to utopian. Each was analyzed in depth, with Neom staff interrogating their values. ("The big question biopunk asks is, Where does one stop being human?") Next they ranked the concepts on a matrix of factors, including whether they had a "strong architectural component" and their alignment with Neom's goals. Two guiding philosophies for the Gulf of Aqaba came out on top: "solarpunk," depicting a future where environmental challenges have largely been solved, and "post-cyberpunk." The latter, the document said, takes a relatively optimistic view of the world to come, with clean edges, slim skyscrapers, and sleek flying cars. It identified the best example of the style as Ryan Coogler's *Black Panther*—coincidentally, the first movie shown when MBS allowed Saudi cinemas to reopen after a decades-long ban.

It remains to be seen, of course, whether ideas like the Gulf of Aqaba will survive contact with financial and physical reality. Almost immediately after the Line was unveiled, Neom executives discovered just how challenging the project would be. One major problem, an internal progress report explained, was building the underground layer that's supposed to contain transportation and logistics facilities. There would be "abnormal upfront infrastructure/utilities costs resulting from linear design," it said. According to several ex-employees, the original concept for a series of interconnected low-rise communities gradually evolved into an idea for two parallel mega-structures, as tall as the Empire State Building, that would extend horizontally for dozens of miles. Using back-of-the-envelope calculations, a former Neom planner estimated they could cost $1 trillion to build. Neom isn't discussing any of this publicly, even as crews start early work on the site and designers refine plans for a half-mile-long prototype. "What we will present when we are ready will be revolutionary," Al-Nasr says.

At a recent art biennale in Riyadh, renderings of Superstudio's Continuous Monument hung on the wall, showing a linear structure swallowing the whole world. The caption invited viewers to "imagine a near future in which all architecture will be created with a single act." The idea stayed in my mind long after leaving Neom, where I flew in a helicopter over the spot where the Line is supposed to begin. From far above, the construction vehicles churning the ground looked like toys. There was already a faint but unmistakable slash—one man's will carved into the desert. It traced inland from the sea toward the mountains, then disappeared in the haze. Ⓑ
—*With Matthew Martin, Ben Bartenstein, and Rodrigo Orihuela*

How WeChat Got Too Powerful For Beijing

Tencent's wildly successful app could have posed a real threat to China's government, as the new book *Influence Empire* reveals

By Lulu Chen
Illustration by Timo Lenzen

Imagine for a second, life before smartphones. Simple tasks–ordering takeout, staying in touch–become frustratingly difficult, never mind dealing with emergencies. In China that's sort of what it's like to live without WeChat. Despite its name, which makes it sound like a messaging service, this one app dominates almost every facet of a person's daily online existence in China–banking, dating, gaming, music, shopping, social media. It's one of the largest social media platforms, with more people actively using it than Twitter and Snapchat put together.

I live in Hong Kong and use WeChat routinely to connect with people on the mainland. On a typical evening before the pandemic, I messaged friends about where to meet for dinner, and they sent me the location of a diner. I hailed a taxi, listened to Taylor Swift, booked movie tickets to see *Spider-Man*, and then paid the taxi driver. At the diner, I scanned a QR code and perused the menu. We ordered, ate, drank, paid the bill, and hardly interacted with the waiter. On my way back, I booked a flight and hotel for my next trip and scrolled the latest news and celebrity ▶

◀ gossip. All this time, I never left WeChat.

Growing in tandem with WeChat's influence, its parent company, Tencent Holdings Ltd., rocketed in value and clout over the past decade, at its peak standing as the world's fifth-most valuable company. Tencent amassed stakes in Tesla, Reddit, Snap, Spotify, and an array of global entertainment brands. Behind the makers of the games *Fortnite* and *League of Legends* and the Hollywood blockbusters *Men in Black: International* and *Wonder Woman* is Tencent. It reaches the screens of billions of people globally.

WeChat's headquarters in Guangzhou

But suddenly those achievements are threatening Tencent's very existence at home. A communist purge stemming from President Xi Jinping's campaign to "curb the disorderly expansion of capital" is washing over the country's biggest technology companies. A ruling class of exorbitantly wealthy tech moguls, once embodied by Tencent co-founder Pony Ma Huateng, is now in hot water.

WeChat appears to be a source of alternating comfort and concern for Xi. Its ubiquity makes it a powerful tool of surveillance and control. It has also been misused by a member of his own political party to spy on colleagues, people familiar with the incident say, and has offered a venue for citizens to express collective outrage, as they did this spring when the country's Covid-19 response faltered. Ma faced a choice: remodel his business, and himself, in the image of Xi's new China or risk losing everything.

Ma was born in 1971 during the Cultural Revolution, a violent, traumatic time that taught a generation to err on the side of caution with politics. Ma was 13 years old when his father, a member of the Chinese Communist Party, got a job at a state-owned port company in Shenzhen. Ma was quiet, well-behaved, and largely unnoticed at school, his teachers say. He excelled at math and exhibited an obsession with telescopes.


Ma

On his university entrance exam, he scored 739 out of 900, enough to get him into Tsinghua University or Peking University, two schools in Beijing representing the highest echelon of the nation's education system. But something happened in 1989, the year before Ma was set to start school. Thousands of students took to the streets of Beijing, occupying Tiananmen Square and demanding democracy. After the tanks rolled in and the iconic photo of a man standing in front of them was taken, Ma's parents decided to keep their son close to home. He enrolled at Shenzhen University, a brand-new school encircled by farmland. There was no astronomy major, so he opted for computer science.

Ma established Tencent in 1998 with money he made from an earlier venture at a cost of 500,000 yuan ($60,000), the equivalent of 62 years of the average Chinese wage at the time. He and his co-founders were still working other jobs, and for the first year, corporate records list Ma's mother as Tencent's owner and chairman. Chat software was at the company's core almost from the beginning. Its first hit product, QQ, was modeled after ICQ, a popular program in the late 1990s.

By late 2010, QQ controlled a large swath of social media and messaging on Chinese computers but was nonexistent on the mobile internet. Ma, already a billionaire and a national celebrity, was concerned his empire was vulnerable. Three teams within Tencent sought to find an answer to mobile messaging. One was led by a programmer named Allen Zhang, who pinged Ma very late one night asking for permission to develop a social network tailored for smartphones. Ma, who often stays up until 4 a.m., agreed. WeChat made its debut in January 2011. "It was a matter of life and death," Ma said then. "Speed determined whether our company could survive."

WeChat was a dud at first. Smartphone developers hadn't yet figured out a good way to present a Chinese keyboard on a small screen, so many people simply weren't texting. For inspiration, Ma and Zhang studied a competitor called TalkBox that was quickly gaining traction. Instead of typing, TalkBox users recorded short audio messages. "Inputting Chinese was much harder than English," says Heatherm Huang, who helped build TalkBox shortly after graduating college when he was 21. "That's why the push-to-talk function was so popular in Asia." He was surprised to notice Ma and Zhang among the early users of the app, but it all made sense a few months later when WeChat came out with a replica of TalkBox's audio messaging feature. From there, TalkBox's growth stalled, and WeChat's took off.

Also around this time, Ma made a crucial decision to open up Tencent's software platforms and resources to outside developers. He suggested Tencent should become almost like a utility, a part of the internet's infrastructure. He chose to invest in, instead of compete with, startups—some 800 in total. Tencent handed over its search engine to a rival, Sogou Inc., in return for a stake. Over the next decade, WeChat transformed into the digital equivalent of electricity or water.

At WeChat's campus in the balmy southern city of Guangzhou, ivy snakes along brick bungalows shaded by lustrous camphor. But for the incessant song of cicadas, it's a quiet office park replete with cashierless convenience stores and chic cafes. In open-plan spaces that were once Maoist cotton factories, programmers collectively contribute to a product that weaves together modern life in China.

MA: GETTY IMAGES/VISUAL CHINA GROUP/GETTY IMAGES. SUN: FEATURE CHINA/FUTURE PUBLISHING/GETTY IMAGES. WECHAT: COURTESY OF WECHAT

WeChat also offers an important utility to the Chinese government. The app is heavily censored and closely monitored at the direction of officials in Beijing. But the vicissitudes of Chinese political life mean Tencent can find itself in jeopardy even when following orders. In one prominent case, the former vice minister of public security, Sun Lijun, asked Tencent to feed him information about fellow politicians, say people familiar with the order who requested not to be named for fear of retribution.


Sun was accused of using WeChat to spy on fellow politicians

In September, Sun was expelled from the Communist Party, and the country's antigraft unit accused him of "cultivating personal power and forming an interest group." Although the government never disclosed Sun's surveillance endeavors publicly, they emerged during the corruption investigation and triggered a backlash against Tencent from Beijing, people familiar with the investigation say. A Tencent spokesperson acknowledges that a former employee was under investigation for "allegations of personal corruption" but denies any connection to WeChat or the app's local version, Weixin. The ex-employee accused of helping Sun acquire private information couldn't be reached for comment.

Tencent got into trouble again when Beijing learned of a project inside the company designed to predict political succession, people familiar with the effort say. It sought to use data science to estimate who'd join the Politburo's standing committee, they say. The prediction system, commissioned by the same former employee accused of spying for Sun, was never completed, a person with knowledge of the project says. Ma had no involvement, the person says. Tencent declined to comment.

As all this unfolded in 2019 and 2020, Ma stopped appearing at public events. He didn't show up in person to a high-profile artificial intelligence conference in Shanghai, the National People's Congress meeting, or Tencent's annual party. Staff was told that Ma was stuck at home because of chronic back trouble. (He has suffered from disc herniation.) Unknown to most people, though, is that the surveillance and Politburo modeling scandals had set off alarms at the highest echelons of the Communist Party, people with knowledge of the fallout say. Those efforts underscored the power Ma possessed, and Beijing made a determination: Tencent had to be reined in.

The greatest public display of Tencent's power arrived early this year. As the omicron variant was surging in Shanghai, WeChat became a tool to restrict people's movement—citizens were assigned color codes based on their health risk and travel history and were required to present them when out in public. The government confined millions to their homes and triggered mass-testing on a scale unseen since the initial outbreak of 2020. WeChat also became the platform where the city's outraged citizens aired their grievances in what became a virtual protest.

To regain control of the narrative, the government ordered internet platforms to wipe posts deemed negative or critical of the policies, sending WeChat censors into overdrive. This further antagonized the people of Shanghai. Their frustrations culminated in an unprecedented wave of public outcry in April.

If the moment had a Tank Man, it would be "Voices of April." That's the title of a six-minute video that began circulating on WeChat and other platforms during the omicron lockdown. It mashed up voice recordings of crying babies separated from their quarantined parents, residents demanding food, and the pleas of a son seeking medical help for his critically ill father. The video was quickly designated as banned content and removed, but not before millions of people in Shanghai and across the country viewed versions of it. People found creative ways to circumvent the censors. Some posted the video upside down; others superimposed words or images or embedded additional footage to fool the automated censor systems.

On the night of Friday, April 22, my WeChat feed was a waterfall of images and text carrying the raw emotion of a country—a rare moment when Tencent's signature service amplified the singular pain of a collective psyche. It was all anyone wanted to talk about. Even my most politically circumspect friend condemned the government's response. As another acquaintance put it: "I feel like I'm witnessing an historic event."

There's no evidence Tencent supported the online demonstration, but it continues to face the consequences of its prosperity. The company is downsizing by divesting or selling stakes in e-commerce and gaming assets, and the government ordered Tencent to overhaul its financial business. Its stock is worth half what it was last year.

So far, Ma has avoided a fate that befell many of his peers. Jack Ma, the founder of Alibaba Group Holding Ltd., relinquished his corporate duties in 2019 and has essentially gone into hiding. He was joined by the heads of Pinduoduo Inc. and JD.com Inc., the two biggest online shopping companies in China after Alibaba. The chief executive officers of TikTok's parent company and its main rival each stepped down last year. The era of the tech idol is over.

A speech Pony Ma gave at his company's 2021 yearend gathering offers a clue as to how he hung on. The tone this time was humble, even subservient. "Tencent is not an infrastructure-service company and can be replaced at any given moment," he told employees, according to the local news outlet *Late Post*. The company's mission should be to service the country and society and make sure it "doesn't overstep," he said. "Be a good assistant." Ⓑ

Into the Great Wide Open

If you're a remote worker with a bad case of wanderlust, Kift wants you to consider a coworking model that's heavy on communal living and heavier on vans

By Ellen Huet Illustration by Jinhwa Jang

I arrived at the van-life commune just in time for the group sound meditation. The other 20 or so other meditators—mostly committed van dwellers, plus a few van-curious visiting for the day—had already splayed out in eyes-closed Savasanas on the concrete patio, so I was greeted, shushed, and directed to a blanket in the corner. It was 4:30 p.m. on a Saturday in Joshua Tree, Calif., a 15-minute drive from the national park full of its namesake anthropomorphic yucca, and the warm desert wind was flapping a shade sail and dusting our faces with sand.

Our host told us to picture a glowing ball of golden light traveling through our bodies, then spent the next hour sounding a small army of bells, chimes, and crystal bowls. Two free-range pet dogs snuffed around, while a third snored through somebody's cellphone alarm. When the final bell stopped ringing, everyone migrated inside the property's two-bedroom house, which had a reasonably swanky kitchen, to cook dinner together. We all held hands around the dinner table and gave thanks for the spread: grilled bell peppers, gluten-free pasta, sunflower-seed-based sauces. Then, at night, the house went dark. The residents ambled outside to sleep in their individual vans, which were parked in a loose circle, like a cluster of covered wagons on the Oregon Trail.

If this scene sounds idyllic rather than nightmarish, then you're probably an ideal customer for Kift Inc., a startup that sells a very of-the-moment mashup of Airbnb, WeWork, and co-living on wheels. For $925 a month (or $425 a month on the annual plan, and a lower sliding-scale price for those who need it), members can bring their vans to one of the company's four compounds, which it calls clubhouses. They can also rent a remodeled Mercedes-Benz Sprinter van from the company for an extra $2,500 a month. Functionally, the locations are RV parks with better branding, friendlier neighbors, and more bougie amenities. Instead of traveling alone, hunting for internet and a flat place to park each night, groups of 25 or so travelers (Kift calls them "previously urban professionals") live together around one stationary building for about a month. Each of these setups has a kitchen, long tables for laptop work and conference calls, fast Wi-Fi, and, as the website promises, "shared values, healthy lifestyles, and a life of exploration to work, celebrate, create, share stories, and laugh and cry together."

O'Donnell grew to love communal living after he moved from New York to the Bay Area in his early 40s

The group I was visiting was the second-ever Kift cohort, and once their time at Joshua Tree was over, they got in their vans and drove to their next temporary home 300 miles away in Arcosanti, Ariz. After that, some members took a detour to Utah's Zion National Park, then reconvened at another Kift site in Lakeport, Calif. Once the caravan ended, some headed off on new adventures, while others stayed on in Lakeport. Among both camps, there was lots of talk to meet up at another clubhouse. The pitches for future hangs included other aspirationally on-brand destinations across the Western US including Discovery Bay, Wash., and the Portland, Ore., area.

In Joshua Tree, the man at the head of the table was Colin O'Donnell, Kift's chief executive officer. He seems to sincerely believe his vangregations are not just an answer but *the* answer to housing unaffordability, corporate greed, climate change, and loneliness. He isn't targeting retirees in recreational vehicles, and he's not limiting his efforts to the nomads already living their #vanlife on the road. He's hoping to persuade the growing swath of lucky white-collar Americans who can now work remotely full time that they should ditch their immobile, isolated homes and try communal living with simpatico travelers. "We used to spend all day sitting with our co-workers and chatting with our friends online," O'Donnell is fond of saying. "Now we spend all day with our friends and chat with our co-workers online. It feels like a better situation."

In Silicon Valley, companies love to throw around buzzwords, but Kift uses almost all of them at once

O'Donnell started building Kift in 2019, but the pandemic gifted his startup with a workforce suddenly untethered from their offices. Instagram fantasies quickly became life plans. More than 15 million Americans now call themselves "digital nomads," according to consulting firm MBO Partners, up from about 7 million before the pandemic. One in nine long-term bookers on Airbnb describes their lifestyle as nomadic, while Airbnb Inc. itself just announced that its more than 6,000 employees never need to return to their offices. Those $50,000 Sprinter vans are back-ordered for months, and overall US RV sales have remained at an all-time high.

Of all the companies capitalizing on this wanderlust boom, Kift has the soaringest rhetoric. It's not just renting you a van but trying to convert you to an upside-down way of life that emphasizes sharing things, including dreams and feelings. The Kift residents I met in Joshua Tree ranged from their 20s to their 60s, including a startup founder, a software engineer, a metaverse marketer, a creative agency designer, two

PHOTOGRAPHS BY ANNIE TRITT FOR BLOOMBERG BUSINESSWEEK

During the day, a Kift clubhouse becomes a sea of ad hoc workspaces

program managers, an addiction counselor, and a real estate agent. They've bought into O'Donnell's vision of a techno-hippie revival, made possible by satellite internet and Zoom. Kift is promising that its sense of community can more than make up for the added loneliness that can come with life on the road. Oh, and its sense of community includes specialized cryptocurrency tokens, unshaken by the recent crypto crash.

In Silicon Valley, companies love to throw around buzzwords, but Kift uses almost all of them at once. It's the future of work, the future of cities, co-living, and autonomous and electric vehicles, with a dash of the blockchain for flavor. If you can get past the urge to roll your eyes, however, you might see a healthier path for America's startup culture, which spent more than a decade drunk on seemingly bottomless venture capital and now faces a market crash that's forcing it to dry out. O'Donnell and some of his peers are rejecting the cash bonfires and celebration of the grow-at-all-costs model, instead raising money directly from their customers.

What O'Donnell and his cohorts have going for them is this moment, which is better suited for their pitch than almost any other time in the past century. Nobody is really sure what the future of work will be, but most people are convinced that what we have right now sucks and needs to change. As we fumble around in the dark for a new way forward, why not take our homes and a few friendly acquaintances along for the ride?

O'Donnell is 47 and lanky, with an all-black wardrobe and lots of visible tattoos, including an eyeball on his left palm. One hot morning in Joshua Tree, as we were about to drive into the park for a hike, he grabbed a pair of scissors and turned the ripped jeans he was wearing into shorts. (He'd torn the pair during a rock scramble, which is somewhere between rock climbing and hiking.) Ten years ago, though, he was a buttoned-up corporate tech guy in New York City.

O'Donnell had a chaotic childhood, barely graduated from high school, and dropped out of college. By his early 20s he had two kids and a deep need to prove himself. He oversaw LinkNYC, a project that in 2015 started turning the city's phone booths into free Wi-Fi hotspots with big screens and video cameras. LinkNYC was criticized both for focusing on New York's richest ZIP codes and for being a bit creepy—it made money by showing ads to passersby that were customized based on the time, the weather, subway delays, and sales at nearby stores. Later, O'Donnell worked on Sidewalk Labs, the city-designing arm of Google parent Alphabet Inc., which has also faced blowback for its ad-rich sense of urban design.

While we trudged through sand on our hike, in search of thin, Joshua-tree-shaped slices of shade, O'Donnell told me that the switch had flipped for him about three years ago, when his kids were out of high school. He grew increasingly obsessed with studying how groups of people live together. Instead of taking some anthro classes, he moved to San Francisco and into Agape, a communal house of 14 or so people in the city's trendy Mission District. (His wife stayed behind, and the two remain in a happy nontraditional marriage.) He also went to Burning Man for the first time.

Agape is one of the better-known houses in the Bay Area co-living scene, which advocates living in "intentional community" with your friends, usually young, unattached professionals. In many communal houses everyone has their own room, but residents pool money for groceries, cook and eat dinner together, and have regular house meetings to hash out conflicts about washing dishes or recruiting housemates. Many such communes make up a sort of underground party scene for creative types who also, inevitably, overlap with the tech industry. Justin Rosenstein, a co-founder of task management software company Asana, lived at Agape for eight years. (I also spent five years living in a similar house in San Francisco.)

O'Donnell arrived at Agape with a healthy supply of East Coast snark, but after a few months surrounded by housemates who chose their words carefully and tended to give one another the benefit of the doubt, his feelings and behavior started to change. "I internalized and adopted language that I thought was ridiculous," he says. "I realized when I was projecting intention and started understanding that how I experienced the world was my own construction." He began referring to his old ways as "New York competitive trauma" and questioning why he'd thought that more data collection would lead to better cities.

He decided he wanted to climb a different ladder. He watched how his housemates nurtured an extended community, how they blended the concepts of friendship and family. One night, they all tattooed "AGAPE" on his ribcage by hand, dipping a needle in ink between each poke. "This is a fundamentally different way to live," O'Donnell says.

O'Donnell is hardly the first entrepreneur to pitch communal living to tech types. In the mid-2010s, Tony Hsieh, the late co-founder of Zappos.com Inc., was living in a downtown ▶

◀ Las Vegas trailer park next to his buddies to encourage what he called "serendipity and randomness." Meanwhile, ambitious venture-backed startups were trying to commercialize co-living. WeWork Inc. launched WeLive, and Ollie, Common, and Starcity all sought to build their versions of adult dorms where tenants were willing to pay for proximity to others.

None of them, however, seemed to quite get what made a commune like Agape work. One by one, most of these businesses failed or were swallowed up, with Common the only one still around. The lesson was that building community requires hard work from all parties, not just a flat fee and the occasional happy hour. "When you're selling a service that's supposed to be easy and flexible to use and convenient, it attracts the type of customer who wants to pay a bill and have everything taken care of," says Mo Sakrani, a co-founder of Starcity who's now working for Kift. Brad Hargreaves, the CEO of Common, refers to the kind of home found at Agape by a wistful name: "organic co-living."

O'Donnell says he thought his experience with communal living would allow him to set up a business more like Agape. After settling on the van concept, he called it Kibbo, a reference to the 1920s English camping society Kibbo Kift, then switched the name to Kift to avoid confusion with another company. He introduced the company during the first pandemic summer with the endorsement of Burning Man CEO Marian Goodell, then the startup stalled for about a year as Covid-19 continued to complicate his plans. In the meantime, Kift started a Discord server where interested people could get to know one another.

In mid-2021, with Covid vaccines more plentiful in the U.S., Kift started planning its first in-person gathering. The caravan started out north of Napa Valley and wandered down to the Mojave Desert. The idea is to eventually have a mix of annual members who can drop in at any of a handful of clubhouses, plus short-termers who pay for a couple months.

O'Donnell always sees stars aligning: remote work, satellite internet, maybe electric or self-driving vans. At times he veers into a level of grandiosity worthy of former WeWork CEO Adam Neumann. "The economic engine has moved away from the urban center," he says. "A city is no longer geographically defined."

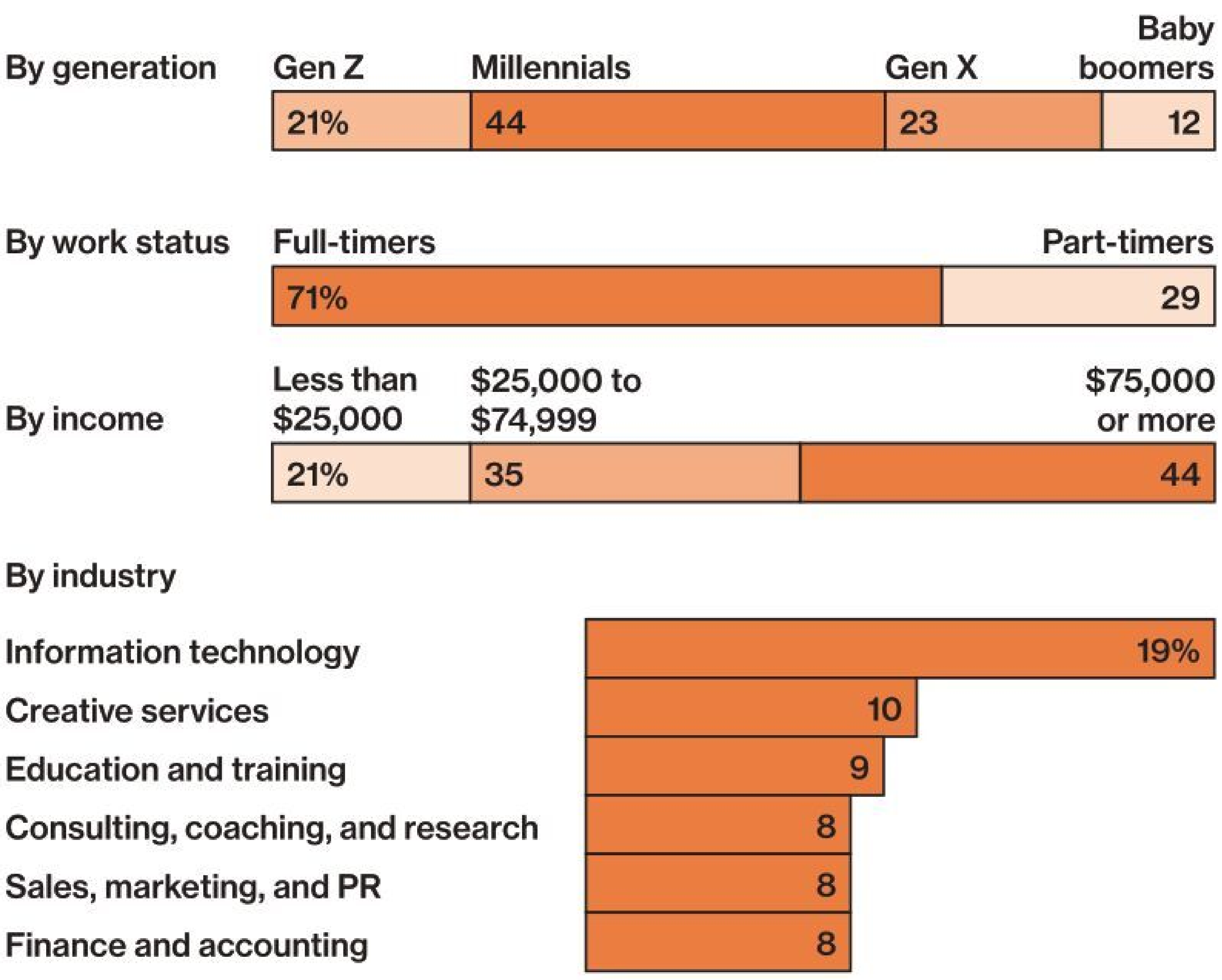
Kift is trying to be a new kind of startup, but it's also pulling a classic Silicon Valley move: rebranding an old product for a new audience. In 2017, Lyft Inc. was roundly mocked for creating Lyft Shuttle, a jumbo-car service that ran along a predetermined route and stopped at regular intervals to pick up and drop off passengers—like, you know, a bus. In Kift's case, Kampgrounds of America has been around for 60 years, and people have been living out of their cars since well before that. A big part of what O'Donnell is selling is the right alchemy of cohabitants and relative luxury. His communities self-select based on their yen to travel, sure, but also on their privilege and disposable income.

When Kift was launched, one journalist joked on Twitter that its creators might have murmured to themselves, "It's like a trailer park... but not for THOSE people." A *New York Times* reporter at the time asked O'Donnell whether Kift's concept had a dystopian flavor. "Dystopian and utopian

The view from the parking lot of Kift's clubhouse in Lakeport, Calif.

PHOTOGRAPH BY ANNIE TRITT FOR BLOOMBERG BUSINESSWEEK

Who Calls Themselves "Digital Nomads"?



DATA: MBO PARTNERS SURVEY OF 6,240 AMERICANS CONDUCTED IN JULY 2021

are close kins," he told her. The difference, he said, is the freedom to choose.

When I arrived at Joshua Tree, a week into the Kift group's stay, they'd already established a rhythm. The communal kitchen had coffee waiting in the mornings, and sometimes O'Donnell whirred up a batch of smoothies. Each morning at 8, the residents held a half-hour check-in session to share how they were feeling and announcements for the day (the trash needs to be taken out, there'll be a hike later), then dispersed to peck at laptops or take Zoom calls. Some people set up monitors in one of the house's two bedrooms, which had been converted into coworking spaces. Most took calls there or in their vans.

To make van living more comfortable for the new nomads, the property also had a set of outdoor showers and a freestanding bathroom with several toilets. In the afternoons, Joy Ripart, a French designer who works in e-commerce, volunteered to teach a yoga class, or David Knapp, who works in tech, did the same with a tabata workout session. Everyone signed up for dinner-cooking shifts on a whiteboard in the kitchen. All the meals were made of plants with groceries ordered online for delivery. The group planned sunrise hikes in the national park and froze gallon-size ice cubes for afternoon ice baths. During the weekly house meeting dinner that Monday, O'Donnell led the group in "clearings," a framework he learned at Agape for airing small grievances without making accusations. At the one I attended, someone said they worried members might feel judged for wanting to eat meat or dairy.

The whole thing somehow felt like both work and summer camp. The attendees didn't choose each other, but they kind of did. Also, the natural splendor helped. At night, the crew hung out under the stars in a hot tub set up away from the house, among the desert shrubs. It was too dark to see faces, which made it easier to trade anecdotes that would never make it onto Instagram, including the best ways to answer the inevitable questions from friends and first dates about where #vanlife forces you to poop.

The metaverse marketer, Jeff Berezny, who lives in his van full time, said people treat him differently when they realize he doesn't have a permanent residence. "If I say I'm traveling in the van, they're like, 'I've always wanted to do that,' and at that moment, I'm the coolest person in the world," he said. The others chuckled in recognition from their corners of the hot tub. He continued: "But then if they ask the question, 'Are you living in the van?' and you're like, 'Yeah,' then it's like, 'But you have a home, right? Where do you live? Are you homeless?' "

The more experienced nomads have also gotten used to receiving questions about *Nomadland*, the 2020 movie starring Frances McDormand as an out-of-luck woman who starts living in her camper when she can't afford other options. Ripart said she related to a scene where McDormand's character can't fall asleep in the guest room of a friend's house and retreats in the middle of the night to the familiar close quarters of her van. But like in the film, van life can lay bare some awkward truths about class and race. Some mobile vehicles cost $3,000, others upwards of $250,000, and a lot of #vanlife imagery is starkly White. Whereas life on the road means always worrying about safety, such as which locks to install on your car and how to avoid police knocking on your window, Kift's subscription model promises peace of mind along with the vegan meals. On the most basic levels, many Kift customers can't relate to Americans who live in their cars as a last resort.

Amy Zhen, a designer at Meta Platforms Inc., daydreamed about van life for four years before she broke up with her partner of a decade and rented a Sprinter. When she arrived at the compound, she felt instantly at home. Within the first week she and her new housemates were discussing life transitions, relationships, and nonmonogamy. "It was almost like an explosion of joy," she said. "How did I just magically find out about this?"

This is a lot like the story O'Donnell wants to tell people with no interest in what he's selling. The problem, he says, is that most don't realize how unhappy they are. At one point, on the way back to the Kift house, he and I drove past a row of beige, same-y one-story houses on the outskirts of Joshua Tree. "The suburban dream," he said dryly. "Two people in a big box, and their connection to community is through the TV and watching sitcoms."

It's unclear how sustainable his alternative is. Kift has raised several million dollars in venture capital and angel investment, but O'Donnell says future money will come directly from Kift customers and fans. He plans to sell nonfungible tokens that will give buyers a say in where Kift should set up locations next. It'll take a while to expand the business, he and Sakrani say, but that's what they want. The point is to do things better, not faster. Among other things, they need to build in time for meditation, leisurely dinners, and the next long drive. Ⓑ

THE CORRESPONDENCE SPECIAL

Don't Forget to Write!

PURSUITS

YOUR HANDWRITING MAY BE RUSTY, BUT WE SAY: ENOUGH WITH THE ZOOMS. FOSTER SOME REAL CONNECTIONS BY PUTTING PEN TO PAPER

By Daniel Taub Lettering by Carolyn Sewell

July 18, 2022

Edited by
Chris Rovzar

Businessweek.com

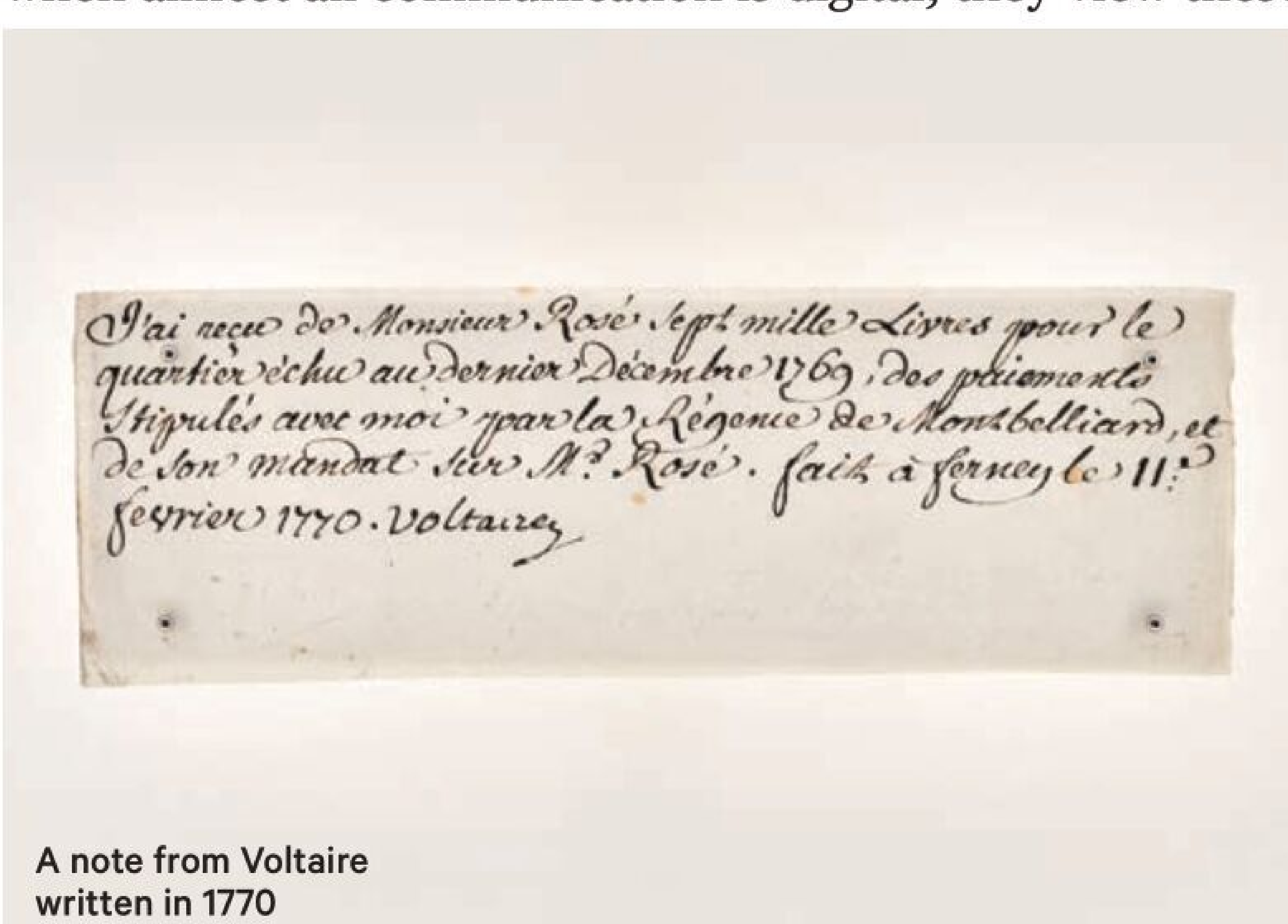
One of Montblanc's original Meisterstück writing instruments at Montblanc Haus

Next door to the Hamburg factory where luxury-goods manufacturer Montblanc produces its fountain pens and other writing instruments, you'll find an "autograph library."

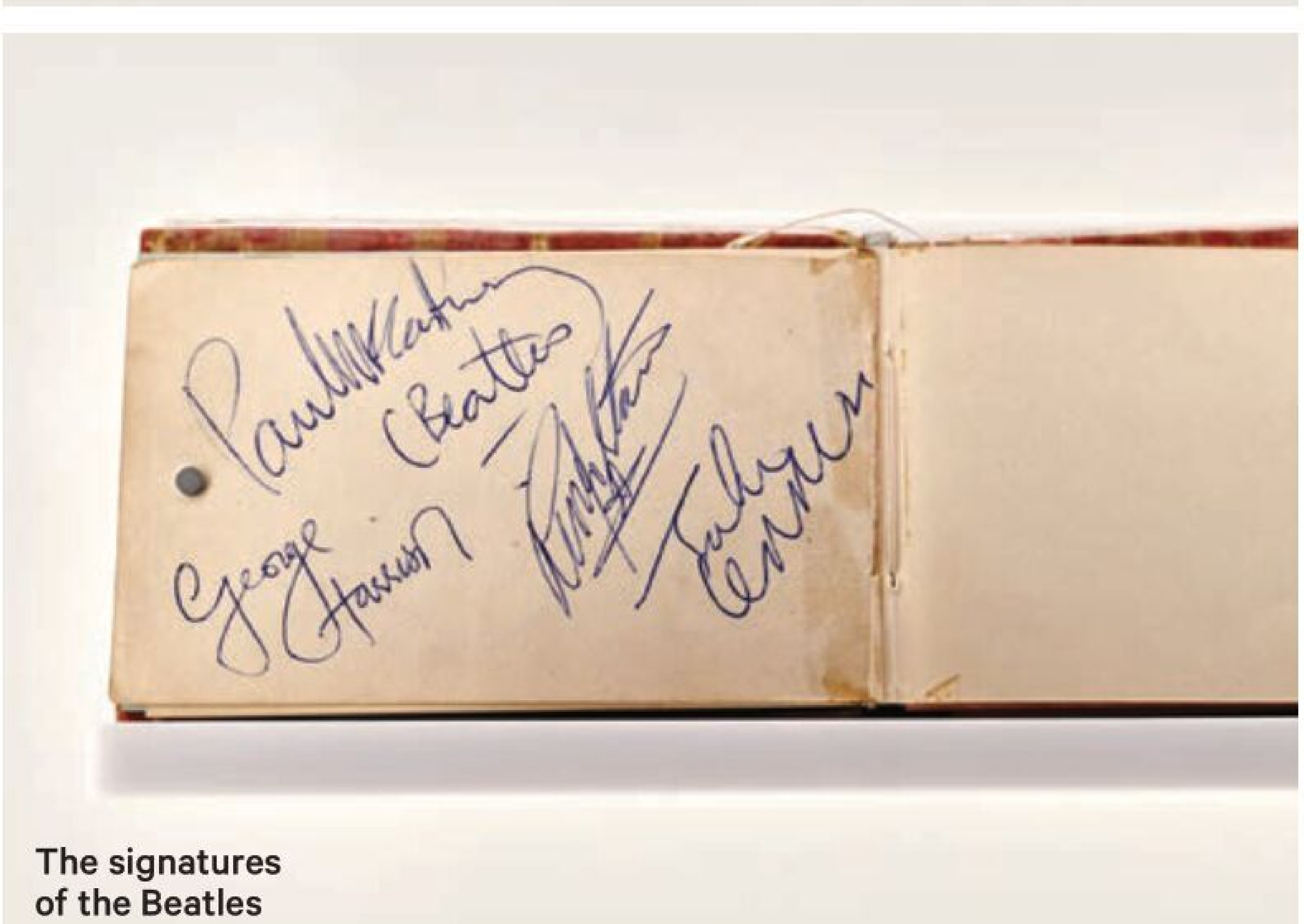
There, enshrouded in glass as part of a permanent exhibition in what is known as Montblanc Haus, are the signatures of authors, artists, musicians, and other notable people—some known for using Montblanc pens, others not. They're found on handwritten letters from the likes of Ernest Hemingway, Virginia Woolf, Albert Einstein, Ian McKellen, and Karl Lagerfeld. The idea isn't to tantalize with saucy secrets as much as to revel in less-ephemeral ephemera from a time before handwritten communication began its long digital erasure.

"The ideal arrangement would be 10 seats together + 2 separate," novelist F. Scott Fitzgerald scribbled to his assistant about tickets he wanted her to purchase, the late 1930s equivalent of a text message. "But at this hour the main point is the best seats." Other letters on display are less quotidian, offering words of apology, advice, philosophy, or affection. "And for you, it ain't necessary to tell you how much love I send," painter Frida Kahlo closed a 1943 note to art dealer Julien Levy.

The executives behind Montblanc Haus are quick to point out that it's an "experience," not a museum. In 2022, when almost all communication is digital, they view these


J'ai reçu de Monsieur Rosé Sept mille Livres pour le quartier échu au dernier Décembre 1769, des paiements stipulés avec moi par la Régence de Montbelliard, et de son mandat sur Mr Rosé. fait à ferney le 11 février 1770. Voltaire

A note from Voltaire written in 1770



The signatures of the Beatles

written relics as inspiration; their goal is to get visitors to compose letters again. "How do we inspire people to put pen to paper at a time when most people don't do that and you communicate through WhatsApp, social media, all that?" asks Alexa Schilz, the director of brand heritage and sustainability. "We want everyone who visits Montblanc Haus to leave with the sense of the value that handwriting brings to them."

It's a simple fact that handwritten letters offer a sense of tactility and permanence, especially now that texts and Instagram posts are quickly buried under newer ones. Vincent Montalescot, Montblanc's chief marketing officer, often asks people if they have a box at home in which they keep letters, journals, and similar keepsakes, "and 99% of the time they say yes," he says. He then asks, "Do you have a box where you keep your WhatsApp messages, SMS? And they say no. The emotion is completely different."

Aside from Montblanc's business goals—the company, after all, manufactures and markets pens—is there any indication of a comeback in letter writing, akin to the resurrection of LPs despite streaming music's dominance? "Yes, yes, yes," says author Daniel Post Senning, the spokesperson for the Emily Post Institute and great-great-grandson of its namesake etiquette maven. "Is it still relevant? Are people still doing it? Is there a bit of a revival? Absolutely. The act of handwriting something is so personal."

Post Senning, who advises businesspeople and others on matters of decorum, says there are some situations where a letter is the best form of communication—one far superior to any digital alternative: expressing gratitude for a gift when you're unable to do so in person, thanking a colleague for a dinner they made at home, following an in-person job interview, and, of course, offering condolences. "A handwritten note is a really powerful tool to have in your toolbox," Post Senning says. "People underestimate the response to a handwritten thank-you note."

PREVIOUS PAGE, PEN: COURTESY MONTEGRAPPA; PAPER: GETTY. LEFT PAGE: COURTESY MONTBLANC. RIGHT PAGE: COURTESY MONTEGRAPPA

There's evidence that the social isolation associated with Covid-19 led some people to return to old-fashioned letter writing. According to a survey conducted by the US Postal Service during the early days of the pandemic, two-thirds of respondents had sent or said they would send mail to family and friends, with 61% saying mail is "extra special" during a time of social distancing. That's not to say the USPS found everyone reaching for their stationery. While 17% of survey respondents said they were mailing letters and cards during the first few weeks of the coronavirus outbreak, triple that number said they'd turned to something far more associated with the 21st century: online shopping.

Indeed, it's difficult to pin down direct evidence of a resurgence in letter writing. Post Senning says it's happening, but he also acknowledges that his impression "is entirely anecdotal"—and somewhat self-selecting, given that his work revolves around manners. In terms of hard numbers, worldwide sales of luxury writing instruments and stationery totaled $1.53 billion last year, up from $1.43 billion in 2020, but still lower than in each of the previous four years, according to researcher Euromonitor International Ltd.

If the practice of penning letters seems almost dead, it's worth noting that its obituary has been written again and again—and long before the rise of emails and texting. When the adhesive stamp was introduced way back in 1840, writes Simon Garfield in his 2013 book, *To the Letter: A Celebration of the Lost Art of Letter Writing*, the "snobbish and the well-to-do" predicted "cheap postage would

107-Year-Old Writing Tips That Still Work

In the introduction to his 1915 anthology, *Familiar Letters, English and American*, University of North Carolina professor Edwin Greenlaw doled out advice that remains helpful:

1. DON'T STRESS OVER THE FORMAT
"The excellence of the letter," Greenlaw wrote, "depends in large part upon the absence of every restriction either of form or of composition."

2. ADD SOME LEVITY, EVEN FOR A HEAVY TOPIC
"Over-seriousness is deadly," he believed. You can address weighty subjects, "but they must be touched lightly, with humor, not in the ponderous style of a piece of research."

3. DON'T OVERTHINK IT
The best letters, Greenlaw argued, are written in the first person and "wander here and there." They "suggest the informality of conversation," but aim to find "the unfamiliar and the significant in the commonplace."

4. BE YOURSELF ...
"The slightest suspicion of posing or affectation," Greenlaw wrote, "is fatal."

5. ... BUT ONLY TO A POINT
"One must know how to write of one's thoughts without seeming a prig," he said, "without being a bore, and to explain one's likes and dislikes, successes and failures, without giving any impression of conceit."

Anatomy of a $7,000 Pen

MONTEGRAPPA DANTE ALIGHIERI: PARADISO FOUNTAIN PEN

BARREL
Made from a core of hand-lathed resin and precious metals (including sterling silver), the barrel is adorned with gems—all of which helps explain the price tag. The cast sections and colored gemstones reference eight of the nine celestial spheres depicted in Dante's *Paradiso*, the third book in his *Divine Comedy*, and the virtues he witnessed on his journey.

NIB
The handcrafted nib is made from 18-karat gold, in sizes ranging from extra-fine to double-broad, or there's a 1.1-millimeter stub for italic-style writing. Its face is engraved with the likeness of Dante.

CAP
The cap depicts *Paradiso*'s ninth celestial sphere, and the vermeil top's three shiny discs match Dante's description of the Holy Trinity. (There are pens for *Purgatorio* and *Inferno* as well, if you want to collect all three.)

CLIP
Fountain pen caps can have an ornate metal clip like this or a simpler one for attaching to your pocket. Or they can forgo it altogether to keep the look more minimal. A handful of pens are completely capless: A click or twist extends the nib.

FILLING WITH INK
A 32-step ratchet piston-fill mechanism loads the barrel with ink. Piston mechanisms, where turning a knob draws the ink from a bottle into the barrel, are often found on higher-end fountain pens. *€6,595 ($6,635); montegrappa.com*

lead to the equivalent cheapening of an art form best left to the professionals."

The book also found that a century ago, the *Yale Review* reported that "the art of writing letters has been lost," assigning blame to the telephone, the typewriter, the telegraph, the railroad, and even "the modern art of leisure."

"The theory from 1919, sounding somewhat familiar at the beginning of the twenty-first century, ran as follows: we were too busy with work, travel and the pressures and demands of modern life to sit down for a minute, let alone think and write a letter," Garfield writes.

But some sentiments just aren't the same if not expressed through ink on paper. "Handwriting," according to essayist Joseph Epstein, "is the most personal, and hence most sincere, form of communication." Abraham Lincoln's letter to the Boston mother who lost several sons to the Civil War wouldn't have had the same effect had it not been drafted by hand: "I feel how weak and fruitless must be any words of mine which should attempt to beguile you from the grief of a loss so overwhelming. But I cannot refrain from tendering to you the consolation that may be found in the thanks of the Republic they died to save."

Those intimidated by putting pen to page—trying to sound as eloquent as Lincoln, that is—needn't worry so much. A letter doesn't have to be any more serious or formal than an email. History's greatest letter writers had some fun,

Fountain Pens to Know

BETTER THAN BASIC
Lamy's Safari pen has been setting standards for writing tools for more than 40 years, but for the **Lamy Safari Origin**, the German maker of contemporary-styled pens has brought back its initial colors, savannah green and terra red. Both are executed in a matte finish that looks more mature than other pens' typical glossy plastic. *$37; lamy.com*

THE NEW, OLD AMERICAN
The Esterbrook Pen Co. was once the largest pen manufacturer in the US. Now part of the Kenro portfolio, the company has been relaunched to better honor its storied history. The limited-edition **Estie Pink Sands** is inspired by beaches in the Bahamas, Greece, and Indonesia and features a proprietary all-pink nib. *$195; esterbrookpens.com*

ENTRY-LEVEL LUXURY
This **10th Anniversary Limited Edition #3776 Century** commemorates Japanese maker Platinum's flagship fountain pen with a name that evokes the elevation of Mt. Fuji (3,776 meters), the country's highest peak. The cap has a "Slip & Seal" mechanism that prevents the 14-karat gold nib from drying out. *$495; gouletpens.com*

LIMITED EDITION, ITALIAN STYLE
Handmade in Florence by Visconti, the **Homo Sapiens Arizona Sunset** features a semitransparent marbled resin cap and body inspired by the colors of the Grand Canyon at sunset. It's limited to 888 pieces and, according to Ron Manwaring, who owns Pen Chalet in Mesa, Ariz., has been popular with customers. *$1,195; penchalet.com*

JAPANESE URUSHI
The name of the grand-sounding **King of Pen Amber Urushi** from Sailor gives a hint of its large size, which is comparable to the Montblanc 149. This one comes coated in amber urushi, but other available colors of the Japanese lacquer include cherry red, lilac, pine green, smoke gray, and sunflower. The nib is made from 21-karat gold. *$1,450; nibs.com*

A EUROPEAN CLASSIC
Inspired by the ice pack on Mont Blanc, the French peak that gave the luxury-goods maker its name, this **Montblanc Meisterstück Glacier Solitaire** fountain pen bathes its cap and barrel in translucent blue lacquer. Its 18-karat gold nib, meanwhile, is coated in rhodium and engraved with the Mer de Glace "dragon." *$1,915; montblanc.com*


Montblanc Haus

after all, and no, their handwriting wasn't the best either.

At times they were even a bit dirty. Writing to a friend in 1818, Lord Byron pretended to be his own valet breaking the news of his master's death: "His nine whores are already provided for, and the other servants; but what is to become of me?" In 1876, Gustave Flaubert sent a letter to Edmond de Goncourt gossiping about news coverage of a prominent Parisian caught in flagrante with another man in a public restroom: "I think France should give him an official compensation: he has kept us all entertained." And in 1961, Groucho Marx, thanking the poet T.S. Eliot for an inscribed photo, wrote, "I had no idea you were so handsome. Why you haven't been offered a lead in some sexy movies I can only attribute to the stupidity of the casting directors."

The overwhelming majority of our communications are destined, of course, to remain electronic. And it's likely to fall to companies that specialize in stationery and writing instruments to encourage the handwriting of those occasional notes.

The evangelists at Montblanc Haus, where a boutique sells three different letter-writing kits, are making the case by providing a station for visitors to write a postcard of their own. Montblanc Haus will add postage and mail it.

Montalescot says he continues to send postcards to his wife of more than two decades while traveling for work. "It's a very simple gift, in fact," arriving in a mailbox otherwise full of invoices and advertising, he says. "It's pure positive emotion–nothing else."

MONTBLANC HAUS: COURTESY MONTBLANC. REMAINING: COURTESY COMPANIES

If You Want to Lean Into Lead

A MECHANICAL PENCIL

The **Uni Kuru Toga Advance Upgrade** automatically rotates its point twice as fast as the popular standard version to keep it sharp on all sides as you write or draw. It comes in gunmetal, burgundy, and navy metallic for a more professional look than an ordinary plastic mechanical pencil. *$15.50; jetpens.com*

A WOOD-CASE OPTION

Musgrave Pencil Co.'s **Tennessee Red** is made from slats of eastern red cedar and emits a distinctive, delicious scent when sharpened, while its #2 core has that just-soft-enough feel you remember from high school. The three-star emblem comes from the Tennessee flag, a tribute to the home state of this family-owned company that's more than a century old. *$13 for a 12-pack or $43 for a 24-pack in a cedar box; musgravepencil.com*

AND YES, A GOLD ONE

The precious metal may seem indulgent for a wooden pencil, but the 18-karat rose-gold-plated cap of this **Graf von Faber-Castell Perfect Pencil Rosegold** covers the point when it's not in use. It has a built-in sharpener and eraser cover, which along with the cap provide a striking visual contrast to the jet black B pencil it houses. Once the original is used up, a replacement set of five costs $55, though you may just want a regular pencil by then. *$310; graf-von-faber-castell.us*

STILL THINKING ABOUT INK?

The **Ensso Giro** ballpoint pen, machined from solid blocks of space-grade aluminum anodized in matte black, uses a twist mechanism to extend its German-made Schmidt refills. The product of a Kickstarter project—one of several from Ensso in Huntington Beach, Calif.—that was successfully funded and fulfilled, it offers a classy upgrade from the Bic pens in the office supply closet. *$69; ensso.com*

Take Notes

A collection of cards for classy correspondence
By Kathryn O'Shea-Evans
Photograph by Ryan Jenq

PROP STYLIST: JOCELYN CABRAL

Biiing! An incoming text message or email may sound an alert, but missives on paper stationery speak volumes—especially when scrawled on flat correspondence cards. "In our ever-casual culture, the handwritten note stands out," says Chiara Riggs Sill of California consultant Etiquette Moderne. "You will be remembered for it."

Whether custom-emblazoned with your monogram or embossed with the whimsical silhouette of your rescue dog, it's important to have them in your arsenal, experts say. "I absolutely recommend that folks have notecards as part of what I like to refer to as your stationery toolkit," says Carlsbad, Calif., lifestyle and etiquette expert Elaine Swann, who sends out at least three such notes a month.

Sill tells her clients to opt for stationery that reflects their style without being over the top, so they can use it both personally and professionally. Whatever notecards you select, the important thing is to use them, "and use them often," says Swann, who suggests buying stamps ahead of time and keeping them handy so you're able to mail each note the moment the ink is dry.

In our increasingly digital world, it really is urgent. "A person can feel the depth of your gratitude or whatever it is you want to communicate when something is handwritten," Swann says.

1. SPREAD JOY
The Belgian monks who toiled circa 1478 for what's now Original Crown Mill wouldn't recognize these color-edge arctic and Amazon green cards. Available from Greer stationery, they're full of vivid, paradisiacal color. Call them an ode to joy. *$18.50 for a set of 10; greerchicago.com*

2. MAKE IT FASHIONABLE
Designed by Seoul-born, London-based fashion designer Rejina Pyo, these Vero notecard sets are as graphic and riveting as the catwalk on one side, and as classic as a dry gin martini on the other. Bonus: They're bespoke, printed with your name and address—or anything else you desire. *$31 for a set of 10; papier.com*

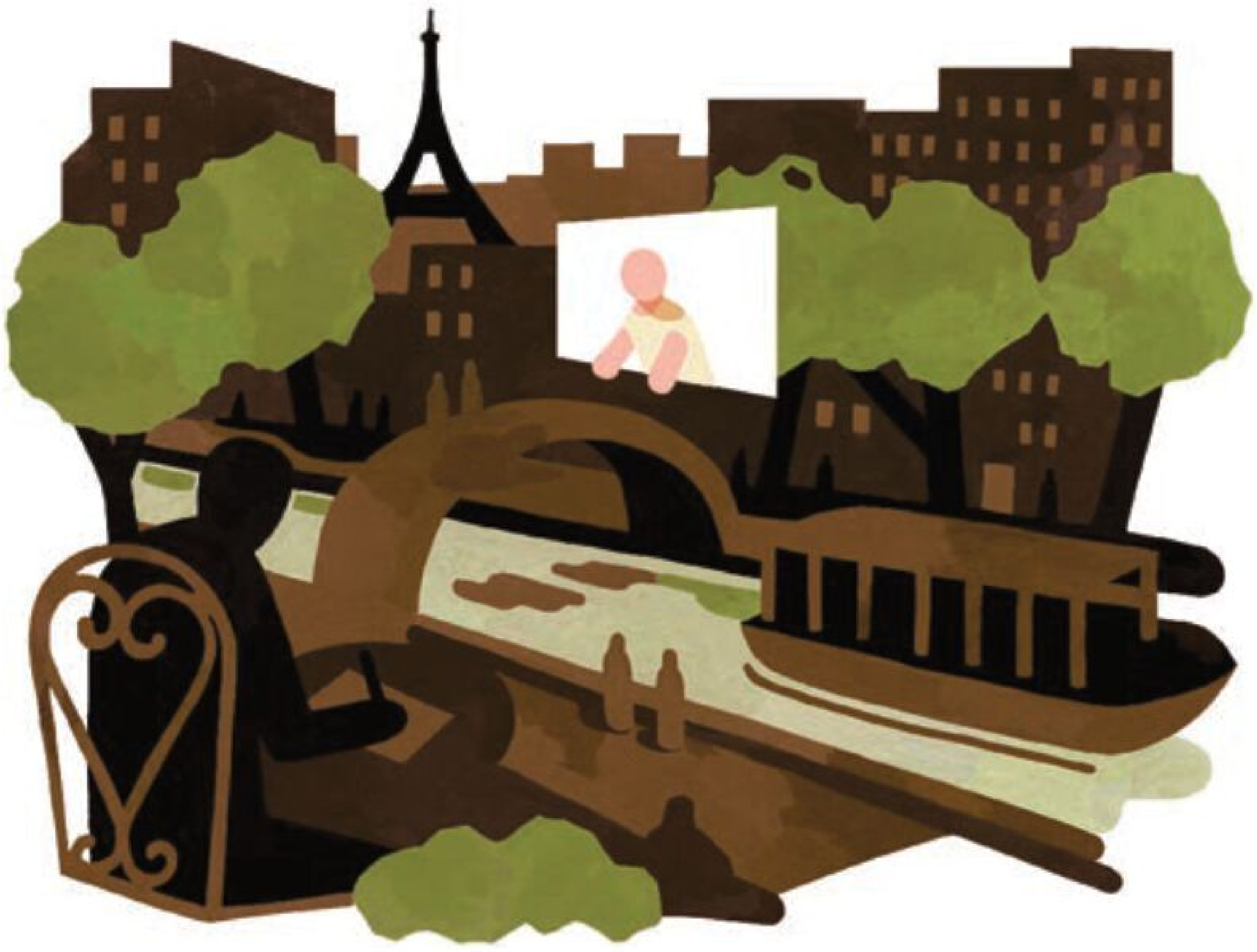
3. SHINE IN CLASSIC STYLE
If the shawl collar tuxedo were reinvented as a notecard, it might look something like this one, with its inky black monogram letterpressed on an antique machine and paper borders hand-painted with a golden finish. Most dapper of all? The James Bond-ish black-and-white-pinstriped envelope liner. *$32 for a set of 6; sugarpaper.com*

4. EMBRACE THE BRITISH WAY
Grace Kelly, Sir Winston Churchill, and Queen Victoria were among the fans of British stationer Smythson, which opened in 1887 on London's Bond Street. Edged in a "Blue Nile" border with tissue-lined envelopes, these are an obvious favorite. *$37 for a set of 10; smythson.com*

5. GO GREEN (AND BLUE)
The lone non-notecard on our list, this colorful option from Los Angeles brand Poketo—founded by married creatives Angie Myung and Ted Vadakan—has a point: The unexpected is more fun to give. These Forest Stewardship Council-certified sheets of tree-free paper fold into their own artful envelope. *$12 for 12 sheets; poketo.com*

6. PERSONALIZE IT
Memoji will get you only so far: With Florida-based Rifle Paper Co., you can design an avatar for your stationery to reflect what you see in the mirror—including everything from your skin tone and trademark coiffure to the blue-and-white-striped boatneck top you got on your last trip to Brittany. *$65 for a set of 20; riflepaperco.com*

7. BET ON SOMETHING BOLD
When you need a notecard to match your own personality's pep and verve, try Effie's Paper, founded by Kalyn Johnson Chandler, who named her company after Effie Hayes, her ever-stylish maternal grandmother. "I love using bright color combinations that catch you a little off guard," she says. *$20 for a set of 10; effiespaper.com* B



The Precious Postcard

How a travel writer learned the true value of an inexpensive souvenir

By Mark Ellwood

Writing letters was a ritual drummed into me throughout childhood. Money, gifted for birthdays or Christmas, would be left on the piano, tantalizingly out of reach but within sight, until the last thank-you note was mailed. Birthday cards, dinner party thanks, thinking-of-yous—I still send them all by mail. As a child, I remember yearning to receive letters; mail was something seemingly only addressed to grown-ups, who'd grumble as they opened yet another bill. But when something arrived for me, I felt important—treated more as a person than just a kid.

It's a feeling I wanted to pass along when a friend asked me to stand godparent to her first child, a boy who lived in rural England at the time. To nurture our relationship, I could write him letters from my home in New York, I reasoned, or better yet, send him postcards. I'm lucky to travel constantly for work, so this seemed a fitting personal gesture: unexpected but consistent, a surprise that would be waiting at home at the end of the school day.

It was also a chance, I hoped, to pass along my love of travel. I resolved to send a postcard to him from anywhere I spent the night, and to any subsequent godchildren I was lucky enough to land. I'd continue until their 18th birthday.

Since then, over almost two decades, I've learned a lot via that ritual. Hotels in far-flung places will often produce their own cards, for example, stuffed into leather portfolios in a desk drawer—the retro sketches from Angama in Kenya's Mara were a particular joy. Airports are often the best place to buy cards: From Morocco to Mendoza, Argentina, I've found dog-eared ones in the dusty corners of gift shops in the departure lounge. And I've never missed a single destination, though I'll admit to buying a few backups on EBay in an emergency, most recently after a whistle-stop trip to Los Angeles.

I've adjusted some rules, too. I used to insist on mailing them in situ, until I spent an hour or so in a chaotic post office in Rio de Janeiro during the Olympics. I dutifully posted a trio of cards covered in local stamps; not one reached its recipient. Now I often mail them from home, relying on the US Postal Service instead. It's a shame, though, as stamps—such as the gorgeous, intricate postage I found in Botswana—can be as alluring as the cards themselves.

I've learned, too, that postcards aren't staples of every culture. I've never managed to find a rickety stand of cards on any sidewalk in Russia or Mozambique, whether Sochi or Pemba. In those cases, I've instead opted to send a card made from snaps I've taken on my visit—thanks, TouchNote app—though it's never without a small pang of regret. The results are slick and gleaming but lack the charm of a note scribbled on a seatback table of a plane onto the back of a cheery, cheesy photo composite.

Today, I have three godchildren. The youngest, Evy, is just 7; I write her cards carefully, printing each letter so the words are easy to decipher. Her parents have used them to help her learn to read with her older brothers' help. The next, 14-year-old Otto, calls me CardMark, so synonymous was I with the mailings in his toddler mind that he merged the two.

The oldest, Arthur, just turned 17; his imagination was particularly piqued by the ritual. I recall visiting him when he was 8 or so. He proudly asked me to retrieve an overstuffed shoebox from a shelf high in his room. It was safely stashed there, he explained, so there was no risk of a destructive friend, prone to wrecking whatever toy he touched, ever damaging its contents. Arthur had filed the cards carefully, if idiosyncratically, arranging them in his own categories—some of the places he prioritized based on a desire to visit (Las Vegas, Istanbul), others that made him sad (Miami, India). Then he showed me a fistful of cards from Paris, somewhere I've visited often. "This is my No. 1, where I really want to go," he said, earnestly. After a little discussion with his folks, I surprised him with a trip for the two of us to the City of Light for his 10th birthday. There he sat happily sketching in his book at a cafe in Montmartre before we wrote postcards, together, and mailed them back to his parents and sister.

Of course, I've only one more year of mailing cards to him to fulfill my pledge to halt at 18. Yet I already feel a twinge of sadness at stopping, a sense that I don't want to surrender the connection they offer me to those kids. So maybe I'll tweak another rule and just keep sending them until he's 21. Ⓑ

ILLUSTRATION BY FRANCO ZACHARZEWSKI

Like a Hot Knife Through Letters

The Zenith 585 cleanly slices envelopes while sparing you the paper cuts. *By Matthew Kronsberg Photograph by Chelsea Kyle*

The US Postal Service delivered almost 51 billion pieces of first-class mail in 2021, and most of those were opened the same tried, true, and messy way: with a finger plowed under the flap. Balma, Capoduri & C.'s Zenith 585 letter opener in gold ($45) slashes through mailbox correspondence with style; but safety, not aesthetics, may be its biggest bragging right. At almost 10 inches long, it excels at helping you avoid the collateral damage of mangled pages and painful paper cuts. A riveted handle also doubles as a staple remover.

THE COMPETITION

• French cutlery company Forge de Laguiole is best known for steak knives, but its collection of letter openers (from $129) brings the brand's sinuous style to the desk as well.

• At just $3.50, the beak-shaped letter opener from Taiwanese stationer Tools to Liveby shows that an effective accessory doesn't need to be expensive or made from fancy materials.

• Studio Carta, a purveyor of exquisite paper products and accessories in Chestnut Hill, Mass., offers a $36 gold-handled letter opener embossed with ruler measurements: metric on one side, imperial on the other.

THE CASE

Since 1963, the Zenith 585 has been the weapon of choice for those who take ruthless pleasure in the *shoooop!* of a cleanly sliced-open letter—whether it's a birthday card worth saving or recycling bin fodder from your local political candidate. Designed and manufactured in Italy, it's made of nickelated iron so it's extra strong. The gold finish was introduced in 2019, but somehow looks more vintage than the original silver color. "It is kind of a nostalgic thing, a little piece of sculpture in your world," says Laura Capp, proprietor of the Ashland, Neb.-based shop Postscript, where you can order it—as well as a poem delivered on custom stationery. "But it's also an extremely useful tool." *$45; postscript.press*

Natural Gas Is Hot, And the US Has a Lot

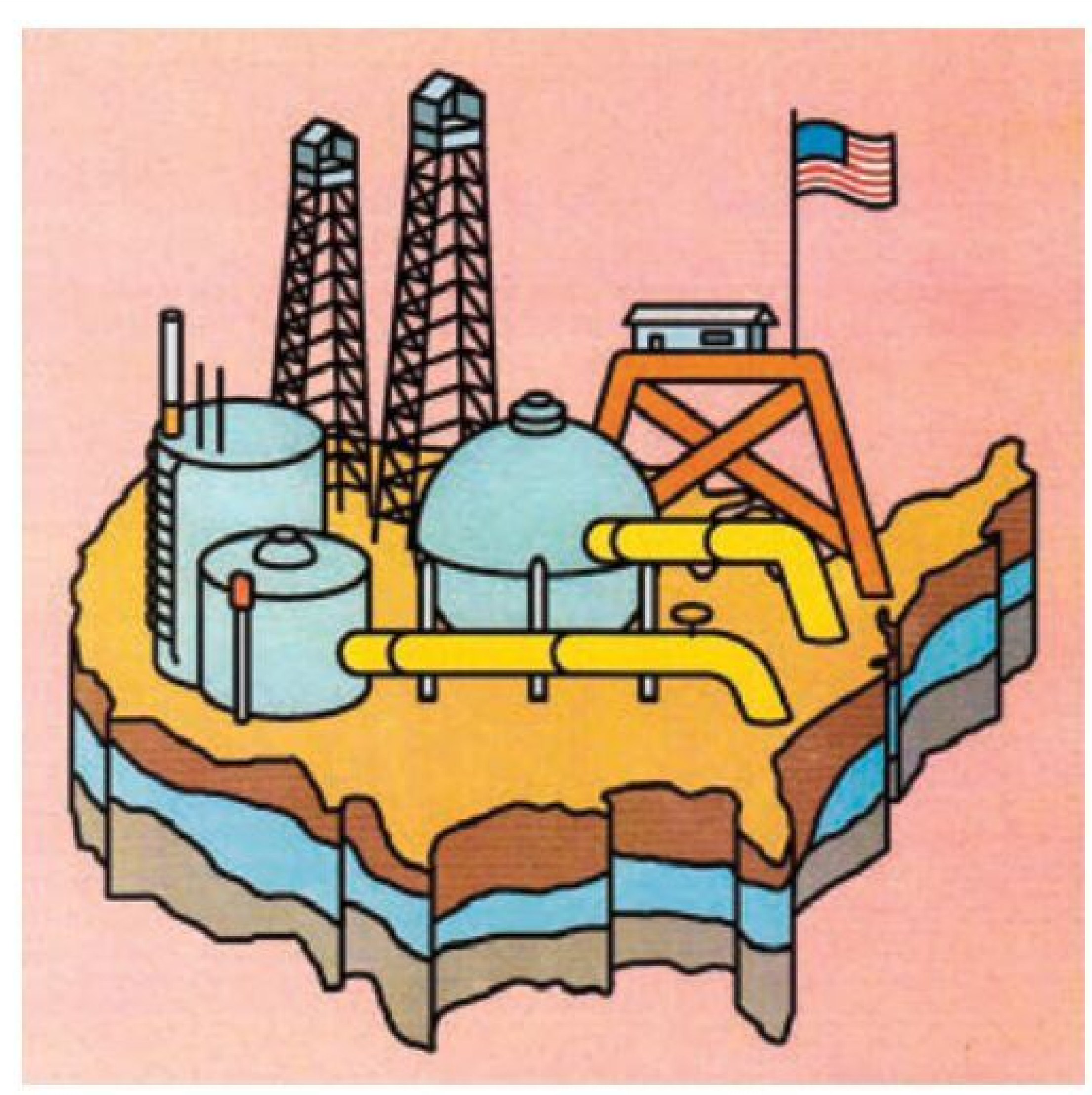
By Justin Fox

Natural gas still trails oil and coal in the amount of energy generated worldwide, but it's been gaining on both. As Europe struggles to break free from its dependence on Russian gas after the invasion of Ukraine, gas has become perhaps the most geopolitically important fuel of the moment.

This puts the world's biggest natural gas producer, the US, in an interesting position. Gas production here has risen about 80% since 2006, as hydraulic fracturing (aka fracking) has enabled drillers in Pennsylvania, Texas, and elsewhere to extract vast quantities of gas and oil from shale deposits.

At first almost all the increased gas supply went to electricity generation, with gas supplanting coal in 2016 as the country's top power source. But that year also saw the completion of the first of several facilities, most along the Gulf Coast, that liquefy natural gas and pump it into waiting ships for export. Now about 16% of production is going abroad, most by LNG tanker, and so far this year the US has been neck and neck with Qatar for the title of world's top LNG exporter.

These exports could be a godsend for Europe, and they're certainly good for the oil and gas industry. For US consumers, there's a bit of a catch, though. Because it's relatively hard to transport, natural gas has tended to be priced very differently in different parts of the world. Since the fracking boom began, US prices have been well below the global average. The rise of LNG exports introduces a new set of customers who are used to paying lots more, which means US gas users will pay more, too. Ⓑ
—Fox is a columnist for Bloomberg Opinion



● KING OIL
Oil consumption worldwide amounted to 184 exajoules (a quintillion joules, or about a quadrillion BTUs) in 2021, according to the *BP Statistical Review of World Energy*. Coal consumption was 160 exajoules, and natural gas 145. Nuclear, hydroelectric, and renewables added up to 105.

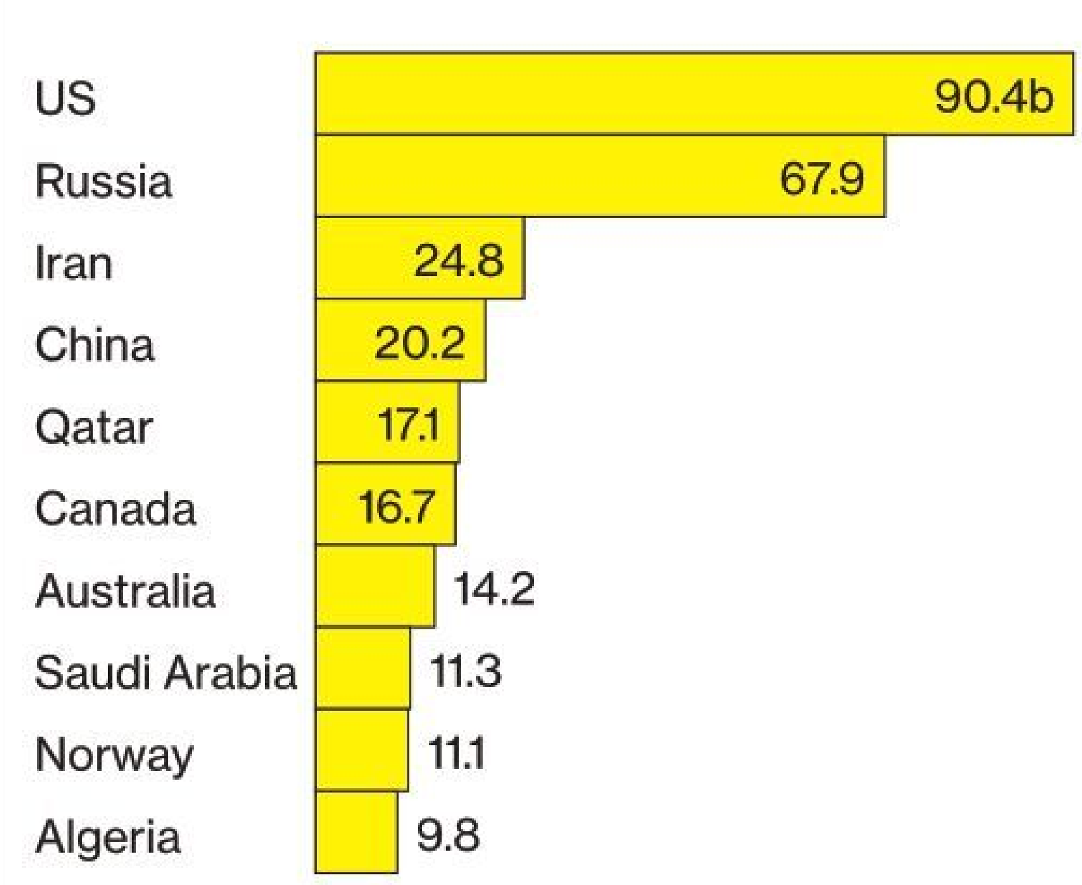
● LONE STAR
Texas is the top natural gas-producing state, at

10.5t

cubic feet in 2021, trailed by Pennsylvania at 7.7 trillion, Alaska at 3.5 trillion, and Louisiana at 3.4 trillion.

● ON RESERVE
The US only ranks fourth in proven natural gas reserves, at 446 trillion cubic feet, as estimated by BP. Russia is first at 1.3 quadrillion, followed by Iran and Qatar.

● Natural gas production in 2021, cubic feet per day



● BURNING FOR POWER
The electricity-generating sector accounted for 41% of US natural gas consumption in 2021, with industrial users at 30%, residential 17%, and commercial 12%, according to the US Energy Information Administration.

DATA: BP STATISTICAL REVIEW OF WORLD ENERGY

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