Bloomberg Businessweek

November 1, 2021

LABOR'S MOMENT

With #Striketober and the Great Resignation, organizers see the biggest opportunity in generations. Will anything change? 50

Tech Goes Green

How home appliances help consumers live more sustainably

Appliances now are being designed with the planet in mind.

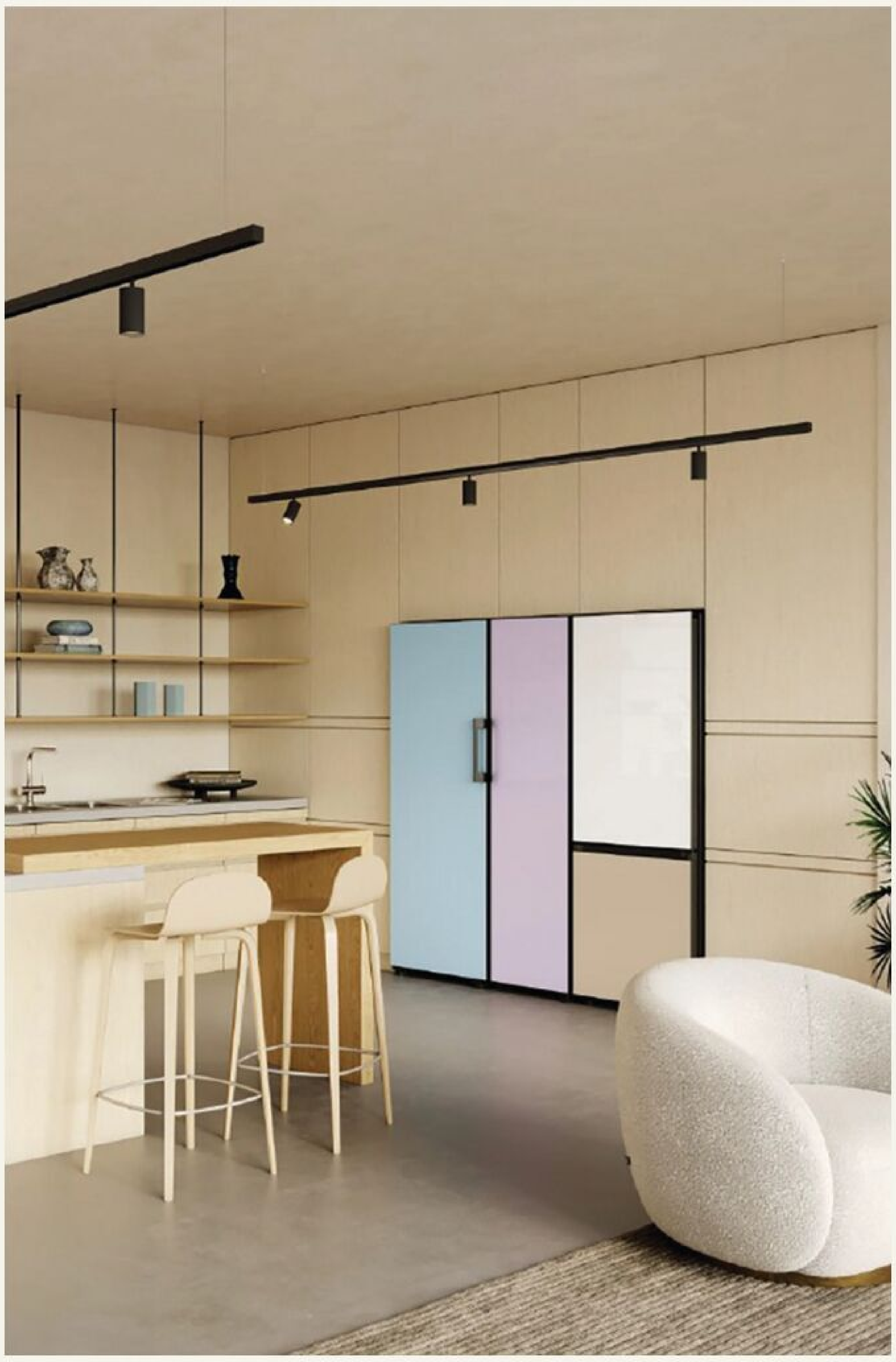
Samsung is creating durable appliances that have a longer lifespan and use less water and energy – without sacrificing performance. Designers are also finding ways to use recycled materials and make the devices easier to recycle once they reach the end of their usefulness.

Conserving energy and water

Washing machines come with a considerable eco-footprint, accounting for up to about 10% of household energy bills. The average family does 165 loads of laundry every year, with each load using about 60 liters of water.

Innovations in Samsung's washing machines reduce their environmental impact. For example, Samsung's Ecobubble™ technology helps detergent penetrate clothing fibers better even in cold water, allowing for significant energy savings. A load of laundry using Ecobubble™ at 15°C uses 70% less energy than the same load running without Ecobubble™ at 40°C.

SAMSUNG



Washers even use artificial intelligence to minimize water and detergent waste. Sensors detect the weight and soil level of a load of laundry and the machine can automatically dispense the optimal amount of water and detergent needed.

Adaptable products that last longer

Kitchens change as needs change; often that means buying new appliances and disposing of old ones, which contributes to landfill waste. Samsung's unique Bespoke line of refrigerators has flexibility in mind so consumers can update their kitchens without having to change their refrigerator. The durable products are not only built to last but are modular so consumers can pick and choose what they want. Options range from a 4-door to a slim 1-door, with panels coming in various colors and finishes. Consumers can swap out panels for a new look or simply add units as a family grows, without having to change the whole refrigerator.

Samsung also strives to achieve high energy efficiency in its refrigerators. The 2-meter RB7300 bottom mount freezer maximizes storage space while cutting down on energy usage, achieving an A-grade energy efficiency rating under European Union regulations.

Manufacturing with an eye on the environment

Conventional manufacturing practices of appliances uses resources once, then discards them. Samsung is working to ensure that resources can be repurposed after the product's lifespan, either by reusing or upcycling the device or recovering and recycling its materials.

To do this, Samsung incorporates eco-design into its product planning phase. The company looks at the environmental impact of each step, from product design to logistics, distribution and so forth, and adopts environmentally conscious practices. Some of the company's changes have been swapping out ozone-depleting gases with environmentally conscious refrigerants. The company also innovated a compressor that minimizes energy loss by supplying only enough cooled air to keep food fresh.

"Samsung wants to bring smarter, more efficient and more durable appliances to every corner of the home," says Hyesoon Yang, Vice President, Digital Appliances Business at Samsung Electronics. "These appliances will allow consumers to make their lifestyles more eco-friendly without compromising on style or performance."

Bangladesh Securities and Exchange Commission

WHY INVESTORS SHOULD PAY MORE ATTENTION TO THE NEW BANGLADESH

As Bangladesh celebrates 50 years of independence, the country is a rising star for foreign investment, with strong growth, good infrastructure, an enhanced digital presence and a robust response to COVID-19. Looking forward, the country is building a sustainable and inclusive economy to provide more opportunities for everyone.

Bangladesh's roaring growth was set back by the COVID-19 pandemic, yet it remains resilient and is set to outpace India and China in the coming years.

After expanding at an average rate of close to 7% per year in the decade leading up to the crisis, the International Monetary Fund (IMF) predicts growth will climb back towards 6% this year, compared to 3.8% in 2020.

While the pandemic-related shutdowns damped the domestic economy and prompted a sharp decline in exports of ready-made garments and a decrease in remittances from abroad, the IMF says a return to more normal global economic conditions should mean Bangladesh "quickly" reaches its previous growth rate. That puts it on track to become the 28th largest economy in the world by 2030, a climb from 41st last year.

Under the leadership of Prime Minister Sheikh Hasina, Bangladesh is implementing a strategy to tackle the pandemic by carefully balancing the need to protect people's lives with that of safeguarding their livelihoods. It is also rolling out vaccinations and prioritizing a green recovery. As it shifts to the next phase – striving to become a developed country by 2041 – the government seeks to build on its success in alleviating poverty, improving employment opportunities and fostering women's economic participation and empowerment.

The local consumer market is expanding as the middle and affluent classes grow and offer more disposable income. Combined with a relatively young and skilled workforce and a stable political outlook, this underscores reasons to be optimistic for the future.

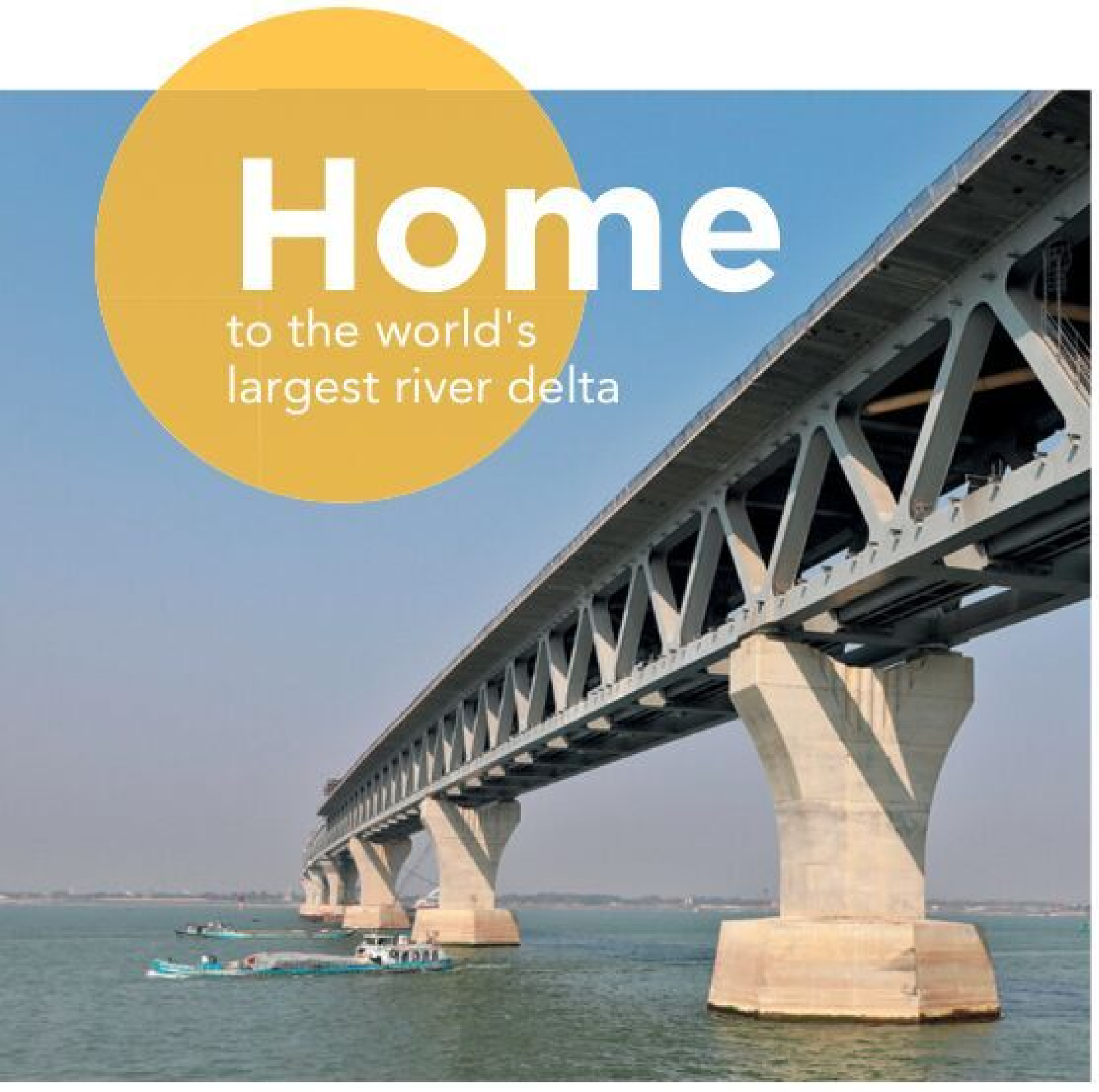
CAPITAL MARKET REVIVAL

Trade and foreign investment potential are clear for all to see, attracting interest from international venture capital, private equity and impact funds.

New capital market products will help broaden the appeal. Products like Sukuk and Exchange Traded Funds offer scope to develop and expand the Bangladesh bond market, which is relatively small. Derivative products are also being introduced, making this an exciting place to be an investor.

What's more, the nation offers opportunities to participate in sustainable investment in emerging Asia, such as through the green bond market. Environmental, social and governance concerns and attaining the United Nations Sustainable Development Goals (UN SDGs) are a focus for the government of Bangladesh. With nine of the world's top 10 green garment factories and 40 of the top 100 green industrial projects, the ready-made garment industry of the country is already leading the way.

The Bangladesh Securities and Exchange Commission (BSEC) is actively promoting the country's investment opportunities around the world. Already, BSEC has successfully organized roadshows in the UAE, U.S. and Switzerland. Looking ahead to roadshows in the UK, it will hold the "Bangladesh invest summit 2021: Building Sustainable Growth Partnership" in London on November 4th and in Manchester on November 8th.



EASING THE WAY

A number of other government initiatives are helping entice international finance and bolster investor confidence. And Vision 2041 sets out ambitious plans to transform many parts of the economy and revolutionize the way work and business are conducted.

For example, the development of infrastructure is being prioritized, with projects like Bangladesh's first Mass Rapid Transit System, connecting Uttara and Motijheel in Dhaka, and the construction of the Padma multipurpose road-rail bridge.
At the same time, Digital Bangladesh has overseen an exponential increase in internet penetration over the past decade alongside falling costs for internet access.

And, as home to the world's largest river delta, the Bangladesh Delta Plan 2100 is another key plank of the government's strategy: it aims to eliminate extreme poverty, create more jobs and bolster growth, while also increasing trade and strengthening food security.

LOWERING BARRIERS TO BUSINESS

These positive factors suggest that Bangladesh deserves increased attention from international investors.

It currently has a low rate of foreign direct investment relative to its regional peers, attracting $1.6 billion in 2019, compared with $3.7 billion to Cambodia and $2.8 billion in Myanmar. The improvements in access, taking down of regulatory barriers and reforms are set to pave the way for this ratio to improve.

In addition, Bangladesh is proud to offer the most liberal foreign direct investment regime in South Asia, underpinned by the work of the Bangladesh Investment Development Authority (BIDA), which aims to smooth the path for investors.

While the country is among the top 20 for reform initiatives, according to the World Bank's Doing Business report, there is still room for improvement, underscoring the importance of BIDA's work.

As Bangladesh marches rapidly towards becoming an advanced economy, the potential for trade and investment is vast. The business-friendly government, skilled labor force, and focus on strategies aligned with the UN SDGs and environment-related targets, make it a force to be reckoned with.

Strong growth, infrastructure development and policy reforms underscore how enriched the opportunities are for foreign investors. This is the time to know Bangladesh better – and to invest in its future.

Feedback Fuels Growth.

Reputation

reputation.com

Bloomberg Businessweek

November 1, 2021

◀ Cynthia Hinderliter, head of technology at Pekin Community High in Illinois, maintains a detailed dashboard of online student activity

PHOTOGRAPH BY EVAN JENKINS FOR BLOOMBERG BUSINESSWEEK

FEATURES

How to Contact *Bloomberg Businessweek*
EDITORIAL 212 617-8120 ● AD SALES 212 617-2900, 731 Lexington Ave. New York, NY 10022 ● EMAIL bwreader@bloomberg.net ● FAX 212 617-9065 ● SUBSCRIPTION CUSTOMER SERVICE URL businessweekmag.com/service ● REPRINTS/PERMISSIONS 800 290-5460 x100 or email businessweekreprints@theygsgroup.com ● Letters to the Editor can be sent by email, fax, or regular mail. They should include the sender's address, phone number(s), and email address if available. Connections with the subject of the letter should be disclosed. We reserve the right to edit for sense, style, and space ● Follow us on social media ▶ FACEBOOK facebook.com/bloombergbusinessweek/ ▶TWITTER @BW ▶ INSTAGRAM @businessweek

■ COVER TRAIL

How the cover gets made

❶

"So this week's cover story is about how the labor movement is really having a moment."

"Oh, yeah! Everyone's going on strike."

"And quitting, too."

"OK, I've got an idea."

❷

"Wow. Sooo original."

"The cover is on strike!"

"Yeah, but how are our readers going to know that?"

"Oh, good point."

❸

"This is all very meta, but maybe the cover could actually convey something about *the story*? Maybe more than one message?"

"That's definitely gonna be overtime."

"I think you're having a moment."

ECONOMICS: ZACK WITTMAN/BLOOMBERG

Hertz

Let's Go!

Change scenery, not standards.

By Benedikt Kammel

● Worldwide, coronavirus cases are approaching

245m

and almost 5 million people have died. More than 6.9 billion vaccine shots have been given. Frequent outbreaks of the highly contagious delta variant are making it harder for China to commit to its "Covid-zero" strategy of eliminating all cases.

● Activist investor Dan Loeb has built a $750 million position in Shell.

He's pushing for the breakup of the energy giant, which is valued at about $190 billion. Loeb argues that spinning off its LNG, renewables, and marketing businesses into a standalone company would help Shell survive the transition to a lower-carbon world.

● Tesla received a landmark order of 100,000 vehicles from car-rental company Hertz. The move ignited a stock rally for both companies, pushing the value of Tesla beyond

$1t

● The Sudanese military arrested Prime Minister Abdalla Hamdok on Oct. 25.

General Abdel Fattah al-Burhan, who was part of the civilian and army coalition that had been leading the country since 2019, said he would begin setting up a new government soon.

● After 10 ambassadors, including those from the U.S. and Germany, demanded the release of philanthropist Osman Kavala, a jailed critic of the Turkish government, President Recep Tayyip Erdogan threatened to expel them. He eventually relented, narrowly avoiding a major international crisis.

● Iran said it's agreed to restart negotiations with the EU to revive the 2015 nuclear deal before the end of November. The talks stalled shortly after hard-liner Ebrahim Raisi was elected president in June.

● Japanese Princess Mako, the niece of 61-year-old Emperor Naruhito, married her commoner partner, Kei Komuro, on Oct. 26. She gave up her title as a result, shrinking the ranks of the royal family to just 17 members.

● "There should be a 15% patriotic tax. That's me speaking, it's not, I'm not speaking for anybody else."

Democratic Senator Joe Manchin of West Virginia offered his notion of a fair tax increase on Oct. 27, after torpedoing a billionaires tax that would have affected only about the wealthiest 700 Americans.

● Chinese authorities told billionaire Hui Ka Yan, the founder of embattled property developer Evergrande, to use his personal wealth to alleviate the company's deepening debt crisis. It's no small ask, given the group's liabilities have swelled to more than

$300b

● Merck reached a deal to help make its promising Covid drug available in more than 100 lower-income nations.

The agreement with the UN-backed Medicines Patent Pool would allow generic drugmakers to license molnupiravir, the antiviral pill, once it's been approved in their countries.

TESLA: COURTESY TESLA. ERDOGAN: MURAT KULA/GETTY IMAGES. PRINCESS MAKO: NIKOLAS DATICHE/GETTY IMAGES

The Financial Risks Of Climate Change Are Still Too Hazy

The idea that trillions of dollars of ports, coal mines, oil deposits, and more might be rendered worthless by efforts to address climate change certainly isn't new. Concerns had been mounting for years before Mark Carney, then governor of the Bank of England, drew attention in 2015 to the risks that "stranded assets" might pose to the financial system. The more the world invested in foresight, he said, the less would be regretted in hindsight.

Six years later, too little has been done. The approaching COP26 climate talks have a broader agenda, but the danger that action on climate change might cause financial and economic instability shouldn't be sidelined.

Granted, there's been progress since Carney's intervention. More companies are trying to measure their emissions, set targets for abatement, and monitor their climate-endangered assets. A climate disclosure task force (chaired by Bloomberg LP founder Michael Bloomberg) has helped shed light by improving financial reporting. Investors are asking more questions. Economists have been studying the threat to financial stability.

Even so, too little is known to adequately quantify the risks. Moody's Investors Service says that financial firms in the world's largest economies have $22 trillion of loans and investments that will be affected by the transition away from carbon—but shocks will reverberate far beyond finance. It's still unclear how companies are planning for this, if they are.

Meanwhile, billions of dollars are being invested in projects that won't be economically viable if governments implement the Paris Agreement to limit global warming. The International Energy Agency said in May that averting a climate crisis would require new oil and gas projects to cease immediately, along with coal-fired plants that don't capture their own emissions. Yet exploration continues even in high-cost areas such as the Barents Sea. Carbon Tracker, a think tank, says that existing projects are sufficient for future liquefied natural gas trade in a scenario that keeps warming to 1.5C. Approved supply exceeds demand by some 25%, leaving even greenlighted projects at risk.

Governments need to redouble their efforts to understand what's at risk, and not just for energy producers. They should press for still greater transparency and look beyond current emissions and take account of broader financial and economic risks. They should help shareholders and bondholders make their own appraisals by ensuring, for example, that investors can see the carbon prices and regulatory assumptions built into companies' projections.

Policymakers should also help corporate planners by committing themselves to clear transitions, projected carbon prices, and steps to discourage gaming of the rules. (Among other things, that means no compensation for investors that gamble on "business as usual" and lose the bet.) Financial systems can take orderly, expected shifts in stride, and companies will adapt; uncertainty is a formula for financial instability.

Finally, the transition will impose costs on producer countries—many of them low- or middle-income, and unable to bear the cost of stranded assets or the loss in future revenue if they cut their output. They'll need support from advanced economies in the form of subsidies to keep resources in the ground. A deal to support South Africa's transition out of coal has been under discussion. That could provide a model, and it would be a good start.

Faster progress is essential. It isn't enough for the governments attending COP26 to say all this. They need to act.

For more commentary, go to bloomberg.com/opinion

■ AGENDA

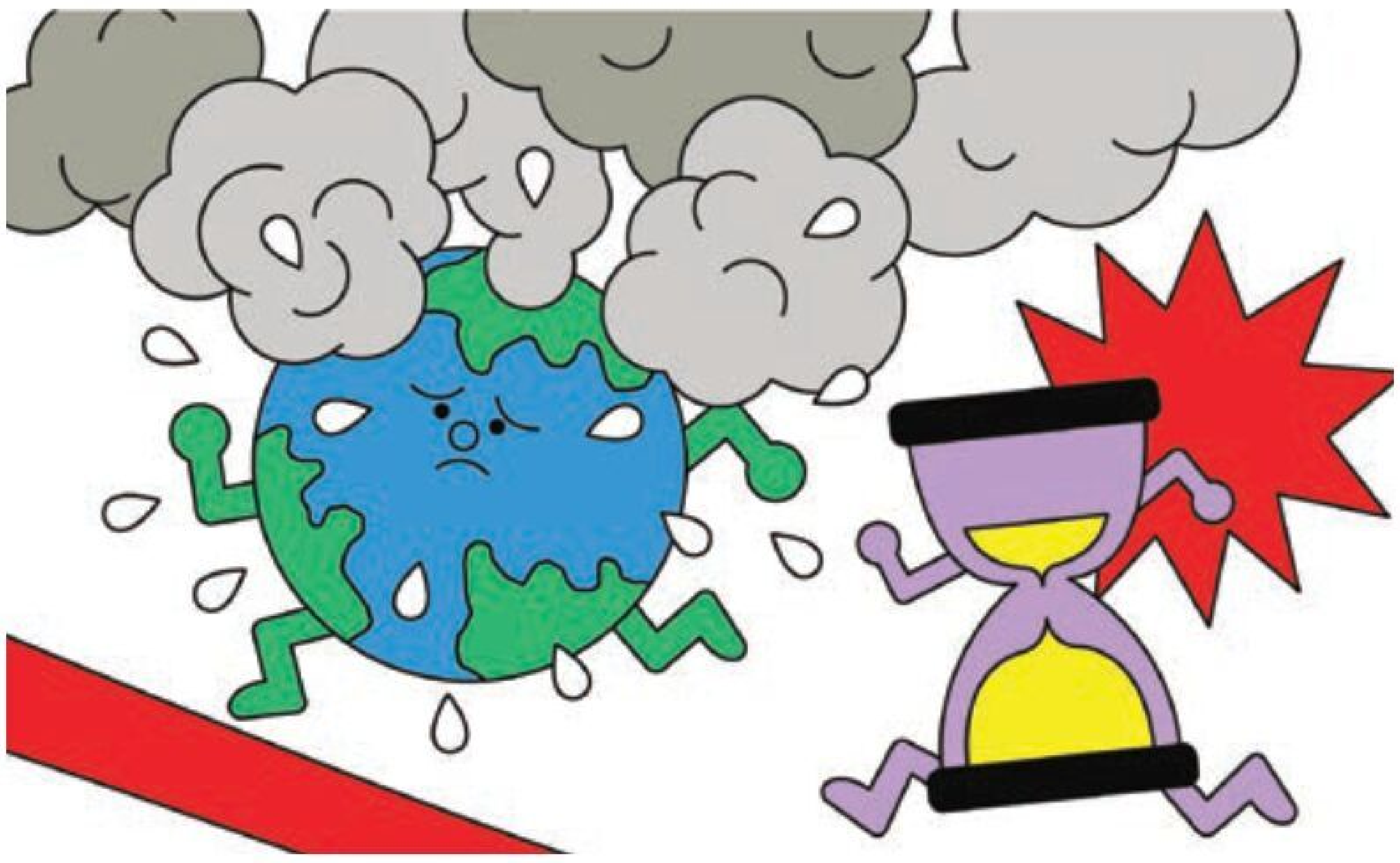


ILLUSTRATION BY LUCIA PHAM

► Hot Talk in Cold Scotland

The COP26 UN Climate Change Conference convenes its annual meeting on Oct. 31. Over two weeks in Glasgow, high-level delegates will discuss ways to cut global warming, but it's not clear what action they'll take. ▷ 38

► OPEC meets on Nov. 4 to consider its output policy. Oil prices are at a three-year peak, and most banks now see crude trading higher for a longer period as demand recovers.

► The Federal Reserve is expected to announce on Nov. 3 that it's scaling back asset purchases from $120 billion a month, a step toward the exit from pandemic monetary support.

► Credit Suisse presents earnings on Nov. 4. Banks are enjoying a very strong quarter, but investors will look for signs that the Swiss bank has left its scandals behind.

► The Aspen Security Forum takes place Nov. 2-4 in Washington. Global leaders will gather in person to discuss national security issues.

► The 4th China International Import Expo will be Nov. 5-10 in Shanghai. It's a forum for companies to display products and find partners in the world's No. 2 economy.

► The Web Summit technology conference happens Nov. 1-4 in Lisbon. Its speakers include Facebook whistleblower Frances Haugen and Shell CEO Ben van Beurden.

QCT | intel

THE SOLUTION TO REVOLUTION

80% OF BUSINESS LEADERS INCREASED THEIR TECH BUDGET DURING THE PANDEMIC

As the "Fourth Industrial Revolution" gathers pace, one company has quietly placed itself at the center of global digital transformation.

$250 BILLION expected to be spent on edge computing by 2024

The cloud industry will reach **$800 BILLION BY 2025**

5G continues to roll out globally with **60% FORECAST CAGR** through 2027

Crisis-fuelled investment in digital infrastructure and transformative technologies like 5G, Cloud Computing and Artificial Intelligence (AI) has been one of the most talked-about themes of the pandemic era.

The acceleration of the digital economy is likely to be one of the lasting legacies of COVID-19; an echo of the virus that will be heard long after the disease is finally brought under control. By 2024, an expected US$250 billion will be spent on edge computing, and the cloud industry will more than double in value to about US$800 billion by 2025. Meanwhile, 5G is continuing to roll out globally, expanding at a staggering forecast CAGR of 60% through 2027.

Digital transformation is now the top priority for business decision-makers worldwide. More than 80% of business leaders increased their tech budget during the pandemic, according to a Bloomberg study. And with decentralized workplaces now expected to be a permanent reality, issues such as cloud adoption are now a paramount concern for employers.

5G

CLOUD

AI

The scale and speed of this transformation – from 5G telecoms to hosting services to robotics to process automation to predictive remediation – is creating almost boundless opportunities, many as-yet unimagined. The potential of 5G, AI and Cloud will only become greater as the technologies mature and converge.

But there are also immediate challenges for companies to overcome.

IMMEDIATE CHALLENGES to Overcome

Nowadays, more and more businesses are looking for a "best-practice" system that meets specific workload demands. However, to build up an integrated workload-driven system with optimized performance requires considerable time and resources.

As the pandemic increasingly became a story of opportunity as well as crisis, businesses have also found themselves under pressure to transform quickly or risk losing competitiveness. At the same time, in this fast-changing environment, tech-spend decision-makers have countless choices to make, but only one chance to get it right.

Because Cloud, 5G and AI are all emerging technologies, many organizations lack the in-house resources to explore, plan, adopt and integrate them in a timely fashion. If they delay, they face the possibility of being left behind. If they make hasty or ill-advised decisions, they may be dealing with obsolescence sooner than they expect, which is expensive to remedy.

Too often, businesses postpone making one important decision by making lots of smaller, cheaper decisions: a bolt-on system here, a patched upgrade there. The result is frequently fragmented, inefficient and ultimately more costly, perhaps involving competing service-providers.

The answer – to find an integrated solutions provider – may seem obvious but, perhaps surprisingly, companies that specialize simultaneously in AI, 5G and Cloud are rare.

Quanta Cloud Technology (QCT) is one of those companies.

INTEGRATED **CAPABILITIES,** technologies and solutions

Since 2012, QCT has been at the forefront of these solutions, building digital ecosystems with leading companies such as Intel. But more than just a hardware developer, QCT has evolved into a global business with innovations and patents that have earned the company, along with its parent company, Quanta, a spot among the Top 100 Innovators by Clarivate Analytics for consecutive years. Operating at the very heart of the digital industrial revolution, QCT now offers a vast suite of solutions and servers for data center to edge computing and beyond.

QCT's solutions span all industries and requirements. For instance, for businesses contemplating the difficult next-step decision in their digital transformation, QCT offers a behind-the-scenes move to the cloud or next-generation on-site infrastructures using QCT's integrated suites of HW and SW solutions powered by 3rd Gen Intel® Xeon® Scalable Processors that are based on a balanced, efficient architecture that increases core performance, memory, and I/O bandwidth to accelerate diverse workloads from the data center to the edge. This combination of leading technologies and innovations guarantees the reliability, availability and scalability required to support new business initiatives while offering shorter time-to-value and substantially lower costs.

"QCT provides a vast portfolio of integrated solutions with certified hardware designs backed by an ecosystem of leading partners. No matter which route our customers go for – direct or indirect – QCT is always there to support them with solutions that are optimized for their particular workloads."

Mike Yang, President of QCT

For almost a decade, QCT's industry-defining customers have relied on the company's key characteristics.

SMART

QCT has a track record of developing AI-driven high performance systems, including its TOP500 Taiwania 2 and Taiwania 3 supercomputers with collaborative GPU and CPU clusters to combat some of the most challenging computational workloads.

SPEEDY

QCT is able to deliver solutions with quicker time-to-market and significant cost reductions when compared to traditional implementations. QCT provided its hardware solutions to support Rakuten Mobile's rapid buildout of the world's first fully virtualized cloud native mobile network.

SCALING

Scalability is in the very DNA of the company, having grown with their customers from nodes and single-site racks to multiple-site racks in a single region, to hyperscale deployments across continents.

READINESS

QCT offers optimized and pre-validated solutions with our ecosystem of globally recognised partners. QCT never stops developing and absorbing new technologies to meet customers' never-ending need for performance enhancements. The company has worked with world-leading partners such as Intel to tap into technologies ahead of industry peers.

"Before our customers even come to us, we are always ready with something that can make their business better," Yang said. "Businesses from SMEs to multinationals are facing their most critical technology decisions in a generation. Successful adaptation to the digital economy requires the kind of integrated, nimble solutions QCT offers."

Whatever questions businesses are asking themselves about digital transformation, QCT and Intel is the answer.

For more information about QCT visit go.qct.io/solutions/

Xi Hits the Campaign Trail (Really)

● Even in communist China, the president must bolster support and woo the elite to secure another term

● By Rosalind Mathieson

It's a delicate time to be in charge in China.

Every five years a big meeting rumbles around in the world's second-largest economy. While China isn't a democracy, the Communist Party leadership meeting next year will be an election of sorts. President Xi Jinping, having coalesced power around himself and secured a constitutional rewrite to bust presidential term limits, is going for an unprecedented third term.

To secure it, he'll need the endorsement of the powerful Central Committee and the more than 2,000 officials who will attend the 20th National Party Congress in 2022, likely late in the year.

"Elite politics in China have always been high-stakes and high-competition," says Drew Thompson, a visiting senior research fellow at the Lee Kuan Yew School of Public Policy at the National University of Singapore. Winning over influential party members is "going to require lobbying" by Xi, he says, and the congress is also an opportunity for Xi's critics "to coalesce and potentially challenge him."

The action begins well before the congress starts. The Central Committee will first meet from Nov. 8 to Nov. 11 this year. That plenum will bring together state leaders, ministers, military chiefs, and provincial bosses. State-run


Tibet, July 21


Hebei, Aug. 23

Xinhua News Agency reports that they'll review and adopt a resolution on the party's major achievements during its first century.

There's little indication that Xi, 68, will face a serious challenge, analysts say. But like his predecessors, he needs to keep China's citizens happy and burnish his credentials as their leader. In recent months he's spearheaded a national campaign to achieve "common prosperity." He's smacked down big companies such as Alibaba Group Holding Ltd. and DiDi Chuxing Technology Co., taken steps to rein in a culture of long hours and general mistreatment of workers, and pushed the country's billionaires to better distribute wealth. The crusade has a core imperative for Xi: to sell the Chinese dream.

Preserving his power requires a laserlike focus on matters at home. That could explain why Xi hasn't left China in almost two years. And why he's expected to skip in-person appearances at two major gatherings starting on Oct. 30: the Group of 20 summit in Italy and the COP26 climate meeting in Scotland.

The Covid-19 pandemic does give Xi a rationale for his choice to stay home and stay focused on domestic affairs. China's "Covid-zero" policy keeps it largely shut off to the outside world, and recent outbreaks have spurred fresh lockdowns in the north.

The advantages that summits and high-profile overseas trips offered during Xi's early years in power have diminished, says Katie Stallard, a fellow at the Wilson Center, a Washington, D.C., think tank. Now he's probably more interested in the optics of being seen to battle poverty, inequality, and corruption than "in walking red carpets with other international leaders," she says.

When he attends summits, Xi arguably doesn't "do" much business. Other leaders take the chance to have corridor conversations and impromptu group chats. Not Xi. His schedule follows a careful script: Attend plenaries, have stilted and formulaic bilateral meetings, meet with the local Chinese community, and leave.

In declining to travel, Xi could be missing an opportunity to better defend China against criticism on human rights amid a hardening of international views, with strategic alliances forming against China and countries starting to bar Chinese investment. But for Xi, the benefits of staying home outweigh those of going abroad. “Xi arguably believes that global leaders are eager to come to him, and thus he doesn’t need to expend energy traveling abroad—or risk being publicly lectured by other leaders about China’s human rights,” Stallard says. “From his vantage point, access to China’s economy remains a significant enough draw that he likely believes he is holding most of the leverage.”

China is “past that stage in development” where Xi needs affirmation from meeting with President Joe Biden, Thompson says, and Xi can gain “maybe more domestic political credibility by being able to firmly tell the West where to step off, where to back down.” And Xi in recent weeks has managed to take steps to improve ties with other countries while remaining in China, setting up a virtual meeting with Biden and planning a European Union summit for later this year.

The Chinese president isn’t alone in likely skipping a trip to Rome: Russian President Vladimir Putin is going to dial in to the G-20 from afar. Japanese Prime Minister Fumio Kishida has an election then.

Still, Xi’s reluctance to go anywhere stands out. Even Mexico’s famously frugal and travel-averse President Andrés Manuel López Obrador left the country during the pandemic last year, taking commercial flights to see then-President Donald Trump in Washington. It’s all the more stark given how busily Xi has been traveling within China. In September he toured Shaanxi province in the northwest, which is dotted with tourist sites commemorating key points in the early history of the Communist Party. Mao Zedong held a meeting in 1947 in the area that was attended by Xi’s father, Xi Zhongxun, a high-ranking party official who was purged and then rehabilitated. In August, Xi went to the northern province of Hebei, where he visited a farm and elder-care facility. In July he went to Tibet, making his first trip as leader to the border region.

By embarking on such a tour, Xi is visibly tying the fortunes of China to his own stewardship. The upside is that he personally gets the credit when things go well. The downside is that he, rather than the party, could be on the hook if they don’t. China, like other nations, is experiencing supply chain and energy shortages affecting both factories and households heading into the winter months. Xi must also carefully navigate the problems at the deeply indebted property giant

Shaanxi, Sept. 13

XINHUA/GETTY IMAGES (4)

Shandong, Oct. 21

China Evergrande Group, whose failure could pose systemic risk and hurt investors and homeowners. Scattered protests by Evergrande investors have broken out across the country.

Past leadership meetings have been fraught, and in the runup to next year’s, Xi is working hard to avoid problems. Common prosperity is clearly Xi’s vehicle. He also took personal credit for the release of Meng Wanzhou—Huawei Technologies Co.’s chief financial officer—from house arrest in Canada, where she’d battled extradition to the U.S. on fraud charges for almost three years.

And Xi is again campaigning against graft, something that could play well with the public. China is inspecting financial regulators, big state-run banks, insurers, and bad-debt managers for the first time in six years to root out corruption in the financial system. In early October officials announced they’d placed former Justice Minister Fu Zhenghua under a disciplinary probe, days after former Public Security Vice Minister Sun Lijun was expelled from the party and accused of “cultivating personal power.”

After earlier crackdowns on the military, police, and legal system, Xi is “moving on to targeting the ‘money bags,’ ” says Chen Daoyin, a political commentator and former professor at the Shanghai University of Political Science and Law. “He has made quite a few enemies.” Chen says it’s unlikely that Xi will leave the country until after the party congress is over. That way he can keep on top of potential threats. “Xi knows he has to brave the ‘foul wind and bloody rain’ until then,” says Chen, quoting a Chinese proverb. From a Western perspective, that might appear paranoid or weak, he says, “but if we try to see China with China’s own lens, it’s not the case.”

When Xi gets his endorsement from the Central Committee, that’s where Taiwan could come in, Thompson speculates. The party’s goal of unification with Taiwan has failed to progress, and, if anything, the democratically governed island is moving further away from China. Xi could be “effectively goaded” by hawkish Central Committee members “into making long-term preparations for an invasion of Taiwan to force unification, because there is no prospect for it to happen peacefully,” Thompson says.

War with Taiwan remains unlikely anytime soon. But the risk, Thompson says, might be that Xi’s getting another term starts the clock on a forcible unification with Taiwan. Ⓑ

Selling China on La Dolce Vita

Venerable Italian coffee brand Lavazza has big plans in a market Starbucks rules

For millenniums the Chinese have turned to tea as their beverage of choice, typically jasmine or green varietals sipped from small porcelain cups. Then in 1999, Starbucks Corp. opened a Beijing beachhead that spawned thousands of other outlets across the country over the next two decades and got locals hooked on U.S.-style coffee concoctions, from nitro cold brew to pumpkin spice latte.

Now one of the biggest names in Italian coffee culture says it wants to serve up the real thing. Lavazza Group has big ambitions for its Chinese foray. By 2025 the Italian family-owned company wants to have 1,000 outlets in China. Lavazza opened a flagship outpost in Shanghai last year and has since added more coffee shops across the country. With design features including wall murals, traditional mocha machines, and white marble trimmings, the Shanghai store evokes an air of Italian dolce vita that the company hopes will resonate with Chinese consumers eager to embrace European luxury and style. "Lavazza has the opportunity to be perceived as a quality ▶

ILLUSTRATION BY STELLA MURPHY

Edited by James E. Ellis and Benedikt Kammel

◀ European brand, with an espresso heritage appealing to the most sophisticated consumers," says Jeffrey Young, chief executive officer and founder of Allegra Group Ltd., a strategic advisory firm.

Carving out a slice of the Chinese market won't be easy for Lavazza, despite its more than a century of experience in coffee culture. It took Starbucks over a dozen years to open 1,000 coffee shops in the country, and now the company is a dominant force with more than 5,000 outlets. Besides, Starbucks has decades of experience perfecting its network around the globe. Lavazza, by contrast, is principally known as a seller of high-quality beans rather than an established retailer, with only a shop in London and one in Milan besides the Chinese stores.

But Lavazza has a potential ace up its sleeve. A year ago the Turin-based company formed a joint venture with Yum China Holdings Inc., a local operator with exclusive rights in mainland China to popular restaurant brands including KFC and Pizza Hut. Lavazza will benefit from access to Yum's supply chain and logistics infrastructure, as well as its knowledge of the local market. Yum owns 65% of the partnership, and Lavazza holds the rest. The partners are injecting $200 million into the venture to fund growth.

"The Chinese market represents a huge opportunity," says Lavazza CEO Antonio Baravalle. "Yum China is a world-class player in the food business. We are a 126-year-old Italian company offering know-how, original coffee recipes, a well-known brand, and a mix of fashion and glam that Chinese people appreciate."

Already, the Lavazza locomotive is picking up speed in China, with more than 20 cafes that have cropped up across Shanghai, Hangzhou, Beijing, and Guangzhou. "Lavazza would have really struggled without a strong partner in China," says Mark Tanner, managing director of Shanghai-based marketing and branding firm China Skinny. "Starbucks has an unusually large market share, which leaves the other competitors to fight for the scraps."

Most industry observers expect China to become a predominantly coffee-drinking nation over the next five years, with the market growing at a compound annual rate of more than 10% through 2026, according to Mordor Intelligence market research. Mordor's forecast shows the U.S. coffee market expanding at about half that rate from 2020 to 2025.

Sales at China's specialist coffee and tea shops surged to $7.7 billion in 2020, up from $551 million in 2010, according to Euromonitor International. The country is now home to more than 21,000 coffee outlets, a 2020 report from Allegra showed.

Starbucks has been growing steadily in the country since 1999. The Seattle-based company can take credit for largely introducing the Chinese to specialty java drinks, especially consumers in the so-called Tier 1 cities of Beijing, Shanghai, Guangzhou, and Shenzhen.

Starbucks has a goal for more than 6,000 outlets by the end of fiscal 2022. There are over 15,000 Starbucks cafes in the U.S. Despite more competition and slower sales over the past 19 months because of Covid, the company is continuing to invest in China and is bullish on the market long term, CEO Kevin Johnson said in July.

For Lavazza, a company founded in 1895 and owned by the same family for four generations, having an authentic heritage is a unique selling point. "This is the perfect marriage," Baravalle says of Yum. He sees the Yum partnership going beyond coffee shops, with the venture becoming the distributor in China for Lavazza products including coffee capsules in both the wholesale and retail segments. "It's a work in progress," he says.

Another advantage of the Yum alliance is that it might shield Lavazza from a creeping nationalism that's accelerated a shift in China toward domestic businesses. Foreign giants such as Nike Inc. and Adidas AG have faced pressure, with shoppers boycotting them for taking a stand against the treatment of Muslim Uyghurs in the Xinjiang region.

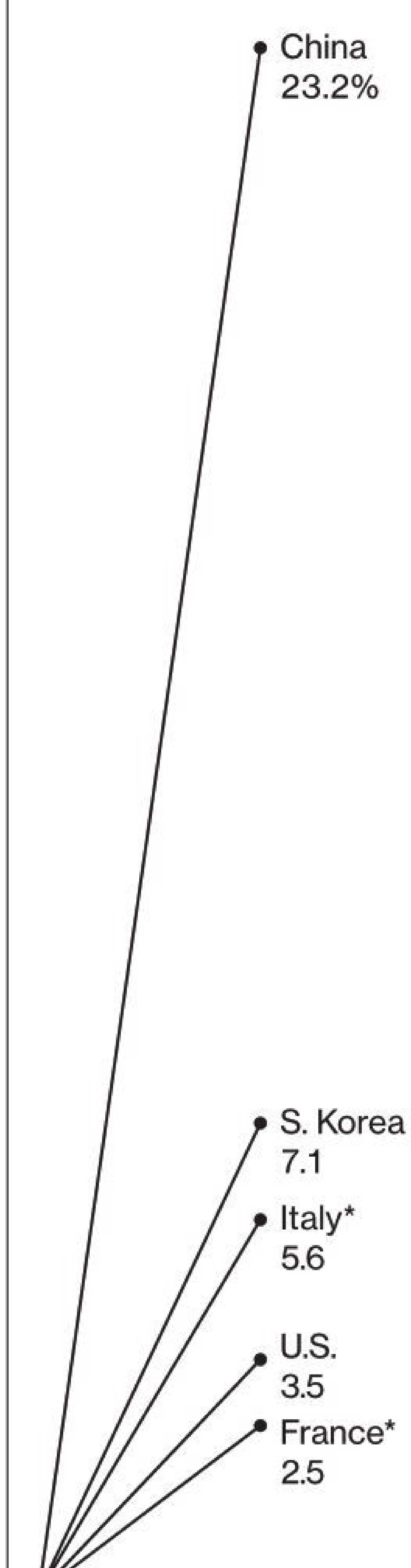
Baravalle says the China cafes will offer slightly different blends and food items to appeal to local tastes, alongside traditional Italian dishes like lasagna served in a decor featuring images of Italian movies and landmarks.

Still, such flourishes may not be enough to entice local consumers who've become accustomed to Starbucks, says Jason Yu, managing director of research firm Kantar Worldpanel Greater China. "Pure 'Italian origin' may not be sufficient to win young consumers who have more confidence in local culture and lifestyle," Yu says. *—Flavia Rotondi and Daniela Wei, with Leslie Patton*

THE BOTTOM LINE The market for coffee drinks in China is growing at twice the rate of the U.S. Italian brand Lavazza thinks that momentum will allow it to open 1,000 espresso shops by 2025.

▲ A Lavazza coffee shop in Shanghai

▼ Growth of branded coffee shops, 2018 to 2019



LAVAZZA: COURTESY LAVAZZA. FOX: ZACK DEZON/BLOOMBERG. *ESTIMATE. DATA: WORLD COFFEE PORTAL

Fox Wants to Profit From Your Rainy Day

● Its new weather streaming service is betting on digital sizzle and customized forecasts

Amid all the droughts, forest fires, floods, hurricanes, and tornadoes that have battered America this year, Rupert Murdoch sees an opportunity to make it rain. On Oct. 25 his media empire introduced Fox Weather, a 24-hour streaming service to take on meteorological incumbents such as the Weather Channel and capitalize on the increasingly frightening state of Earth's daily forecasts.

As weather events grow more intense, Fox Corp. executives are betting that consumers are hungry for more than just an iPhone app that tells them the temperature and whether to carry an umbrella. "We're looking to make weather more than just this utility," says Sharri Berg, president of Fox Weather.

The service's studio on the 12th floor of Fox's Manhattan headquarters boasts a battery of meteorological innovations, including something called the "The Sky Dome," a tricked-out studio ceiling outfitted with LED lights, which change color in concert with the time of day and the ever-shifting whims of the weather gods. When the forecasts get severe, the whole thing glows red. "It's pretty dramatic," Berg says.

The Fox Weather online service and app are free and will generate revenue from advertising. Besides programming from the New York studio, there will be regional weather updates from Fox's many local broadcast stations across the U.S. Among other novelties, the Fox Weather app has taken 3D technology typically used in video games and repurposed it for radar, allowing users to zoom in and out of real-time images of developing storm systems.

For sports fans and bettors concerned about how the wind or rain or sunshine may impact upcoming games, Fox Weather will pull in data and live video feeds from professional and college stadiums via a partnership with WeatherSTEM. It will also aim to make the science of meteorology more relevant to people's lives. Users can get alerts for 42 kinds of weather. They can learn about funnel clouds or graupel, a type of soft hail. When planning upcoming life events, Berg says, they can track forecasts several months into the future using the same data that many companies rely on to predict what supplies to buy for the following year. "I think wedding planners are going to want to advertise on this," Berg says.

By squaring off against a well-established incumbent, Murdoch's new venture calls to mind some of the most audacious and successful gambits of his career, from challenging ABC, CBS, and NBC with the advent of the Fox broadcast network in 1986 to taking on CNN with the launch of Fox News in 1996.

The Weather Channel isn't standing still. Next year, the network, which is backed by entrepreneur Byron Allen, will launch two streaming services, including one that will offer access to its signature TV network bundled with more than 50 news and entertainment channels. When asked about the challenge posed by Fox Weather, Allen says he doesn't feel threatened because of the Weather Channel's strong trust with viewers.

"That isn't something you get overnight. You have to earn it from the American people over many decades," he says. "This is a 40 year-plus relationship with the American audience, and I don't think that will be disrupted in any way."

If anything, Allen says, the competition from Fox Weather will only force the Weather Channel to get better. "There is no Muhammad Ali without George Foreman," he says.

The Weather Channel is expected to generate $305 million in revenue in 2021, about the same as last year, largely from advertising and fees from pay-TV providers, according to Kagan, the media research unit of S&P Global Market Intelligence. Moving forward, Allen sees the planet's intensifying weather as an opportunity for meteorologists to play a larger role in the lives of its customers. ▶

◀ Meteorologist Craig Herrera on the set at Fox Weather's Manhattan studio

◀ Viewers, he says, "are starting to connect the dots" that climate change is causing more severe weather "as they see their cars floating down the streets of Manhattan."

Fox's big push into the field is drawing some skepticism, in part, because of how Fox News personalities have dismissed climate change. Last year, Murdoch's son, James, took the rare step of publicly criticizing the climate coverage by his family's businesses. And Michael Mann, a professor of atmospheric science at Penn State and author of the book *The New Climate War*, in an email called the Murdoch media empire "the greatest promoter of climate change disinformation over the past two decades."

But Berg disputes any suggestion that Fox Weather will be turning a blind eye to climate change. "There is no doubt climate change exists, and its effects are part of our everyday lives," she says. "We will not be debating or ignoring it. We'll be translating the science and data into understandable information our audience needs." *—Gerry Smith*

THE BOTTOM LINE Fox News is known for its opinion hosts who are skeptical of climate change. Now the parent company's new Fox Weather service hopes to make money explaining its impact.

Covid Hasn't Grounded Airline Startups

● Planned new carriers have boomed because of ample workers and cheap used planes

It's difficult to think of an industry that's been slammed harder by the pandemic than aviation. Losses are set to hit $201 billion from 2020 to 2022, erasing almost nine years of earnings. Dozens of carriers have bowed out, and millions of jobs don't exist anymore. But that hasn't been enough to stop some entrepreneurs from creating airlines in Asia, Europe, and the U.S.

In Hong Kong, property tycoon Bill Wong is starting a carrier, hoping to take on flagship Cathay Pacific Airways Ltd., which got caught up in political fallout from 2019's anti-China protests even before the pandemic. In India, one of the world's most cutthroat aviation markets, billionaire investor Rakesh Jhunjhunwala is pumping money into newly formed Akasa Air. In the U.K., a former JPMorgan trader is starting an airline called Flypop in a bid to fly expatriate Indians to their homeland and link London to India's secondary cities. And in the U.S., David Neeleman—who earlier founded JetBlue Airways, Azul Brazilian Airlines, and Canada's WestJet—took to the skies in May with his newest venture, Utah-based Breeze Air, which provides nonstop service between smaller American cities such as Louisville, Tampa, and Tulsa.

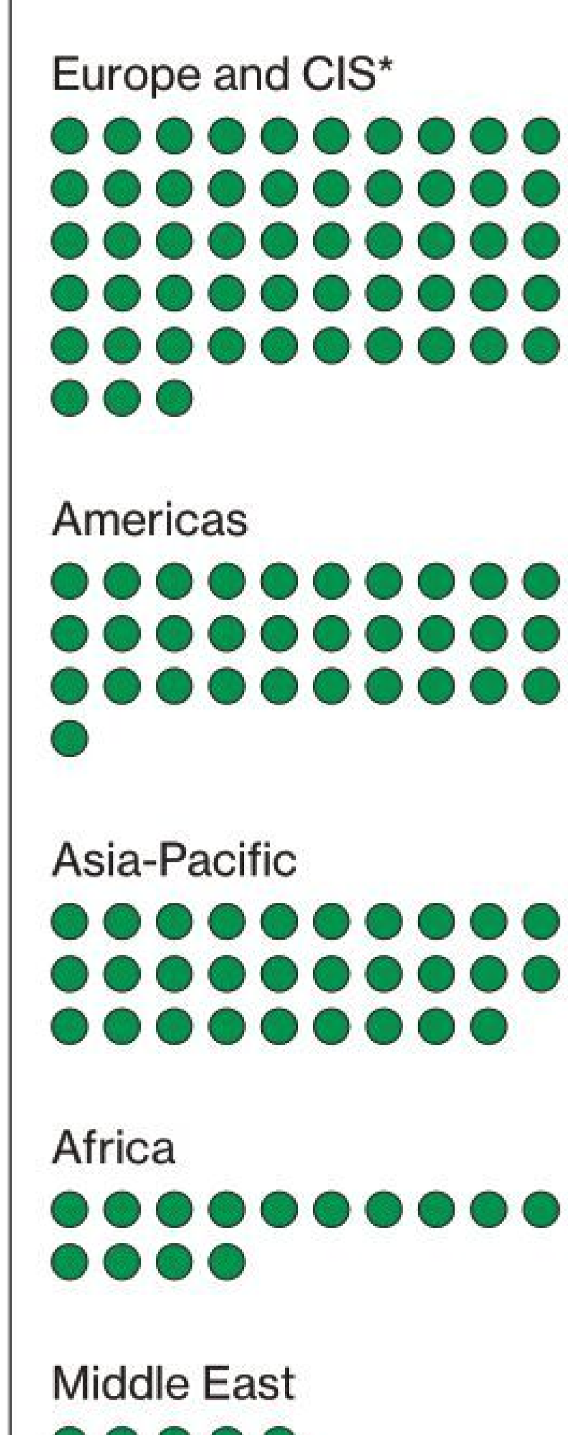
The optimism stems from a partial revival in travel demand, as vaccinations have encouraged nations to open up their borders. At the same time, the Covid-fueled demise of many carriers has allowed newer airlines to pick up laid-off pilots, cabin crew, and ground staff at reduced salaries. And rates for used planes are especially attractive.

For many new carriers, the focus is on the low-cost model, with plans to tap tourism. Although companies have traditionally been willing to pay more for their workers' business travel, the timing of a resumption of such flying remains uncertain now that many employers have seen how much can be done over cheap Zoom video calls.

"What we're talking here is…the market that's looking to get away for three or four days, maybe go to a capital city they've not explored, go to a new beach, a new destination," says Tim Jordan, a former executive at Virgin Blue and Cebu Pacific who's the founder of Bonza, an Australian airline that aims to start flying in the second quarter of next year. "History has shown us that as you come through various crises—whether it's 9/11, the global financial crisis, or Covid—the businesses which recover and grow fastest coming out of those crises are the low-cost carriers."

Nino Singh Judge, the founder of the U.K.'s Flypop, agrees with Jordan. "Legacy airlines are going to suffer as they rely on business and first class to subsidize their economy class," he says. Flypop, which will focus on the so-called visiting-friends-and-relatives market with a low-cost,

▼ Startup airlines that planned to launch in 2021, as of May



long-haul model, is backed by private equity and U.K. government funds.

But the airline business is notoriously tough, even for no-frills carriers, with wafer-thin margins and colossal losses for many. Warren Buffett exited all his airline positions for a second time last year. “The world changed for airlines,” he said as he announced his decision to stay away from airline investments in 2020.

That’s not stopping newcomers. Research from U.K.-based IBA Consultants showed that, as of the start of the 2021 summer season, some 132 would-be airlines were planning to commence flying this year, with most seeking to revive routes left vacant by schedule cuts or the demise of an incumbent airline.

That compares with about 100 planned annually prior to the coronavirus pandemic—of which only about 20% ever got off the ground. Half of those that did failed in their first 24 months, according to IBA President Phil Seymour. But a drop in oil prices in the middle of the last decade reduced the break-even point for carriers and led to a surge in activity that saw the number of announced startups top 150 a year, IBA says.

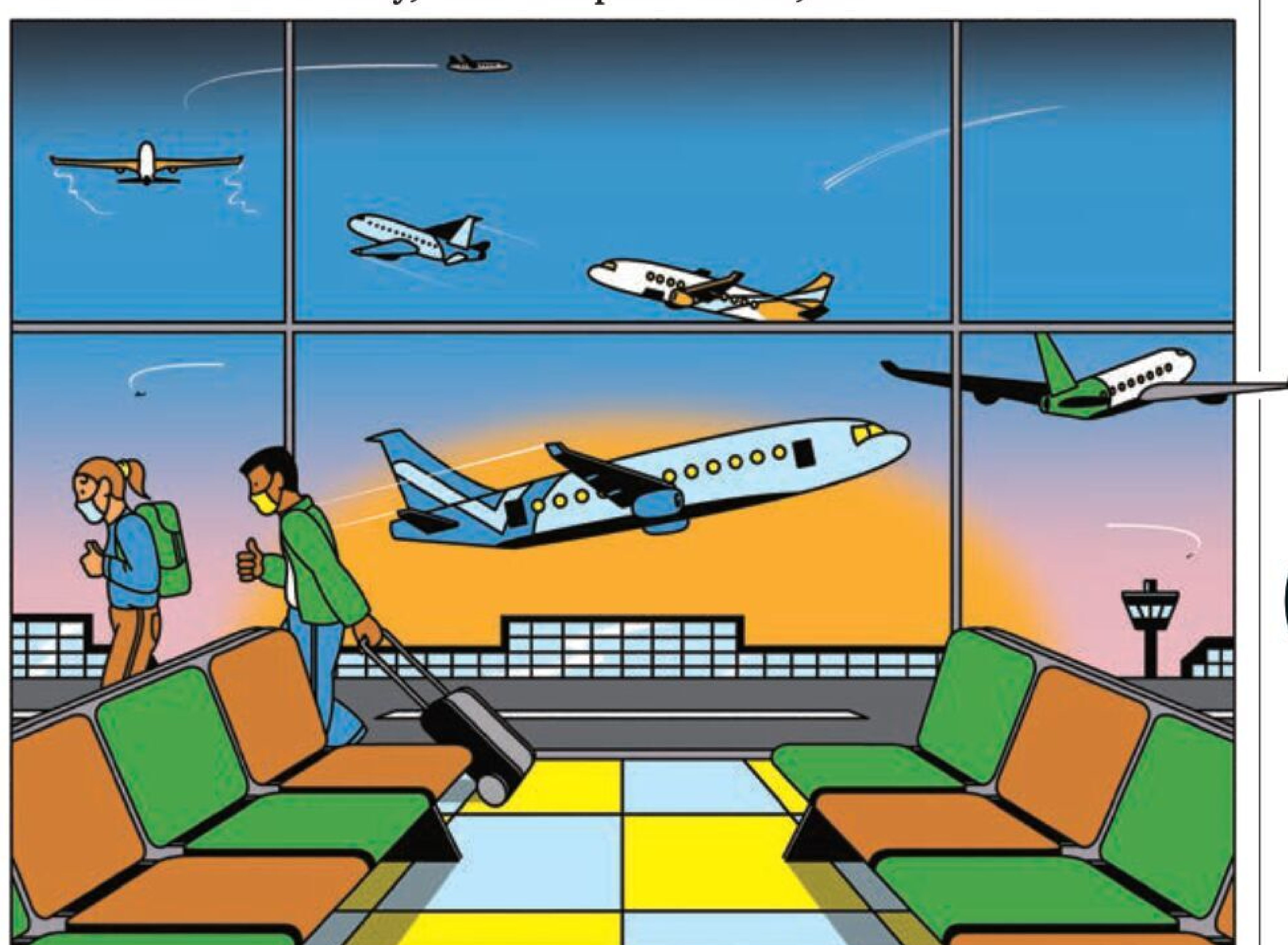
“The airline business has a certain allure that can fool the savviest and smartest of entrepreneurs into believing they can become successful,” says Shukor Yusof, founder of aviation consulting firm Endau Analytics in Malaysia. “Investors and businessmen feel the situation brought about by Covid has presented a once-in-a-lifetime opportunity to enter a very sexy industry.” The barriers to entry are currently very low, with aircraft at “almost give-away prices” and rentals at a fraction of what they were pre-pandemic, according to Yusof.

The availability of used narrowbody jets—Boeing Co.’s 737 and Airbus SE’s A320 family, both popular for short-haul and regional routes—has more than doubled since the onset of the pandemic, and most startup airlines are looking for such aircraft, says Rob Morris, the global head of consulting at Ascend by Cirium. For these models, monthly lease rates have slumped by as much as 40%, and lessors have also started offering attractive deals, including allowing airlines to only pay for the time a plane is in revenue service, he says.

The current ample supply of skilled labor is another reason startup airlines are getting enthused. Covid may wipe out 2.3 million existing jobs directly involved with airlines, airports, manufacturers, and air traffic management, while a total of 44.6 million jobs supported by aviation are also at risk, according to the International Air Transport Association. Most pilots and crew that Hong Kong’s Greater Bay Airlines is hiring, for example, are former employees of Cathay, Dragonair, or Hong Kong Airlines.

Startup carriers have the luxury of “year one” labor costs in a pandemic-disciplined wage market, says Robert Mann, the New York-based head of aviation consulting firm R.W. Mann & Co. But retaining skilled employees, including pilots, dispatchers, and mechanics hired during the pandemic, is already proving to be a challenge as the labor force starts returning to legacy carriers with higher wages, he says.

The enthusiasm isn’t limited to setting up commercial carriers. In Italy, Italia Trasporto Aereo, the



state-owned successor to bankrupt Alitalia, started flying in October, even though it acknowledges survival will be difficult without funding from a large airline. Cyrus Capital aims to resurrect Britain’s Flybe after buying the brand from administrators, while a group of investors in India is trying to revive Jet Airways India Ltd., which collapsed under a pile of debt in 2019. And Tata Sons, India’s biggest conglomerate with a salt-to-software empire, is buying loss-ridden, debt-laden national carrier Air India, adding a third airline brand to its existing joint ventures with Singapore Airlines and AirAsia Group.

The economics driving such deals is also giving optimism to newbie carriers such as Flypop, which managed to lease Airbus’s A330 widebody jets at what it calls record discounts. Says founder Judge: “Even Warren Buffett can make mistakes.”
—Anurag Kotoky, with Christopher Jasper and Angus Whitley

THE BOTTOM LINE The global aviation industry is expected to lose about $200 billion during the pandemic, yet 132 startups are vying to take to the skies in the post-Covid era.

ILLUSTRATION BY JACK TAYLOR. *COMMONWEALTH OF INDEPENDENT STATES. DATA: IBA

Facebook Knows It's Losing The Kids

● Pessimism about young users was one of the skeletons it wasn't revealing to investors

In March a group of researchers inside Facebook Inc. compiled a report for Chris Cox, the chief product officer, to highlight a troubling trend that seemed to be accelerating: Facebook was losing popularity among teens and young adults.

One colorful graphic showed that "time spent" by U.S. teenagers on Facebook in early February was down 16% from the previous year and that young adults in the U.S. were also spending 5% less time on the social network. The number of new teen sign-ups was declining, and people were joining later in life.

Most people born before 2000 had created a Facebook account by age 19 or 20, the research showed. Facebook wasn't expecting people born later to join the social network until they were much older, perhaps 24 or 25, if ever.

The report is among hundreds of internal documents collected by former Facebook employee-turned-whistleblower Frances Haugen, who went public in early October with accusations that Facebook has been prioritizing profit over user safety and security. The documents were disclosed to the U.S. Securities and Exchange Commission and provided to Congress in redacted form by Haugen's legal counsel. A consortium of news organizations, including Bloomberg News, obtained the redacted versions. Some of the documents were previously used in stories on growth, teenagers, and other topics by the *Wall Street Journal*.

Taken together, the documents show that on a wide range of hot-button issues—misinformation, hate speech, the impact of Facebook's products on young people—the conversations taking place within the company were very different from the picture it presented to outsiders. They raise new questions about how Facebook handled some of the most controversial issues surrounding its operations and have prompted calls for Congress to pass regulations.

The documents on teenage users paint a stark picture, showing that fewer teens are signing up for the service, that many new teen accounts are duplicates rather than actual new users, and that young Facebook users are creating fewer posts. Despite detailed research, employees don't fully understand why these trends are happening or why product changes have failed to reverse them.

Facebook executives have been markedly less forthcoming about those concerns in public, a discrepancy that shows Facebook hasn't been transparent with investors and advertising clients about its core business, according to a formal complaint Haugen has filed with the SEC.

Facebook is "confident that our disclosures give investors the information they need to

Edited by Joshua Brustein

PHOTO ILLUSTRATION BY 731; PHOTO: GETTY IMAGES. HAUGEN: MATT MCCLAIN/THE WASHINGTON POST/BLOOMBERG. DATA: EMARKETER ESTIMATES FROM INSIDER INTELLIGENCE PUBLISHED IN APRIL make informed decisions," says Joe Osborne, a Facebook spokesman. "Our products are still widely used by teens, but we face tough competition from the likes of Snapchat and TikTok." Mark Zuckerberg, Facebook's chief executive officer, acknowledged the issues with young adults during its most recent earnings call, saying it would reprioritize product efforts to attract 18- to 29-year-olds even at the expense of older users. "Young adults have been a strong base, and that's important because they are the future," Zuckerberg added.

Federal securities laws require that companies be truthful when making statements to shareholders, and Facebook has already been accused of violating those demands. In 2019 it paid $100 million to settle SEC allegations that it made misleading statements about the misuse of user account data by Cambridge Analytica Ltd., a consulting company that former President Donald Trump's campaign had hired.

The recent whistleblower allegations will likely put Facebook in the SEC's crosshairs again, says James Cox, a professor at Duke University School of Law who focuses on securities regulation. "If I were at the SEC, I'd map out the statements Facebook made over time and then line them up with the documents from the whistleblower," he says. "You're going to find a lot of round pegs that don't fit into square holes."

Facebook acknowledged a teen retention issue on an earnings call in 2013, according to a review of transcripts by Bloomberg News. In other instances when analysts have asked about teens on quarterly earnings calls, Facebook has declined to share specifics.

In her letter to the SEC, Haugen also says Facebook is mischaracterizing its growth by failing to disclose that many accounts belonging to teenagers are actually duplicate accounts, an issue that is already the subject of a separate lawsuit against the company. A 2017 internal study found that more than 15% of all new Facebook accounts created by teenagers were second accounts—what the company calls SUMAs, or single user multiple accounts. In the U.S., 11% of all teen Facebook accounts were SUMAs as of January 2018, according to one report. That amounted to more than 1 million accounts.

Duplicate accounts on Facebook are leading to "extensive fraud" against advertisers, Haugen alleges. They raise the risk that advertising aimed at different accounts is actually directed at the same person and that advertisers are overcharged.

A 2018 analysis on duplicate accounts from the internal documents estimated that a majority of so-called reach and frequency advertising campaigns using broad audience targeting would see an audience reduction of 5% to 8% when SUMAs are accounted for. The report characterizes this effect as "limited." A company spokesperson says Facebook discloses that some ads reach duplicate accounts in the company's Help Center. The company discloses in filings that an estimated 11% of monthly active user accounts are duplicates.

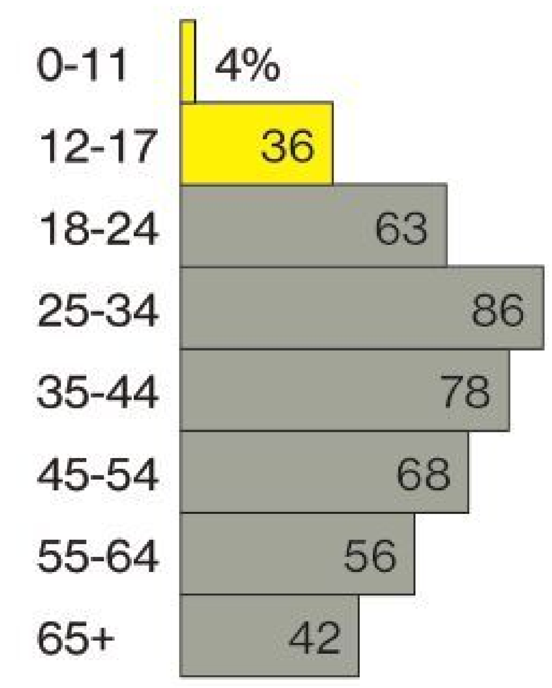
Facebook has been grasping for ways to turn around the app's fortunes with young people, according to the documents, conducting extensive research into their habits and perceptions of the company and brainstorming ways to boost engagement. One research report that Bloomberg reviewed shows Facebook tested different messaging features, such as emojis and face filters, with children as young as 6. Michael Sayman, who worked on Facebook's Teens Team, focused on building products for young people after joining the company when he was 18 and would present internally on teen-related topics with employees who were interested in a young person's perspective. "The whole company was just trying to understand a generation that they weren't a part of," says Sayman, who's no longer at Facebook and has since written a book that includes his experiences at the company.

Despite those efforts, Facebook is still struggling to attract teens and young people to its flagship app, according to the March 2021 internal report. Part of the issue, the company found in its research, is that Facebook doesn't offer young people a clear reason to use the network. One slide shows that even though young adults want to be "uplifted and motivated" by content they see, they perceive "content on FB as negative, fake, and misleading."

Facebook is also contending with increasingly robust competition from several other teen-centric apps. The March report found that users are spending more than twice as much time on ByteDance Ltd.'s TikTok than they are on Facebook. It also estimated that teens spend two to three times more on TikTok than they do on Instagram, despite recently adding a TikTok clone inside Instagram, called Reels.

For almost a decade, Facebook's strategy for appealing to teens has leaned on Instagram, and the photo-sharing app is still the focus of its strategy to lure the next wave of internet users. One internal study found that teens can "shape the household's perception of Instagram" based on how they use and talk about the app, meaning teen users can be a valuable vehicle for getting their siblings and parents to join. ▶

▼ Estimated share of U.S. population using Facebook in 2021, by age bracket




● Haugen

◀ Still, that family influence could have paradoxical effects. “Teens strongly influenced preteens’ understanding of what and how frequently to share on Instagram,” according to one internal report, and could be passing on their lack of enthusiasm for the app. “If this holds at scale,” the report continues, “teens could be creating sharing barriers for upcoming generations.” —*Kurt Wagner and David McLaughlin*

THE BOTTOM LINE Facebook has for years fretted that it no longer appeals to young people, all the while presenting growth numbers that make it hard for outsiders to track what’s happening.

The Man Behind the Metaverse

● Andrew Bosworth is in charge of the project Facebook sees as its future

Before the wave of stories published on Oct. 25 revealed new details about the troubling ways Facebook Inc. runs its social networks, the company had been hoping to spend the week talking about its plans to expand beyond that business. A major theme at its annual Connect conference on Oct. 28 will be the company’s ambitions for the so-called metaverse, a new digital space that it believes will supplant smartphone apps as the primary form of online interaction. Chief Executive Officer Mark Zuckerberg has said pursuing this path will transform Facebook, and has publicly set a goal of attracting 1 billion users to the metaverse by the end of the decade.

The metaverse has played a prominent role in science fiction for decades—the digital universes of the novels *Snow Crash* and *Ready Player One*, where characters live parallel digital lives to their physical existences, are metaverses. Video games such as *Roblox* and *Fortnite* are also similar to what Facebook has in mind. The idea is that smartphones are reaching their limitations in creating immersive computing experiences, and people will hunger to go further, opting to engage in three-dimensional digital interactions, for example, instead of doing video chats. “You can think about the metaverse as an embodied internet,” Zuckerberg told the tech news website the Verge last summer, “where instead of just viewing content, you are in it.”

The person in charge is Andrew Bosworth, a longtime executive and close friend of Zuckerberg’s who will take over as chief technology officer in early 2022. “We want to give people a glimpse into that vision, into that future,” says Bosworth, 39, known within the company as Boz. He describes the conference as a “love letter to the future of the metaverse.”

Facebook has been laying the metaverse’s foundation since at least 2014, when it bought the virtual-reality headset maker Oculus. Bosworth took over its virtual- and augmented-reality efforts in 2017, and his elevation to CTO signals the project is a high priority inside the company. Facebook recently said it would hire 10,000 people in Europe over the next five years to help create the metaverse, and told investors that its operating profit will be down $10 billion in 2021 because of investments in the division building it, and that the company plans to continue spending heavily for years before bringing in real revenue.

Facebook is playing both offense and defense here. If the metaverse becomes the next way of interacting online, the company will benefit from having had a hand in its design. Facebook has also long been aware that its access to users relies on such companies as Apple Inc. and Alphabet Inc.’s Google and their devices and operating systems, a vulnerability that has been highlighted by Facebook’s recent dispute with Apple over ad targeting. Facebook thinks that people will access the metaverse from their smartphones, but that increasingly they’ll use devices like the Facebook-owned Oculus VR headsets, which would be an obvious coup.

Facebook has already invested more heavily in the field than many people realize, says Tom Mainelli, vice president for device and consumer research at the research firm IDC. He sees the metaverse as key to the company’s plans to “diversify future revenue streams, cement its position in the next computing platform, and potentially rewrite its company narrative going forward.”

To fulfill its ambitions, Facebook will likely need cooperation from both a skeptical public and competitors it’s trying to circumvent—the metaverse idea only really works if Apple and Google users can play, too. Otherwise, says Bosworth, it’s just a bunch of universes.

The company is betting it can build the metaverse in a way that brings other companies

● Bosworth

PHOTOGRAPH BY JESSICA CHOU FOR BLOOMBERG BUSINESSWEEK. BOSWORTH: COURTESY FACEBOOK

▲ Oculus VR headsets, such as the one worn by Bosworth at Facebook's Burlingame Point offices, are expected to be a key part of the metaverse

along. Bosworth, who has been at Facebook for more than 15 years, has played a role in the creation of almost every one of its core products. He helped build News Feed, the main way people engage with the social network and the company's core moneymaker, as well as Facebook Groups, Messenger, and the network's ads team. For the past four years he's been running Facebook Reality Labs, the company's futuristic division building virtual-reality headsets, in-home speakers, and augmented-reality sunglasses. Zuckerberg considers him a close friend; their kids play together, and when Bosworth's home was under construction he rented a house from Zuckerberg, moving in next door.

Bosworth is much more visible than most Facebook executives, who generally keep low public profiles. He's a prolific user of both Facebook and Twitter, and (of course) he has a podcast.

Bosworth also considers himself a malcontent, and has shared provocative posts on internal Facebook forums. In one post, which he wrote in 2016 and was published in a 2018 BuzzFeed article, he suggested that the negative impacts of Facebook's platform—exposing people to bullies or enabling terrorist activity, for example—were just the price of fulfilling the company's mission to connect the world. "The ugly truth is that we believe in connecting people so deeply that anything that allows us to connect more people more often is *de facto* good," he wrote.

Bosworth says he didn't really believe this even at the time, and was instead trying to spark discussion. He says he was embarrassed about how it sounded to colleagues and the public, and has learned from it. "That was super painful to me," he says.

Bosworth's comments were particularly damaging because they reinforced the perception that Facebook callously pursues growth no matter the cost, a reputation that could be a barrier as the company seeks to build trust in its efforts on the metaverse. Facebook will have to completely change established norms of online behavior, says Pano Anthos, founder of the venture fund and startup accelerator XRC Labs, who attempted to build a version of the metaverse 15 years ago. "It's so early," he says, and Facebook "is going to spend billions and billions trying to get people's behaviors to adapt to this."

Facebook's strategy to defuse concerns about its intentions is to talk about them before the metaverse really exists, a seeming reversal of the grow-now-and-iron-out-the-kinks-later mindset that has led to many issues with its social networking products. Critics have suggested that the company's metaverse discussions are primarily designed to deflect uncomfortable questions about those other products.

For his part, Bosworth says Facebook has learned about the consequences technology has on society and thinks it has to have faith that it can do better this time around. "The products that we're contemplating have never existed," he says. "We have to make decisions on how they're going to be. And it just takes a degree of confidence to do that."
—*Kurt Wagner, with Clara Molot*

THE BOTTOM LINE Facebook wants to shift internet use toward augmented and virtual reality, and is investing billions in a strategy to do so.

The Market Has Doubts About Facebook, Too

● The company lags rivals on a key measure of investor confidence

Despite all Facebook Inc.'s problems—many of them put on display recently as journalists publish articles based on a trove of leaked documents—the company is one of the most valuable on Earth. Its nearly $900 billion market value makes it almost 10 times bigger than Twitter Inc. and 20 times bigger than Snapchat parent Snap Inc. But those headline numbers conceal an uncomfortable truth: Investors are less optimistic about Facebook's financial prospects than they are about those of its social media rivals—and the broader market.

The market values Facebook at 20 times its predicted earnings over the next year. This metric is a gauge of how healthy investors think a company's business model is, and how much more it can grow. Facebook is priced at a huge discount to domestic rivals: Snap trades at 118 times its expected earnings; Twitter at 63 times. Facebook's multiple isn't just lower than those of other tech companies. It's lower than the broad S&P 500 index, which trades at 21 times its cumulative predicted earnings. For a company that's long been positioned as a growth stock, that's a cause for concern.

This suggests that the main risks to the company's prospects—more-stringent regulation, stagnating user growth, and mounting competition—may already be reflected in the subpar valuation.

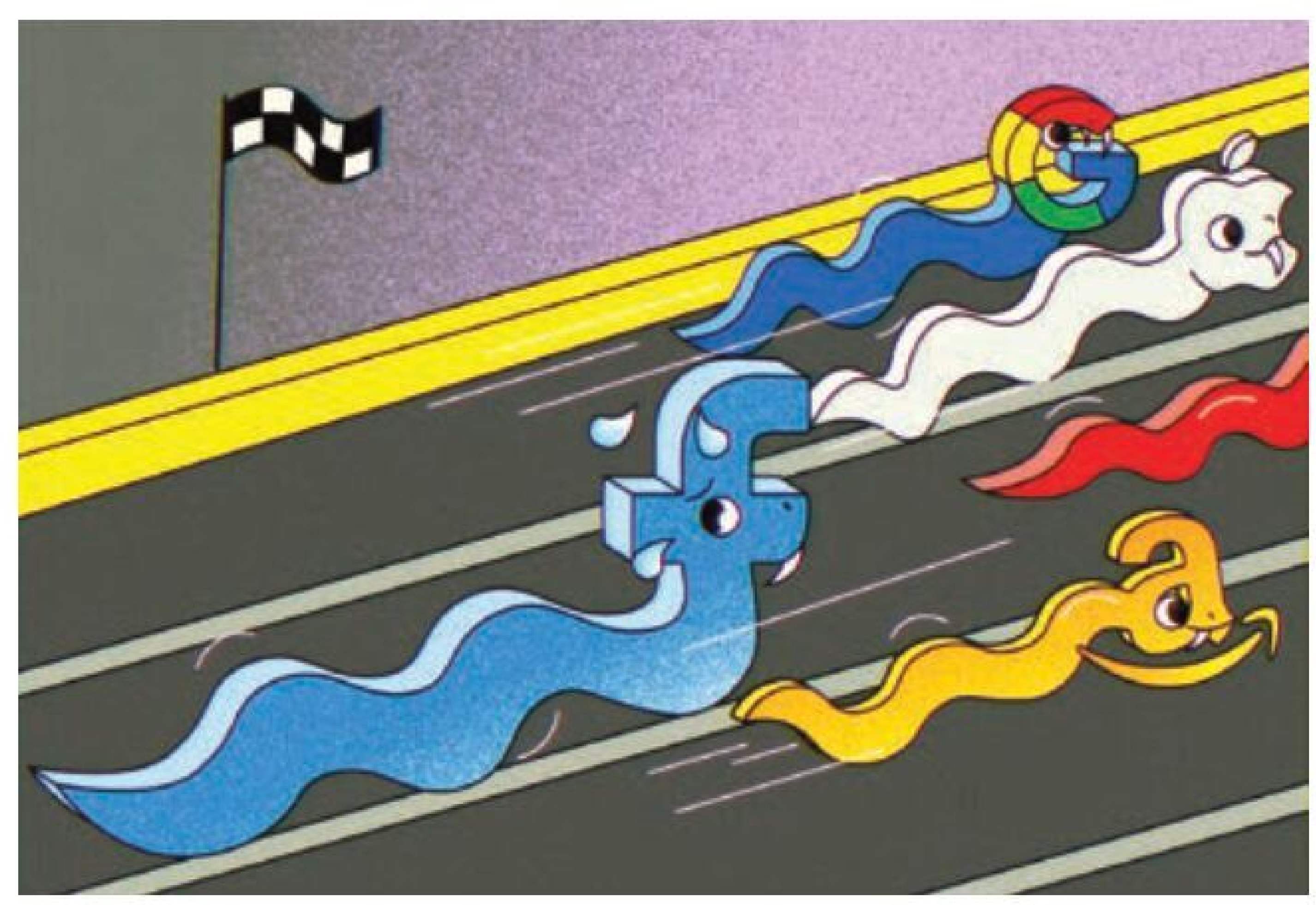
The measures Chief Executive Officer Mark Zuckerberg unveiled during an earnings call on Oct. 25 prioritized closing that gap. He announced a $50 billion share buyback program, a $10 billion investment in augmented and virtual reality technology, and a move to refocus the company's efforts on attracting young adult users—the under-30 demographic so beloved by advertisers.

Among the revelations in the documents leaked by whistleblower Frances Haugen was data showing that teens and young adults were using Facebook less and less, and that the company failed to disclose that fully to investors.

Even with declining use by high-priority groups, Facebook has still managed to increase earnings: from $3.49 per share in 2016 to $14.01 per share over the past 12 months.

Facebook's push into augmented and virtual reality—the foundational technologies for Zuckerberg's metaverse—is of course also an effort to reframe how investors see the company's finances, as well as a way to break free of Apple Inc. and Alphabet Inc.'s Google, through whose operating systems most people access Facebook's apps. Zuckerberg says the company will begin breaking out the financial performance of its metaverse unit.

An expanding metaverse could spur a share-price increase, because the market sees companies like Facebook as growth stocks. As user numbers plateau in the years ahead—there are, after all, only so many people in the world—Facebook must hope it can point to the fast-growing VR business, even if it continues to be a



relatively small part of its operations. Bloomberg Intelligence analyst Mandeep Singh estimates the VR arm, largely the Oculus brand, has an expected annual revenue of at least $2 billion, or about 1.7% of Facebook's total.

Zuckerberg gives little credence to the information Haugen disclosed, telling investors it painted a "false picture" of the company. Yet much of what he announced on Oct. 25 seemed to validate her view. Haugen told U.K. lawmakers that Facebook's incentives are "aligned with their shareholders," instead of the public good. Just hours later, Zuckerberg spoke to investors. Rather than discussing efforts to fix Facebook's content problems, he proceeded to say that his employees' "north star" would henceforth be attracting young adult users. It was almost as if he was setting out to prove Haugen's point.

Facebook has many issues it could focus on, and the company seems to be prioritizing pleasing investors over its critics. Until Zuckerberg is forced to prioritize something else, it's hard to see him bucking that imperative. —*Alex Webb*

THE BOTTOM LINE The low price-to-earnings ratio of Facebook's stock illustrates how the market thinks its troubles impact its core business.

▼ Price-earnings ratio* as of Oct. 26 close

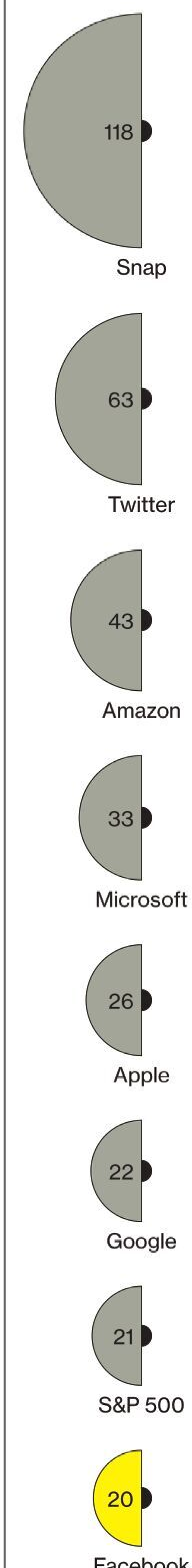


ILLUSTRATION BY EMMA ERICKSON. *BLENDED 12-MONTH FORWARD P-E RATIO. DATA: COMPILED BY BLOOMBERG AT 4 P.M. OCT. 27

Igniting the future of business education

For over 100 years, business education at SMU has shaped world changers and created a community of diverse thinkers and industry leaders.

As part of *SMU Ignited: Boldly Shaping Tomorrow* – our new $1.5 billion campaign for impact – thte Cox School of Business has announced two bold initiatives that will drive our next era of innovation.

First, we seek to raise by April 2022 the final $30 million needed to break ground on a renovation and expansion project toward which donors have already given $90 million. The new facility will provide the environment needed to train students for an ever-more collaborative and technologically integrated world.

Additionally, the Cox School has launched a $30 million drive to endow MBA scholarships. Generous supporters have already put us halfway to our goal with $15 million to shape the leadership pipeline and empower the next generation of entrepreneurs.

We invite you to join our illustrious group of supporters and fuel the future of business education that takes SMU's enterprising spirit out into the world.

Cox School is grateful to our supporters, including:

Carolyn L. Miller and David B. Miller '72, '73

Gina L. Bridwell and Tucker S. Bridwell '73, '74

Bryan S. Sheffield '01 and Sharoll Sheffield

Aurelia Heppner and Brad Heppner '88 and family

Jane R. Bolin and Pat S. Bolin '73

Kim Shaddock and William C. Shaddock '74

Edwin "Ed" L. Cox, Sr. '42

Katy Miller and Kyle Miller '01

TO GET INVOLVED, VISIT SMU.EDU/IGNITE-COX

SMU *Ignited*
Boldly Shaping Tomorrow

DEALS! DEALS! DEALS!

● Low rates and abundant cash could help push M&A to $5 trillion. But don't ignore psychology

It's been a big year for deals. There's the planned merger of AT&T's media businesses with Discovery, the high-stakes takeover battle for railroad Kansas City Southern, and Square's agreement to acquire the Australian buy-now, pay-later company Afterpay. Global deals have already edged past the $4.1 trillion record set in 2007. By the end of 2021, transactions could easily top $5 trillion.

That's all the more exceptional considering all the reasons not to make a deal. The pandemic is still raging, the global economy is volatile, and the U.S. and Europe are signaling a tougher approach to antitrust.

The business of buying and selling companies traditionally depends on a belief that things are, if not entirely rosy, at least predictably benign. And yet companies seem prepared to swagger through the uncertainty. "We're not seeing the momentum slowing down in any way," says Elizabeth Crain, chief operating officer of investment bank Moelis & Co. "The fundamental factors that have been driving M&A for the last 12 months continue."

Those factors include low interest rates, which make it cheap for companies to borrow, and a surfeit of cash, which companies are itching to put to work. But both have been present for several years, so ▶

ILLUSTRATION BY AISHA FRANZ

Edited by Pat Regnier

◀ why the boom now? One possibility is that the pandemic has caused companies to reconsider their strategy–they saw new opportunities open up, or discovered places where they're weak, as everything in the economy was upset, from how people shop to how they work. "There's a fundamental repositioning going on," Stephan Feldgoise, co-head of global mergers and acquisitions at Goldman Sachs Group Inc., said in a Bloomberg TV interview.

A simpler answer is market psychology. The same frenzied optimism that's gripped retail investors is affecting chief executive officers and corporate boards, too. The bullish outlook also gives them a lot of leeway with their shareholders. Traditionally, investors don't love deals. They tend, often rightly, to believe that buyers overpay and are prone to destroying value, and they often sell an acquirer's shares when news of a purchase becomes public. Recently things have flipped: Investors have become cheerleaders, often rewarding acquisitive companies and pushing up their stocks on the news of deals.

Some flashy combinations still get pushback. Investors were skeptical of PayPal Inc.'s reported interest in combining its online payment business with Pinterest Inc.'s social network, and PayPal backed away. But over the past three quarters, shares of companies that bought another business outperformed the broader global market by more than 2 percentage points, according to data from consultant Willis Towers Watson Plc.

The changing reaction to M&A is part of the wider investment appetite for companies that can tell stories about their growth and transformation, whether or not they're currently pumping out earnings. It's a time for meme stocks, big bets on cryptocurrencies, and empire builders such as Elon Musk. Corporate dealmaking, with its power of instant and sometimes dramatic change, fits the mood. When people are getting rich swapping virtual coins, why shy away from buying an actual company?

One conspicuous part of the merger boom has been the rise of special purpose acquisition companies, or SPACs, which are empty corporate shells that go public with the sole purpose of acquiring another business. Financiers, celebrities, sports stars, and just about anyone with a branded personality have raised billions of dollars from investors through SPACs and have often used them to merge with startups looking for a shortcut to public markets. More recently the celebrity transaction has gone the other way. One SPAC announced that it's merging with a new Donald Trump-backed social media company–which has yet to introduce its product–and its share price soared.

Deals done today are struck in a moment at ease with startup culture and risk. For a CEO in 2021, the willingness to give a deal a try could mean the difference between having a job and not. The privations of Covid-19 may also have helped stoke what economist John Maynard Keynes called "animal spirits" in the corporate management suite. Business titans have been deprived of many of the things that make their jobs fulfilling: flying around the world, opening new offices, and meeting and greeting staff and clients. Like millions of others, they've been staring at screens a lot. "CEOs who advisers could never pin down for a meeting are now doing two-hour sitdowns and going through the books, because they have that time back," says Daniel Wolf, an M&A partner at the law firm Kirkland & Ellis. "People think great deals happen because of moments of great insight or chemistry, but sometimes they just happen because people have time on their hands."

Another famous economist, Milton Friedman, argued that the only purpose of a corporation is to make money for the shareholders. But shareholders and CEOs are also humans hungry for experience, and right now it seems as if a lot of them have an itch to see their companies go big. *—Ed Hammond*

THE BOTTOM LINE Investors are normally worried when a company starts empire-building, but lately they've been rewarding acquirers by sending share prices up.

A Nasty Fight Over Financial Regulation

● Biden's pick to run a watchdog is an industry skeptic. Her critics have gone scorched-earth

Cornell Law School professor Saule Omarova was thrust into the spotlight in September when the Biden administration announced her nomination for the Office of the Comptroller of the Currency, a branch of the Treasury Department that polices some 1,125 banks. The choice of the avowed liberal and outspoken finance industry critic united Wall Street and tiny community lenders against her. So far, a pretty standard Washington story.

But things quickly grew uglier and more personal. Republican lawmakers raised the specter of a Soviet-style takeover of the finance system, leaning partly

OMAROVA: U.S. SENATE COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS

◀ Omarova

on an article Omarova wrote imagining a new role for the Federal Reserve as a kind of public bank—and by asking pointed questions about her biography. Omarova, who was born in Kazakhstan when it was part of the former Soviet Union and came to the U.S. in 1991, is a graduate of Moscow State University. Pat Toomey, the senior Republican on the Senate Banking Committee, noted that her college scholarship was named for Lenin. He took to the floor to demand a copy "in the original Russian" of a paper she wrote on Marxism. The conservative tabloid the *Daily Mail* dubbed her "Biden's new comrade."

Omarova's advocates on Capitol Hill decried what they say is a return to the days of Joseph McCarthy's redbaiting. "Democrats won't stand by while Republicans assassinate her character," says Banking Committee Chairman Sherrod Brown. In an interview, Omarova, departing from the customary silence of political nominees, describes herself as a "free-market idealist" who wants to prevent big banks from reaping all the gains from risk-taking investments while forcing society to bear the costs of bailouts when things go wrong, as happened in 2008. "I know that Soviet-style communism doesn't work," she says. "I've lived through it. That system was deeply flawed. It's dead."

In a 50-50 Senate where she's unlikely to win any Republican support, it takes only one wavering Democrat to sink her chances. Omarova's backers acknowledge that winning won't be easy but say the wild attacks against a woman of color and immigrant are helping to solidify her support. Bank executives say privately that they don't think she'll get enough votes. There are too many moderates facing reelection next year who don't want to be forced to support a controversial nominee. The effort to derail Omarova may be aided by her long academic paper trail and penchant for candid talk. Republicans gleefully raised questions about her temperament as they circulated a video clip from a 2019 documentary, *Assholes: A Theory*, in which she called finance "a quintessential asshole industry." In the film, Omarova spoke of the law as a way to reduce the economic rewards for self-serving behavior.

Underneath the spectacle are serious issues. Besides regulating national banks, the OCC chief has an important role in setting policy for burgeoning areas of finance that have little government oversight. That includes determining rules for cryptocurrencies and app-based financial companies that are increasingly competing with traditional banks. Filling the comptroller job hasn't been easy for the Biden administration. Activists resisted the White House's original choice, University of Michigan law professor Michael Barr, because of his ties to financial technology companies.

Should Omarova ascend to the OCC, it would be a milestone for progressives, who have labored to put skeptical and non-industry-affiliated officials in charge of key financial regulatory agencies. Thus far they've successfully backed Securities and Exchange Commission Chair Gary Gensler and Consumer Financial Protection Bureau Director Rohit Chopra, and they'd like to add some more. "Wall Street remains a potent political force, and each of these offices has been hotly contested," says David Segal, the executive director of Demand Progress, a liberal organization that supports Omarova.

The OCC has long had the rap of being the most clubby and deferential of the financial regulators—the most recent comptroller, Joseph Otting, referred to banks the OCC supervises as "customers"—as well as a place where up-and-coming attorneys could gain government experience that translates into much larger paychecks in the private sector. Omarova, whose résumé includes time as a lawyer for banks, has spent much of her career decrying that world, often publicly, in congressional testimony, speeches, social media postings, and academic articles. "I worked on Wall Street before the crisis," she says. "I know how excessive risk was created in the first place, and I've seen what happens afterward, and that's what I want to prevent from happening again."

Lobbyists have seized on several of her proposals, including one that could break up banks with ▶

◀ more than $250 billion in assets and another to have the Fed offer checking and savings accounts instead of private lenders. The Fed plan, described last year in a law review article called "The People's Ledger: How to Democratize Money and Finance the Economy," has sparked a litany of complaints. It offers, in Omarova's words, a "blueprint for reshaping the basic architecture and dynamics of modern finance" by having customers pull their money out of banks and deliver it to "digital-dollar" accounts at the Fed. The central bank, she wrote, could in turn make loans to private banks and buy securities backing public projects. The idea is that the Fed would have more influence over the risks banks take and could help "channel credit to productive uses."

Omarova has also suggested creating a National Investment Authority, which could deploy public money much like President Franklin D. Roosevelt's reconstruction efforts during the Great Depression. Such a program "would undermine the currently unchallenged structural power of large Wall Street banks and private fund managers over our economic lives," Omarova contended. In his Senate remarks, Toomey said it would "further policies that will be set by an unelected, unaccountable board."

As banks see it, such proposals mean getting the government into their lending business. They would also deprive them of the deposits that provide low-cost funding. "Her public policy positions are really, really problematic if you want a free-market banking system," says Rob Nichols, president of the American Bankers Association. "It is a blueprint for nationalization."

Omarova's supporters and academic colleagues scoff at this. "There is a fundamental misunderstanding of her background and scholarship," says Kathryn Judge, a professor at Columbia Law School. Judge adds that Omarova's more controversial writings being bandied about by lobbyists and politicians are "much more in the spirit of 'let's have this thought experiment.' " The OCC, for example, can't change how the Fed operates.

Omarova says she's surprised by the "tabloid-level" discussion about her background. "I thought that for sure they would think that, 'Oh, if she becomes the comptroller, it would be much more difficult for us to maintain that cozy relationship with the OCC,' " she says. "That's what I expected. What I did not expect was the level of depravity." —*Robert Schmidt and Jesse Hamilton*

THE BOTTOM LINE The OCC has a long history as a deferential bank regulator. Liberals hope Saule Omarova can change that, but she's facing fierce opposition in a 50-50 Senate.

"I know that Soviet-style communism doesn't work. I've lived through it"

Banks for the Banks That Aren't Banks

● The snappy Silicon Valley apps for your money rely on smaller lenders to hold your cash

The Current ads plastered across the insides of New York City subway cars declare: "We're not a bank." Yes, the company offers bank accounts with debit cards. But it's a financial technology company, and it doesn't actually hold its customers' money. Current's business is essentially about building an appealing virtual storefront and menu of services. Users of its colorful app can personalize their profiles like they do on social media, including choosing a cover photo and profile picture. Current's emails to customers may include emojis in the subject line.

You have to go to Park Avenue to understand where your money really is–there's a chance Metropolitan Bank Holding Corp. has it. Its offices in Midtown Manhattan resemble any other traditional bank: white marble walls, dual computer monitors, bankers wearing vests emblazoned with the bank's ticker. Metropolitan is one of two federally insured banks Current is actively working with.

Such arrangements are becoming more common with the growth of fintech companies like Current and its rival Chime, which offers accounts through Wilmington, Del.-based Bancorp Inc. and Enid, Okla.-based Stride Bank NA. (Bancorp in July announced it will be working with Current soon.) Relatively anonymous small and midsize lenders are providing the startups with so-called banking-as-a-service. The term echoes the software-as-a-service model pioneered by Salesforce.com Inc. and others that offer companies computing platforms they can patch into their own systems. But in this case it's tech companies doing the outsourcing to traditional banks. The bank and the fintech company both make their money by splitting the merchant fees

ILLUSTRATION BY CHARLOTTE POLLET. DATA: GALLUP generated when consumers use their debit cards.

Banking-as-a-service is attracting attention as lenders struggle with sluggish loan growth and rock-bottom interest rates. "We're going to see more competition," says Greg Sigrist, Metropolitan's chief financial officer. Shares of Metropolitan and Bancorp have risen faster than the S&P 500 so far this year. Meanwhile, venture capital money has been flooding into banking app startups—more than $20 billion since the beginning of 2021, according to research company CB Insights. Many of those new companies will need to form a partnership with a bank whose accounts are insured against losses by the Federal Deposit Insurance Corp. There are almost 5,000 of those, and in theory any number of them could provide the service. "Anytime you have a subsector that has particular growth, especially within banking, where growth is difficult to come by, it's going to drive other participants into the area," says Frank Schiraldi, a managing director at investment banking firm Piper Sandler Cos.

Schiraldi says many banking-as-a-service providers have a "moat" around them to deter some would-be rivals. Thanks to the Dodd-Frank Act, passed after the financial crisis, banks with more than $10 billion in assets can charge a maximum of 22¢ plus 0.05% of the transaction value on debit card purchases. Smaller banks are exempt from this cap and typically charge merchants twice as much as their larger peers do. So fintechs prefer to link up with them because it means they share in the higher fees. In a letter to shareholders of JPMorgan Chase & Co., Chief Executive Officer Jamie Dimon wrote that the rules put big banks such as his at a disadvantage.

The banks specializing in fintech say they've built up logistical expertise that would be hard for other smaller lenders to imitate. A bank needs a regulatory infrastructure in place to oversee what each tech company it works with is doing. "The bar is very high," says Eric Sprink, CEO of Coastal Financial Corp., which works with 28 different tech firms.

To attract customers, banking app startups often boast of their low costs: no overdraft fees up to a certain limit, no annual fees for basic services, no wire transfer fees. They say they can do this in part because they don't maintain expensive branch networks. But effectively, the financial burden of maintaining an account is partly shifted from the customer to the retailers paying card transaction fees. As Current's not-a-bank marketing suggests, the startups may also benefit from consumers' declining trust in the banking industry.

Not that fintech has escaped controversy. Although traditional banks are behind the scenes of these apps, much of the essential customer

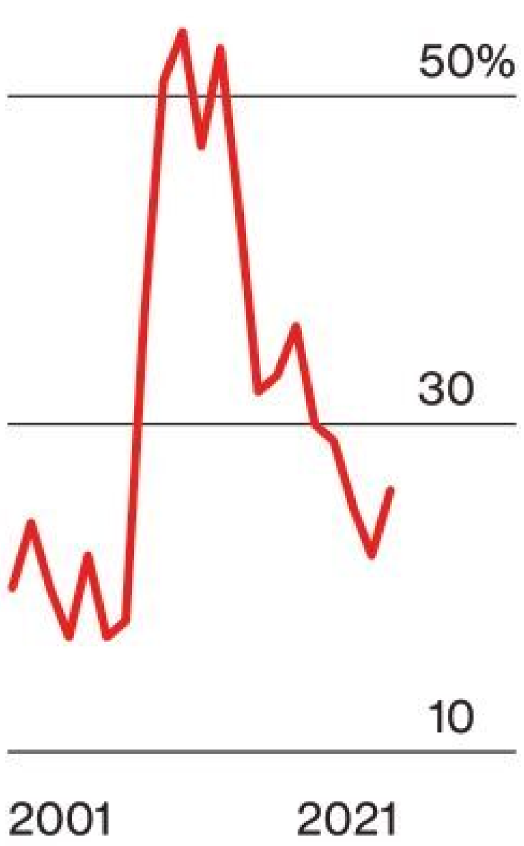
experience is in the hands of the technology company. According to an investigation by *ProPublica*, some Chime clients were locked out of their accounts last year. (Chime attributed the incidents to its fraud-prevention efforts.) The report prompted Senator Sherrod Brown, a Democrat from Ohio, to appeal to the Consumer Financial Protection Bureau to look into the risks of these arrangements and any regulatory gaps. Ryan Harris, head of fintech solutions at Bancorp, says the finance apps aren't unregulated but fall under the umbrella of the banks they work with, which are typically overseen by the FDIC and the Federal Reserve.

Fintech banking is only the most recent phase of banking-as-a-service. Jimmy Stallings, president of the payments group for Stride Bank, which works with Chime, says the bank has offered different iterations for years. It started with prepaid cards and payroll cards, which employers can use to pay their workers.

Banks such as Stride and the fintech companies say their lower-cost services are a way to reach underbanked consumers. But they aren't universally available, since they require a smartphone and reliable internet service. About 23% of Americans still don't have access to high-speed broadband at home, according to the Pew Research Center. "If big banks were doing a good job taking care of the customers, there would not be an opportunity for a Chime to exist," says Stallings. "Chime was able to get into the market so quickly and appeal to a consumer that wasn't served by the traditional banking system. The big banks allowed this ecosystem to flourish." And so did an army of smaller banks—with a boost from legislation. —*Amelia Pollard and Max Reyes*

THE BOTTOM LINE The flood of money into fintech has been a boon to smaller banks, which allow finance apps to offer FDIC-insured accounts and get access to higher card transaction fees.

▼ U.S. poll respondents with a negative view of the banking industry



Will Sarasota's New Arrivals Spoil It for Everyone Else?

● An influx of wealthy seniors and work-from-homers is pricing out younger locals

Many older Americans have reaped an unexpected pandemic bonanza, thanks to a combination of a stock market surge and rising home prices. That good fortune is evident in the St. Armands Circle shopping district in Sarasota, Fla., where visitors stroll past statues of Venus and Dionysus and lunch on Cuban sandwiches and sangria. The number of homes in the area selling for $3 million or more has shot up to 355 so far this year from a pre-pandemic 81 in 2019. And many of the buyers are of retirement age, says Drayton Saunders, president of Michael Saunders & Co., a real estate broker specializing in luxury properties.

A Covid-induced boom in early retirements is exacerbating America's inequalities, especially along this stretch of the Gulf Coast. Sarasota and its environs are seeing an influx of cash-rich baby boomers and work-from-home professionals that's pricing younger residents out of the housing market. Some also worry that a bigger senior population may worsen Florida's historic difficulties in passing taxes for school and infrastructure projects. "They typically vote, and they may not vote for your schools unless their grandkids are in your schools," says Jerry Parrish, chief economist of the Florida Chamber of Commerce's research foundation.

▲ Condo complexes facing Sarasota Bay (top); Theresa LaSalle

ZACK WITTMAN/BLOOMBERG (2)

By 2045 a quarter of Sarasota County will be 75 or older, and community activist Jon Thaxton wonders where the area will find enough care workers—often low-paid and with limited transportation—to staff all the luxury retirement homes "popping up like mushrooms after the rain." An executive at the Gulf Coast Community Foundation, a civic advocacy group, he sees the coming crisis as a harbinger of a nationwide problem. "Our age demographic just happens to be 15 years ahead ▶

Edited by
Cristina Lindblad

◀ of the rest of the country," Thaxton says. "We might be the canary in the coal mine."

The obvious health toll notwithstanding, older Americans have largely prospered from government efforts to salve the economic pain Covid has caused. Boomers (born in 1946-64) accumulated more than $1.6 trillion in excess savings in the past two years, almost double what Generation X (born in 1965-80) put away, according to Federal Reserve data. Boomers also saw the biggest overall gain in wealth during the pandemic, with their combined wealth growing by $12.8 trillion, or about 23%. They edged out Generation X by about $100 billion, Fed figures show, but because that younger set has fewer people overall, it realized a larger per-capita wealth gain.

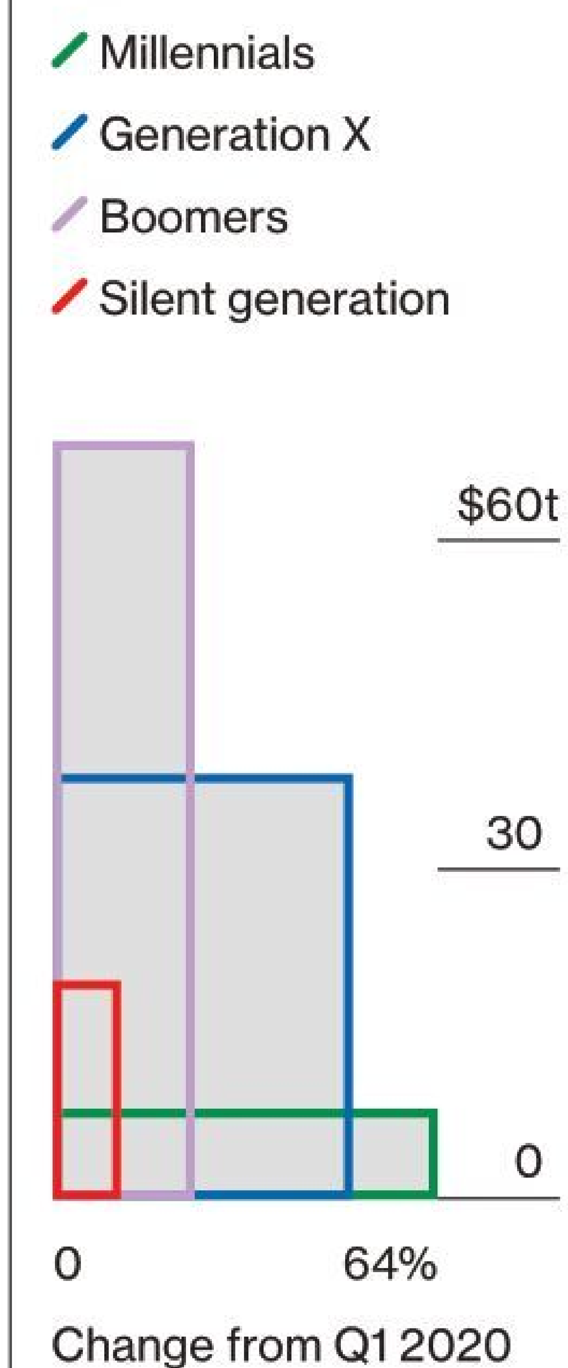
Not all seniors are feeling flush. The wealthiest 5% of boomers hold almost 60% of that generation's financial assets, according to the National Institute on Retirement Security. Still, a retired household in 2016 had double the financial and nonfinancial assets of one in 1989, even after adjusting for inflation, a 2019 study by the Federal Reserve of St. Louis shows. The recent runup in housing and stock values likely accelerated that trend, says study co-author YiLi Chien.

Demographic data aren't available on all the new transplants to Florida, but many appear to be early retirees and older seniors who are wealthier than newcomers have been in the past, Parrish says. Anecdotal evidence from Sarasota backs that up: Boomers are walking into Kevin Campbell's RV dealership in an industrial part of town and dropping $150,000 in cash on a motor home. A dozen years ago, they'd borrow against homes and investments to buy, he says. A half-hour south in Venice, another city in Sarasota County, a small wealth management firm called FourThought has a new unit serving people with assets of $5 million or more. "What I'm seeing is a lot of the folks that are in their late 50s, early 60s that were looking at their 401(k)s, and suddenly their 401(k) is worth $2 million, and they're saying, 'Hell, I can do this,'" says managing partner Scott Pinkerton.

Theresa LaSalle, 65, ditched a corporate marketing career in Dallas last year for semiretirement in Sarasota. Travels in Europe fueled a passion for wine, so she bought a new home in a gentrifying neighborhood and opened a wine bar near downtown. "It was just time," says LaSalle, who made the move with her husband, a government contractor. "I really wanted to do things for myself. I had the resources available." She acknowledges that people like her are driving up housing expenses for locals, including her two part-time employees, who share apartments with friends or family. "The costs are just too much for one person to manage," she says.

The combination of soaring housing costs and abundant but generally low-paying hospitality jobs is creating an affordability crunch in this peninsular paradise. Florida's average wage fell to 87.2% of the U.S. average in 2020, matching its lowest level since 2001, according to an August report from the Florida Legislature's Office of Economic and Demographic Research. The median sale price of a home in Sarasota County hit $407,000 in September, up almost 28% from a year ago, numbers from the Realtor Association of Sarasota and Manatee show. More than one-third of households in the county are "cost-burdened," meaning they spend more than 30% of income on housing, says Thaxton, who's also a former county commissioner. Rents were up 20% over last year as of this summer, according to a report in the *Sarasota Herald-Tribune*.

▼ Aggregate net worth in the U.S. by generation, Q2 2021



Marie Barrow, 34, who grew up in nearby Bradenton, moved back to Sarasota six years ago from Chicago and works in one of many small shops that ring the traffic circle at St. Armands. On a slow weekday morning, she scrolls through a directory of available apartments and comes upon a luxury complex that popped up near the building where she lives in a little studio: It's at least $2,300 for a one-bedroom, she laments. "I would love to own property in Sarasota, but I can't even fathom it," she says.

▲ Homes under construction in Lakewood Ranch, Fla.

At the downtown bus station a few miles away, sandwich shop worker Joanne Tillett, 54, says she feels trapped in the same 500-square-foot unit she's been in for 10 years because rents have soared. "I can't afford a car," she says. "Honestly, I'd love to move out of Florida. It's awful." —*Michael Sasso*

THE BOTTOM LINE The median sale price of a home in Sarasota County reached $407,000 in September, up almost 28% from a year ago, and rents were up 20% as of the summer.

A Referendum On Abenomics

● With elections looming, Japan's prime minister is touting a "new capitalism"

As Japan headed into a national election on Oct. 31, concerns over inequality were taking center stage. In a country that once defined itself by the slogan "100 million people, all middle class," the pandemic has cemented the belief among many Japanese that the trickle-down economics of former Prime Minister Shinzo Abe and some of his predecessors has eroded living standards for the majority, while a few rode a wave of gains from soaring asset prices.

Fumio Kishida, who was sworn in as prime minister on Oct. 4 and was expected to lead his Liberal Democratic Party to victory in the vote, says Japan needs a "new capitalism" that emphasizes the distribution of wealth as well as economic growth. But he's been short on tangible policies to bridge those two objectives.

Opinion polls show that while a large portion of the public has become disenchanted with neoliberalism, the country is divided on economic priorities. In a recent survey by Jiji Press, almost 63% of respondents said there should be a rethink of Abenomics, which many believe has prioritized corporate profits over the welfare of workers. Yet in a *Nikkei* newspaper poll, 47% said economic growth should be the top objective, compared with 38% who said distribution was more important.

Measured by the Gini coefficient—a standard yardstick for income equality—Japan is more egalitarian than the U.S. or the U.K., yet the perception of a growing divergence in wealth has influenced the policy platforms of other parties in the election, too. The LDP and its coalition partners are facing off against an alliance that includes the Japanese Communist Party, which is pledging more drastic policies such as cutting the sales tax and raising the corporate income tax.

Kishida has already learned the hard way that it pays to be vague. His comments in early October suggesting that his administration was considering raising the capital-gains tax triggered a stock market selloff, and he promptly walked back the idea. Investor fears that he will make a radical break from Abenomics are "overblown," wrote Shigeto Nagai of Oxford Economics in an Oct. 19 note to clients, adding that Kishida won the contest for the LDP leadership with support from Abe's faction.

The Covid-19 crisis has exposed the precariousness of some of the much-trumpeted economic achievements of recent years. Kenji Hashimoto, a professor at Waseda University in Tokyo who's studied rising inequality in Japan in the postwar period, says data he's compiled show that despite government policies to limit economic scarring from the pandemic, the 9.1 million Japanese in the bottom income bracket suffered twice as big a hit to earnings as the 2.2 million people in the highest one.

Mitsue Tashiro, Save the Children's program manager in Japan, says her organization has been handing out food parcels for the first time in its almost 40 years in the country. Of the more than 3,000 households that received a package this summer, about 40% still had less than half of their pre-pandemic income or none at all. "We've heard from parents who weren't eating so their children could eat," she says. "With the schools shut, some also felt they weren't giving their kids enough food."

Boosting women's participation in the labor market was a top objective for Abe, and by 2016 Japan had overtaken the U.S. on that metric. But most of the gains came in so-called irregular employment, a term encompassing positions that are part-time, temporary, or under contract. Women make up a larger percentage of part-time workers in the hotel, food service, and retail industries—sectors that absorbed a disproportionate share of the job losses triggered by the Covid recession. About 700,000 women left the workforce in April 2020, compared with 390,000 men, according to government data.

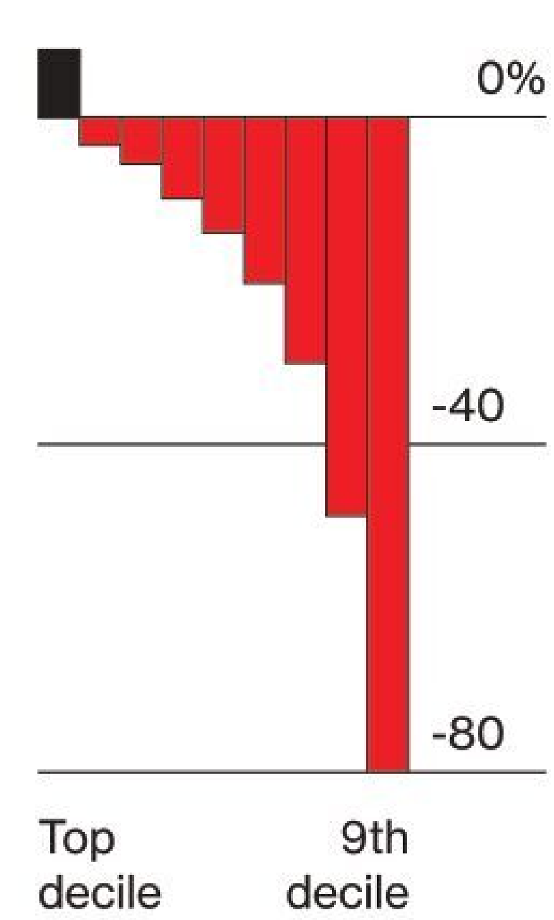
Rie Murai, a single mother of two high schoolers and a 1-year-old, says she's having as tough a time making ends meet as at the start of the pandemic. The Osaka resident had a full-time job caring for the elderly, but she had to quit when her employer wouldn't give her a more flexible schedule so she could look after her youngest. "My income's about half what it used to be," says Murai, who now works in retail but for fewer hours at less pay.

Murai is skeptical about a proposal floated by Komeito, a junior party in the governing coalition, to distribute a one-time payment of 100,000 yen ($880) for each child age 18 or younger. Handouts don't address the root causes of inequality, she says. And she isn't putting much stock in Kishida's pledge to raise pay for caregivers attending seniors, either. "They're always saying that caregivers' wages need to rise, yet they've stayed so low," Murai says.

At the other end of the spectrum, the ultrarich have been splurging on luxury items this year. ▶

● Kishida

▼ Change in Japanese net household wealth by deciles, 2014-19*



FLORIDA: ZACK WITTMAN/BLOOMBERG. KISHIDA: XINHUA NEWS AGENCY/EYEVINE/REDUX. DATA: FEDERAL RESERVE. *FOR BOTTOM 10%, NET DEBT INCREASED 55%. DATA: OXFORD ECONOMICS; STATISTICS BUREAU OF JAPAN

◀ Shota Ueno, a merchandiser for department store Isetan Mitsukoshi, says high-end watches have sold at twice the pace of 2019, with Rolexes and Patek Philippes that fetch more than 10 million yen apiece doing particularly well. "Sales of high-end jewelry move the way the stock market goes," Ueno says.

Japan's benchmark stock index roughly doubled during Abe's seven-year tenure, and it's up more than 50% since the start of the pandemic. However, since only about 15% of household assets are held in stocks, bonds, or investment trusts, only a small portion of the population has captured the benefits. Analyzing government data, Oxford Economics's Nagai has shown that household wealth for the richest 10% advanced 8.2% from 2014 to 2019, while falling by 3.5% across the board.

Stagnant pay is a big part of the problem. While Abe repeatedly called on companies to increase salaries, average monthly pay rose just 1,106 yen from August 2012 to August 2021. Corporate profits, meanwhile, are up 30% since fiscal 2012.

Kishida has pledged to increase tax breaks for companies that raise wages. Yet Hashimoto says the small and midsize companies that employ most of Japan's workforce don't pay enough corporate taxes for the proposed breaks to serve as an incentive. At best, they could improve the wages of those who work for larger companies, who already tend to be better off. In his view, a more effective policy to reduce inequality would be to raise the minimum wage to 1,500 yen an hour, from a national average of 930 yen. Says Hashimoto: "As long as the ruling coalition maintains a stable majority, you won't be able to make progress on equality." —*Yuko Takeo, with Isabel Reynolds and Grace Huang*

THE BOTTOM LINE The pandemic has forced Japan's long-ruling LDP to publicly address concerns about growing inequality, but many are skeptical that it can chart a new path.

The IMF's Quandary

● The fund rushed out billions in pandemic support. The public may never get a full accounting of how it was spent

When Covid-19 convulsed the world last year, the International Monetary Fund committed $118 billion in loans to 87 countries to help them through the crisis. In a tweet on April 15, 2020, the fund's managing director, Kristalina Georgieva, counseled governments to "do whatever it takes" to fight the pandemic, "but make sure to keep the receipts."

Now a reckoning has begun, as the IMF is requiring many countries to conduct independent audits of how the emergency funds were spent before approving new loans. In many places the receipts are not adding up, and some officials have landed in jail.

Only a small number of countries have made information from audits public, and what's available indicates that a significant amount of the aid—hundreds of millions of dollars—was misappropriated. "That means less money for ventilators, mobile hospitals, and PPE, and by extension a greater loss of lives," says Theo Van der Merwe, a policy officer for anticorruption and money laundering at Transparency International, an organization in Berlin dedicated to promoting accountability and integrity.

Van der Merwe cites a United Nations estimate that 10% to 25% of all money spent on government procurement globally is lost to corruption even in normal times. His organization has tracked IMF emergency disbursements since the start of the pandemic. What it's seen so far "suggests an alarmingly high amount of these resources have been lost," he says. The fund doesn't have its own figure for how much was misappropriated. Recipient countries have committed to "governance measures tailored to their specific circumstances"—including audits or releasing procurement data—and implementation of those commitments continues, says Gerry Rice, an IMF spokesman.

With the onset of the pandemic, the IMF found itself staring at one of the most serious dilemmas facing the development community: Do you distribute money quickly without tough anticorruption safeguards and hope it gets to the right places? Or do you take the time to force countries to set up

ILLUSTRATION BY MICHELLE KWON

such mechanisms first, costing lives in the process? "These tensions are probably never greater than in times of crisis, like that involving Covid," says Matt Andrews, a senior lecturer on international development at the Harvard Kennedy School. "Money must move to fill more gaps than usual in this time, more rapidly than usual." Many developing countries, however, have financial systems that "cannot manage the larger flows without leakage," Andrews says.

Although many nations did pledge to audit their spending as a condition of getting the emergency financing, more than half made no such commitments, Transparency International found. The IMF says that all countries commit to basic governance safeguards, that the number of countries that haven't made additional commitments is only 10, and that the fund plans to follow up with them on governance issues. But compliance has been spotty. Several countries, including Nigeria—the largest recipient of relief funds, totaling $3.4 billion—have set up websites to make spending and contracting data publicly available, but key information is missing, and there are technical issues that frequently limit access to documents.

Among countries that did commit to undertake independent audits, including Nigeria, few have released results. Van der Merwe stresses the importance of making such data public, arguing it "would allow everyday citizens, civil society, and the media to provide an additional layer of scrutiny to the use of public resources—further entrenching the norms of transparency and accountability in public financial management."

The IMF had cited governance concerns in North Macedonia in the months leading up to the Covid outbreak, yet its loan of $192 million did not require an audit, according to Transparency International, which called that "alarming." (The country ranks 111th in the organization's corruption index, the second-worst placement in Eastern Europe.) In March the head of the nation's anticorruption commission announced it would investigate reports of abuses in vaccine procurement that appeared in an Italian newspaper.

In Malawi an audit of $91 million of IMF relief found $915,000 was spent irregularly or not accounted for, leading to more than 60 arrests. Lapses included improper procurement, payments to nonexistent employees known as "ghost officers," and money that simply vanished, according to a report on Devex, a media platform for the global development community. The government has pledged to further curb corruption as part of its discussions with the IMF to secure additional loans.

A group of prominent women in Cameroon urged the IMF in June to halt new lending to the country, citing an audit by a Supreme Court body that unearthed corruption and mismanagement involving $326 million spent on the Covid response. The IMF has provided the country with a total of $382 million in emergency financing since the start of the pandemic.

In the Democratic Republic of Congo, where President Felix Tshisekedi has championed anticorruption measures, a government inspectorate found that of $5.2 million received from multilateral institutions including the World Bank, $2.4 million was "embezzled," according to a report from the Congo Research Group at New York University, which got access to audit documents that haven't been made public. Former Health Minister Eteni Longondo was arrested in August, accused of misappropriating more than $1 million in Covid relief funds. He has publicly denied the allegation.

The IMF in July approved a three-year, $1.5 billion loan for Congo to boost social spending and improve governance. The rapid-relief funds from last year "critically helped stabilize the economic and financial conditions, although substantial financing needs remain over the medium term to alleviate the social consequences of the crisis and bolster the economic recovery," says IMF country representative Gabriel Leost, who notes that a subsequent audit of Covid-related expenditures is forthcoming.

Of course, instances of corruption involving government-led Covid efforts have also been documented in countries that weren't IMF borrowers, including the U.S., the U.K., and Brazil, to name but a few.

Sarah Saadoun, senior business and human-rights researcher at Human Rights Watch, who worked with Transparency International to track Covid-related corruption, argues that the government audits and jailing of officials are signs of progress. The IMF started emphasizing "enhanced governance" through an anticorruption controls framework only in 2018, and the fruits of its effort are now being seen, especially as countries are motivated by the desire for more loans, she says. "When there's a huge crisis, you need to get money out the door, and it's really ripe for corruption in every way possible," she says. "At least the arrests signal some sort of accountability," though she adds that "this is likely the tip of the iceberg." *—Sheridan Prasso, with Eric Martin and Michael Kavanagh*

THE BOTTOM LINE The IMF is asking countries to account for how they spent their Covid emergency funds as a condition for new lending.

"When there's a huge crisis, you need to get money out the door, and it's really ripe for corruption in every way possible"

Our Last Best Chance On Climate

● As an international summit convenes, time is running out to stave off disaster

What is COP26?

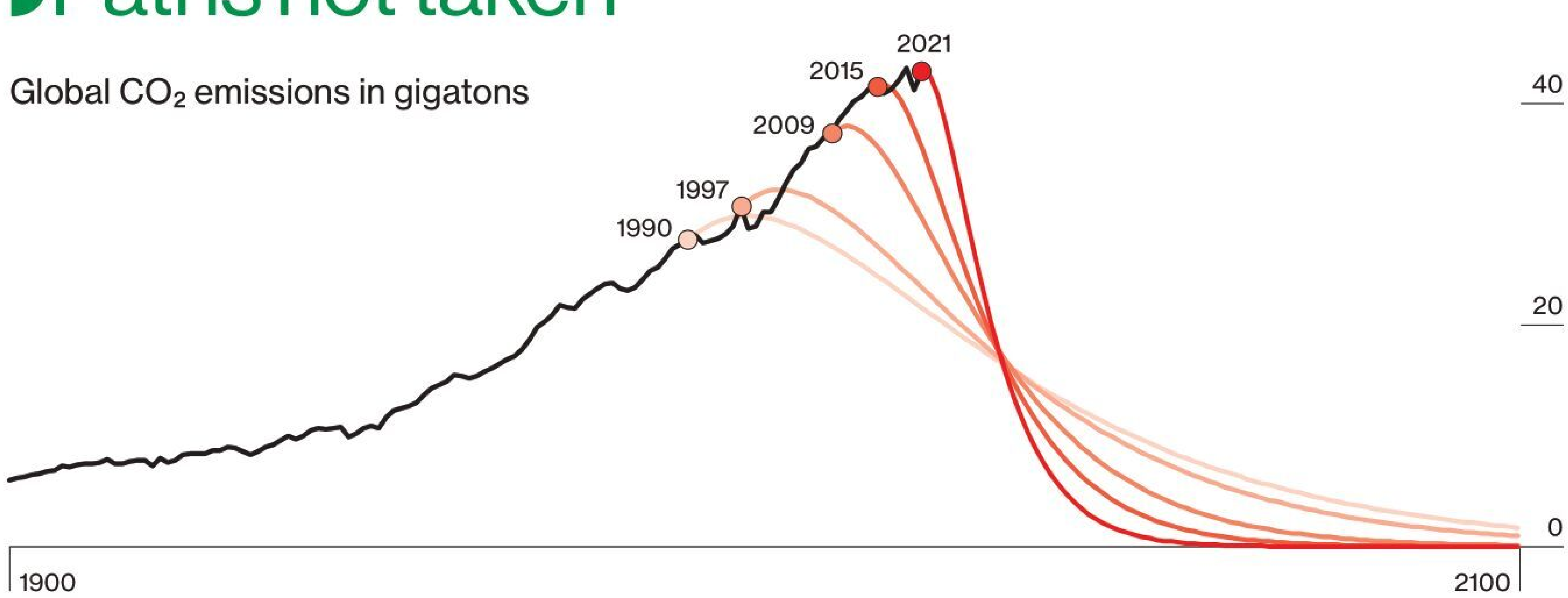
COP—the Conference of the Parties—is an annual United Nations meeting aimed at solving the climate crisis. This year's, held from Oct. 31 to Nov. 12, will be the 26th. (It was postponed last year because of the pandemic.) Officials from about 200 countries will gather in Glasgow, Scotland, directly after the Group of 20 summit in Rome.

Why is it so important?

The goal of the Paris Agreement in 2015 was to cut greenhouse gas emissions enough to keep global warming to less than 2C above preindustrial levels, while striving to limit it to 1.5C. Current actions and plans fall far short of that. If countries don't quickly set stronger targets, the world will warm 2.7C by 2100, according to a UN study released on Oct. 25. Such a rise—bringing worse storms, heat waves, and droughts—would cause "endless suffering," says Patricia Espinosa, executive secretary of UN Climate Change.

Paths not taken

Global CO_2 emissions in gigatons



● The Intergovernmental Panel on Climate Change issues its first report. The authors write that human activity adds greenhouse gases to the atmosphere and acknowledge the risk of warming.

● The Kyoto Protocol, the first international climate change resolution adopted at the end of COP3, ultimately fails to have any meaningful impact on global emissions.

● Contrary to expectations, COP15 in Copenhagen fails to achieve a global agreement to reduce emissions.

● COP21 in Paris produces an agreement to keep warming "well below" 2C. The Paris Agreement allows countries to determine their own emissions-reduction plans.

● Years of policy failure have created the dual burdens of needing to do more to slow global warming and needing to do it faster. COP26 will attempt to build out the road to net-zero.

DATA: CENTER FOR INTERNATIONAL CLIMATE RESEARCH

Edited by Amanda Kolson Hurley

What's on the agenda?

■Cuts

Most countries have updated their Paris Agreement emissions reduction pledges, known as NDCs (nationally determined contributions). It was clear that their initial commitments wouldn't be enough, so they agreed to come back in 2020 with "enhanced" NDCs. But even the more aggressive plans are insufficient, the UN says.

■Cash

More than a decade ago, developed nations pledged that by 2020 they would raise $100 billion a year to help developing nations transition to cleaner energy. They haven't delivered on that promise, a failure that enrages poor countries and undermines the credibility of leaders of advanced economies as they push others to make expensive changes.

■Coal and methane

The U.K., the host nation of COP26, has said it wants to consign coal to history. But coal is still a huge part of the world's energy mix, and the recent surge in energy prices has led countries to even greater reliance on the fuel. Meanwhile, the U.S. and the European Union are rallying nations around a pledge to curb emissions of methane, a highly potent greenhouse gas.

■Credits

Negotiators seem to be edging toward a deal on standardized rules for a global carbon market. The idea is to match projects that reduce pollution with counterparties that need to reduce emissions, via a market of so-called offsets, which could be worth as much as $100 billion in 2030.

It's not too late

It will be a steep climb, but it's still possible to avoid the worst effects of climate change. Some steps that the International Energy Agency is urging: an immediate stop to approvals for new fossil fuel developments; phasing out internal combustion cars by 2035; a massive ramp-up of renewables, hydrogen power, and carbon-capture technology; and a large-scale decarbonization of heavy industry by 2050.

"This pathway is a narrow one but still achievable if the governments take bold and immediate action."

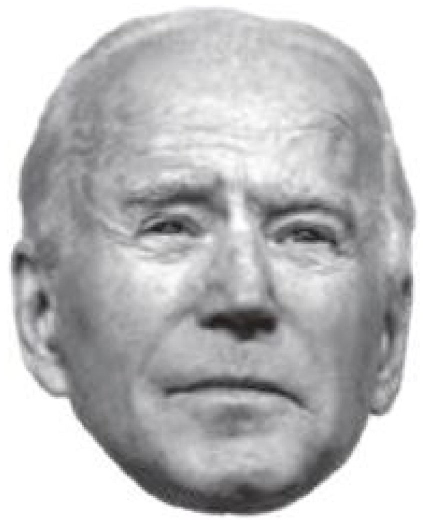
—Fatih Birol, executive director, International Energy Agency

Who **will**, **won't**, and **might** be there

More than 100 world leaders are expected to attend the summit, but some key figures won't be there in person.

■ **Boris Johnson**

The U.K. prime minister said in an interview with Bloomberg News that talks will be "extremely tough." The U.K. aims to cut carbon emissions 78% by 2035 and is one of only a handful of nations whose climate policies are rated "almost sufficient" by the nonprofit Climate Action Tracker. CAT rates a single country, Gambia, as compatible with a 1.5C reduction goal.



■ **Joe Biden**

Biden has embraced climate action, but his expansive climate and safety-net bill has stalled in a split Senate. As of Oct. 27, Democrats were rushing to hammer out a climate framework before he leaves for Glasgow to strengthen his hand. "We are going to send the president there with a strong case," says Senator Ron Wyden of Oregon.

■ **Xi Jinping**

The Chinese president isn't expected to attend the meeting in Glasgow. But rising tensions between China and the U.S. are likely to spill over into discussions: It's increasingly hard to unify nations behind any common goal with two titans vying for power, says David Victor, a professor of international relations at the University of California at San Diego.

■ **Vladimir Putin**

Russia, one of the world's leading producers of oil and its fourth-biggest greenhouse gas emitter, has resisted international pressure to slow warming: There's a lot of coal, gas, and oil it intends to sell. Putin isn't going to Glasgow, but he said in a surprise announcement on Oct. 13 that Russia will seek to become carbon neutral by 2060.

■ **Narendra Modi**

Alone among the largest 10 economies, India hasn't pledged to eliminate its emissions. The government points out that its per capita emissions are much lower than average. The problem of climate change, in its view, was created by wealthier countries that spewed billions of tons of carbon before developing countries started to industrialize.

■ **Jair Bolsonaro**

Brazil is home to much of the climate-critical Amazon rainforest; its president, who won't attend COP26, has opened vast tracts of the forest to beef and soy production. He wants other governments to pay the country to stop destroying habitats. Without that funding, he won't pursue any commitments to reach net-zero emissions.

■ Mario Draghi (Italy, co-host) ■ Angela Merkel (Germany) ■ Andrés Manuel López Obrador (Mexico) ■ Scott Morrison (Australia) ■ Recep Tayyip Erdogan (Turkey) ■ Justin Trudeau (Canada) ■ Fumio Kishida (Japan) ■ Emmanuel Macron (France) ■ Naftali Bennett (Israel) ■ Moon Jae-In (South Korea) ■ Cyril Ramaphosa (South Africa)

▼ Activist Greta Thunberg has said she'll take part in a climate strike on the streets of Glasgow on Nov. 5.

● By Bloomberg News

ALAMY (1), GETTY IMAGES (6)

A Wunderkind Falls

● The resignation of Austria's chancellor amid a bribery probe is a blow to Europe's center-right

Sebastian Kurz was hailed as the future of conservatism in Europe when he became the youngest leader on the continent four years ago, at the age of 31. To allies beyond Austria's borders, his brand of polite populism and youthful overhaul of the stodgy People's Party seemed to offer a template to securing power. Only weeks ago members of Angela Merkel's Christian Democrats were praising Kurz as a model for their own renewal after the party's historic election defeat in September.

That all changed abruptly when Austrian prosecutors announced a major corruption investigation on Oct. 6. Kurz and his devoted inner circle are alleged to have misappropriated taxpayer money to orchestrate his political rise five years ago, according to a 106-page affidavit seen by Bloomberg News. Three days after being named a suspect, Kurz—who once enjoyed red-carpet treatment from President Donald Trump and has cultivated connections with leading international figures such as Peter Thiel—resigned as chancellor.

Doubts had crept in even before that. Among European officials, there was growing distrust of Kurz and concerns about an evident focus on power over policy, according to people familiar with internal discussions, who asked not to be identified. Domestically, Kurz's popularity was slipping amid internal government squabbles and criticism over his choppy handling of the coronavirus pandemic.

Kurz's fall is a further setback for the center-right European People's Party, the European Union's largest political group, which is losing Merkel as she steps down after 16 years in power. At the same time, it does allow the European center-right to further distance itself from the more populist brand of politics that Kurz channeled with nationalist and anti-immigrant rhetoric. (The EPP effectively kicked out Hungarian Prime Minister Viktor Orban earlier this year.)

Austria's turmoil adds to wider political upheaval in Central and Eastern Europe. Voters dumped the billionaire prime minister of the Czech Republic, Andrej Babis, in early October after the so-called Pandora Papers—leaked documents on secretive offshore holdings—implicated him in using shell companies to buy property in France; Babis has denied any wrongdoing. Meanwhile, Poland is in a standoff with the EU over the primacy of European law and democratic standards.

▲ Kurz

Like Orban in Hungary, Kurz entrenched his personality-driven system in his party and then in the state. "There are numerous parallels between Kurz and the 'illiberal democrats' in Central Europe," says Marcus How, who leads research at the consulting company VE Insight in Vienna. "The risk of this personalized model is that it inhibits the cultivation of political strategies capable of addressing long-term issues."

"There are numerous parallels between Kurz and the 'illiberal democrats' in Central Europe"

Kurz remains his party's chief and is the leader of its parliamentary caucus, so he could mount a comeback if no charges are filed. He installed a loyalist, Alexander Schallenberg, to replace him as chancellor, which raises the possibility he will seek to rule by proxy—akin to Vladimir Putin's arrangement with Dmitry Medvedev in 2008. But Kurz's sway may prove more ephemeral. As of Oct. 24, his party's support had tumbled to 23%, level with the Social Democrats, according to pollster Peter

MICHAEL GRUBER/GETTY IMAGES

Hajek. Even more damaging is the plunge in his once-unrivaled personal popularity.

Kurz is accused of working with a network of nine other people five years ago, as Austria's then-foreign minister, to funnel public funds to get media coverage for trumped-up surveys designed to undermine the government in which he was serving. At the time the People's Party was desperate for the kind of rejuvenation that Kurz promised. After gaining control of the party, he beefed up its presence on social media and leveraged digital tools in a move-fast-and-break-things fashion. He was elected chancellor in 2017.

Kurz rose on the wave of nationalist sentiment that began washing over Western democracies in 2016. While Brexit campaigners harvested Facebook data and Trump took to Twitter, Kurz's backers coordinated efforts to influence public opinion in WhatsApp chats, according to Austrian prosecutors. Camouflaging political promotion as public opinion data in the tabloid press was an "ingenious investment," Thomas Schmid, a Kurz confidant and the ex-secretary general of Austria's finance ministry, said in a WhatsApp post on Jan. 8, 2017. The message is among more than 500 pages of evidence circulated by prosecutors, who continue to analyze hundreds of thousands of unreleased digital messages.

Kurz denies any allegation of corruption and says that prosecutors have published evidence out of context. Schmid has been out of the country since before the probe widened. His lawyer declined to comment.

Many of the documents are derived from a separate investigation into Kurz's short-lived coalition with the Freedom Party, which dissolved after a video surfaced in May 2019 of a senior official from the far-right group appearing to offer government contracts to a woman posing as a Russian oligarch's niece. In the backlash to that scandal, Kurz called new elections, which he won. His broader appeal was partly a function of this resiliency. European conservatives' challenge now will be to harness Kurz-like energy and tech savvy when their former poster child is tarnished in the public's eyes.

Kurz shouldn't be too surprised by his sudden reversal of fortune. In a scandal, "public perception can change extremely quickly," he told Bloomberg News in an interview in July 2019, a few months before his reelection. *—Jonathan Tirone and Chris Reiter, with Alberto Nardelli and Márton Éder*

THE BOTTOM LINE Kurz's political career may not be over—he bounced back from scandal in 2019—but the corruption allegations against him leave Europe's conservatives further adrift.

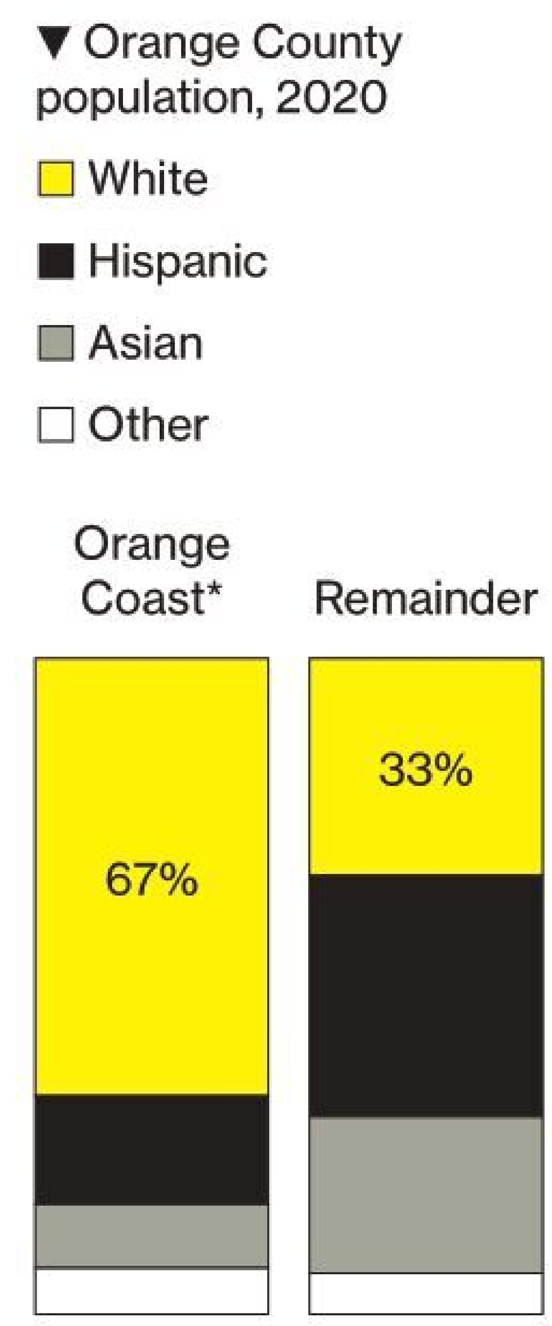
Why Surfers Want a Say in Redistricting

● "Communities of interest" from beach lovers to manicurists vie to shape California's next map

"Gavin Don't Surf" became a rallying cry of the failed effort to recall California Governor Gavin Newsom from office, as frustrated surfers attempted to punish him for closing beaches during the pandemic. Now surfing may play a role in the state's 10-year redistricting process.

The pastime that's long defined the carefree culture and tourist economy of Southern California's Orange County has also tinged the area's politics: Republican Dana Rohrabacher, an enthusiastic surfer, represented the coastal 48th Congressional District for three decades before being wiped out in the "blue wave" election of 2018. (Michelle Steel won the district back for the GOP in 2020.)

California's mapmakers will soon decide whether to keep the district as a coastal enclave or to redraw the map so coastal towns are joined with areas farther inland. Surfers and other ocean lovers have argued they need to remain in a single district so they can speak with a unified voice in Washington. The seemingly nonpartisan issue could help shape the political future of Orange County, a traditional Republican stronghold where Democrats have been making gains. ▶

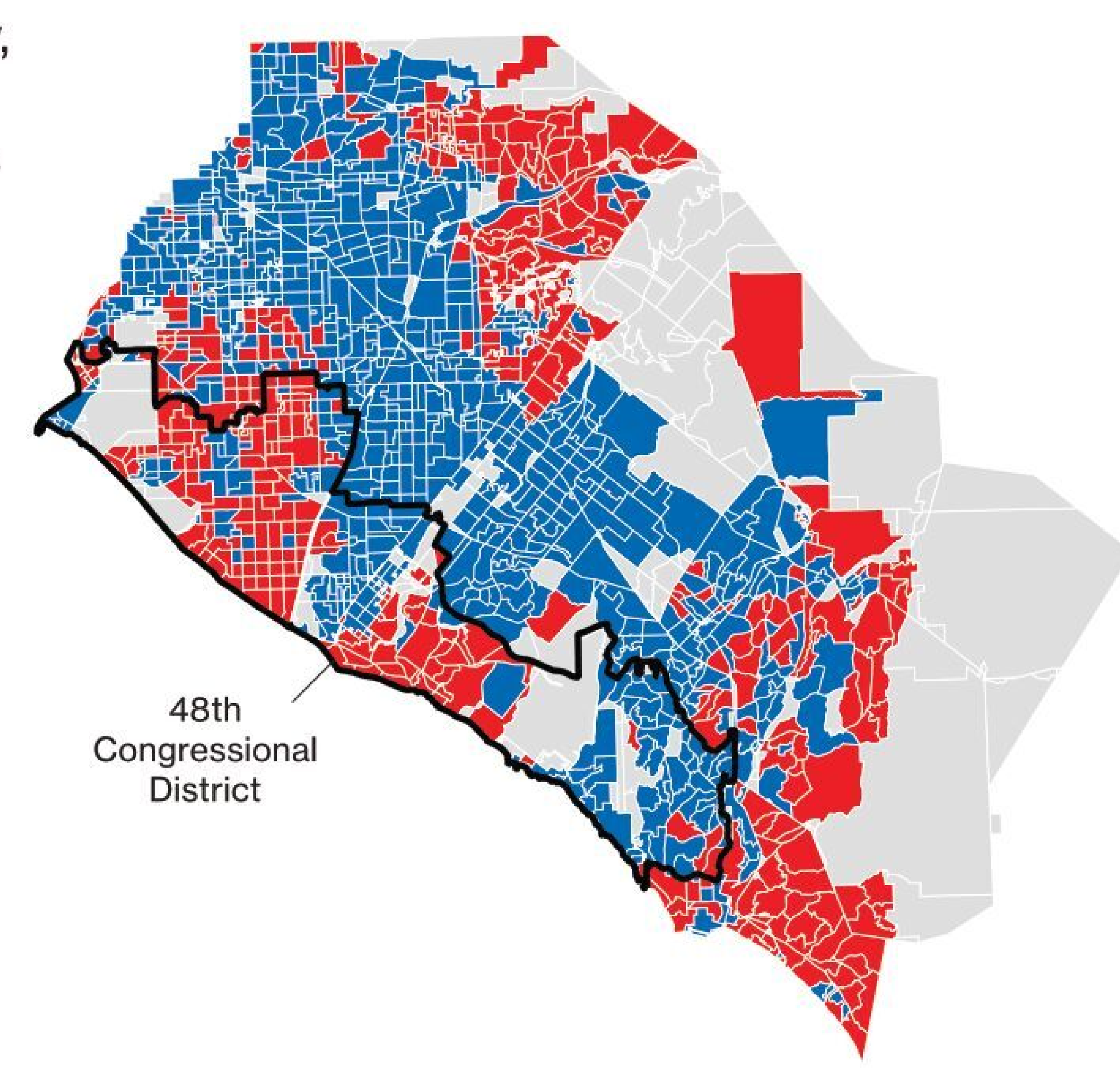


*ORANGE COAST INCLUDES CITIES OF SEAL BEACH, HUNTINGTON BEACH, NEWPORT BEACH, LAGUNA BEACH, DANA POINT, AND SAN CLEMENTE. DATA: U.S. CENSUS BUREAU

Orange County, Calif.

2020 election results by precinct

■ Won by Biden
■ Won by Trump
■ Fewer than 100 votes total



DATA: ORANGE COUNTY REGISTRAR OF VOTERS

◀ To combat gerrymandering, California and six other states have taken the job of redrawing congressional boundaries out of the hands of partisan legislators and given it to independent panels. The state requires the panels to group together communities with shared social and economic interests. But such "communities of interest" are often proxies for partisanship, especially as the U.S. becomes more polarized by income, education, and race.

In Orange County, some residents say keeping coastal neighborhoods together would help promote the vital tourism that surfing brings and the lifestyle that goes with it.

"Our south beach cities have a lot of familiarity with the other south county coastal towns," world champion paddleboard surfer Candice Appleby said at a recent public hearing held as part of the redistricting process. "Things like our ocean and beach tourism, beach erosion, homelessness, ocean conservation—all of which are issues that are really close to my heart and also a big part of our local economy." Her remarks were echoed by dozens of others in testimony and written comments to the California Citizens Redistricting Commission.

Surfing historian Scott Laderman says that while issues such as coastal preservation and beach access can galvanize surfers, there's not much else that unites them politically. But there are commonalities that have little to do with recreation, he notes. "These tend to be overwhelmingly White, upper-middle-class areas," he says. "It's probably easier from a redistricting point of view to identify that as a surfing community of interest than a White, wealthy community of interest. That probably wouldn't fly very well."

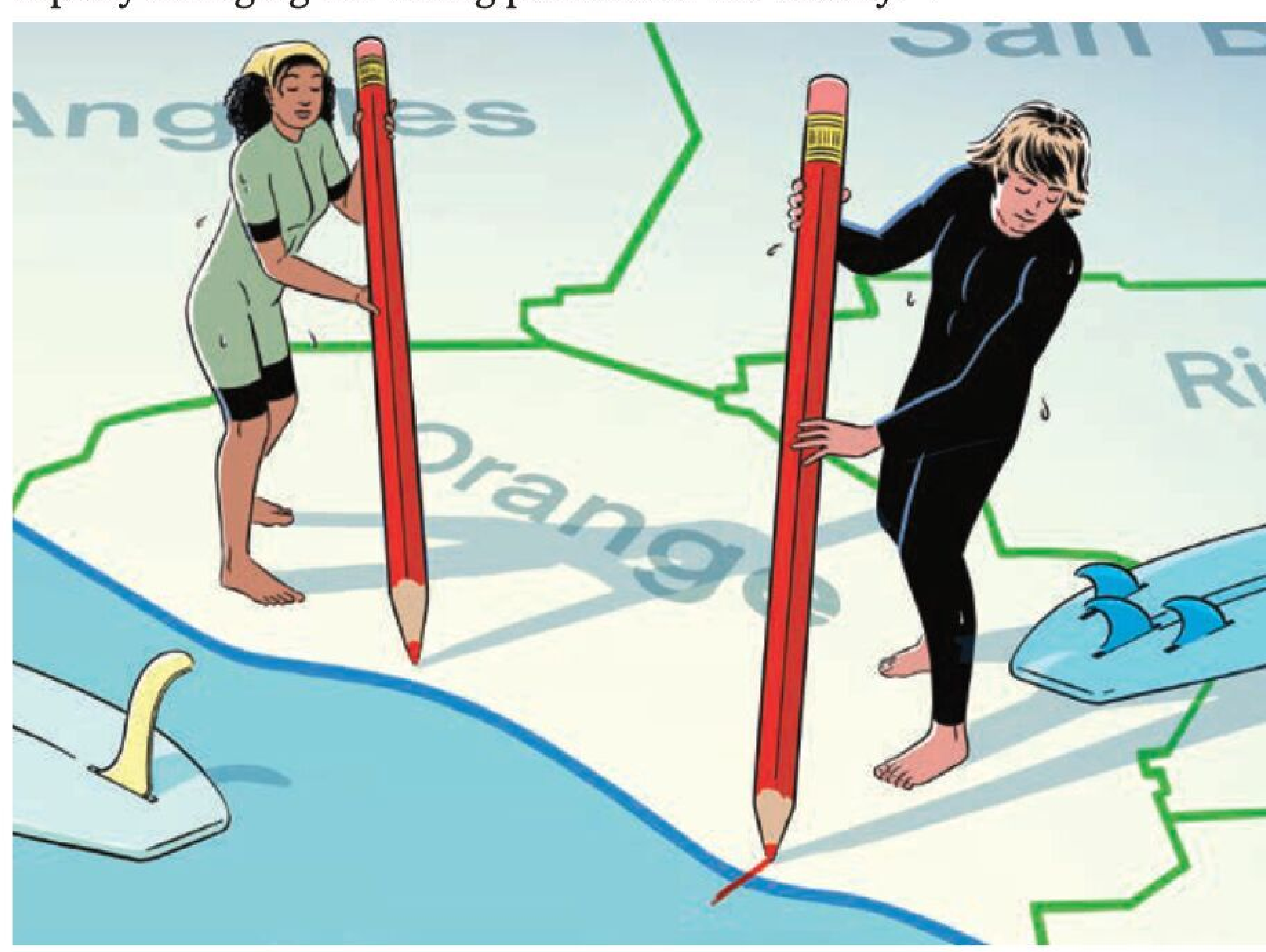
Indeed, some coastal residents have pointedly asked the state's mapmakers to keep them separate from the "high density, political activism, and high crime" of neighboring communities such as Long Beach, which sits across the county line in Los Angeles County and is about 43% Hispanic.

Not everyone agrees that keeping coastal communities together is the best way to carve up the county. Ada Briceño, a union organizer who chairs the Orange County Democratic Party, wants a map that divides the Orange Coast and would reflect the "very different communities" in the north and south of the county, she says. "If you drive around the northern cities where I live, you'll see working-class neighborhoods, many diverse communities, immigrant communities, and RV parks," she says. "By comparison, the southern coastline is the version of OC that most people see on TV, with world-class surfing and well-maintained streets."

Splitting the district would almost inevitably result in a loss of a Republican seat. The four districts surrounding the current 48th are all represented by Democrats.

The county's nail salon workers are also asking for recognition in redistricting. More than 70% of them are Vietnamese, and though the salons they work in are spread out, most manicurists live in and around Little Saigon, which straddles the cities of Garden Grove and Westminster. They should be kept together politically, says Caroline Nguyen of the California Healthy Nail Salon Collaborative, which represents workers at more than 200 salons.

Asian Americans account for all of Orange County's population growth over the past decade, with the share of people identifying as all or partly Asian increasing from 20% to 25% during that period, according to the 2020 census. Demographics are rapidly changing the voting patterns in the county:



It's voted Democratic in the last two presidential elections, yet Republicans in 2020 won two of the county's six congressional districts. The Democratic Congressional Campaign Committee is targeting both of those districts and is heartened by the results of the gubernatorial recall election: Newsom won Orange County in 2018 with 50.1% of the vote, but 52.4% voted to keep him in office in the recall.

"This was the place where Ronald Reagan said good Republicans came to die," says Fred Smoller, a political scientist at Chapman University in Orange County. "Now I think Orange County doesn't know what it is—it just knows it doesn't want to be Los Angeles.... Like the rest of the country, it's going to be majority minority." —*Gregory Korte*

THE BOTTOM LINE Ostensibly nonpartisan issues such as surfing can be proxies for deeper concerns, California's redistricting process shows, as demographics change Orange County's identity.

ILLUSTRATION BY MADISON KETCHAM

8–12 NOV 2021

SINGAPORE FINTECH FESTIVAL

SFF 2021 BY THE NUMBERS

150+ hours content

450+ speakers

5 full days (SFF + World FinTech Festival conference)

1 year on-demand access

22 Masterclasses

2 knowledge certifications

100+ countries in attendance

1 IN 3 senior decision makers

FEATURED SPEAKERS

Ben Horowitz
Co-Founder & General Partner
Andreessen Horowitz

Chuck Robbins
Chair & Chief Executive Officer
Cisco

Dhivya Suryadevara
Chief Financial Officer
Stripe

Michael Miebach
Chief Executive Officer
Mastercard

Sam Bankman-Fried
Founder & Chief Executive Officer
FTX

WATCH SFF AND EARN A
WEB 3.0 KNOWLEDGE CERTIFICATE IN FINANCIAL SERVICES

SCAN HERE

Issued by: NUS National University of Singapore | Asian Institute of Digital Finance

In partnership: APIX, ELEVANDI, Affinidi

Academy Partners: Mastercard, ANT GROUP

Organised by MAS Monetary Authority of Singapore

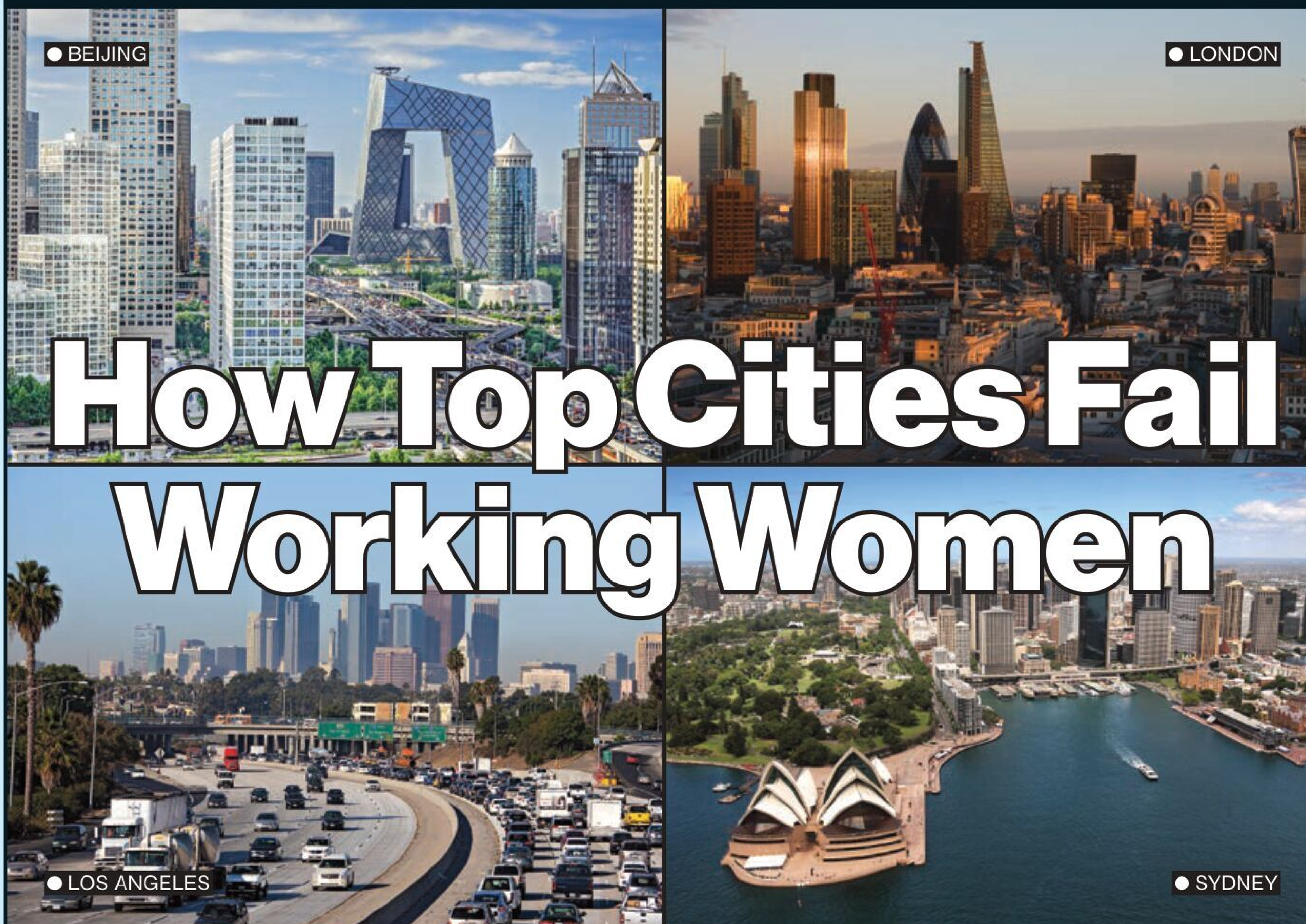
In Partnership with abs The Association of Banks in Singapore

In collaboration with constellar

www.fintechfestival.sg

Equality + CityLab

How Top Cities Fail Working Women



No leading center for commerce is keeping career women safe while ending gender inequality

For the millions of working women in the world's leading cities for doing business, daily life is often shaped by what they cannot do and how they're excluded.

A Bloomberg News analysis of how 15 cities rank for career women shows each failing in several ways. Toronto came in first, scoring 3.66 out of a possible 5, and São Paulo last, with a 2.68. The performance from best to worst reveals that structural and social gender inequalities remain rife everywhere.

The abduction of Sarah Everard from a London street in March by a police officer, who raped and murdered the 33-year-old marketing executive, spurred a furious uproar, encapsulated by one refrain on social media: "She was just walking home."

Everard's death put into sharp focus a societal failure to protect women from harm in the British capital. London, which performed well on equality and wealth in the ranking, was held back by its lack of safety, placing fifth overall with a 3.52. And even in places where it's relatively safe to walk the streets, women are often underpaid or discriminated against at work, according to the findings.

The 15 cities were selected by Bloomberg journalists based on a few criteria: They're all hubs of commerce in their respective regions, providing a global perspective on gender inequality, and most attract finance and business workers from elsewhere. The ranking is not an exhaustive list of major cities.

We graded them in five areas—safety, mobility, maternity provisions, equality, and wealth (a measure of earning potential and financial independence)—and weighted those equally to form an overall ranking.

Each city was measured using publicly available data. Recognizing that data can be patchy

November 1, 2021

Edited by
Rebecca Penty and
Rick Schine

PHOTOS: ALAMY (4)

and insufficient, we also surveyed at least 200 working women in each location and weighted their responses equally with the data for each of the five pillars of the ranking. Separately, we asked senior women in finance and industry to share their personal experiences of living and working in those places, in their own words, to capture the trade-offs and nuances that can't be reflected in a ranking.

Toronto's narrow lead reflected its high mark for equality and good ratings on maternity and wealth, but a poor mobility score—the result of traffic problems and an aging subway network. Other global capitals and business hubs, including Sydney and Singapore in second and third place, respectively, scored high in one or two pillars but failed to offer protections and opportunity simultaneously.

While Toronto is a "culturally diverse, dynamic, and exciting city," there's more to do to achieve gender equality, says Lara Zink, president and chief executive officer of Women in Capital Markets, an advocacy group for female professionals in Canada's finance industry. "Women are underrepresented, outranked, and usually out-earned, and face an array of structural barriers in the workplace," she says.

Cities such as Dubai, Hong Kong, and Singapore score high on safety but low on ensuring protections for women at the very bottom of the labor ladder. "These are the classic city-states with local labor force shortages that rely on hiring labor from low-income countries," says Rosalia Vazquez-Alvarez, an econometrician and wage specialist at the International Labour Organization.

A significant number of women workers in these cities are employed as domestic cleaners, cooks, or nannies, and are either not formally registered as part of the labor market or simply not surveyed through regular data collection methods, says Vazquez-Alvarez.

European capitals such as Berlin, London, and Paris scored high because of strong maternity and legal rights. Germany offers paid maternity leave for 14 weeks, a generous parental allowance for up to 14 months, and jobs guaranteed for up to three years of parental leave. The U.K. offers six weeks' paid leave at 90% of wages as well as up to a year off for women and the ability to take paid, shared parental leave.

Gender pay reporting in these European cities also helps ensure a more equitable workforce. However, they rate poorly on safety.

Still, even in cities that ranked relatively higher because of legal protections, such as Berlin and Sydney, women in the workplace face obstacles the higher they climb up the ladder. In Australia, Bloomberg reported about how the concept of "mateship" for male executives fosters an exclusionary culture that hurts women's careers and chances at top jobs.

In Germany, a patriarchal work culture and the lack of good child-care support leaves women underrepresented in the top ranks in business and politics, says Annamaria Olsson, a Berlin-based author and founder of Give Something Back to Berlin, a nonprofit that connects migrants, refugees, and locals.

In London, Everard was walking home during a Covid-19 lockdown when she was kidnapped, raped, and murdered by a man later identified as a London police officer. In September, days before Wayne Couzens was handed a whole-life jail term with no possibility of parole, another young woman, 28-year-old teacher Sabina Nessa, was killed as she walked through a London park.

On average, a woman is killed by a man in the U.K. every three days, according to Femicide Census, which tracks lethal violence against women. Germany faces similar problems.

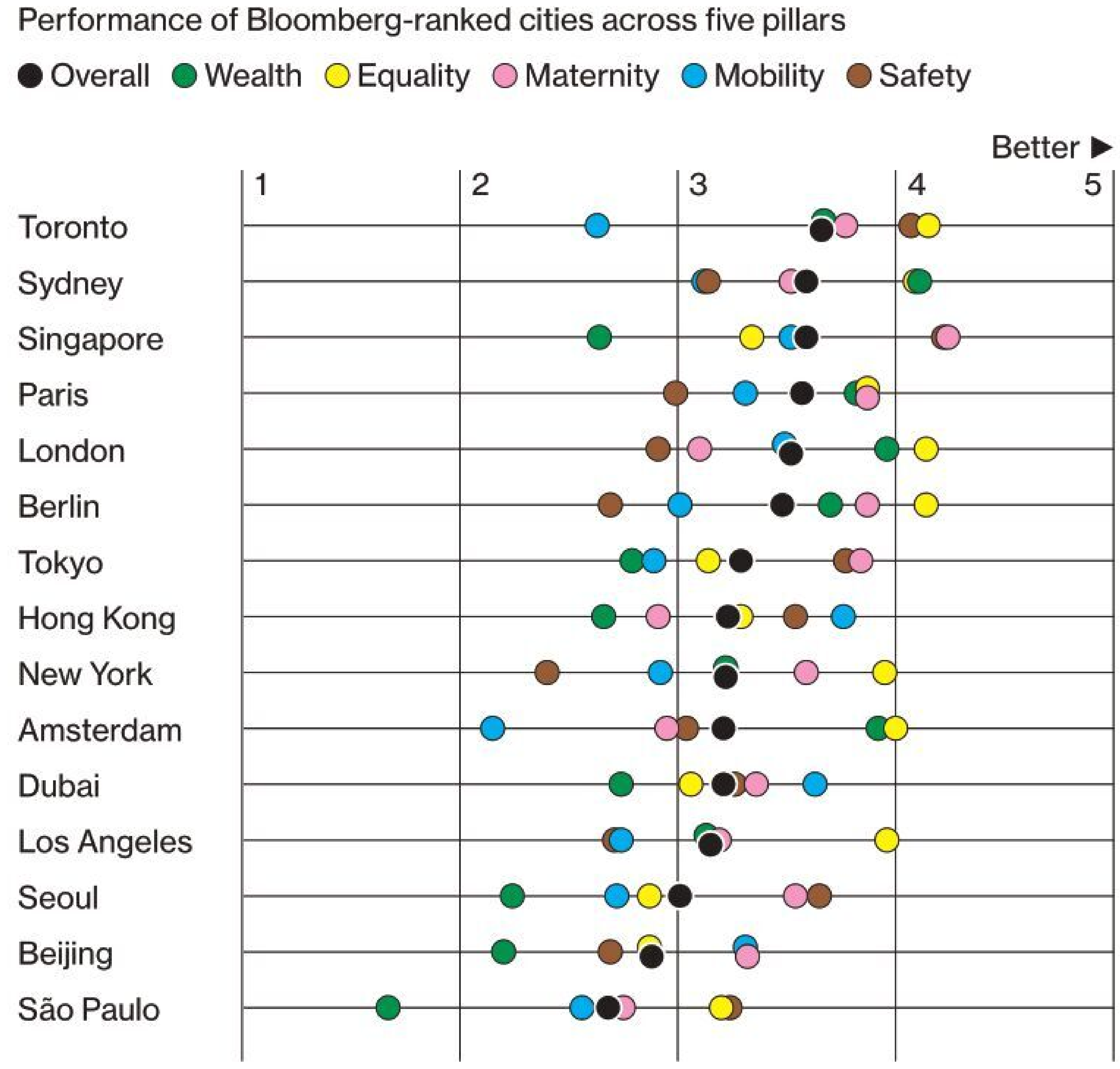
In São Paulo, only 10% of women surveyed by Bloomberg described the city as a safe place to live, despite recent laws specifically aimed at protecting them. Inequalities at work, including Brazil's wide gender pay gap, also contributed to the poor ranking.

It's necessary to refine laws in São Paulo, to change Brazil's "machismo culture" so violence against women and the general population won't be accepted, says Rachel Maia, a board member of companies including miner Vale SA and the government-owned bank Banco do Brasil SA. She says she dreams of a day when citizens can "freely walk on the streets without the fear of being robbed or suffering an aggression."

Mobility, closely linked to safety, is key to creating economic opportunities, according to Mayra Buvinic, senior ▶

Quality of Life for Women in Business Hubs

Performance of Bloomberg-ranked cities across five pillars



DATA: INTERNATIONAL LABOUR ORGANIZATION; WORLD BANK; WORLD ECONOMIC FORUM; ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT; ECONOMIST INTELLIGENCE UNIT; OLIVER WYMAN; MORI MEMORIAL FOUNDATION; CORUS

“Women are underrepresented, outranked, and usually out-earned, and face an array of structural barriers in the workplace”

Lara Zink, president and CEO, Women in Capital Markets

◀ fellow emeritus at the Center for Global Development in Washington, D.C. “In a safe city, you are more able to look for jobs,” she says. Nevertheless, the Asian capitals of Hong Kong, Seoul, and Tokyo were rated as comparatively safe places to live and work, but were undermined by poor wealth and equality scores.

In Tokyo, many women aged 35-45 quit their jobs as they get married and have children, and if they reenter the workforce it’s often through temporary employment, says Yuriko Koike, who became the city’s first female governor in 2016. She says she’s aiming to expand child-care services and push companies to make it easier for men to take parental leave.

“One factor preventing gender equality in Japan is the fact that there are few numbers of women in decision-making roles,” says Koike. “Strategically raising women to decision-making positions in government and business will make companies and society alike stronger.”

While the data show business cities have a long way to go to level the playing field for working women, the situation is changing fast, with some notable improvements. Brazil legislated against femicide in 2015, and the United Arab Emirates now bans discrimination on the basis of sex and gender (though, as Human Rights Watch notes, the UAE still affords men many more rights than women). Paid maternity leave recently increased in Hong Kong and Singapore.

Numbers don’t tell every story. Amsterdam, famously a city for bicycles, rates poorly for mobility because the survey’s metrics focus on walkability and public transport. There are gaps in international data, specifically concerning violence against women, while reporting standards vary around the world.

Several cities that don’t provide transparent data, such as Beijing, Dubai, and Singapore, also rated poorly on measures of social freedom or equality. Yet they were given high scores by the women who answered the survey.

Economists agree that the pandemic has set back women’s gains everywhere, especially for working mothers who’ve had to handle a higher burden of child care amid school closures in lockdown. “The Covid-19 pandemic has affected consumer-facing industries the hardest, and they have a much higher female labor force,” says Vazquez-Alvarez.

As shown by the testimonies of the women who spoke to us, and the ranking we’ve compiled, the nuanced reality of life for women around the world reveals real progress alongside stubborn, unyielding challenges. —*Ruth David and Adam Blenford*

In Their Words

● TORONTO *Ranking: 1*

Women in Capital Markets’ Lara Zink says gender equity is becoming an increasing imperative in Canada. “I had a 20-plus-year career in capital markets at one of Canada’s Big Five banks while raising two children as a single mom, which was both challenging and rewarding,” she says. “Today, most women working in finance in Toronto take up to 12 months’ maternity leave, and many men are now taking advantage of parental leave policies, too.”

● SINGAPORE *Ranking: 3*

Shiyan Koh, co-founder and general partner of Hustle Fund, a venture capital fund, says she found it liberating to be able to safely go anywhere at night when she relocated to Singapore, after 20 years living in U.S. cities. Legally mandated maternity benefits in the city-state are also a plus, she says. “There are still cases of discrimination, such as refusing to hire pregnant women, making women redundant during maternity leave, and taking responsibilities away from women,” Koh says.

● BERLIN *Ranking: 6*
Annamaria Olsson says the city feels livable. But women on average earn 18% less than men and retire with 50% less because many stay home with kids, or work part-time or temporary jobs because of a lack of kindergartens and a school system where kids return home very early. "There should be quotas in companies and politics to ensure women are represented in leadership," she says. "The largest German companies are extremely male-dominated at the top levels. This contributes to a business culture that does not reflect the needs of half the workforce."

● TOKYO *Ranking: 7*
Nana Otsuki, expert director at Monex Inc., a division of financial-services firm Monex Group Inc., says when it comes to safety, Tokyo is "world-renowned." But not when it comes to sexual harassment, despite data showing low levels of such crimes against women and more stringent penalties than previously for the wrongdoers. Many Japanese women don't speak up even if they experience "an unpleasant incident," she says. "It is a sort of culture among Japanese women to avoid making a scene."

● HONG KONG *Ranking: 8*
Johanna Chua, chief Asia-Pacific economist at Citigroup Global Markets, calls Hong Kong a safe, compact city with good transport links, making it "one of the world's most logistically convenient places to work." The biggest challenge is cultural. "There is a strong cultural bias in Asia to expect women to bear the bulk of family responsibilities," she says. "The flip side is extremely low social acceptance of men being the househusband and, often, significant resistance to men taking a back seat at work to support a wife's career."

● NEW YORK *Ranking: 9*
Alexandra Lebenthal, senior adviser at investment bank Houlihan Lokey Inc., says New York's infrastructure and public transport have changed dramatically, making it a safer place to work and raise a family. But working mothers still may struggle. "I had my first child in 1993, just as the Family Medical Leave Act was passed," she says. "While groundbreaking, it only entitled women to 12 weeks of unpaid disability leave. For many professional women, having a baby was an exit from their careers."

● AMSTERDAM *Ranking: 10*
Dies Donker, head of ABN Amro Bank NV's financial institutions team, says she normally cycles to work within 15 minutes and finds Amsterdam safe for women at any time of day. While women and men in the same pay scale receive equal pay at ABN, there are disparities in gender distribution across job levels, Donker says. "Proportionately the number of women in senior positions is still lower," she says. "One of the reasons is that many women, at least in banking, decide to work three days a week, making it more difficult to reach senior positions."

● SÃO PAULO *Ranking: 15*
Rachel Maia says that aside from the safety issue, São Paulo is Latin America's regional hub and "a nice place to work, where access to information and culture is easy." Maia believes it's important to call out discrimination, within the workplace or elsewhere. "I had a not-so-good experience once," she says. "When I bought a black car, a colleague said: 'You are a Black woman in a black car, do you think anyone will be able to see you?' I just said to him, 'Should I think this is funny?' "

Rachel Maia, board member, Vale SA, Banco do Brasil SA

It's necessary to refine laws in São Paulo, to change Brazil's "machismo culture"

THE BOTTOM LINE Women still face inequality in the world's business cities. Safety is a concern in hubs of the Americas and Europe, while Asian capitals underperform for wealth, according to a *Bloomberg Businessweek* ranking.

ZINK: PHOTOGRAPH BY LUCY LU FOR BLOOMBERG BUSINESSWEEK. MAIA: PHOTOGRAPH BY PATRICIA MONTEIRO FOR BLOOMBERG BUSINESSWEEK

Black Doctors Get Out the Shot

Philadelphia neighborhoods took convincing, but similar efforts in other cities flopped

Earlier this year, Philadelphia's partnership with the student-led group Philly Fights Covid abandoned testing sites in Black neighborhoods. It seemed like the latest affront in a long legacy of racism that has fueled distrust in the medical system, dating back to the infamous Tuskegee experiments in the 1930s. But Philadelphia, after a slow start, is closing out the year with one of the highest Black vaccination rates in a major U.S. city.

In Philadelphia, 54% of Black citizens are now vaccinated. That puts it at the top of a group of the country's 10 most Black cities, with populations of 500,000 or more and with Black people making up anywhere from 77% to 28% of the population. (The country's second-largest city, Los Angeles, has vaccinated 55% of its Black residents, but they're just 8% of the population.)

The Black Doctors Covid-19 Consortium, a group of 50 Black health-care professionals, is a big reason Philadelphia—where Black people are 38% of the population—turned vaccination rates around. Doctors fanned out into hard-hit neighborhoods citywide, initially using their mobile unit to test residents. As demand grew, they worked with community leaders to set up testing sites in churches and community centers. They also conducted general health checkups, treating any ailments they could.

"From Day 1, we were trust-building," says Ala Stanford, a pediatric surgeon and founder of the consortium. The group has administered more than 53,000 shots, of which about 80% went to African Americans. On some days it vaccinated more than 1,000 people, reserving shots for poorer ZIP codes and keeping clinics open late into the evening. And because some residents were reluctant to provide personal details, the consortium streamlined and simplified the sign-up process.

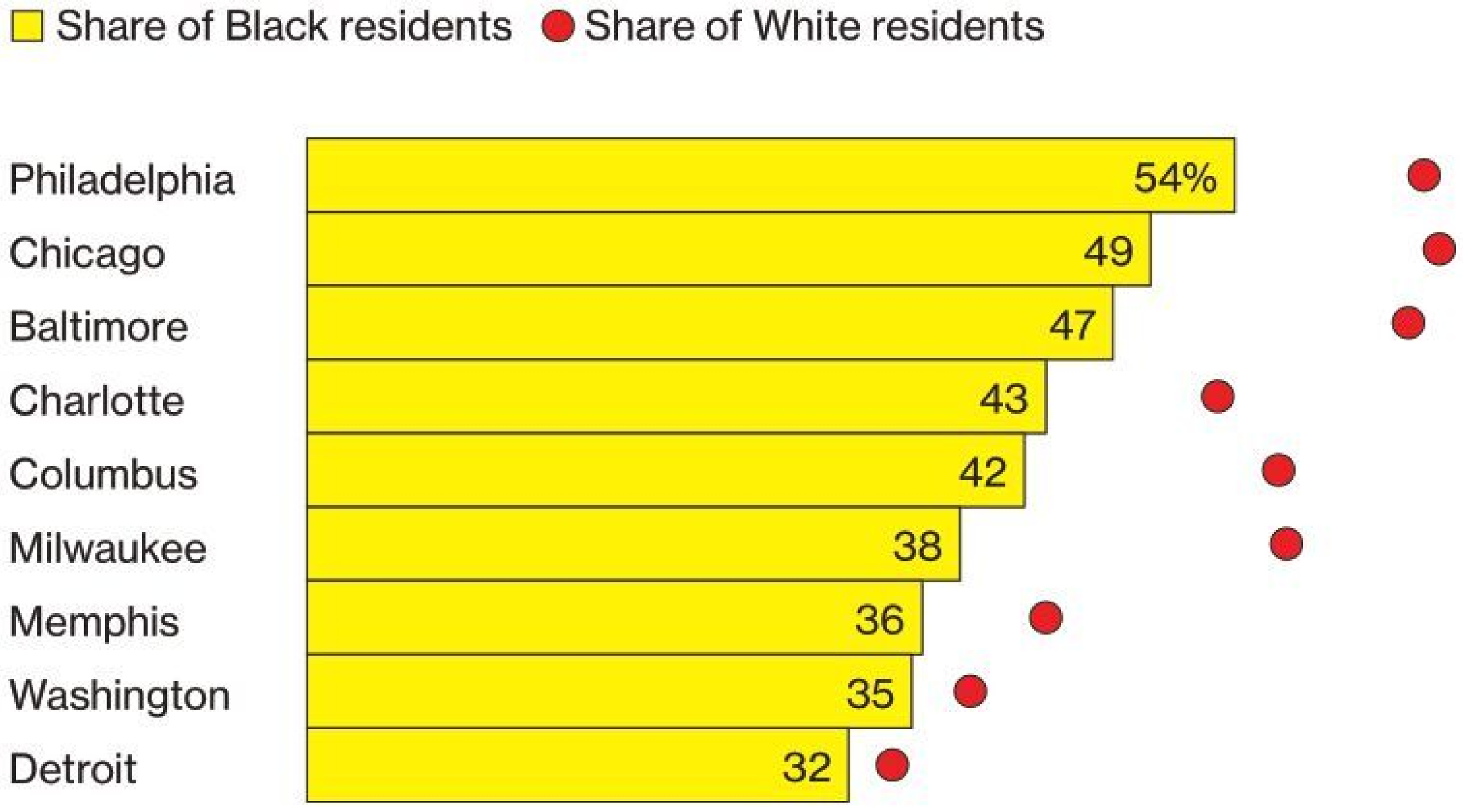
The city government helped by repurposing its census outreach team to go door to door combating vaccine misinformation. "The neighborhoods that are what the Census Bureau calls hard to count aligned pretty neatly with our low-vaccination neighborhoods," says Stephanie Reid, who heads Philly Counts, Philadelphia's census canvassing program. Now the city is honing its messages to reach residents aged 18 to 44, the Black age group with the lowest vaccination rates.

That demographic is also a reason why vaccination efforts are lagging in Black communities in many other cities. Detroit, for instance, has vaccinated less than a third of its Black population, says Denise Fair Razo, its chief public health officer. The city has launched a new campaign under the tagline "Get the Vax, Not Fiction," targeting unvaccinated millennials and other younger adults who are susceptible to social media misinformation, such as the false claims that vaccines make people magnetic or infertile or cause mutations, she says.

It remains a mystery why what works in one place may not work in another. Detroit, which has the largest share of Black residents among big cities, has already tried most of the same things that succeeded in Philadelphia. City workers have gone back out and knocked on 320,000 doors. The city has 10 fixed sites and a mobile unit, and it offers in-home vaccination to residents who request it, usually within 24 hours. It's even offered shots at restaurants, churches, festivals, barbershops, and salons. "This is not a sprint, it's a marathon," says Fair Razo. —*Linda Poon and Jeff Green*

Covid-19 Vaccines' Racial and Geographic Divide

Residents who have received at least one dose, among cities with large Black populations



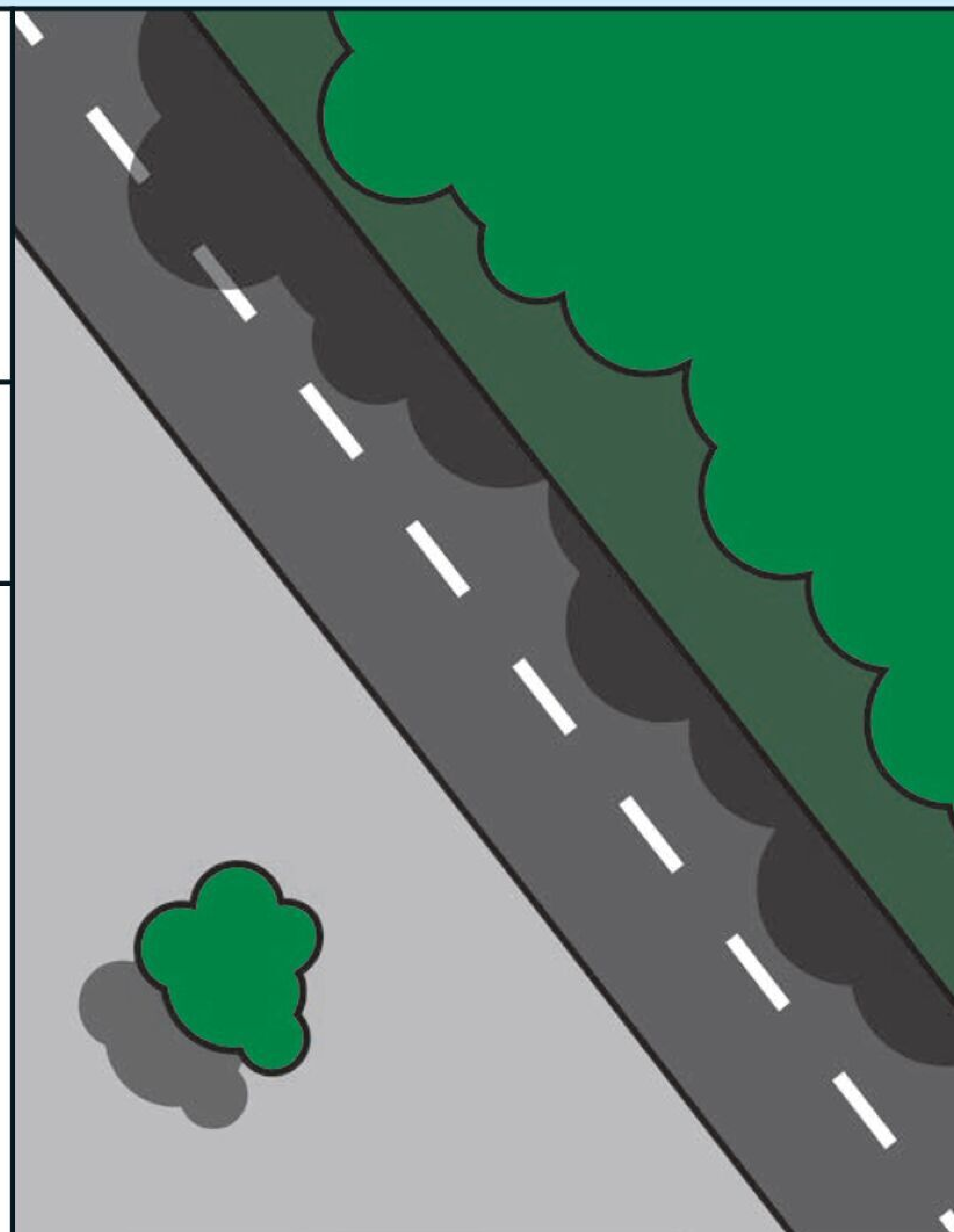
DATA FOR CHARLOTTE, COLUMBUS, MILWAUKEE, AND MEMPHIS ARE FROM THE COUNTY LEVEL. DATA: CITY, STATE, AND COUNTY VACCINE DASHBOARDS AS OF OCT. 26

THE BOTTOM LINE A group of 50 Black doctors helped persuade 54% of Black people in Philadelphia to get Covid vaccines, more than in other big cities with a high percentage of African Americans.

ILLUSTRATION BY 731. PHOTO: BLACK DOCTORS COVID-19 CONSORTIUM

Tackling 'Tree Inequity'

Community groups in Chicago try to improve canopy in low-income communities through education



Trees beautify neighborhoods, provide shade, and help combat sometimes deadly heat in cities. The problem is, they aren't always welcome. In Chicago, nonprofits working to improve the canopy and reduce "tree inequity" are focusing on educating residents about trees' benefits and their maintenance. That's particularly pertinent for neighborhoods in Chicago's South and West Sides, many of which are minority communities that tend to have less tree cover than the city's well-off North Side. Among the complaints about trees are that they require pruning and create a mess of leaves and seeds that clog gutters and dirty cars. They also can obstruct visibility and can make streets feel unsafe. Falling branches can damage property. And there's a misconception that tree roots can damage pipes.

Carolyn Vessel used to share some of those concerns. The president of I Am Able, a nonprofit that works on violence prevention in North Lawndale on the city's West Side, changed her mind after joining TREEmendous Lawndale, a volunteer coalition trying to expand the predominantly Black community's canopy. It was a revelation for Vessel that North Lawndale has a thinner canopy (17%), measured by its ratio of tree cover to hard surfaces, than some wealthier parts of the city, such as Lincoln Park (21%) and Lake View (20%). The city's average canopy is 16%, according to a report from Morton Arboretum. Vessel also learned that trees improve air quality and increase property value. "It was education that turned me to like trees more," she says. TREEmendous Lawndale aims to inspire that kind of attitude change through family activities, storytelling, films, nature talks, and tree plantings.

In addition to health benefits, shade reduces electricity consumption for air conditioners and fans. Trees in the Chicago area lower energy-related costs of residential buildings by an estimated $32 million annually, according to Morton Arboretum. After record-breaking temperatures this summer, President Joe Biden in September called for measures to mitigate extreme heat—the biggest weather-related killer in the U.S. each year. More trees can help. Chicago invests about $2 million each year to plant about 3,000 trees and cuts down as many as 15,000. Some are dead or diseased, but healthy trees are also removed by the city at the request of property owners and local officials. "It's not difficult at all to take down a tree," notes Daniella Pereira, vice president at Openlands, a Chicago-based conservation group.

Pruning is critical to keeping trees healthy. Over three decades, Openlands has trained more than 2,000 volunteer TreeKeepers to maintain trees. It's trying to recruit more people in under-resourced areas, such as Little Village, a predominantly Hispanic West Side neighborhood. Involving locals is vital for long-term canopy growth. "You need to go to communities and find out what's important to them," says Lydia Scott, director of the Chicago Region Tree Initiative, which works with TREEmendous Lawndale. Otherwise planting trees can prove fruitless.

Tracie Worthy, a vice president at I Am Able and a North Lawndale resident, recalls how the city planted a tree outside her home 20 years ago. She got no information about caring for it, such as watering and pruning. Still, she watered and staked it herself, and it's since flourished. "It's pretty and provides some shade," says Worthy, showing a photo of a magnificent tree covered in snow. "It's a real blessing." ——*Amy Yee*

THE BOTTOM LINE In Chicago, which has an average tree canopy of about 16%, a grassroots effort seeks to turn locals into tree enthusiasts to help expand the cover in minority neighborhoods.

HOW FAR WILL WORKERS GO?

Along with the Great Resignation and #Striketober, the unemployed are fighting for reforms that could translate into lasting leverage

BY JOSH EIDELSON

AS PROTEST SYMBOLS GO, THE MARCHERS COULD HAVE DONE worse than sarcastic desserts. On the occasion of the Georgia labor commissioner's birthday this summer, a few dozen unemployment activists arrived outside his office building in downtown Atlanta carrying, among other things, a fudge pie meant to resemble the one from *The Help* that was memorably made of poop. The chocolate held together reasonably well in the July heat, its symbolism straightforward. "We worked hard, we did what they told us to do," said unemployed flooring salesperson Lauren Crace, who was protesting in a floral blouse and ripped jorts. "And then we got shit on."

Crace moved to Florida in 2019 to be closer to elderly in-laws, but because she made most of her income that year back in Georgia, that's where she had to go to seek unemployment benefits after her son's day care closed and her company laid her off. To figure that out, she spent a month on the phone with Florida's Department of Economic Opportunity, including one day when she waited on hold for 10 hours. Then she spent another month wrangling with both states before she received support. Others fared worse, as she saw in a Facebook group she created that quickly swelled with Georgians in search of help. More than 9 million Americans lost their jobs to the coronavirus and got no help from Washington, according to a recent *Bloomberg Businessweek* review of federal and state data. "Everybody kind of got forgot about," Crace says now.

American workers—the ones involuntarily benched during the pandemic and the ones who labored through it at great risk so others could stay fed or entertained or alive—are now doing their best to be impossible to ignore. Private-sector union members are authorizing strikes at a rate rarely seen in modern America, with more than 100,000 workers recently threatening or mounting work stoppages in health care, higher education, telecommunications, transportation, television, mining, manufacturing, music, metals, oil, carpentry, whiskey, and cereal. The internet dubbed October #Striketober.

Nonunion workers are voting with their feet as well, fueling a labor market reckoning that's become known as the Great Resignation. On Oct. 12 the U.S. Bureau of Labor Statistics reported that an unprecedented 2.9% of the entire workforce, some 4.3 million people, quit their jobs in the month of August, even as the government was confirming it would nuke extra jobless benefits in hopes of forcing people to work.

And all of this is happening as the federal government wrangles over President Joe Biden's infrastructure bill. The legislation could transform the supply of child-care jobs and the penalties for union busting and, if Crace and her comrades get their way, make the biggest permanent changes to the country's troubled unemployment system in decades.

It's a moment with the flavor of 1945, the beginning of a period of massive strikes by what we now call "essential workers." They unleashed grievances they'd bottled up while getting the country through World War II. Partly through a series of strikes that included 1 in 10 American workers, they ushered in a rare period where employees' median pay rose hand in hand with their productivity. To recapture that sort of leverage, U.S. labor will need a movement that mobilizes enough people to force reforms.

Unemployment benefits are controversial because, even as stingy and unreliable as they are in the U.S., they give workers a little more leverage against bosses by making them a little less desperate to accept a mediocre offer. They also help people feed themselves while out of a job and help the economy avoid a downward spiral where no one's getting hired because no money's getting spent because everyone's out of work.

Last year the immediacy and magnitude of the pandemic were compelling enough for both parties in Congress to get on board with emergency supplemental benefits of first $600 a week, then $300. That sense of urgency didn't extend, however, to actually getting the money to millions of qualifying Americans who needed it, and this year, as spring turned to summer, 26 states announced they would end the extra benefits earlier than the federal government's Labor Day cutoff. Protests among the unemployed have emerged throughout the country, too, in such places as the Las Vegas Strip, downtown New Orleans, and the U.S. Capitol.

At the time of the Atlanta demonstration, Georgia had already cut off supplemental benefits and nixed social distancing rules, but the local Labor Department office remained fenced off and closed to the public, as it has been since the beginning of the pandemic. Crace and the other protesters marched with signs saying "Let us in," answered only by banners urging job seekers to check out the postings on the agency's website. "This system has failed us," Crace said.

Over the summer, activists failed to persuade lawmakers that extending the emergency benefits would help the recovery more than employers claimed this sort of alternative minimum wage would hurt it. (The data tend to support the activists.) But a funny thing happened over the past couple of months: The protests continued. They've been buoyed by Unemployed Action, an advocacy campaign that's working, with little modern precedent in the U.S., to mobilize the lobbying power of the jobless. Crace's 17,000-member Facebook group for Georgians who struggled to get unemployment insurance during the pandemic is one of many grassroots efforts that have linked up with Unemployed Action. The national campaign is backed by the Center for Popular Democracy, a progressive advocacy group with funding from unions and the foundations of Facebook co-founder Dustin Moskovitz and billionaire George Soros.

Like #Striketober and the Great Resignation, their work is attracting notice in Congress, says Judy Conti, the director of government affairs at the National Employment Law Project, which advocates for workers. "Some members of Congress are absolutely paying attention, and they understand that there's a different level of worker engagement than ever before," she says. Proposals for less temporary fixes to the unemployment system were introduced this fall by powerful advocates in both houses, including Democrats Alexandria Ocasio-Cortez, representative of New York, and Ron Wyden, the senator from Oregon. ▶

◀ Workers haven't won much yet, and the millions in crisis can't just protest forever, but the pandemic has served as a magnifying glass for all sorts of American deficiencies and pathologies. Now, whether on Kellogg's picket lines or at sailboat protests near West Virginia Senator Joe Manchin's yacht, workers are wrestling with Covid's long-term legacy for U.S. labor. If the emerging jobless lobby can win a stronger benefits system, Unemployed Action will have played a significant part.

WITHOUT COVID SUPPLEMENTS, U.S. UNEMPLOYMENT INSURANCE is meager compared with benefits in peer countries, delivering beneficiaries roughly 40% of their prior income on average—too little to stave off a crisis for those most in need. It also excludes millions of people, including many temps, part-timers, gig workers classified as contractors, undocumented immigrants, and people who quit their jobs because of domestic violence or child-care needs. Also the present system doesn't require employers to tell workers such a benefit exists.

Part of the problem is that unemployment insurance is a patchwork. Each state funds and regulates its own UI system, meaning state officials have incentives to reduce aid to their unemployed constituents as a means of lowering the tax burden on employers who lay off workers. Some states max out at less than $300 a week for as few as 12 weeks and make it difficult to claim benefits. (In one extreme example, in Atlanta, laid-off mortgage processor Camille Taylor had to make 160 phone calls to reach a human being and waited five months for her paperwork to be approved.)

This tends to decrease labor costs by limiting workers' ability to hold out for better offers. One big missing piece of leverage among the jobless has usually been collective action, says political scientist Frances Fox Piven, who co-authored the book *Poor People's Movements*. "Unemployed people have been severed from their relationship with each other," she says. "They've also been severed from their relationship with their primary antagonist, their employer."

Organizing jobless Americans is hard. People don't identify as unemployed the way they do as teachers or coal miners. Some blame themselves for being out of work, or worry that others will, or fear that becoming a poster child for unemployment will hurt their career prospects. For others the isolation of unemployment, especially during the pandemic, has hardened pessimism into hopelessness. Yet the desperation of the pandemic helped catalyze the emergence of Unemployed Action.

In the early days of the lockdowns, Rachel Deutsch, then the director of worker justice campaigns at the Center for Popular Democracy, called a bunch of her employer's 54 affiliated advocacy groups around the country. She wanted to develop strategies to lobby for paid sick leave and other longtime worker priorities. But affiliates reported back that they were overwhelmed with pleas for help from members who'd just been laid off, so Deutsch and her colleagues at CPD and its sibling political group switched gears. They created Unemployed Action in June 2020, using Facebook, phone banking, word-of-mouth, and ground-level recruits such as Crace to ask jobless workers to attend protests or share their stories. They also created a fund to assist members in need.

"What you heard a lot was people from all different experiences going through this unifying experience of needing the government to be there for them and often finding that it was not," says Deutsch, who now consults for CPD while caring for her own mom and kids. "There was this opportunity to build solidarity and a shared vision for what our economy should be like and how we should care for one another." Affiliate groups soon began to organize protests, such as a sleepout on the sidewalk outside the Georgia Labor Department headquarters. Things got tense when state employees confiscated the protesters' rented port-a-potties, but they released the toilets after police arrived. (The agency says the protesters didn't have the necessary permit.)

Chenon Hussey, who'd set up her own bustling Facebook group in Wisconsin, says she fielded several emails from Deutsch before deciding to team up. Hussey had been on a family vacation in Aruba when the lockdowns swept across the U.S., emptying Chicago's O'Hare airport for their return trip. The $100,000 a year she made from public speaking and consulting as a mental health expert vanished almost instantly, but as a freelancer, she was excluded from normal unemployment insurance. The out-of-pocket costs for in-home care for her teenage daughter with special needs quickly became unaffordable. She and her husband made the agonizing choice to send her to a group home, where she remained for a few months until the family could get help from a temporary jobless-assistance program Congress created for contractors.

"It was a pretty big blow—it disrupted her life, and it's hard as a parent, those decisions—to realize you can't provide for your kid," says Hussey, who's organized sleepouts at the homes of Tony Evers, Wisconsin's Democratic governor, and Robin Vos, its Republican Assembly speaker. "We had this emergency system set up to jump in, almost like a generator for the country, and that generator wasn't clicking," Hussey says. "All these people that thought there was a light that was going to come on, they weren't getting it. All they had was a broken bulb."

Today, Unemployed Action's sprawling network is still working to lobby lawmakers around the country and push its way into the mainstream. Besides in-person protests, the broader organization swarms lawmakers on social media, trains members in skills such as "bird-dogging"—trying to create popular videos by putting politicians on the spot—consults on think

Room for Improvement

Maximum months of unemployment insurance benefits, 2019

DATA: ECONOMIC POLICY INSTITUTE

Even without factoring in Covid, the U.S. is only ever a decade or so away from the next recession, when the unemployment insurance system will let people down again if it isn't reformed first

tanks' policy proposals, and coordinates events through its 16,000-member national Facebook group, moderated by volunteers. By design, Unemployed Action brings together some people for whom economic instability is old news and others who were living comfortably pre-Covid. This can lead to friction, but the group's day-to-day challenges are more basic. One laid-off worker who planned to join July's protest in Atlanta decided to stay home rather than use up gas driving her SUV 80 miles round-trip. Another volunteer abruptly moved to Missouri. She'd found a job there after months of searching.

THE BIDEN INFRASTRUCTURE PACKAGE IS UNEMPLOYED ACTION'S biggest test so far. Wyden and Ocasio-Cortez have put forward measures for the final bill that would require states to offer 26 weeks of unemployment benefits, add eligibility for workers looking for part-time jobs, and demand that employers tell departing workers how to apply for the benefits. Lawmakers plan to use the reconciliation process to ease passage of the massive infrastructure bill. But that will still require the votes of every Senate Democrat, including Manchin and others who've been pushing to shrink the bill's price tag.

In September, Hussey logged in to a virtual town hall Unemployed Action held with Wyden, who chairs the Senate Finance Committee. She asked him to spell out his strategy for ensuring that unemployment reform does end up in the final bill. "I'm going to come in as chairman of the committee, and I'm going to fight like hell," Wyden said. But even winning the incremental changes he's pushing, he added, is going to be a challenge. "As you've seen, not many people back here are talking about this anymore."

The Biden administration has been sending mixed and sometimes muddled messages. In an open letter to Congress in August, Labor Secretary Marty Walsh and Treasury Secretary Janet Yellen called "long-term UI reform" a "critical issue" that Congress should take up via reconciliation, while also saying it was "appropriate" for the crisis-inspired benefit boost, which "was always intended to be temporary," to expire on Labor Day as scheduled. In lieu of that support, they suggested, states could use unspent funds from this year's American Rescue Plan to help jobless workers wherever the delta variant was posing "short-term challenges" to the labor market.

In an interview with *Businessweek* a couple of hours after the publication of the open letter, Walsh put it a little differently. "If Florida has to shut down—let's say the [Covid] numbers continue to climb in the next week or two, and it gets to the point where people are just afraid to go outside their front door," he said, "then there's going to have to be a safety net there for the families that can't go to work because their industry shut down." So far, zero states have announced plans to take the White House up on its suggestion they deploy Rescue Plan funds for that purpose.

Some of the jobless lobby's staunchest advocacy partners have entered the government this year, including Michele Evermore, now a senior adviser on unemployment insurance at the Labor Department. That hasn't stopped the administration from disappointing advocates, as when the White House chose not to resist red states' cutting off extended benefits early. In late August, Evermore joined Unemployed Action's weekly Zoom call to talk up the Labor Department's efforts to help state systems improve. At the end of a question-and-answer session, Deutsch told her the group would like "a little bit more public leadership" from Walsh on the need to extend benefits and overhaul UI. "We would just really urge him to use his bully pulpit," Deutsch said. "Thanks," Evermore replied.

Asked about her former comrades' frustration with her current colleagues, Evermore says the department lacks authority to do some things advocates want, including stopping states from cutting off benefits early. "UI reform is urgently needed yesterday, but it didn't happen yesterday, so maybe it can happen tomorrow," she says. "If unemployment goes back down and people stop paying attention to unemployment insurance, then we lose our window to do anything."

To get some of Wyden's platform into the final legislation, Unemployed Action plans to keep up the pressure, with members calling their lawmakers and recording personal video messages to spread on Twitter and maybe project onto the walls of senators' offices. "Stop dancing, do something," jobless New York retail worker Nicole Marie Polec says in a video message to Senate Majority Leader Chuck Schumer.

"The challenge that we have been facing has been trying to jump at a political moment of opportunity that is urgent and also very, very crowded," Deutsch says. "The thing with UI is that the urge to look away is so strong, and so how do you create more situations where you can't look away?" Whatever Unemployed Action achieves this time, she says, there'll be more work left to do. The group is counting on the bonds created over months of Zoom huddles to keep people engaged even after they find work.

Even without factoring in Covid, the U.S. is only ever a decade or so away from the next recession, when the unemployment insurance system will let people down again if it isn't reformed first. As with so many other problems magnified by the pandemic, the first step is just that.

In between the rallying, interstate driving, and caretaking for her mother-in-law, who has cancer, Crace in Florida applied unsuccessfully for more than 150 positions—in health care, call centers, and property management, among other fields—before finally landing another flooring job, managing a store a half-hour's drive from home. Although she's relieved to have a steady income again, she plans to remain part of Unemployed Action's fight. "I'm a whole new person, I think," she says. "The pandemic opened my eyes." Ⓑ

BIG TE

IS WAT

The pandemic caused schools to embrace laptops, tablets, Zoom—and sophisticated ways for teachers to snoop on their students

↑ Joel Schmieg, early adopter and principal of Pekin Community High School

By Priya Anand and Mark Bergen
Photographs by Evan Jenkins

At Pekin Community High School, the teachers are something close to omniscient. Education, even in-person education, is digital in the Covid-19 era, and staff members use a piece of software to watch everything students do on school-issued laptops and to keep them off banned websites. The kids are aware. “They pretty much know that they’re being monitored 24/7,” says Cynthia Hinderliter, head of technology at the school outside Peoria, Ill.

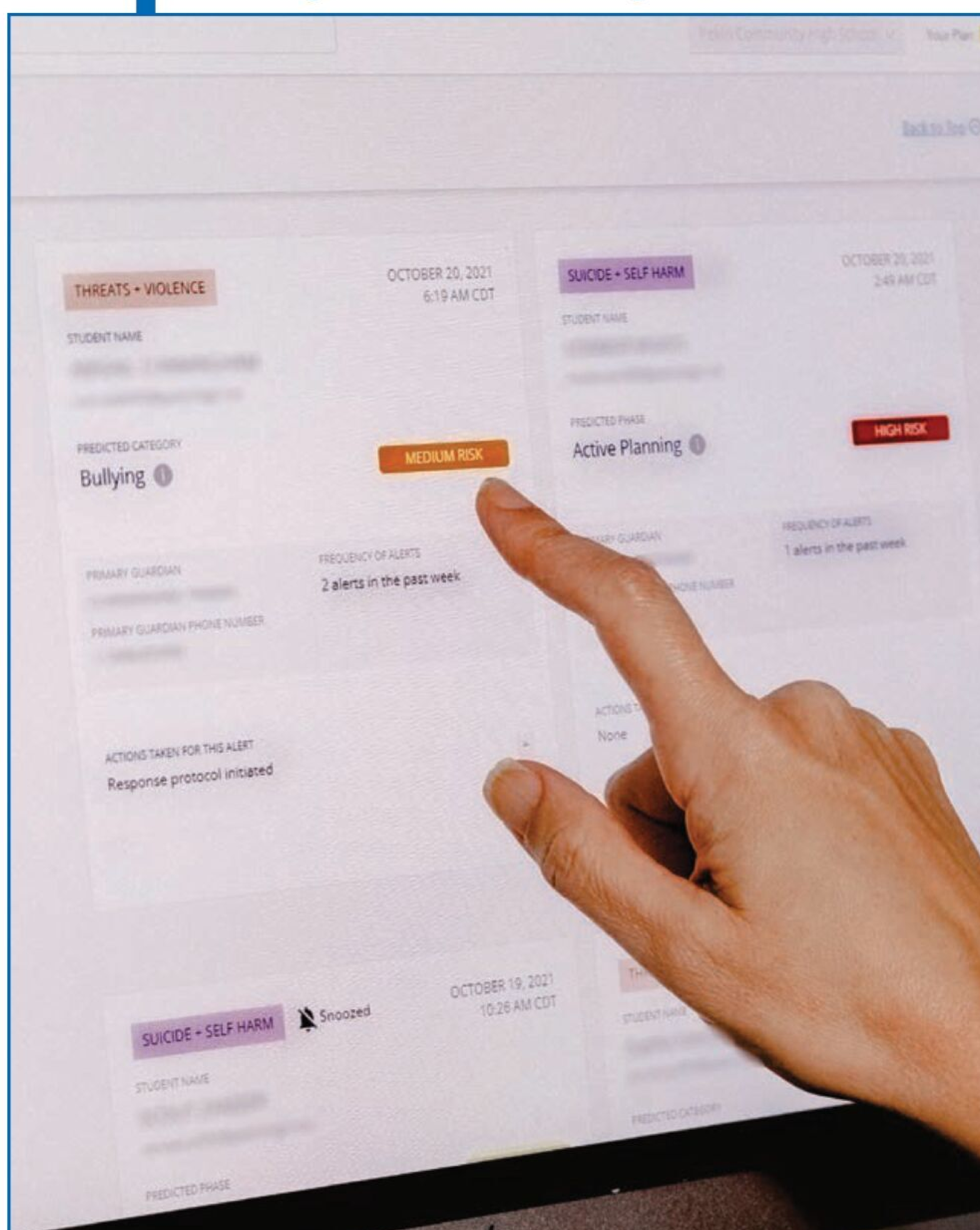
Still, class clowns persist. Hinderliter pulls up a detailed dashboard of student online activity, which reveals the identities of rule breakers. A yellow “EXPLICIT” label appears beside the name of a youngster who had typed “sexy girls” and “sugar daddy dating” into Google. Other students were searching YouTube for videos of a farming simulation game, guitar tutorials, and, for some reason, nursery rhymes about trucks. Another popular search: “How you bypass GoGuardian,” which is the name of the tracking software Pekin High uses. GoGuardian has been around since 2014, but the pandemic gave educators new reasons to adopt it. The software is quickly becoming almost as commonplace inside American classrooms as standardized tests.

Even as schools throughout the U.S. have opened back up for full in-person instruction, they’ve generally kept the technologies they picked up during the unending months of Zoom lessons. This includes laptops and tablets, which some schools were already using before Covid, as well as apps that allow students to attend classes while they are quarantining after an illness or a potential exposure and software to allow educators to keep tabs on them.

For kids that means their every keystroke, click, and search is recorded and analyzed by companies such as GoGuardian, which is based in Los Angeles. Its competitors include Gaggle.Net, Securly, and Bark Technologies. In addition to monitoring and website filtering, GoGuardian sells software tools for classroom management, video calling, and network security. Its most futuristic offering, Beacon, is an artificial intelligence feature the company claims can identify students who, based on their online behavior, are at risk of hurting themselves or others. Advait Shinde, GoGuardian’s chief executive officer, says his company plans to offer software for “classwork, homework, exams”—every aspect of primary and secondary school. “We haven’t fully realized what technology can do.” He imagines computer systems that recommend assignments and offer personalized curricula based on data GoGuardian collects. This summer he raised $200 million, valuing Liminex Inc. (the company’s official name) at more than $1 billion.

Earlier this year, GoGuardian struck deals with state education departments in Delaware and West Virginia, which will give every school in both states access to the software. New York City, the nation’s largest district, recently signed a similar contract with the company, bringing GoGuardian’s potential reach to more than 23 million students. Some parents and privacy groups find the use of tracking software inside classrooms to be disturbing, but many school administrators (and many parents, for that matter) seem to regard those concerns as overblown. Schoolkids already turn over personal data to big companies when they mindlessly scroll through TikTok and Instagram, and surveillance in schools has been around for as long as there have been hall monitors. “I’ve always felt that they’re already being tracked,” says Pekin High’s principal, Joel Schmieg. Administrators at another GoGuardian customer—Success Academy, the large New York charter school network renowned (or infamous)

↓ Pekin High uses GoGuardian to find digital troublemakers



for harsh discipline—say they hear demands from parents for more internet filtering, not less.

Even if most educators believe that students should be monitored when they’re using computers, there’s far less clarity about what computers mean for the future of learning. For years, Silicon Valley has tried to leave its distinctive mark on education, but most attempts have failed.

Pekin High was flooded with alerts and "kids searching for problematic stuff," Hinderliter says. "Problematic would be porn"

Massive open online courses, or MOOCs, haven't been the game changer for higher education that futurists and TED talkers once described. Mark Zuckerberg's $100 million effort to remake the school system in Newark, N.J., led to allegations of corruption along with limited evidence of improvement. AltSchool, an education company backed by Zuckerberg and top venture capital firms and founded by former Google executives, started closing its 3D-printer-equipped classrooms in 2017 and got out of the business of operating schools entirely in 2019.

Will this latest Silicon Valley foray into education end any differently? GoGuardian and similar apps were rushed into schools during the pandemic. Teachers like the apps, students accept them, and they even play in Peoria—or just outside it, anyway. But no one actually knows how well, or even if, these technologies work.

In 2013, President Barack Obama unveiled ConnectEd, an initiative calling on schools to embrace the internet era and to give students cheap computers. Soon, iPads and Chromebooks started pouring into classrooms, and Shinde, then a programmer at Google, sensed an opportunity. He quit his job and, working with two acquaintances, created a browser widget called Laptop Lookout. It was supposed to help schools hunt down kids' lost devices. Their pitch didn't take, but it gave him a new idea.

"This stuff is great and all," Shinde recalls hearing when he talked to teachers. "But I'm having trouble keeping my kids from watching Netflix in class." After unleashing the internet in classrooms, schools were desperate for ways to control it. The trio reworked their spiel into one for a web-censoring widget called GoGuardian. Rather than blocking entire websites—an approach that many corporate IT departments take to control what employees do on their work computers—the system they developed claimed to analyze text and pixels on each website to filter out only those deemed inappropriate or unwanted. So, in theory, teachers could send kids to Reddit and YouTube without worrying they might wander down distracting or darker paths. "You end up blocking much less," Shinde says. Schools would pay a per-student fee (now around $5) for each GoGuardian product they used. GoGuardian raised $5 million in seed funding in 2015 and saw encouraging if unspectacular growth in its early years. In 2018 private equity firm Sumeru Equity Partners LP bought most of the company for an undisclosed price, and Shinde's co-founders left, leaving him in charge.

Shinde has no background in education, nor, at age 31, is he a parent—"not yet," he says. But he's won fans in the field simply by being more agreeable than the average tech bro. Many Silicon Valley executives selling products to schools "model themselves after Steve Jobs: 'I know best,'" says Tony Miller, a deputy secretary of education under Obama. Shinde met Miller in 2018 and recruited him to GoGuardian's board. Shinde "had a real vision for improving education that was less about technology and more about its benefit," Miller says.

The pandemic gave Shinde's pitch urgency. He sweetened the deal by offering GoGuardian software for free on a trial basis to any school that wanted it. Teachers can see students browsing the web in real time. "It's like the teacher is there with them," says Marshall Beyer, education technology coordinator for the Turlock Unified School District in California's Central Valley, where GoGuardian tracks roughly 14,000 students. If a kid is playing a video game instead of working, the teacher can commandeer the screen and force-quit the game. There are Reddit threads from teachers cataloging student Googling, ranging from the banal (photos of potatoes) to the discomfiting ("cat poop" and "how much does horse semen cost").

More than 1,000 schools signed up for free trials in the spring of 2020, and some of those paid for accounts at the end of the school year. In some cases new customers used federal Covid relief funds for the purchase. That fueled whiplash growth for GoGuardian: Since March 2020 the company has added 253 employees, bringing its total to about 480, and Shinde acquired two other ed-tech startups.

The schools—not GoGuardian—decide what to block on kids' computers, though this isn't always clear to pupils. Precocious seventh graders once emailed Shinde to complain that their district in New Jersey had blocked the *New York Times* but let right-wing outlets such as *Breitbart News* slide. The seventh graders blamed Shinde. He set up a video call to explain to the students that GoGuardian didn't make filtering decisions and suggested they lobby their administrators. He hasn't heard from them since. "From our perspective," he says, "we're not in a position to say what's right or wrong."

Pekin is a blue-collar town. Its public high school sits next to a strip mall with a Pizza Hut and a nail salon and is 1 mile from a park that claims to have the "world's greatest sundial." (It isn't the tallest sundial in the world, or even in the country, but it does have informative plaques about the solar system, and there's a lagoon nearby.)

Pekin High signed up for GoGuardian three years ago, after doling out bare-bones Acer Chromebooks to its 1,800 students. Every summer the school gives graduates a chance to keep their computers (for $25 each) and orders a fresh batch of 500. With the help of a few members of the school staff, Hinderliter sets up each laptop, which comes equipped with only a web browser, adding some library and math programs, and a software widget for recording online lessons.

← GoGuardian CEO Shinde

COURTESY GOGUARDIAN

On the computer at her desk, nestled in a corner of the school library, Hinderliter is already logged in to GoGuardian. She opens a dashboard labeled "Fleet" and pulls up a digital map, revealing the location of each laptop. "This one says that ▶

↑ Math teacher Faille

◀ it's 6 miles away," she says, pointing to the screen. It's summer vacation, so the student is online at home. "That's very useful when we have a stolen Chromebook."

It's taken a while for Hinderliter and her team to figure out what to do with all the intel pouring in. After first introducing GoGuardian, Pekin High was flooded with alerts and "kids searching for problematic stuff," she says. "Problematic would be porn." Her philosophy is fairly liberal. A few questionable Google queries won't result in any discipline, though she calls students to her desk to warn them not to cross lines on a school laptop. "We don't have the time or the staff to monitor every little thing they do," she says.

Repeat offenders are put in what she calls "the penalty box"—a virtual form of detention that locks them out of anything unrelated to schoolwork. Hinderliter clicks on the search history of the sophomore recently busted for Googling "sexy girls," unfurling a string of time stamps and other naughty terms. Hinderliter is letting it go for now but is keeping an eye on him in case he continues to look for adult content. "For an entire semester, we might have a kid in the penalty box," she says. Hinderliter says she also has to remind at least one student each year not to send love letters through school email accounts.

For teachers, GoGuardian's classroom tools are the major attraction. Riley Faille, a Pekin math teacher, says she logs in to GoGuardian from the laptop on her desk when she's teaching so she can limit what students have open on their screens to only what she wants—a calculator or exam, for instance. During study halls she uses the software to watch what the students are doing. If someone strays from homework, she'll open a tab on their screen and type GoDoYourWork.com. "I like stuff like that," she says. She considers it a gentle way to remind them "Oh, I shouldn't be doing this right now."

At the end of each class, Faille gets a report with pie charts summarizing what students were doing on their laptops, which helps her see if they missed something while she was teaching. But on days when students are home because they're sick or quarantining, she finds GoGuardian less useful. Last year, Pekin split kids into two cohorts, with each coming in every other day. On work-from-home days, students were free to set their own schedules. When kids were in class in person, Faille blocked sites such as YouTube, but she couldn't limit YouTube usage for students at home because they might need access to online videos for their Spanish or French assignments.

No matter where kids are, Hinderliter watches GoGuardian closely every day. Almost half of Pekin's high schoolers receive free or reduced lunch, and many take after-school jobs. During the pandemic, Hinderliter watched bills get paid and unemployment forms get filled out on student laptops, knowing that her kids' Chromebooks were often the only computers at home.

Sometimes she saw more troubling indicators. Around dinnertime on a Thursday earlier this year, Hinderliter received a panicked alert. A student had Googled "How to tell your girlfriend if you're suicidal." Hinderliter and three other administrators sprang to action in a text thread, so that a school official could call the student's home and alert a guidance counselor. Hinderliter declines to share details, other than to say that the student was ultimately all right.

Schmieg, the principal, says GoGuardian can help catch a slip in a student's mental health well before teachers, counselors, or loved ones might notice. He says he has called parents, finding them entirely unaware that their child is in distress. "That's happened multiple times in the past year," he recalls.

This school year, Pekin began using Beacon, which automates the process of alerting administrators about students the software deems most at risk. Schmieg says he received more than 40 alerts in the first week on the service. With each alert, the software created a report of the student's online activity, so he and school staff wouldn't have to dig through their search history to try to figure out what was going on. "I already love it," he says.

GoGuardian began testing Beacon back in 2018, but, like most of what the company offers, the service exploded in popularity after schools closed in March 2020. Last year, Clark County, an enormous district that includes Las Vegas, started using Beacon and saw more than 7,300 alerts, acting on almost a third of those. GoGuardian has promoted the new service as a way to combat the psychological strain students have faced during the pandemic. Shinde says the company "could be in a position to shine a flashlight on this issue."

But some parents and privacy groups consider Beacon to be emblematic of larger problems with GoGuardian's approach, which they characterize as unnecessary snooping that might actually be contributing to the psychological strain it's supposed to mitigate. "We were teenagers, right?" says Geoff Shandler, a parent in Montclair, N.J., whose school system tested out GoGuardian. "You shut your door when you're in your room. I don't think anyone liked the idea of being watched and tracked."

Shandler is a book editor, with three children in public schools (ages 8, 14, and 16). In February, in a weekly note to families, his district's superintendent said Montclair was using GoGuardian in several classrooms. Parents in the left-leaning suburb freaked, which prompted local news coverage and an online petition. Part of the concern came because the district said GoGuardian's filtering would be active whenever kids were logged in to their school accounts—whether that's on school laptops or computers at home. (GoGuardian says schools choose whether to turn on the function that allows filtering on home computers and declined to share how many have opted to do so.) In Berkeley the public school district paused its rollout of GoGuardian last year after a similar outcry. Students "feel like they don't have any space to themselves," a sophomore complained to the school paper.

In October a trio of Democratic senators sent letters to GoGuardian and three of its competitors chiding them for surveilling students and "compounding racial disparities" that already exist in school discipline. "We need to protect our students from the long-lasting and harmful effects these invasions of privacy may have," Massachusetts Senator Elizabeth Warren wrote in a statement to *Bloomberg Businessweek*. GoGuardian said in a statement that the company cares "deeply about keeping students safe and protecting their privacy."

The company gives schools handouts that purport to explain how the technology works. Montclair's schools tried addressing parents' concerns, but Shandler found the information confusing. He felt that GoGuardian's claims, particularly those about identifying students in danger, lacked supporting evidence. In a message to parents, Montclair Superintendent Jonathan Ponds wrote, "It may be helpful to know that 10,000 other schools, including our neighbors…use GoGuardian."

Critics describe GoGuardian's technology as a black box. Jonathan Singer, the former president of the American Association of Suicidology, says he worries that schools are deploying tools such as GoGuardian's without empirical evidence of their impact on mental health or an understanding of the algorithms at play. "There has to be some public involvement in what the software is doing," he says. While developing Beacon, a GoGuardian spokesman said the company had spoken with several experts, including Singer. Although Singer acknowledges he walked the company's staff through his research, he says that was the extent of his involvement with Beacon. "I don't really even know how it works."

Schools, swamped by debates about reopening and testing and mask mandates, haven't had much time to address these questions. As Delaware prepares to introduce GoGuardian into its schools, Alyssa Moore, the state official coordinating the rollout, says the education department hasn't rigorously tested Beacon's effectiveness and may not have a chance to prior to offering it to schools. "I need to get this system up and running before I do anything else," she says.

When a school sets up Beacon, GoGuardian's machine-learning models crunch everything students type and visit. According to Shinde, these systems can detect whether a post has "general suicide ideation" or is a true "high-stakes alert." GoGuardian has a support team available around-the-clock to sift through machine alerts on behalf of schools that don't have the staff or the inclination to do it themselves, giving the company more responsibility over how incidents are handled. When staffers review an alert and deem it serious, they call the school. Shinde says GoGuardian's goal is to make sure a school is aware of the issue, but "ultimately that's it. We want them to take the next action." GoGuardian declined to say how many people are on the team, calling that figure proprietary. The company says it changes the number of its round-the-clock staff based on demand.

GoGuardian, like many other tech companies, declines to disclose the specifics of how its algorithms make determinations. Shinde says GoGuardian complies with all federal laws on student data and privacy. If police are brought in to investigate an alert, GoGuardian allows schools to decide what data to share. And the company contends that Beacon is effective. "We have customers who literally say, 'There's kids alive today that wouldn't be alive without a tool like Beacon,'" Shinde says. "So from an evidence perspective, that's what we truly hang our hat on."

↑ Pekin High technologist Hinderliter

Some of GoGuardian's competitors are going further, selling services that scrape student searches, keystrokes, and social media posts in an attempt to read their minds and ferret out feelings of anger or harm. GoGuardian so far has steered clear of this type of so-called sentiment analysis. Having a computer play child psychologist isn't realistic, Shinde says. Technology just doesn't work well enough to do that reliably. But, he adds, "we're certainly open to expanding to it one day." Ⓑ

Kendzior's collection of wet floor and caution signs at the National Floor Safety Institute in Hurst, Texas

THIS FLOOR CAN KILL YOU

Americans spend $50 billion a year recovering from spills. An ex-flooring salesman says he's battling Big Floor to make everyone's footing safer

By Peter Andrey Smith Photographs by Allison V. Smith

On April 22, 2011, not long before she planned to marry, Amber Morris walked into a Costco in St. Louis where a puddle was waiting. In the store, Morris slipped and hit her right knee so hard on the floor that she dislocated her kneecap. Her fiancé helped her up and took a photo of the slick of rotisserie chicken grease coating the floor where she'd fallen. Two weeks later, Morris went in for emergency surgery and never came out. A blood clot in her heart killed her at age 39. Her burial took place on what was to have been her wedding day.

Morris's parents filed a wrongful death suit against Costco Wholesale Corp. and hired a St. Louis law firm that called itself the "winningest" on billboard ads. That firm recruited an expert witness named Russell Kendzior, a former flooring salesman from Texas who over the past quarter century has been retained in more than 1,000 lawsuits and styles himself as America's most prominent floor safety advocate. Kendzior was prepared to argue not only that the chicken grease was evidence of negligence but also that the store's flooring was inherently dangerous. In 2015, Costco, which declined to comment for this story, settled for an undisclosed sum, according to Kendzior.

The millions paid out annually in settlements are compounded by the $50 billion that Americans spend on health care annually to treat slips, trips, and falls. In a typical year, bad spills kill thousands ▶


Slip-and-fall video outtakes provided in lawsuits that Kendzior was retained as an expert for

◀ and seriously injure hundreds of thousands, according to the Centers for Disease Control and Prevention. More than a quarter of the 888,220 injuries resulting in days away from work in 2019 were caused by slips, trips, and falls, according to the Bureau of Labor Statistics. It's common to refer to these cases broadly as accidents, but Kendzior says that's a misnomer. "Accidents are not predictable and not preventable," he says. "Most slips and falls are not accidents. They're incidents."

Kendzior and other safety advocates argue that a huge part of the problem, one in urgent need of reform, is the lack of mandatory testing and labeling for tile, vinyl, and other commercial flooring materials. Friction is what experts use to gauge slipperiness, measuring the wear and resistance between two objects, such as a shoe rubbing against a floor. But there are no mandatory federal or industrywide friction standards for flooring or other walkway surfaces—only voluntary guidelines, some of them mutually exclusive. Even the industry's own standards find floor safety wanting. In a 2017 report by CNA Financial Corp., one of America's largest insurers, half of all U.S. commercial flooring failed to measure up to an industry standard supported by ceramic tile manufacturers.

Across the multibillion-dollar commercial flooring industry, definitive numbers can be tough to come by. Yet the frequency of personal injury claims at major retail chains, which include falls, underscores advocates' concerns. Data from Bloomberg Law show that over the past year, Costco was named in more than 200 personal injury lawsuits, while Walmart Inc. appeared in an average of three every day, which accounted for 60% of all new litigation filed against it. Kendzior says a single big-box store received 200 claims worth an estimated $3 million during one particular six-month span. Publix Super Markets Inc. reported roughly 69,000 falls across its 925 stores over five years in a 2012 affidavit provided by the company's in-house legal assistant in a slip-and-fall case in Florida. None of these companies responded to requests for comment.

Why aren't retailers and other commercial businesses taking this problem seriously enough to solve it? Two reasons, Kendzior says: First, the costs are generally passed on to the companies' insurers. And second, ageism. While plenty of working-age people like Morris take devastating falls every year, most cases involve the elderly. "We live in a society where

Controversial safety consultant, nonprofit founder, and entrepreneur Kendzior youth is glorified," he says. "And being old is, you know, put them in a nursing home and let them die."

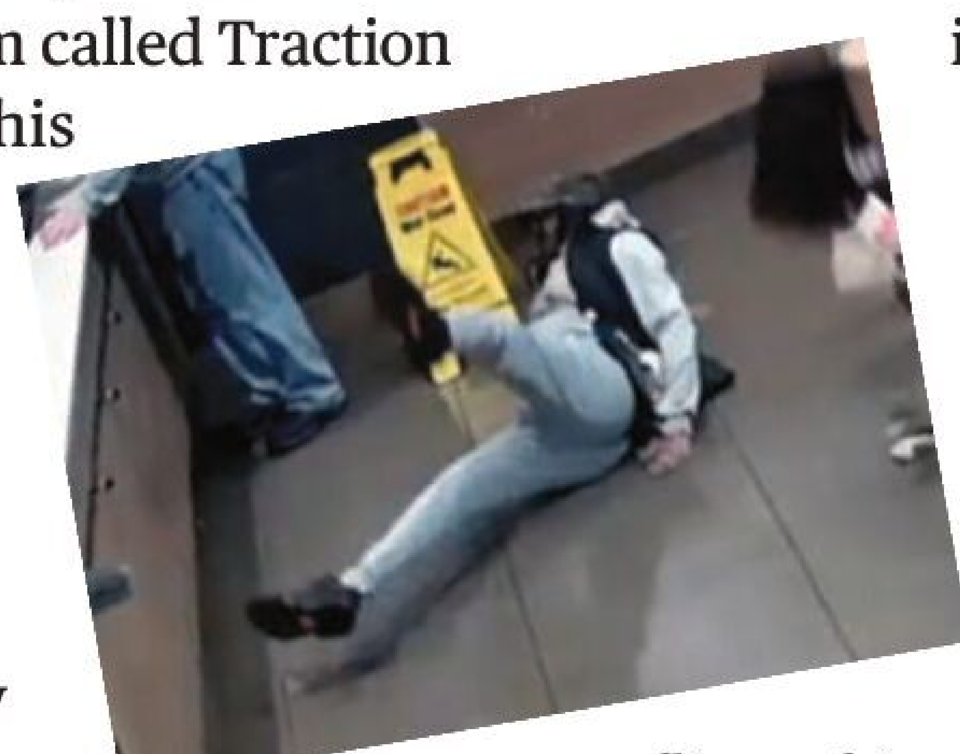
Over the past decade, as Kendzior's voice has grown louder in Washington, an ecosystem of floor safety entrepreneurs has emerged. These teams, who test ways to prevent robot feet from sliding on tile and other materials, broadly agree that clear standards are needed when it comes to how slippery a floor can be. They disagree, however, on what those standards should be, and even how to assess them. A tribometer, the primary instrument used to measure friction, can be calibrated differently from manufacturer to manufacturer and return wildly different results.

The firms often have competing motivations, and many have a vested interest in trash-talking the others. There are the researchers for such trade groups as the Resilient Floor Covering Institute, which represents makers of vinyl, cork, and laminate surfaces. The Tile Council of North America represents, well, tile. There are franchises like Walkway Management Group Inc.; consultants who also sell tribometers; and other firms that offer to test surfaces and certify products. They often work directly with the flooring companies.

Then there's Kendzior, who's built a one-man consulting firm called Traction Experts Inc. around his witness testimony; a small company called MAD Safety Instruments that distributes tribometers; and a nonprofit, the National Floor Safety Institute (NFSI), which is trying to make his the federal standard. The only thing most of the other organizations agree with him on is that U.S. flooring materials need better labeling (like letter grades) so people know how slippery they can get. Some of the trade groups don't even agree with that.

Kendzior's critics, many of them competitors, accuse him of fearmongering and paying short shrift to the actual science in favor of his own mythos and profits. Admittedly, the guy makes $500 an hour from a line of work often dismissed as ambulance chasing, and he has a lot of interlocking side hustles, plus a penchant for grandiosity. "I changed the world," he says. "I didn't mean to, but I did, and when you do something that big, you make friends and you make enemies." By the same token, he works in an industry where a ubiquitous inanimate object can kill you.

His tiny operations' obsession with flooring, a seemingly dull and largely unregulated field, has antagonized and drawn attention from his rivals as well as the U.S. Consumer Product Safety Commission (CPSC), where he's been lobbying for a federal standard for six years. In Washington several of the organizations with their own competing standards have campaigned against his in an effort to dominate.



Among other things, Kendzior has a knack for transforming frictional standards into captivating stories that swing jurors. "It's a war," he says, noting his rivals' own conflict of interest. "I'm protecting people because I believe one day we're all going to be judged for what we did on this Earth. And I want it to be said I did my best."

A sole slip resistance tester at Kendzior's lab

Kendzior, one of five kids raised in the Chicago suburbs by a welder and a factory worker, began his career in the area 35 years ago selling no-wax vinyl flooring, at the time all the rage in Reagan-era kitchens. He worked as a sales rep for a regional distributor of Armstrong Flooring Inc., a Pennsylvania-based company, his first job out of Bradley University in Peoria, Ill., where he majored in math. It wasn't long before he began hearing about customers' safety problems. The common refrain, he recalls, was: "We've put a lot of floors in our schools or grocery stores, and people are falling." When he asked management at Armstrong how to handle those questions, he says he was told to refer angry customers to the lawyers. "What kind of customer service is that?" he thought, and he soon resigned in protest. Colleagues gave him a plaque that read: "You F---ing Quitter." (Armstrong didn't respond to a request for comment.)

At the time, Kendzior had a 6-month-old daughter and a mortgage, but he saw a business opportunity to make floors less slippery. He started with cleaning solution. U.S. shoppers love shiny floors that smell ▶

◀ like lemon or pine, but such scented cleansers with soap often leave behind a slippery film. “Guess what—desert pine is an oil,” he says. “You just put perfume on your floor and you wonder why it’s slippery. Go figure.”

It would be generous to call Kendzior an amateur chemist, but after three years mixing up prototypes and testing them at area stores after midnight while his wife—the family’s sole breadwinner—worked as a marketing manager for Southwest Airlines, his 13th formulation found a buyer: McDonald’s Corp. After franchisees in the Dallas-Fort Worth area became regular customers, he built the business into a cleaning and chemical company called TractionPlus. He formed a partnership with Walmart on a line of slip-resistant shoes, TredSafe, and divested portions of TractionPlus over the course of the 1990s, pocketing enough to retire.

In 1997, Kendzior reached another crossroads when an attorney asked him to testify in a slip-and-fall case, around the same time he created the NFSI. He became a reliable expert witness in tandem with his development of new friction standards that he used to train others and inform his recommendations for tribometers. After publishing a book with the electrifying title *Slip-and-Fall Prevention Made Easy: A Comprehensive Guide to Preventing Accidents*, he made his largest splash on the national stage in 2009, when he got his first friction standard published by the American National Standards Institute (ANSI), a nonprofit whose roughly 3.5 million members and 125,000 member businesses coordinate a voluntary consensus system for specifying norms and guidelines in virtually any industry imaginable: fire hydrants, gloves, mayonnaise, shipping containers, or the numeric code assigned to the keys on your keyboard.


Walkway’s floor friction tester

Industry trade groups, representing flooring manufacturers with more than $1 billion in annual sales, put forth their own standard. Kendzior’s competitors, too, began to criticize his methods as selfishly motivated or insufficiently scientific. Kendzior, for his part, followed up his first book with two more: *Falls Aren’t Funny: America’s Multi-Billion Dollar Slip-and-Fall Crisis* and *Floored! Real-Life Stories From a Slip and Fall Expert Witness*. He also sought federal recognition for his organization’s criteria. Things came to a head in 2018, the second time his NFSI petitioned the Consumer Products Safety Commission to approve its label for national use.

The five commissioners at the CPSC rejected Kendzior’s group’s first bid for a national standard in 2017, citing insufficient data to establish that the NFSI’s benchmark would really help reduce falls. The second time around, Kendzior says, he thought he was better prepared to respond to criticism while staying focused on the inherent danger of flooring products without clear labels.

But over the course of two months, more than 75 letters from flooring trade groups and companies, as well as other forensic consultants and engineers, stated their formal opposition. Many pointed out technical deficiencies and potential conflicts of interest. The Resilient Floor Covering Institute called the NFSI data “irrelevant, unsubstantiated, or misrepresented.” The Tile Council of North America, which introduced an ANSI standard, said Kendzior’s proposal could actually decrease overall safety by giving customers “a false sense of security.” Several others registered the not-unfair critique that the NFSI stood to gain from selling certifications and from sales of an approved tribometer sold by Kendzior’s MAD Safety Instruments.

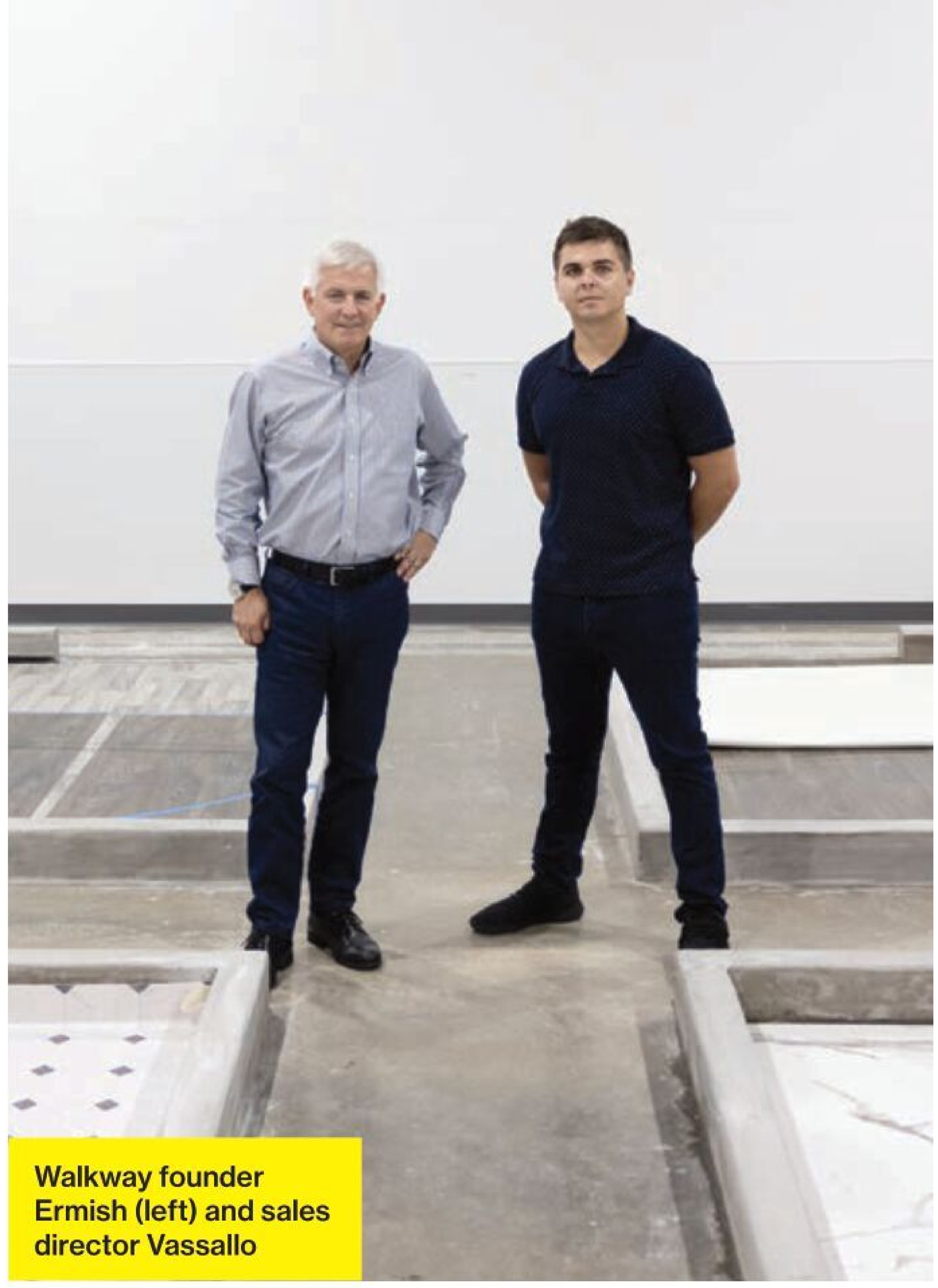
The commission rejected the NFSI’s proposal along party lines, but not one of the commissioners actually voted for it. The Republicans opposed, the Democrats abstained. Kendzior blames the flooring companies and says his critics are either self-interested industry officials or jealous rivals with financial incentives to support Big Floor. (“These are small people with big egos, and I rained on their parade,” he says. “They’re the losers.”) But he didn’t do himself any favors in his testimony to the commission, during which he accused Acting Chair Ann Marie Buerkle, whom he calls a “right-wing idiot,” of not wanting to enforce safety standards, comparing her to a “hammer that doesn’t want to hit nails.” Even now, he seems to take joy in reliving this act of self-sabotage.

By comparison, the flooring industry’s preferred partner cast himself in the role of good cop. Peter Ermish is an entrepreneur who co-owns Variosystems Group, an international electromechanical company with more than $200 million in U.S. sales.

Falls on the Job

Events or exposures producing or inflicting nonfatal occupational injuries and illnesses in U.S. private industry in 2019 that resulted in at least one day away from work

*CASES RESULTING FROM FREE BODILY MOTION, EXCESSIVE PHYSICAL EFFORT, REPETITION OF A BODILY MOTION, THE ASSUMPTION OF AN UNNATURAL POSITION, OR REMAINING IN THE SAME POSITION OVER A PERIOD OF TIME. DATA: U.S. BUREAU OF LABOR STATISTICS



Walkway founder Ermish (left) and sales director Vassallo

After commercializing designs for a tribometer, he co-founded Walkway Management Group in 2019. Walkway sells the only tribometer currently capable of testing a floor's compliance with the ANSI standard, and its technology is used to monitor walkway safety in places like the Smithsonian Institute. Ermish was on the board of Kendzior's nonprofit but has since parted ways, emphasizing what he describes as a more scientifically rigorous approach to preventing falls. Walkway's head of sales, Rob Vassallo Jr., is less diplomatic, dismissing those paid to spout off their own opinion in court. "Every forensic person is a clown," he says.

Asked about his own financial interests in consulting with companies to ensure flooring standards, Ermish says safety is his priority and profits are unlikely. "I'm $2 million in the hole," he says. "We're approaching breakeven. My dream is to not lose money." He declined to provide revenue or sales figures.

But their testing to an industry standard, critics contend, only applies to one flooring type: ceramic tiles. Makers of the vinyl and composite tiles found in retail chains, hospitals, airports, and gas stations say that because the standard requires testing floors when wet, and their flooring should never be used when wet, they shouldn't be judged along those lines. (Good luck telling that to any injured parties.)

If there's any consensus, it's that the U.S. needs floor ratings designed for consumers, says John Leffler, who works as a forensic engineer at consulting firm Forcon International in Atlanta. "If I'm an architect or an interior designer, I really need to be able to pull up the Home Depot website and see that this flooring gets an A and this gets a C," he says. He's spent years working on a different standard at ASTM International, another standards-developing organization, which was formerly known as the American Society for Testing and Materials.

Coming up with standards, to put it mildly, remains a work in progress. As part of an ongoing collaboration between forensic engineers and the musculoskeletal biomechanics research laboratory at the University of Southern California, the lab outfitted test subjects with harnesses and partially blacked-out glasses and had them attempt to cross surfaces covered in Teflon and other coatings that had been slicked with a carefully formulated contaminant. The test's purpose was to see how well the friction measurements taken by various tribometers correlated with real-world "human slip experiences." The result: Different machines testing the same flooring surfaces produced vastly different results. "It's a mess," says Christopher Powers, co-director of the USC research team, adding that the status quo helps the industry avoid having to make any big adjustments. "The last thing a floor company needs is someone coming up with the magic number that [shows], oh, by the way, this flooring surface, which is in 60 million buildings across the United States, is slippery when wet."

Back in Texas, Kendzior is continuing to provide expert testimony. He says a recent trial he testified in ended with a $16 million jury settlement for an oil worker whose boot stuck under a pallet of watermelons, causing him to fall and shatter his elbow. He's also preparing to petition the CPSC, counting on friendlier faces to be appointed by Joe Biden, the oldest president in U.S. history, who, as Kendzior notes, has been known to wipe out. In October the Senate confirmed a new CPSC chairman, Alexander Hoehn-Saric, and the Biden administration has nominated Mary Boyle, the commission's current executive director, to fill the open seat. Boyle's confirmation would bring the commission up to three Democrats and two Republicans, theoretically giving Kendzior a much better shot.

His detractors, though, haven't relented. Leffler, the forensic engineer, says there remains a lot of work to do to sort out the present slate of competing friction standards. He calls Kendzior a gifted orator but argues that he's trying to sell the perception of competence as opposed to a technically rigorous and scientifically defensible rating system. "It'd be really nice to state that we could just push the button on the NFSI-blessed device, and what it means is that something is safe for humans or it's not," he says. "It's not that simple."

Kendzior defends his methods, but he concedes that his decades of work on the subject haven't ultimately prompted major change when it comes to the industry facing regulatory oversight. At his local Costco, for example, the shopping carts no longer have angled fold-down baby seats, making customers more likely to place their rotisserie chickens flat in their carts and less likely to grease the floor as they wheel through the aisles. But the glistening $4.99 birds still bake under heat lamps inside flimsy clamshell containers that are prone to dripping fat onto the 12-inch-by-12-inch vinyl composite tiles, creating a possible deathtrap. "The flooring industry, I mean, they spend millions of dollars opposing our work every year," he says. "You take some arrows. But that's what I signed up for." Ⓑ

A Better Supply Chain For Beauty

There's a new way to find and buy ethically produced cosmetics

By Aja Mangum
Illustration by Ben Lewis Giles

November 1, 2021

Edited by
Chris Rovzar

Businessweek.com

Longtime beauty publicist Robin Tolkan-Doyle was on a trip through India in March of 2020, just before the onset of the pandemic. The point of the trip was leisure, but as she explored Delhi, Rajasthan, and Uttar Pradesh, she toured textile-making cooperatives, visited off-the-beaten-path shops, and chatted with families in their homes. What struck her immediately was the dire impact that exporting products to the U.S. had on the life of the workers she met.

"There's millions of people out there harvesting these ingredients, producing them, and how are they treated?" the 25-year industry veteran asks. "That was something I felt wasn't being given enough attention."

"Clean," "sustainable," and "cruelty-free" are buzzwords in the beauty space, and while brands tout their nontoxic formulas and green packaging, little is known about the producers working behind the scenes to deliver on those promises. So Tolkan-Doyle began researching brands that were bringing ethical sourcing to light.

When she found a small group of them, she created Beautyologie Inc., an e-commerce company and content site for fair-trade and ethically sourced beauty goods. Tolkan-Doyle seeks to shine a spotlight on the workers from disenfranchised communities around the globe who serve as the backbone for an industry that barely acknowledges them. "What I came to find out is that there are brands that are doing this," she says. "But there aren't a lot, and not a lot of huge brands." There also wasn't a platform where all these companies could be discovered together, until Beautyologie.

"It tends to be smaller, more nimble companies who are looking at the trends and making products that are a little more future-proof," says Mary Linnell-Simmons, director of marketing and external relations at Fairtrade America, the U.S. branch of Fairtrade International. "If they see that the direction is towards ethical sourcing–maybe not everybody is there yet, but they want to set up their supply chains with that in mind vs. trying to retrofit later on."

All 22 brands currently featured on Beautyologie are formulated with certified fair-trade ingredients or are ethically sourced and transparent with their supply chain. (Certification organizations such as Fairtrade International, Fair Trade USA, and Fair for Life use a third-party auditor to monitor supply chains.) This means the companies work directly with producers from developing countries who source the ingredients in their products, and they pay them fair and livable wages. They also keep much of the farming, ingredient sourcing, fabrication, and labor within the community they're working with, which gives the producers power and a seat at the table.

It's about time, says Rahama Wright, founder of shea butter body-care brand Shea Yeleen Health & Beauty LLC: "They rightfully deserve to be part of industries that use their labor. We're talking about multibillion-dollar industries that have been benefiting off cheap labor of people of color for hundreds of years."

Customers can shop the platform by brand, product type, or country of origin and tune into Beautyologie TV, the site's video section, to learn about the producers and how the industry has affected their lives. "It's just such a noble humanitarian mission," says Tolkan-Doyle of the companies' efforts to help these makers. "I wish more brands would do that."

Here are some of the brands that already do.

Shea Yeleen

Rahama Wright began her mission as a Peace Corps volunteer in rural Mali, hoping to become a foreign-service officer. There, she saw women who reflected her heritage–she's Ghanaian on her mother's side–struggle to make a living for themselves and their children by farming the nut that makes shea butter.

THE PRODUCTS The company offers rich body creams ($20), bar soaps with invigorating scents like lemon patchouli ($8), and dense body balms ($22) with 95% unrefined shea butter—which restores elasticity and powerfully hydrates dry skin.

FOUNDING Wright introduced the brand in 2005, funding it with her Peace Corps readjustment allowance. She soon developed an ecosystem of safe processing facilities and gained access to capital and equipment.

FAIR PAY In Ghana, Wright met women who were using traditions passed down from mother to daughter for hundreds of years—and who were still unable to generate income from their labor. Now they work collaboratively to transform shea seed into polished products, such as the sumptuous lavender-honeysuckle-rich shea body cream ($20).

THE MISSION Shea Yeleen's goal is to provide women with a livable wage, not so they become lifelong shea producers but so they can save, invest, and have agency in improving their lives as they see fit. "It's an activity that they do, but it's not something that they should be doing for the rest of their lives," Wright says.

True Moringa

When Kwami Williams immigrated to the U.S. from Ghana as a child, he wanted to become a rocket scientist. The self-proclaimed geek pursued aerospace engineering at the Massachusetts Institute of Technology and later worked at NASA. Williams thought he'd achieved the American dream, but when he moved back to his home country as an adult, he saw struggles he'd never thought much about before. "I started to ask myself, 'An aerospace engineer can put a man on the moon, what can I do in my own way?' "

INITIAL STEPS Williams enrolled in MIT's D-Lab: Development, a program that combines design, engineering, manufacturing, and business to create solutions with communities to help alleviate global poverty. There he met future True Moringa co-founder, Emily Cunningham, a Harvard graduate with a background in development economics.

SOLUTIONS "The biggest problem is that so much of development is done from a top-down perspective. We invent these cookie-cutter solutions in the Western world and export them to different places, and it just doesn't work," Cunningham says. "What really works is using the local community and understanding problems people want to solve together in community-driven development." At the end of 2014, the first year of operation, True Moringa worked with 100 farmers. Today that number has grown to 5,000.

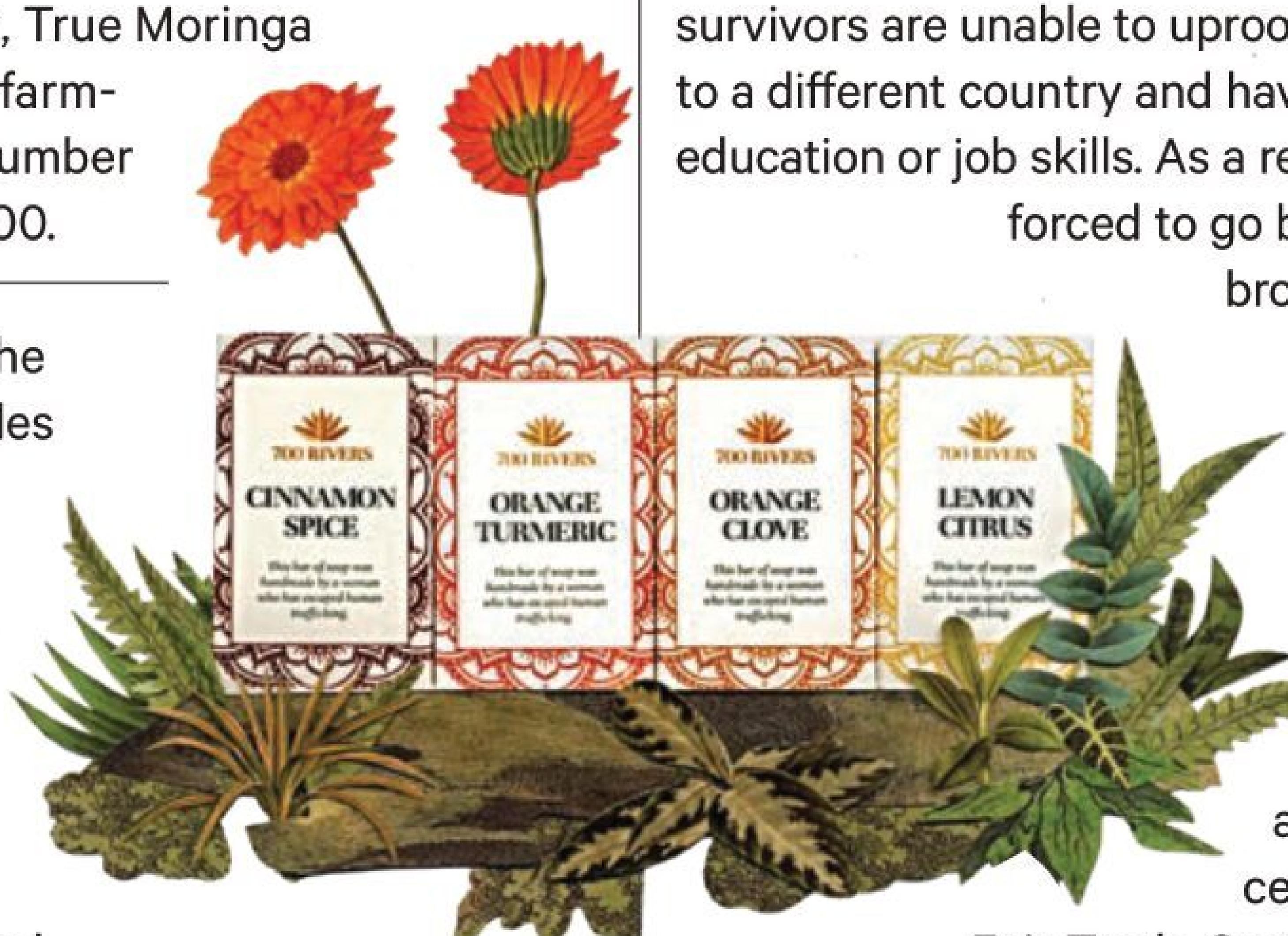
PROCESSING The community handles the harvested moringa as well. "Too often crops like cocoa and coffee are exported to the Western world for processing, and none of that value is captured by the people who are putting in the hard work," says Cunningham, who adds that True Moringa employs more than 50 people in Ghana.

THE PRODUCTS Local farmers wanted to profit off their nutrient-rich moringa trees, but they were wary after a parade of companies and do-gooders provided training to grow other crops, such as sunflower, but never returned to buy them. It took time to build trust, but now they produce top-quality creamy facial cleansers ($17) and multipurpose anti-inflammatory oils that can be used for moisturizing, massage, or even hair detangling ($26 to $36).

700 Rivers

Cathy Gomes's friends joke that she's the chemical engineer who started rejecting chemicals. She began making soaps in her home when she realized that most of the ingredients in the products she used were unnecessary. Combining her "chemy" skills with a desire to make a positive impact, she created 700 Rivers, an all-natural bath and body brand.

THE PROBLEM Gomes's family immigrated to the U.S. from Bangladesh shortly before she was born in 1992. Her call to activism was triggered when she learned the South Asian country was one of the worst for human trafficking and labor exploitation. "This is something that disproportionately affects women, so as a woman of Bangladeshi descent, this felt very personal to me," she says. Many survivors are unable to uproot themselves to a different country and have little to no education or job skills. As a result, some are forced to go back to the very brothels from which they escaped.



SOLUTIONS Working with Sacred Mark Enterprise, a production center for World Fair Trade Organization member Prokritee, 700 Rivers provides women with access to job-skills training and mental-health counseling. "We love our product line, because it allows our customers to get a fresh start to their day while also helping women across the world get a fresh start at life," Gomes says.

THE PRODUCTS 700 Rivers crafts coconut-oil-based soaps ($10), which are naturally moisturizing and rich in fatty acids that can reduce signs of aging, in scents such as orange turmeric and cinnamon spice. The 32 artisans of Shuktara Handmade Paper Project create the packaging using jute, a vegetable fiber abundant in Bangladesh.

Katari Beauty

Kate Fish fell in love with the Mediterranean while working as a translator in the region. "I was born and raised in the Soviet Union, and we didn't have tomatoes, we didn't have toilet paper, we didn't have anything at all," she says. "Tunisia back in the '90s was a paradise for me, because everything was available yet very simple." She eventually landed in the U.S., but her corporate and hospitality jobs left her unfulfilled, so she returned to Tunisia in 2014 and decided to sell the clay the locals use in their skin-care routine.

CONNECTION Fast-forward, and Katari Beauty now specializes in single-ingredient beauty staples sourced by local farmers—a relationship that took years to develop. "You cannot tell their story without knowing the story, and to know the story you have to work with the people," Fish says. "You need to go to the villages, you need to know the community, you need to know the donkeys and if the donkeys are sad or if they're happy." For example, the Argil green clay that goes into the Katari deep-cleansing face mask ($32) is gathered by hand from a quarry in an ancient seabed by a farmer named Mohamed whose family has lived in the foothills of the Atlas Mountains for generations.

THE PRODUCTS There are no intermediary or supply-chain issues for Katari, because its work remains inside the collective. The hand-blown glass bottles for its skin-smoothing rose hip, black seed, and pomegranate seed face oils ($46 each) are created by Lamyaa El-Enany, an Egyptian woman who hails from a family of glassmakers. The brand also offers black castor seed oil for brow and lash growth ($46). "I know personally that I cannot make a change in millions of lives," Fish says. "But I can definitely affect a couple of thousand, and that's enough for me."

RICE BOWLS "Freshen up your table like you'd freshen up your wardrobe," says Mary Anne Davis, a ceramicist in New York's Hudson Valley who's been making bespoke pottery for more than 25 years. She originally created these diminutive bowls for a client as a portion control strategy. Now with 15 different color glazes, they're apt vessels for edamame, soups, or indulgent snack attacks. *$38; davistudio.com*

Happy Meals

By Zach Patton
Photographs by Janelle Jones

CLOUDWARE CHEMIST CUP Puffy clouds drift across this sturdy container from Haand, a small ceramics studio housed in a former textile factory in Burlington, N.C. Each dreamy swirl is unique, made via slip casting with colors meant to evoke Wedgwood Jasperware of the early 1800s. The subtly tapered cylindrical shape gives its 19th century apothecary vibe a little sci-fi edge. *$28; haand.us*

KINTARO DINNER PLATE Bold brushstrokes in vivid indigo along with a crimson trim distinguish these striking Kintaro plates from Oka, a two-decade-old British home design company that opened its first U.S. store in Houston this spring. Each plate is hand-painted in Jiangxi, China, which has been producing fine porcelain for a millennium. *$100 for a set of four; oka.com*

Dealing with chipped or lost crockery after a pandemic's worth of overuse? Integrating even a few colorful, sturdy, one-of-a-kind pieces can make your time at the table feel cheerful and new. Check out these handmade offerings from independent artisans and small studios

ACID SURFER SORBET BOWL To achieve the trippy Technicolor splatter-paint effect of her Acid Surfer line of plates, cups, and bowls, Seattle ceramicist Cameron Bishop mixes in bits of colored glass before firing the clay. High-end restaurants and hoteliers such as Ian Schrager and André Balazs are longtime customers; Bishop started selling to consumers last year. *$28; beaurushceramics.com*

ORGANIC DINNER PLATE Not quite square and not quite round, the fluid shape of these plates, an exclusive commission of lifestyle brand Hawkins New York, brings a little bit of drama to the table. Handmade in Portugal, each is slightly irregular, inspired by the Japanese *wabi-sabi* principle of embracing the beauty in imperfection. *$24; hawkinsnewyork.com*

TAVOLA POSTRE GLASSES Nashville-based Newly Inc. opened in 2019 with a singular mission: to produce beautiful home goods such as decorative throws and charcuterie boards from 100% recycled materials. These tumblers are handblown by artisans in Spain from crushed bottles and other discarded glass, giving each run a slightly different seafoam tint. *$58 for a set of six; newly.com*

PROP STYLIST: ALLISON RITCHIE

The Daydream Collectors

In a year without much tourism, the market for vintage travel posters has taken flight

By James Tarmy

Nicholas Lowry was assembling a collection of travel posters for his Nov. 23 auction when he came across one from 1914 intended for British audiences. Its pitch? "Travel to France," says Lowry, the president of Swann Auction Galleries in New York. "This was printed two months before the First World War," making it one of the last vestiges of peace before the proverbial lights went out in Europe. The "historical showstopper," as he calls it, is estimated at $700 to $1,000.

For years, travel posters were considered "the unappealing younger siblings of French cafe posters," Lowry explains. (Think of Toulouse-Lautrec's work for the Moulin Rouge.) This started to change in the 1990s, when collectors began to appreciate the former's charms. Over the past two years, dealers say, the genre has enjoyed an additional bump thanks to a restless, homebound public that's taken solace in acquiring an image instead of experiencing the real thing. "It's one of the most popular markets in the poster field," says Jim Lapides, the owner and president of the International Poster Gallery in Boston. "They're about a world in which we can't really travel right now, and they remind us of how beautiful the world is and the adventure it offers."

Dealers say the market had been growing steadily for a while but nothing like the last 18 months. "When people got tired of Amazon and dating websites, they would come to buy at auction," Lowry says. "It was quite buoyant."

Travel posters, like middle-class tourism itself, are a fundamentally modern phenomenon. They originated when railroad companies realized in the late 19th century that they could juice ridership by getting people excited about nonessential trips, and hotels and tourist destinations began to make an effort to draw casual visitors. In 1900 a poster advertising the pastoral delights of the Swiss countryside and the thrill of a casino in Besançon was paid for by the French rail company PLM. A contemporaneous poster promoted a town near Hyères, on the Riviera, as a "winter resort for arthritic

Cassandre's 1935 design for the maiden voyage of the SS *Normandie*

This 1927 poster is estimated at $8,000 to $12,000 for the Swann auction patients" served by "fast and luxury express" trains.

Eventually steamship companies, then airlines, began to tout the wonders of the mountains, or the sea, or wherever else it was they'd just invested heavily in building a route to. "They were put up along roads or on the walls of travel agencies or at train stations," says Lars Larsson, the co-owner of the poster gallery Chisholm Larsson in New York.

Given that these were effectively disposable advertisements, most of the time the now-collectibles were printed on "nothing sturdier than newsprint," says Mickey Ross, president of the Ross Art Group in Tampa. As a consequence, the posters that were actually used to advertise travel are vanishingly scarce. Most of today's vintage stock comes from posters that were printed but never used or ones that were handed out effectively as brochures or keepsakes.

The best-known and most desirable posters were created by a small group of French artists who worked primarily in the 1920s and '30s. Even if you don't know their names, you've probably seen their work. Charles-Jean Hallo, known as Alo, made the advertisement for Chamonix-Mont Blanc depicting a ski jumper midflight; A.M. Cassandre was responsible for some of the most memorable art deco advertisements in history, including the head-on depiction of the *SS Normandie* ocean liner (pictured, top left). The prolific Leonetto Cappiello is known for creations such as the ad for Aix-Les-Bains from 1921, which depicts a flapper at night by the sea. Occasionally a household name in the art world would do a one-off, as when Henri Matisse created a poster for the city of Nice in 1947.

It's not just a famous name that makes a poster valuable. "Condition is extremely important," Ross says, and "whether they've been restored or unrestored." Rarity is another component, though posters were printed in bulk, so there's no way of telling precisely how many exist. "It's about how many do we think are still around," he says. Only a tiny group of highly sought-after, super-rare posters "can achieve more than $50,000," Lapides says. On average, Ross says, "an attractive, good-condition, reasonably rare travel poster would be in the $1,000 to about $4,000 range."

The U.S. remains the biggest market. "Unlike other places in the world, we actually use them for decoration," Ross says. "In Europe, where the use of these posters is increasing, a lot of people just collect them and keep them in storage." Demand for specific destinations is evenly spread around, because the subject matter of the image is, inevitably, the biggest consideration for potential collectors, whether it's Naples, Italy, or the Willamette Valley in Oregon. "It gives people a sense of history," Larsson says. "'I've been there, I went there with someone special.' It's a memory on a wall."

No one should approach the market as a place to make an easy buck—price trends seem to be "slow and steady," Lowry says. The comparatively low cost should still be seen as an opportunity: "When it's good, you don't have to mortgage your house to buy it," he says. "But it's going to evoke something special in you." B

A 1955 advertisement for Las Vegas is available from Ross Art Group for $2,800

This 1951 poster carries an estimate of $2,000 to $3,000 at the Swann auction

NORMANDIE: PICTORAL PRESS LTD/ALAMY. LAS VEGAS: COURTESY ROSS ART GROUP, NEW YORK. SANTA FE: SWANN AUCTION GROUP

A Late Fall Shoebox Lunch

Beyond Soul Food

More than just a cookbook, *Black Food* bears witness to a vital culinary culture

By Jacqueline Simmons

I thought I knew Black food—collard greens with ham hocks, cornbread, okra, yams, chitterlings, biscuits. These were staples at family gatherings, big and small, when I was growing up. But sometimes you don't know what you don't know. Reading *Black Food: Stories, Art, and Recipes From Across the African Diaspora*, I discovered the genesis of my food culture, which, like blues music, finds its roots in African tradition, migration, and, yes, suffering.

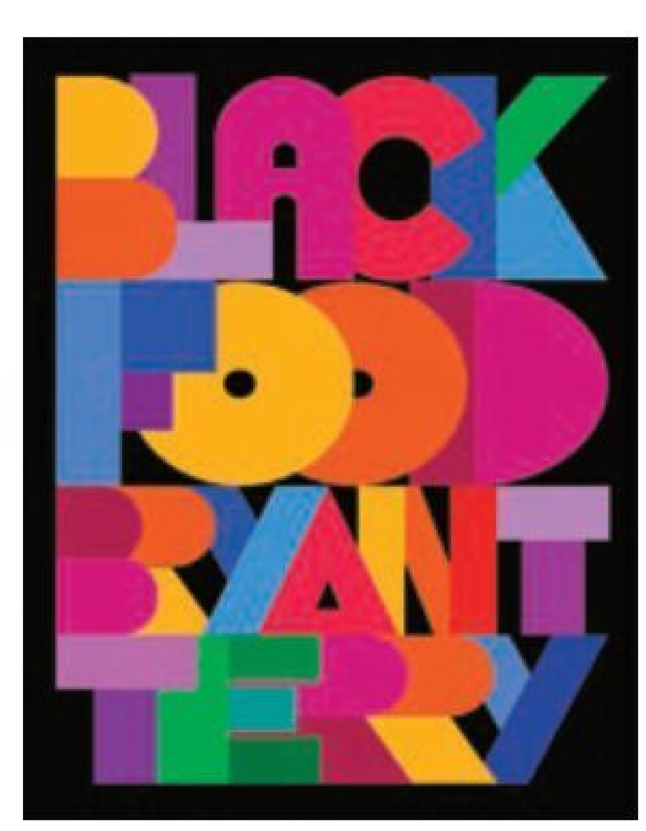
It's more than a recipe book. In the introduction, Bryant Terry, a James Beard Award-winning cook and chef-in-residence at the Museum of the African Diaspora in San Francisco, calls it a "communal shrine" to food culture that's arisen from the Black experience. There are poems, playlists, and essays that bring together insights from around the globe. In one, upstate New York farm director Leah Penniman explains how West African women hid seeds—for black-eyed peas, rice, melon—by braiding them into their hair before being forced onto trans-Atlantic slave ships. In another, British-Nigerian novelist Sarah Ladipo Manyika uses jollof, a one-pot rice dish, as a starting point for a meditation on writer Toni Morrison.

The pieces often reference the solace that food, community, and solidarity have offered amid the pandemic. They conjure up the realities of our struggle throughout history—right into the present day, including the trauma of George Floyd's murder in 2020, which raised global consciousness about Black people.

The book covers the spectrum of equality issues, including reflections from and about Black women as well as the LGBTQ community. Self-care and wellness are given equal time. An elaborate "healing rose bath soak and vibrational okra bath," for instance, uses the vegetable for a spiritual cleanse.

As a former vegan and current pescatarian, I no longer eat ham hocks or chitterlings, which are made from hog intestines, and I never really considered their cultural origins. But as Cornell professor Tao Leigh Goffe puts it, soul food is "adapted from high-calorie fuel rationed to enslaved people to eat in order to perform backbreaking labor." It's something I knew intuitively but hadn't consciously connected to slavery's legacy.

Of course, there are recipes, too. Some focus on African-inspired foods such as cassava, sweet potato leaves, or mullah, a stewlike gravy typical of Sudan. Others combine Southern American staples with modern adaptations. Take biscuits: The prologue features an image of Black hands priming dough to be cut into little discs and baked into fluffy, crisp rounds. It's followed on the next page by a vegan sweet-potato-coconut version by Erika Council, whose grandmother, the granddaughter of an enslaved person, founded Mama Dip's Kitchen in 1977. Adaptations like this suggest how to maintain tradition while still suiting modern tastes.



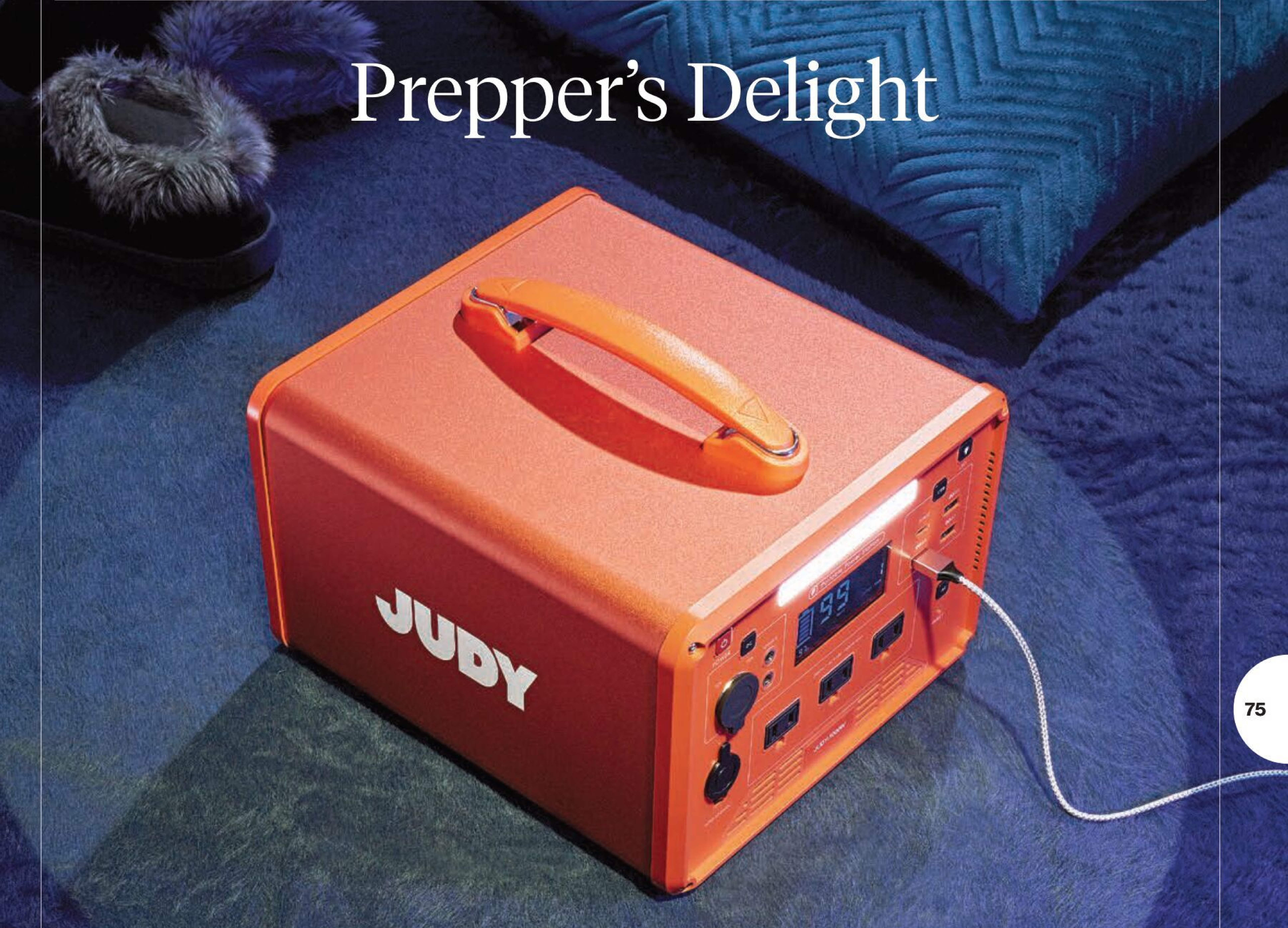
Black Food, edited by Bryant Terry ($40; 4 Color Books)

One of the more thought-provoking recipes, the Late Fall Shoebox Lunch, features an eight-page spread of a typical meal, including buttermilk fried chicken, cinnamon roll pound cake, and inferno kale chips, placed in empty shoeboxes. These meals were prepared by Black women and distributed to Black travelers shut out of White establishments during the Jim Crow era.

Some of the stories get very personal. In one, chef and anthropologist Njathi Kabui prepares millet with his father, who's traveled from Kenya to watch him graduate in Memphis. Back home, his father not only lost a restaurant but also spent years in a British gulag for trying to liberate the country. They end up spending six weeks together as Kabui learns about manhood, family history, and fighting for justice. "Food was the common thread," he writes, "that tied those three pillars together." Ⓑ

ORIANA KOREN; COURTESY PENGUIN RANDOM HOUSE

Prepper's Delight



You'll feel more comfortable at home with the Judy Power on hand in case of emergencies

By Matthew Kronsberg
Photograph by Stephanie Price

Natural disasters are more frequent than ever, yet fewer than half of Americans have a plan for such events, according to a 2020 survey from the Federal Emergency Management Agency. Judy Prep Inc.'s co-founder Simon Huck thinks you don't need to be a doomsday prepper to be prepared. The company launched in 2020 after he'd realized how unready even his high-flying friends like Kim Kardashian were for floods or earthquakes. Judy now produces kits with food, water, and other supplies, as well as a portable 1,000-watt power station ($995) to keep devices and essential appliances—hello, coffee maker—running until the lights come back on.

THE COMPETITION

• The $1,400 Goal Zero Yeti 1000X can keep a full-size fridge on for 18 hours, and a special $200 power supply can recharge the battery in just two.

• The solid handle and tough build of the $999 Jackery Explorer 1000 make it as well suited for camping or backyards as for emergencies. And with 2,000W of surge power, it's got enough extra juice to get your juicer up and running.

• At 18.3 pounds the $700 Anker PowerHouse II 800 500W fully recharges from a car's 12-volt lighter plug in less than 8 hours during the day to get you through the night.

THE CASE

Don't confuse the Judy Power with a gas generator that'll power your home. It's about the size and weight of a car battery, but there's might behind its chic facade. (Its safety-orange color and bold-type design are by Red Antler, the studio that did Allbirds' and Casper's branding.) It has three grounded AC outlets, three USB 3.0 ports, a USB-C port, as well as two 12-volt, 4-amp ports and a 10-amp cigarette-lighter-style jack. Its LED light strip even blinks out SOS in Morse code. An easy-to-read display shows how much charge is left in the battery and how long that should last based on what's plugged in. *$995; judy.co*

With Bloomberg Opinion

Korea's Soft Power Is More Samsung Than *Squid Game*

By Alex Webb

South Korea is having a moment. Between the hit Netflix show *Squid Game*, the chart-topping boy band BTS, and the Academy Award-winning movie *Parasite*, the country's culture suddenly seems to be everywhere.

With each allusion to *Hallyu*—the so-called Korean wave of cultural exports—an invocation of Seoul's soft power is often not far behind. Unlike hard power, which forces others to follow your wishes, soft power helps you win their support by demonstrating the appeal of your culture and values. That *Squid Game* and *Parasite* are an expression of Korean soft power seems to have become an accepted fact. The reality may be more complex.

In the seminal 1990 work in which he coined the term "soft power," Harvard political scientist Joseph Nye wrote that if a nation's "culture and ideology are attractive, others will more willingly follow." The catchy songs of BTS have teens worldwide singing along, but neither *Squid Game* nor *Parasite* portrays a society that others might be eager to emulate. Both are bleak depictions of wealth disparity in modern South Korea. In *Squid Game*, the down-on-their-luck characters compete to the death to win 45.6 billion won ($39 million). After the losers get killed—in a series of increasingly grotesque contests based on children's games—their organs are harvested for sale on the black market. With more than 111 million views in its first month, the show is Netflix Inc.'s biggest series launch yet.

The impoverished protagonists of *Parasite*, which won Best Picture at the 2020 Academy Awards, meanwhile, inveigle their way into the lives of a wealthy family across town, brutally clearing out those who stand in their path. South Korea's previous big hit on the film awards circuit, the 2016 period psychological thriller *The Handmaiden*, dealt with similar themes, focusing on a con man's scheme to commit a wealthy heiress to an asylum so he could steal her inheritance.

It's all a far cry from the classic perceptions of U.S. soft power. Nye wrote of Soviet teenagers who "wear blue jeans and seek American recordings," and how "Nicaraguan television broadcast American shows even while the government fought American-backed guerrillas." In theory, Hollywood and the *Billboard* Hot 100 did just as much to export liberal democracy to the world as the U.S. Marine Corps.

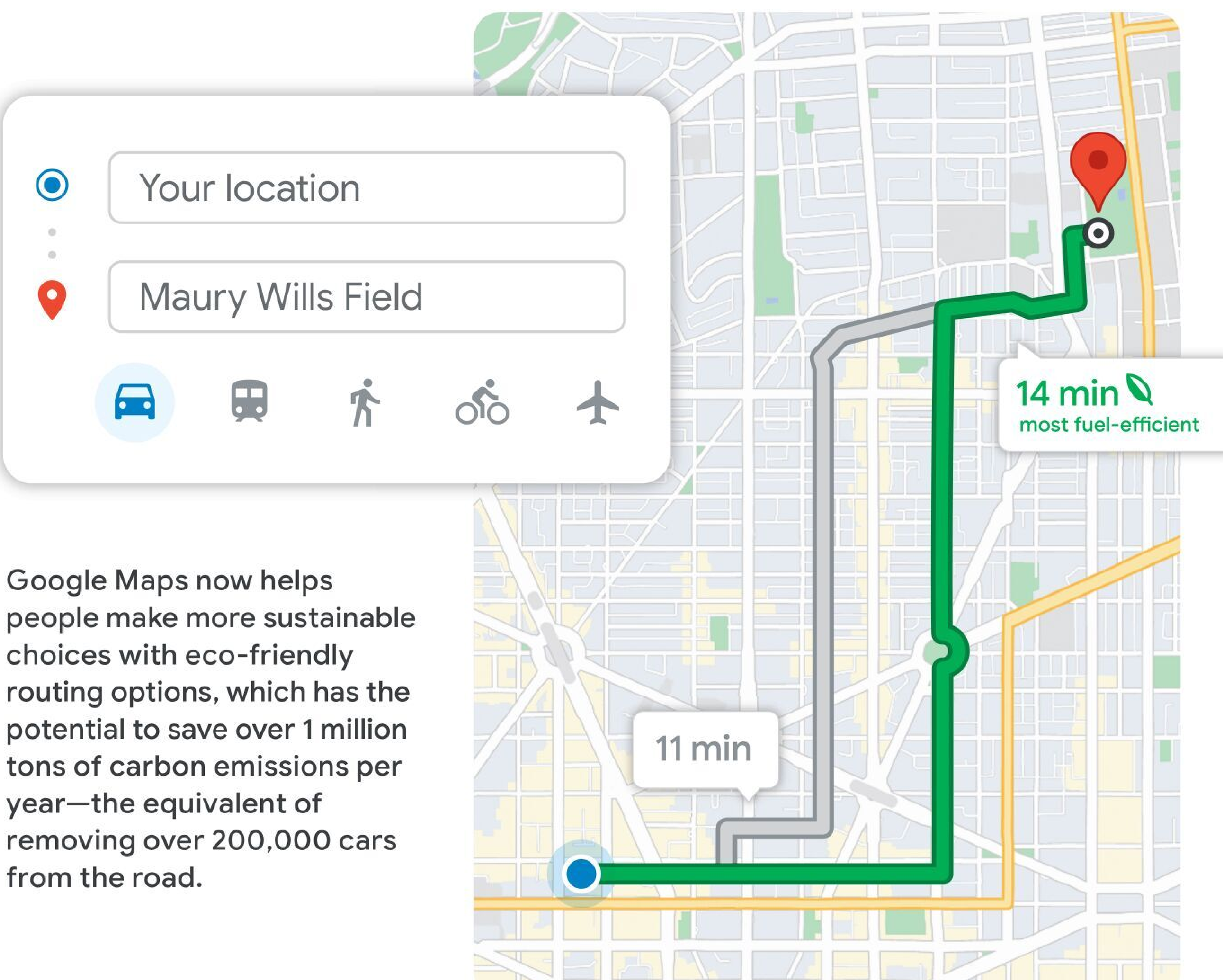
South Korea has made other megahits—its dramas and rom-coms are lapped up across Asia. But the effect of its rising cultural influence may be more economic than ideological. U.S. exports helped sell U.S. values. For Korea, the exports themselves may be enough. It's not trying to sell its system of government, but it does have Samsung smartphones, Hyundai cars, and Samyang noodles to offer. And in a world of rising trade tensions, convincing China and the U.S. alike to be open to buying your products may be a far more desirable outcome. Ⓑ

ILLUSTRATION BY GEORGE WYLESOL

Bloomberg Businessweek (USPS 080 900) November 1, 2021 (ISSN 0007-7135) H Issue no. 4718 Published weekly, except one week in February, April, May, June, July, August, September, October and November by Bloomberg L.P. Periodicals postage paid at New York, N.Y., and at additional mailing offices. Executive, Editorial, Circulation, and Advertising Offices: Bloomberg Businessweek, 731 Lexington Avenue, New York, NY 10022. POSTMASTER: Send address changes to Bloomberg Businessweek, P.O. Box 37528, Boone, IA 50037-0528. Canada Post Publication Mail Agreement Number 41989020. Return undeliverable Canadian addresses to DHL Global Mail, 355 Admiral Blvd., Unit 4, Mississauga, ON L5T 2N1. Email: contactus@bloombergsupport.com. QST#1008327064. Registered for GST as Bloomberg L.P. GST #12829 9898 RT0001. Title registered in the U.S. Patent Office. Single Copy Sales: Call 800-635-1200 or email: bwkcustserv@cdsfulfillment.com. Educational Permissions: Copyright Clearance Center at info@copyright.com. Printed in the U.S.A. CPPAP NUMBER 0414N68830

Google

Helping people choose more eco-friendly routes



Google Maps now helps people make more sustainable choices with eco-friendly routing options, which has the potential to save over 1 million tons of carbon emissions per year—the equivalent of removing over 200,000 cars from the road.

Learn how Google is making the sustainable choice an easier choice at sustainability.google