

## What's News

### Business & Finance

**A**T&T and Verizon rebuffed a request from federal transportation officials to voluntarily delay the launch of new 5G wireless services extending a showdown that could lead to potentially disruptive U.S. flight restrictions as soon as this week. **A1**

◆ **The rapid spread of Covid-19's Omicron variant is weighing on U.S. businesses, keeping more workers home sick or quarantining and leading some companies to cut services and reduce hours. A1**

◆ **Twitter permanently suspended one of Rep. Taylor Greene's verified accounts, citing repeated violations of the social-media platform's Covid-19 misinformation policy. A4**

◆ **Tesla said it delivered more than 936,000 vehicles globally in 2021, an 87% surge from deliveries the previous year. B1**

◆ **IKEA said it would increase the prices of its products as the furniture giant grapples with rising transport and raw-materials costs. B2**

◆ **Apple secured the top spot for phone sales in China for a second straight month in November, according to market-research data. B3**

◆ **Huawei said revenue dropped by nearly a third in 2021, as the effects of U.S. export restrictions hit the Chinese tech giant's main business lines. B4**

◆ **Mortgage lenders issued a record \$1.61 trillion in purchase loans in 2021, according to estimates by the Mortgage Bankers Association. A3**

### World-Wide

◆ **McWilliams's decision to resign as FDIC chairman paves the way for Democrats to gain control of the agency's agenda in coming weeks, potentially leading to more-stringent requirements around bank tie-ups and other matters. A4**

◆ **The House committee investigating the Jan. 6 attack on the Capitol is readying a slate of public hearings for 2022, and the panel's top Democrat left the door open to subpoenaing GOP lawmakers as part of its probe. A4**

◆ **China joined U.S. allies, including Japan and Australia, in a new Asia-Pacific trade agreement, with the U.S. watching from the sidelines. A2**

◆ **Beijing's commitment to step up purchases of U.S. goods and services under a 2020 trade pact expired, with China missing its targets by a wide margin. A2**

◆ **Chief Justice Roberts pledged to improve ethics training and bolster internal compliance systems for the federal judiciary, citing a Wall Street Journal investigation that found hundreds of instances where judges presided over cases involving companies in which they or their relatives held stock. A3**

◆ **Parents braced for changes in school's plans to reopen after the holiday break, such as Milwaukee's decision to shelve its scheduled return to in-person classes. A6**

◆ **A major fire devastated South Africa's parliament building, with heavy damage to the historic site in the center of Cape Town. A9**

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## Colorado Searches for Cause of Fires That Swept Suburbs



**SMOLDERING:** Snow covered a shopping center in Superior, Colo., Sunday struck by wildfires that ravaged suburbs between Denver and Boulder. Search teams were looking for two missing people, and authorities were investigating the cause. **A7**

## AT&T, Verizon Rebuff Request To Delay 5G Over Flight Safety

BY DREW FITZGERALD AND ANDREW TANGEL

AT&T Inc. and Verizon Communications Inc. rebuffed a request from federal transportation officials to voluntarily delay the launch of new 5G wireless services, extending a showdown that could lead to potentially disruptive U.S. flight restrictions as soon as this week.

The cellphone carriers offered on Sunday a counterproposal that would further dim

the power of their new 5G service for six months to match limits imposed by regulators in France, giving U.S. authorities more time to study more powerful signals' effect on air traffic. The companies had planned to launch the service Wednesday in as many as 46 of the biggest U.S. metropolitan areas.

"If U.S. airlines are permitted to operate flights every day in France, then the same operating conditions should allow them to do so in the United States," the chief executives

wrote Sunday in a letter reviewed by The Wall Street Journal.

The Federal Aviation Administration has been preparing flight restrictions that could go into effect as soon as Wednesday. The limits could restrict pilots from using certain automated systems to help land aircraft in bad weather, a move that could disrupt air travel and cargo shipments.

"U.S. aviation safety standards will guide our next actions," the FAA said Sunday.

The agency declined to comment about when it might issue the flight limits in official notices to air missions.

Telecom-industry officials have pointed to dozens of countries, including France, that have already allowed cellular service over parts or all of the frequencies in question, known as C-band. France is among the countries that have imposed

◆ **FDIC control to shift as its chief resigns..... A4**

## Stocks Confront Rockier Course In 2022

Many investors see increased threats to pandemic-era rally as Fed weighs rate rises

BY SAM GOLDFARB

The double threat of an unpredictable pandemic and looming interest-rate increases gives reason for investors to be apprehensive heading into 2022, a contrast to the vaccine-fueled optimism of 12 months ago.

Investors had plenty to feel good about over the holidays. Fueled by an economic rebound stronger than most had expected, the S&P 500 climbed more than 25% in 2021, among the four largest gains of the past 20 years. U.S. crude surged more than 50% to above \$70 per barrel. Interest rates on corporate bonds hovered around all-time lows, reflecting little perceived risk of default after a year in which few businesses went bankrupt.

Heading into 2021, economists surveyed by The Wall Street Journal had expected that the U.S. economy would grow 3.7% over the course of the year. Instead, it likely expanded more than 5%. The unemployment rate fell well below

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### Year-End Review

- ◆ **Omicron's impact blurs outlook for oil..... R1**
- ◆ **Cheaper stocks boost S&P 500's prospects..... R1**
- ◆ **Tracking the markets' winners and losers..... R3**

## Case of Donor 1558 Spurs Push to Alter Fertility Rules

BY AMY DOCKSER MARCUS

When Laura and David Gunner learned their 27-year-old son, Steven, had died from an opioid overdose, the couple were stricken by grief but not entirely surprised. They had struggled to help him overcome addictions and erratic behavior for more than a decade.

Seeking solace in the aftermath of Steven's 2020 death, the upstate New York couple joined the Donor Sibling Registry, a website that connects sperm and egg donors and donor-conceived people. They hoped to make contact with the mothers and fathers of other children who, like Steven, had been conceived with sperm from a particular donor sold by a sperm bank in Fairfax, Va.

Donor 1558 had been described in his sperm-bank profile as a guitar- and hockey-



**Steven Gunner, who had schizophrenia, died at age 27 in 2020.**

playing college student with fair hair and brown eyes. The Gunners were eager to see glimpses of Steven's features in photos of Donor 1558's other offspring. They also wanted to let the parents of Steven's half-

siblings know that he had schizophrenia, a psychiatric disorder that causes hallucinations and delusions—and which can run in families.

"I felt obligated to tell the

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## Omicron Ripples Through Businesses

The rapid spread of Covid-19's Omicron variant is weighing on U.S. businesses, keeping more workers home sick or quarantining and leading some companies to cut services and reduce hours.

By Andrew Tangel, Jaewon Kang and Heather Haddon

The rise of U.S. Covid-19 infections to record levels in recent days has driven thousands of canceled flights, prompted retailers to train available employees on new jobs, and closed some stores altogether, companies said. The rapidly spreading Omicron variant is hitting businesses at a time when consumers' demand for products and services has surged, and many companies already are struggling with staffing and supply-chain challenges.

Airlines over the weekend canceled thousands of flights, capping a week in which carriers scrubbed more than 1,000 flights each day, according to data compiled by FlightAware. In addition to snowstorms that snarled airports in the Pacific Northwest and Midwest, airlines including Delta Air Lines Inc., JetBlue Airways Corp. and United Airlines Holdings Inc. said rising Covid-19 infections among crew members hampered their abilities to staff flights at the same time holiday travel was rebounding from 2020 levels.

JetBlue trimmed its flight schedule through mid-January as more crew members con-

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- ◆ **Case surge hinders schools' plans to reopen..... A6**
- ◆ **Defense secretary tests positive for Covid-19..... A6**

## Get Away From It All, At This Luxury Ghost Town

African dictator was building a gleaming new capital—then the oil money ran out

BY MICHAEL M. PHILLIPS

CIUDAD DE LA PAZ, Equatorial Guinea—In a jungle clearing here are 50 luxury villas on manicured lots.

Each 7,100-square-foot house has four bedrooms, two living rooms, an office, staff quarters and a dining room. And in each building is a formal table set at all times for 10 guests, ready in case all African Union heads of state visit at the same time and want to host dinner parties.

Which they never do. Which means that in a jungle clearing here are 50 empty luxury villas on manicured lots. It's all part of the surreal

reality of Ciudad de la Paz, a from-scratch capital city dreamed up a decade ago by Equatorial Guinea President Teodoro Obiang Nguema Mbasogo, a dictator whose coffers briefly overflowed during an oil boom that came and went.

What started as a visionary or vanity project, or both, has stalled out, leaving behind a white elephant in the Central African forest. Wide boulevards and a 22-mile ring road without cars. Construction sites without construction. Apartment complexes without tenants. Shopping centers without shops and movie theaters without movies.

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### INSIDE



GARY COSEY JR./USA TODAY SPORTS

### SPORTS

The final weeks of the college season have become too predictable. **A14**

### BUSINESS & FINANCE

Beijing lashes out at Walmart in latest dispute over products from Xinjiang. **B1**

## Packaging Giant Bets on Paper

Replacing plastic is complicated by cost

BY RYAN DEZEMBER

KALAMAZOO, Mich.—When a new building-size machine cranks up this month, it will begin turning mountains of recycled cardboard into paperboard suitable for greener forms of packaging.

The \$600-million project, the first new paperboard production line built in the U.S. in decades, represents an enormous bet by owner Graphic Packaging Holding Co. on a future without foam cups, plastic clamshell containers or six-pack rings. Graphic wants to be able

to offer more environmentally friendly packaging so that the consumer-goods companies that buy its products can tout a cleaner supply chain to their own investors and consumers. Once Graphic shuts down four smaller and less-efficient machines, including one at its Kalamazoo complex that is 100 years old, it will use a lot less water and electricity, it says, and emit 20% less greenhouse gases.

ESG investing has put trillions of dollars into the control of funds that promise to invest it with environmental,

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U.S. NEWS

THE OUTLOOK | By Harriet Torry

# Hiring Push Is Still Full Speed Ahead



Economists say they expect the U.S. labor market to strengthen in the months ahead, despite the surge in Covid-19 cases due to the fast-spreading Omicron variant, because employers still need a lot more workers.

The Labor Department's latest employment report, to be released Friday, is projected to show employers added 405,000 jobs in December and the unemployment rate ticked down to 4.1%, according to economists surveyed by The Wall Street Journal.

Delta variant of Covid-19 that gripped the U.S. in the summer: It slowed third-quarter economic growth but had a relatively small impact on hiring.

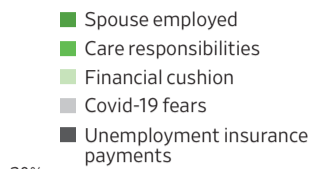
The strength of the labor market, alongside rapidly rising inflation, will be key to Federal Reserve policy makers' deliberations about when and how much to raise short-term interest rates from near zero.

In mid-December, the Fed set the stage for interest-rate increases beginning in the spring, with most central-bank officials penciling in at least three quarter-percentage-point rate increases in 2022 amid concern about the potential for inflation to stay high.

Central bankers worry that rather than simply threatening to curtail economic growth, a surge in Covid-19 cases could also prolong high inflation by adding to supply constraints. But data out of South Africa and the U.K. suggest Omicron might cause less serious disease than previous strains, prompting some economists to hope the current wave of infections could peak in the early weeks of the year.

Fed officials aren't expected to raise interest rates

### Why unemployed workers aren't searching urgently



at their next policy meeting, scheduled for Jan. 25-26. But some economists and investors think the policy makers could consider lifting borrowing costs as soon as their subsequent meeting in March.

"By the time the Fed sits down in mid-March, hopefully [the Omicron surge] will be over," said Ian Shepherdson, chief economist at Pantheon Macroeconomics, adding that central-bank officials will be "looking forward, not back."

Workers in the U.S. are quitting jobs at record rates, leaving roles for better working conditions and pay. Employees resigned from 4.2 million jobs in October, just shy of September's record of 4.4 million quits.

That has left employers struggling to find and retain staff. A December survey of business executives by the Federal Reserve Bank of Dallas found that the most commonly cited factor restraining firms' revenues is a lack of workers due to difficulty hiring, absenteeism and Covid-19 infections or quarantines. About 45.8% of respondents cited staffing shortages as a key restraint on sales, up from 21.4% in July 2020.

Debra A. Johnson, CEO of the Denver metro-area transit system—the Regional Transportation District—said the shortage of workers is particularly acute as many workers are now seeking remote work and flexibility, which many front-line positions don't offer.

"The whole world seems to be short-staffed," she said. RTD began offering hiring bonuses for the first time in November, of \$4,000 for jobs like bus operators, engineers and mechanics, alongside referral and other bonuses for some staff. Once

the impact of government subsidies wanes, she expects a "more lucrative market" for new hires but said there's still "tons of uncertainty."

Economists studying Friday's employment report will be looking closely at whether more people are working or looking for a job after months of school closures and government support. A recent survey by the jobs site Indeed found that the main factors keeping unemployed workers from urgently searching for a job were employed partners, care responsibilities and financial cushions.

Economists say businesses and workers are gradually learning to live with successive waves of the pandemic, each causing a little less damage than the last. Also, fresh government stimulus and enhanced unemployment benefits look unlikely, which could prompt more workers to rejoin the labor force.

"Appetite for shutdowns and harsh measures is very low right now" among politicians and the general public, said Joshua Shapiro, an economist at consulting firm Maria Fiorini Ramirez Inc. "People are starting to say enough is enough."

## ECONOMIC CALENDAR

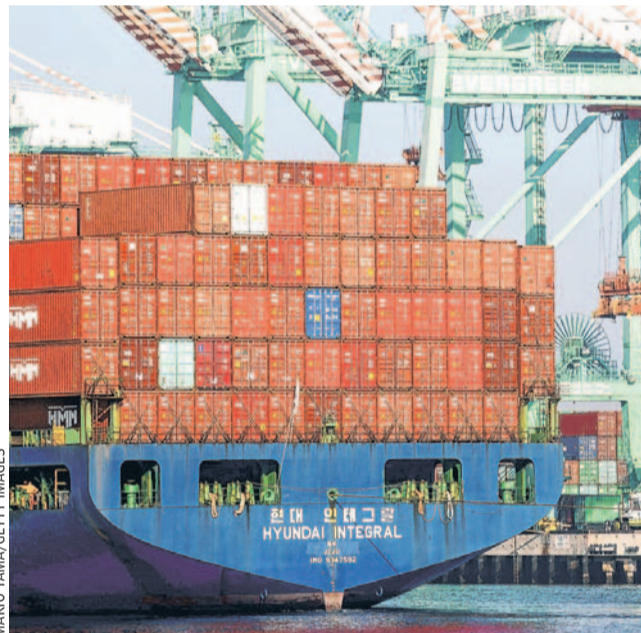
**Monday:** IHS Markit will provide a look at the health of the **European manufacturing sector** with December's purchasing managers index. The index is expected to slip slightly to 58.0 from 58.4 in November.

**Tuesday:** The **ISM Manufacturing Index** is expected to have fallen slightly in December but remain firmly in expansion territory. The report has shown that manufacturing has been driven by strong demand but constrained by supply-chain challenges.

The Labor Department is to release the **Job Openings and Labor Turnover Survey** for November. In October, there were 3.6 million more job openings than people looking for work.

**Thursday:** The **U.S. trade deficit** is estimated to have widened in November to \$72.6 billion, up about \$5.5 billion from the month before. Global supply-chain constraints and elevated consumer demand for capital goods are some of the factors.

**Friday:** Economists estimate U.S. employers added jobs at a faster pace in December as the labor-market recovery continued. The data reflect mid-December surveys before the Omicron variant caused Covid-19 cases to rise sharply. Analysts expect the **Labor Department jobs report** to show a gain of 405,000 jobs for December, with unemployment ticking down to 4.1% from 4.2% in November. The labor-force participation rate will be closely eyed as a gauge of whether workers are coming off the sidelines.



A container ship entering the Port of Los Angeles in November. One expert said the RCEP will make Chinese components more attractive to factories that make up supply chains in Asia.

# Asia-Pacific Pact Launches With U.S. on Sidelines

By YUKA HAYASHI

WASHINGTON—China joined U.S. allies including Japan and Australia in a new Asia-Pacific trade agreement that launched Saturday—with the U.S. watching from the sidelines.

The new Regional Comprehensive Economic Partnership, or RCEP, will eventually eliminate more than 90% of tariffs on commerce among its 15 member countries, in what economists say will be a boon to trade in the region.

It will also give China a more prominent role in setting rules of trade in the Asia-Pacific region at the expense of the U.S., according to some analysts.

"This will be a grouping of countries that will work together and try to develop new rules and new standards," said Wendy Cutler, vice president of the Asia Society Policy Institute and a former U.S. trade official. "[The U.S. is] moving in the other direction."

China had been excluded

from an earlier trade agreement, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, which the U.S. had led to counter China's influence in the region.

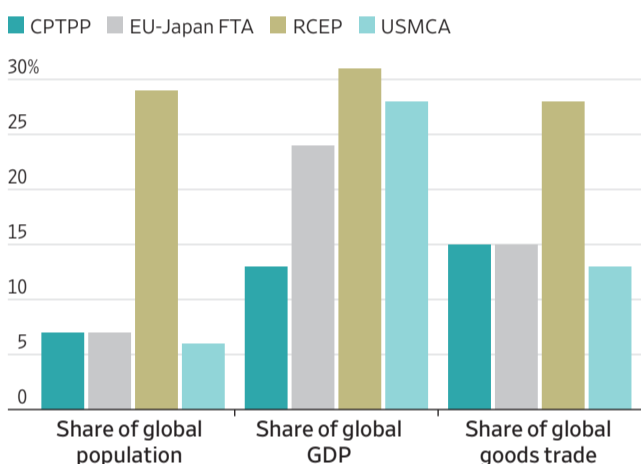
The U.S. withdrew from the Trans-Pacific Partnership in 2017 under former President Donald Trump. Many lawmakers also opposed the pact, and the Biden administration says it has no plans to rejoin it.

Henry Gao, an Asia trade expert and associate professor of law at Singapore Management University, said the new RCEP "could be a wake-up call for the U.S. to rethink its strategy and come back to Asia-Pacific."

He said the RCEP will benefit China by making its parts and components more attractive to factories that make up supply chains in Southeast Asia, and by boosting trade with Japan and South Korea.

The RCEP was initiated in 2012 by the Association of Southeast Asian Nations to strengthen ties with China and other nations in Asia. Ms. Cut-

### World's largest regional trade pact



### China is a more important trading partner than the U.S. for RCEP members



Sources: Congressional Research Service (trade pact); Peterson Institute for International Economics

ler, who worked with the U.S. Trade Representative's office at the time, said the U.S. wasn't invited to participate and said it wouldn't have joined because the agreement was considered too weak, lacking requirements for labor and environmental standards.

When the RCEP members unveiled the completion of their agreement in November 2020, then-President-elect Biden said the U.S. needed to "set the rules of the road instead of having China and others dictate outcomes because they are the only game in town."

A senior Biden administration official said the White House recognizes the need for the U.S. to engage the Asia-Pacific region economically and discussions about how to do so were continuing.

The other member nations of the RCEP are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, New Zealand, the Philippines, Singapore, South Korea, Thailand and Vietnam.

So far 10 of the 15 member nations have formally ratified the agreement, and the others are expected to do so.

With RCEP members accounting for 30% of global population and gross domestic product, the partnership becomes the world's largest regional trade agreement, exceeding the U.S.-Mexico-Canada Agreement and the European Customs Union.

The agreement aims to eliminate almost all tariffs on imports between the nations in up to 20 years and establishes common standards on intellectual property rights and e-commerce.

Some trade analysts have said the RCEP falls short by not addressing issues where China could be vulnerable, including labor and environmental standards and its support for state-owned enterprises.

In a Nov. 8 letter, 13 GOP senators led by Mike Crapo of Idaho, the top Republican on the Senate Finance Committee, urged Mr. Biden to get involved in new trade rule making in the Asia-Pacific region.

Some trade analysts have said the RCEP falls short by not addressing issues where China could be vulnerable, including labor and environmental standards and its support for state-owned enterprises.

# China Misses Target In 2020 Trade Deal

By JOSH ZUMBRUN

WASHINGTON—Beijing's commitment to step up purchases of U.S. goods and services under a 2020 trade pact expired Friday with China missing its targets by a wide margin, creating a dilemma for the Biden administration as it calibrates a response.

The White House could potentially reinstate certain tariffs that were cut as part of the trade deal, but that could backfire if China cut back U.S. purchases or took measures against American companies doing business there. Alternatively, the U.S. could ignore the shortfall, which could send a signal to Beijing that it won't face consequences.

How the U.S. responds is being watched closely by U.S. businesses, many of which want smooth relations with China to ensure continued access to its giant market. Others including some domestic manufacturers take a harder line, citing Chinese government support for favored industries and saying the U.S. needs to nurture its own supply chains.

Trade analysts say it is unlikely President Biden would escalate tensions with China as he seeks to tame inflation and advance his domestic agenda. But they also point out that he has yet to articulate a clear strategy for dealing with Beijing. "The Biden administration is tied in knots by their own lack of clarity about how they evaluate the problem and the potential solutions," said Scott Kennedy, a senior adviser at the Center for Strategic and International Studies.

Adam Hodge, a spokesman for the U.S. Trade Representative's office, said conversations with China about its performance under the deal are ongoing. China "made clear commitments and they should live up to them," he said. He added that the Biden administration still has "fundamental concerns [with China's] nonmarket trade policies and practices and their harmful impacts on the U.S. economy," including issues that weren't part of the January 2020 trade deal.

In a meeting with reporters in November, U.S. Trade Representative Katherine Tai said her team was discussing the shortfalls with its Chinese counterparts. "We are optimistic in our work that the effort we are putting into this particular exercise will lead to an outcome that is better than if we hadn't put the effort in," she said.

A spokesman in the Chinese embassy in Washington said China's purchases of U.S. goods were hindered by the economic downturn triggered by the Covid-19 pandemic in 2020. "China has worked hard

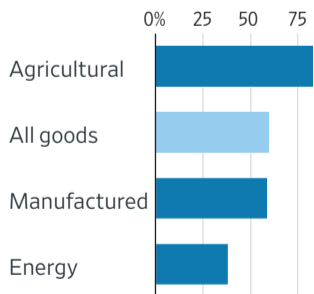
to overcome the multiple negative impacts of the pandemic, global economic recession and disrupted supply chains, and promoted the joint implementation of the agreement," spokesman Liu Pengyu said.

Under the so-called Phase One trade deal signed in January 2020, China agreed to increase its purchases of U.S. goods and services by \$200 billion over 2017 levels during a two-year period that ended Friday, with specific targets set for manufactured goods, farm products, services and energy. Then-President Donald Trump hailed the pact as a "momentous step," but skeptics questioned how Beijing would be able to increase purchases so sharply.

Data show that China has increased its U.S. purchases, but far below the targets set in the trade deal. Based on trade data through November, China was 17% short on its agriculture goal, 41% short on the manufacturing goal, and 62% short of the energy goal, according to calculations from Chad Bown of the Peterson Institute for International Economics, far beyond the ability of last-minute deals to fill the gap in the window specified by the agreement.

China's purchases of U.S. goods since 2020 didn't meet the targets set in the Phase One trade agreement.

### Percent of Phase One target, 2020-21



Note: Purchases of goods from January 2020 through November 2021; based on U.S. export data. Source: Peterson Institute for International Economics

Data for services trade isn't available on a monthly basis, but annual data showed a 32% drop in U.S. service exports to China for 2020.

The trade deal includes a dispute resolution mechanism that Mr. Biden could use to compel China to make additional purchases. Under this mechanism, the U.S. could ultimately apply new tariffs or restore some tariffs if reduced as part of the deal. But raising tariffs would increase costs to U.S. companies that import Chinese goods such as clothing and electronics. Those companies pay the tariffs and often pass on higher costs to U.S. consumers.

—Anthony DeBarros contributed to this article.

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## CORRECTIONS & AMPLIFICATIONS

**A jury in New York state found drugmaker Teva Pharmaceuticals USA Inc. liable for creating a public nuisance in connection with the opioid epidemic.** A U.S. News article on Friday about the verdict incorrectly said the company's Israel-based parent company, **Teva Pharmaceuticals Industries**

Ltd., had been found liable.

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U.S. NEWS

# Mortgage Borrowing Reaches A Record

By ORLA McCAFFREY

Americans borrowed more than ever to buy homes in 2021.

Mortgage lenders issued \$1.61 trillion in purchase loans last year, according to estimates by the Mortgage Bankers Association. That is up slightly from \$1.48 trillion in 2020 and above the previous record of \$1.51 trillion in 2005.

The mortgage boom reflects a thriving housing market and the corresponding run-up in prices over the past year. Many of the forces that pushed Americans into the housing market in the early months of the pandemic—low interest rates and a desire for bigger homes—continue to drive up prices and mortgage balances. What's more, many Americans got raises and built up savings during the pandemic.

"All of that extra income goes somewhere, and a lot of it went into housing," said Taylor Marr, deputy chief economist at Redfin Corp., a real-estate brokerage.

The rate of home-price growth has slowed in recent months but remains near record levels. Home prices rose 19.1% in the year that ended in October. Sales of existing homes in 2021 were expected to reach their highest level since 2006.

A strong labor market and pay increases across a range of industries have spurred some potential home buyers to hit the housing market. Wages for all private-sector workers grew 4.6% year over year in the third quarter, according to the Bureau of Labor Statistics.

"Buying a home is really a statement of confidence in your job situation, your financial situation, your family situation," said Mike Fratantoni, chief economist at the MBA.

The growth in purchase mortgages partly offset a decline in refinances, which fell to an estimated \$2.3 trillion in 2021 from \$2.6 trillion a year earlier. Total originations fell to an estimated \$3.9 trillion from their 2020 record of \$4.1 trillion.

Rising mortgage rates have slowed the wave of refinances that drove the boom in mortgage lending since the spring of 2020. When rates go up, fewer homeowners can lower their monthly payments by refinancing. The Federal Reserve is expected to raise rates three times this year, which would push up mortgage rates even more.

About 59% of the \$3.9 trillion in mortgages issued in 2021 were refinances, down from 64% in 2020. The refinancing share is expected to fall to 27% by 2023, and volume is expected to fall by about 63% in 2022.

Economists don't expect rate increases to turn off potential home buyers. The average rate on a 30-year fixed mortgage is still hovering around 3%, low by historical standards.

Still, the surge in home prices outweighed rising incomes and low interest rates to push homeownership out of reach for many Americans.

Mortgages are less affordable relative to income than at any time since 2008, according to the Federal Reserve Bank of Atlanta. In early 2021, Americans needed about 29% of their income to cover a mortgage payment on a median-priced home, the Atlanta Fed estimated. That rose to 33% by October.

Average rate on a 30-year fixed mortgage, weekly



Source: Freddie Mac



St. Patrick's in Anadarko, Okla., in the early 1900s; the local archdiocese has launched listening sessions with families of former Native American boarding-school students.

# Church Investigates Boarding Schools

By DAN FROSCHE AND IAN LOVETT

Catholic dioceses are beginning to investigate their role in operating boarding schools for Native American children in the late 1800s and 1900s, including searching for evidence of students who might have died at the institutions.

The inquiries under way at numerous dioceses follow an Interior Department investigation launched in June into the institutions, which were set up by the federal government to assimilate young Native Americans. Native students sometimes faced physical and emotional abuse, and thousands might have died from accidents, disease and other causes. Most of the schools were shut down by the 1970s.

In recent weeks, leaders of four Minnesota dioceses met with tribal leaders to determine how best to investigate several now-closed boarding schools affiliated with the church. The effort will involve reviewing records at places like St. Paul's Industrial School in Clontarf, Minn., where at least

14 students died of tuberculosis in the late 19th century, said Jason Adkins, executive director of the Minnesota Catholic Conference.

"At minimum, we want to assist the tribes in accounting for those who attended the schools and identify whether there are any remains that can be brought home to reservations," he said.

The Jesuit Conference of Canada and the United States in December hired a researcher to look into the religious order's history of Native American boarding schools in the U.S.

Ted Penton, secretary of the order's Office of Justice and Ecology, said the order ran Native American boarding schools from the 1830s to the 1970s, mostly in the Great Plains, Rocky Mountains and Alaska, but the order didn't know how many, when they operated, or whether any had cemeteries where students might be buried. The order plans to inventory its archives and aims to make them public, he said.

The Jesuits' investigation was prompted, in part, by the

urging of Native American staff at one of its schools, the Red Cloud Indian School, on the Pine Ridge Reservation in South Dakota, Mr. Penton said.

In November, two leading bishops in areas with large Native American populations—Gallup, N.M., and Oklahoma City—sent a letter to fellow bishops, urging them to examine the history of the boarding schools in their areas and to comply with the Interior Department investigation.

The federal probe was initiated by Interior Secretary Deb Haaland and is seeking to de-



A memorial for 14 students who died at a boarding school in Minnesota.

termine how many students died and where they are buried. The investigation was prompted by the discovery of unmarked graves of indigenous children at a church-run boarding school in Canada in May.

More than 100,000 Native Americans attended at least 367 boarding schools, according to scholars and the National Native American Boarding School Healing Coalition. Christian denominations operated nearly half of the schools, with the Catholic Church operating an estimated 84 of them, according to the Coalition.

Native American advocates said the letter from the bishops signaled that the U.S. Catholic Church was for the first time officially urging local dioceses to examine their role in running the boarding schools.

"It is imperative that the Catholic Church and other denominations do the hard work to locate and share their records," said Deborah Parker, director of policy and advocacy for the boarding school healing coalition.

The group "has been calling for churches to share their re-

ords for years, and there cannot be any further delays," she said.

Part of the challenge, church officials say, is that the schools often fell under the aegis of local parishes and religious orders that kept their own records. In other cases, documents might be elsewhere.

The Archdiocese of Oklahoma City has launched listening sessions with families of former Native American boarding-school students. It also recently joined with a researcher at Marquette University, which houses a significant trove of records on the schools, to dig through its archives.

Michael Scaperlanda, the archdiocese's chancellor, said research will include investigating whether children are buried at any of the school sites in the Oklahoma region. A report will be issued on the findings, and the archdiocese will determine how to proceed, he said.

"We've learned in the past few years that being fully transparent about the good, the bad and the ugly of our past is the way forward for healing and reconciliation," he said.

# New State Laws Address Housing, Dating Apps

By JACOB GERSHMAN

Hundreds of state laws across the country take effect in January, dealing with issues including housing deregulation, foam containers and the cost of dating apps.

Among the most controversial is a measure passed by California voters in 2018 that requires pork sold in the state—excluding meat in cold storage—to originate at farms that house breeding pigs with a minimum of 24 square feet each.

Animal-rights advocates say the rules protect against cruel

treatment of farm animals, while pork producers say the space standards will make bacon more expensive and curb supply in the nation's largest pork market. A coalition of California restaurants and grocery stores has sued to block the regulation.

Among a raft of new California labor laws are new restrictions on severance and settlement agreements. Employers may not enter into confidentiality agreements with employees that prevent employees from disclosing factual information relating to allegations of any unlawful workplace ha-

arrassment or discrimination.

On the criminal-justice front, California is also ending mandatory minimum sentences for nonviolent drug offenses and criminalizing the nonconsensual removal of condoms during intercourse.

In an attempt to ease housing shortages that drive up prices and contribute to homelessness, both California and Connecticut are allowing qualified property owners to add extra housing units either by splitting their lots, converting their homes into duplexes or converting a basement, attic or garage into a dwelling unit.

In Arkansas, state agencies will be barred from conducting employee training sessions that teach that the state or the U.S. is fundamentally racist or sexist or that one race or sex is inherently superior to another, among other concepts labeled as divisive. Several other states have passed similar laws.

The state is also lowering its top individual income-tax rate to 5.5% from 5.9%, the first step of a multiyear tax cut backed by Republican Gov. Asa Hutchinson.

Colorado is making it easier for singles to try out dating

apps without getting charged. A new law gives consumers of dating services a three-day window to cancel their contracts or subscriptions with a full refund.

A first-of-its kind law in Illinois bars law enforcement from lying to minors during interrogation about evidence they have collected or enticing confessions with unauthorized promises of leniency.

New York is banning restaurants, food trucks and grocers from using takeout containers made of polystyrene foam in an attempt to cut down on pollution.

# Roberts Pledges Stricter Ethics Compliance for Federal Judges

By JESS BRAVIN AND JAMES V. GRIMALDI

WASHINGTON—Chief Justice John Roberts pledged to improve ethics training and bolster internal compliance systems for the federal judiciary, citing a Wall Street Journal investigation that found hundreds of instances where judges presided over cases involving companies in which they or their relatives held stock.

"Let me be crystal clear: the Judiciary takes this matter seriously. We expect judges to adhere to the highest standards, and those judges violated an ethics rule," the chief justice said in his year-end report Friday.

In addition to presiding over the Supreme Court, the chief justice heads the entire federal judicial system, overseeing it through such bodies as the Judicial Conference, which is the judges' policy-making arm, and the Administrative Office of U.S. Courts.

The federal judiciary historically has resisted proposals that would extend to judges the disclosure requirements that apply to lawmakers and executive-branch appointees. It has also opposed bills aiming to increase public access to judicial proceedings, such as providing free access to the online Pacer system where federal court filings



Chief Justice John Roberts heads the entire federal judicial system.

and decisions are docketed.

Chief Justice Roberts himself raised concerns that helped torpedo 2018 legislation that would have expanded ethics requirements and required audio and video transmission of some court proceedings. In his Friday report, the chief justice stressed that "institutional independence" of congressional oversight remained essential to the judiciary.

In recent months, Chief Justice Roberts didn't respond to the Journal's requests for comment on its findings of judicial violations, even as lawmakers and legal ethicists called for stronger measures to ensure that federal judges—who serve for life—obey conflict-of-interest rules.

In his Friday report, however, the chief justice wrote that "beginning this past September, The Wall Street Journal published a series of articles stating that, between 2010 and 2018, 131 federal judges participated in a total of 685 matters involving companies in which they or their families owned shares of stock. That was inconsistent with a federal ethics statute, 28 U.S.C. §455, which requires that a judge recuse in any matter in which the judge knows of a personal financial interest, no matter how small."

The Journal's subsequent reporting has found the actual tally is significantly higher, with at least 950 such recusal violations.

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## U.S. NEWS

## FDIC Control to Shift as Chief Resigns

Democrats will set agenda after Trump appointee leaves post before full term ends

By Andrew Ackerman

WASHINGTON—Jelena McWilliams's decision to resign as chairman of the Federal Deposit Insurance Corp. paves the way for Democrats to gain control of the agency's agenda in the coming weeks, potentially leading to more-stringent requirements around bank tie-ups, climate change and other matters.

Ms. McWilliams, a Trump administration holdover, said Friday that she planned to step down, following a public fight with Democrats who now make up a majority of the FDIC board. The move comes after Ms. McWilliams previously said she intended to serve out her full term, which lasts through mid-2023.

In a letter to President Biden released by the FDIC, Ms. McWilliams said her resignation would be effective Feb. 4. The letter made no mention of board disputes.

The FDIC supervises thousands of small banks, handles bank failures, insures the nation's bank deposits and reviews wind-down plans of the largest U.S. banks in the event of their failure.

Ms. McWilliams's resignation comes after Democratic members of the FDIC last month voted to launch a regulatory process related to bank mergers without the support of Ms. McWilliams, who blocked the request from being published by her agency.

Though Democrats say they have legal authority to circulate and vote on FDIC business without the approval of the chairman, agency staff said the measure wasn't drafted through normal, staff-led channels and that only the chairman controls the agenda before the board. The agency's staff largely reports to Ms. McWilliams. At a Dec. 14 public meeting, Ms. McWilliams also rejected a push to have the Democrats' vote reflected as a valid board action.

The moves by the three Democrats—Consumer Financial Protection Bureau Director Rohit Chopra, FDIC board member Martin Gruenberg and



FDIC Chairman McWilliams has battled with Democrats on the board.

acting Comptroller of the Currency Michael Hsu—signaled that the officials were trying to set the agenda for the FDIC and not waiting until Ms. McWilliams's term expires.

Ms. McWilliams's decision to leave now came after deciding that her relationship with fellow board members would likely remain acrimonious, particularly with Mr. Chopra, and that a continuing fight would demoralize staff and make the

agency look political, according to people familiar with the matter.

In a Dec. 15 Wall Street Journal opinion column, Ms. McWilliams described the Democrats' moves as "a hostile takeover" and "an attempt to wrest control from an independent agency's chairman with a change in the administration."

Democrats disputed that characterization. Mr. Chopra said Ms. McWilliams was seek-

ing to unlawfully block a supermajority of the board and that Democrats would take additional, unnamed steps "absent a return to legal reality."

Ms. McWilliams's departure leaves another top regulatory vacancy for the White House to fill. The Biden administration is expected as early as this month to nominate individuals for three vacancies at the Federal Reserve, another top banking regulator. Mr. Biden's pick to become the Comptroller of the Currency withdrew amid opposition from moderate Democrats.

Filling some of those positions could become more challenging in the evenly split Senate. Republicans have objected to the Democrats' efforts to circumvent Ms. McWilliams on the bank-merger matter, a move the White House last month signaled it supported.

"I am deeply troubled to see the administration support this extremist destruction of institutional norms and unprecedented action to undermine the independence and integrity of our financial regulators," Sen. Pat Toomey (R., Pa.) said Friday. He called on Mr. Biden to quickly fill Ms.

McWilliams's board seat as well as a separate vacant seat and to replace Mr. Gruenberg.

Mr. Gruenberg is expected to serve as acting chairman. He has served on the FDIC board since 2005, including a stint as its chairman from 2011 to 2018, when he was succeeded by Ms. McWilliams. He is continuing to serve on the board in a term that expired in December 2018.

Progressive groups generally welcomed Ms. McWilliams's departure. "This wrangle began because McWilliams fought the board majority's desire to grapple with the harms of bank mergers," said Carter Dougherty, spokesman for Americans for Financial Reform, which represents unions and consumer groups. "That work needs to continue, no matter who heads the FDIC."

As FDIC chairman, Ms. McWilliams backed some deregulatory moves championed by the Trump administration. Still, she generally steered the agency away from political lightning rods, such as an overhaul to rules governing how banks make billions of dollars in investments in low-income neighborhoods.

## Democrats Seek Rules Change for Election Bills

By Siobhan Hughes

WASHINGTON—The Senate returns for a new session on Monday with Democrats focused on trying to change the chamber's rules to muscle through elections legislation over Republican opposition, as lawmakers also hope to revive President Biden's stalled economic and climate agenda.

Many Democrats say they need to alter Senate filibuster procedures, which require 60 votes to advance most legislation, to pass bills designed to make it easier for people nationwide to vote. The party currently controls the evenly divided Senate, but some Democrats have resisted eliminating the filibuster outright, muddying the prospects for any legislative progress despite the fresh push.

"You can think of January as a moment when two different forces are converging," said Sen. Jeff Merkley (D., Ore.), who has been a leader in negotiations on both rules changes and voting legislation. "One is the functionality of the Senate and the other is the functionality of our republic."

Democrats have called passing new elections legislation their priority, arguing that minority voters need protections from new state rules. Republicans have blocked election-related bills in the Senate, and they paint calls to change the filibuster as a power grab. GOP lawmakers say the proposed changes to election law would put voting rules under the control of the federal government with little sensitivity to election security or local needs.

"I've always thought that the diversity of the election system in our country was really one of the strengths of the system," said Sen. Roy Blunt (R., Mo.), a former Missouri secretary of state who is also the top Republican on the Senate committee that handles elections policy. "The fact that states do this in slightly different ways makes it harder to disrupt our system than it might otherwise be."

A revised version of Mr. Bi-



Senate Majority Leader Chuck Schumer, shown last month, has projected a vote early in the new year on the Build Back Better bill.

den's roughly \$2 trillion climate and social-spending legislation, known as Build Back Better, is also headed to the Senate floor, despite not currently having the 50 votes it needs to advance under a special budget process called reconciliation. Senate Majority Leader Chuck Schumer (D., N.Y.) has projected a vote early in the new year.

The proposal seeks to create a universal prekindergarten program, subsidize child-care costs, lower prescription-drug costs and offer tax credits for reducing carbon emissions, among other measures. Sen. Joe Manchin (D., W.Va.) stopped the bill in its tracks in mid-December, citing its possible impact on inflation as well as the way its price tag was calculated.

Some supporters said there was still hope of reviving at least parts of the package.

"There's a lot of discussion taking place, including this

week, in an effort to bring this together," said Sen. Ben Cardin (D., Md.) on Thursday.

As Build Back Better stalled, Democrats turned their attention to voting rights and the filibuster. Mr. Biden has signaled he could back modifications to the filibuster if needed

**Republicans describe calls to change the filibuster as a power grab.**

to pass voting-rights legislation.

Democrats have unified around two election bills. The Freedom to Vote Act would overhaul election rules nationwide. Another, named after the late lawmaker and civil-rights leader John Lewis, would give the federal government more

control over state voting procedures after a pair of Supreme Court rulings weakened the 1965 Voting Rights Act, a multipronged law that gave Washington control over changes to voting rules in states with a history of racial discrimination.

Mr. Schumer said in a letter to colleagues last month that he would bring voting legislation to the Senate floor as soon as the first week the chamber returns. A representative for Mr. Schumer declined to comment on either the substance or timing of voting legislation.

The Democratic leader said that Democrats would proceed to consider rules changes if Republicans again filibuster the elections legislation, as they did in the past year.

Creating a new precedent to change the filibuster rule would require a majority vote in the Senate, and Mr. Manchin as well as Sen. Kyrsten Sinema

(D., Ariz.) have said they oppose eliminating the rule. As such, lawmakers are discussing various modifications to the filibuster, short of eliminating it outright.

According to Democratic senators and activists, one approach would eliminate the 60-vote hurdle needed to simply initiate a debate on the Senate floor about a bill, while leaving in place a later 60-vote hurdle needed to end debate. Another would be aimed at guaranteeing a certain amount of debate time and certain amendment votes.

A third would put more of the onus on opponents of a bill to block it. Instead of requiring 60 senators to vote to proceed to the vote, 41 senators would be required to show up in person to block a vote. To make the requirement meaningful, a vote could be called at any time, in effect forcing 41 objecting senators to be on hand at all hours to thwart a bill.

## Public Hearings Over Jan. 6 Planned

By Paul Kiernan and Joshua Jamerson

WASHINGTON—The House committee investigating the Jan. 6 attack on the U.S. Capitol is readying a slate of public hearings for 2022, and the panel's top Democrat left the door open to subpoenaing GOP lawmakers as part of its probe.

Rep. Bennie Thompson (D., Miss.), the committee's chairman, said the panel will call in state and local election officials who are charged with conducting elections; government officials who told the Trump administration they could find no fraud in the elections; and National Guard members who weren't immediately authorized on Jan. 6 to help stem the riot.

"Let me say that what we have been able to ascertain is that we came perilously close to losing our democracy as we have come to learn it," Mr. Thompson said on CNN Sunday, adding later: "Our hearings will determine whether or not what occurred on January 6 was a comedy of errors or a planned effort on the part of certain individuals."

Mr. Thompson also said Sunday that the committee wouldn't rule out making a referral of criminal charges to the Justice Department related to former President Donald Trump's role in the Capitol attack. "If in the course of our review we find something that we think warrants review or recommendation to [the Justice Department], we'll do it. We're not looking for it, but if we find it, we'll absolutely make the referral," he said on ABC.

Rep. Liz Cheney (R., Wyo.), one of two GOP members of the panel, said that short of criminal referral the committee would look at legislative changes. "I think that there are a number, as the chairman said, of potential criminal statutes at issue here. But I think there's absolutely no question that it was a dereliction of duty," said Ms. Cheney, one of a few Republicans who is a regular outspoken critic of Mr. Trump's. "I think one of the things the committee needs to look at as we're looking at a legislative purpose is whether we need enhanced penalties for that dereliction of duty."

Mr. Thompson also left open the possibility of issuing subpoenas for the cooperation of two GOP lawmakers, Reps. Scott Perry of Pennsylvania and Jim Jordan of Ohio, with whom the committee previously asked to speak regarding Jan. 6. "We have asked them to come in voluntarily. Now, we will look at whatever opportunities we can to get those people to come in," he said. Asked if that would include a subpoena, he responded: "We will look at it."

Representatives for Messrs. Perry and Jordan didn't immediately respond to requests for comment.

## Twitter Suspends Lawmaker's Personal Account

By Joshua Jamerson

WASHINGTON—Twitter Inc. permanently suspended one of Rep. Marjorie Taylor Greene's verified accounts, citing repeated violations of the social-media platform's Covid-19 misinformation policy.

"We've been clear that, per our strike system for this policy, we will permanently suspend accounts for repeated violations of the policy," Twitter said Sunday. Twitter's policy states that account holders "may not use Twitter's services to share false or misleading information about Covid-19 which may lead to harm."

Tweets from Ms. Taylor Greene's @mtgreene account weren't visible on the platform as of Sunday morning. Many lawmakers, including Ms. Tay-

lor Greene, a Georgia Republican, have one account maintained by their office and a separate social-media account for personal and political purposes. Her congressional account, @RepMTG, remained active Sunday morning.

On New Year's Day, Ms. Taylor Greene sent a series of tweets concerning social changes due to Covid-19, such as vaccine mandates. According to a person familiar with the matter, the specific tweet that prompted the permanent suspension read: "Before Covid, Reported deaths from vaccines were taken seriously and dangerous vaccines were stopped. After Covid, Extremely high amounts of covid vaccine deaths are ignored and government forced vaccine mandates increase." That



Rep. Marjorie Taylor Greene

tweet included a chart that showed reported deaths from the Covid-19 vaccines in relation to other types, such as influenza vaccines.

Covid-19 cases in the U.S. have continued to climb, reaching a pandemic record last week of 265,427 cases a day on average, according to a Wall Street Journal analysis of Johns Hopkins University data. The Centers for Disease Control and Prevention and other health experts have said the Covid-19 vaccines offer strong protection against severe illness and death. The CDC said that reports of death after vaccination are rare.

Ms. Taylor Greene in a statement said she was suspended for tweeting statistics from VAERS, the Vaccine Adverse Event Reporting System. VAERS is a government agency that collects reports of suspected side effects from doctors, patients and companies. Federal scientists analyze the

reports to determine whether a vaccine caused the problems.

"Twitter is an enemy to America and can't handle the truth. That's fine, I'll show America we don't need them and it's time to defeat our enemies," Ms. Taylor Greene said.

Ms. Taylor Greene has had repeated public disagreements with other Republican lawmakers and her own party's leadership. In November she publicly traded insults with GOP Rep. Nancy Mace of South Carolina, accusing her of not being sufficiently conservative. House Minority Leader Kevin McCarthy (R., Calif.) in May condemned comments by Ms. Taylor Greene comparing proof of Covid-19 vaccinations to actions taken against Jewish people by Nazi Germany leading up to the Holocaust.

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## U.S. NEWS

# Case Surge Hinders School Plans

Administrators stock up on rapid tests; some districts cancel in-person reopening

By Douglas Belkin

Parents of children in K-12 schools around the country were bracing for changes in reopening plans after the holiday break amid a surge in Covid-19 cases. Milwaukee shelved its scheduled in-person reopening while Syracuse, N.Y., canceled school.

Milwaukee, which has about 71,000 students, decided to start classes remotely when school resumes on Tuesday because so many teachers have tested positive for Covid-19, said Shahree Douglas, spokeswoman for the district. The goal is to open Monday, Jan. 10, she said.

Syracuse canceled school because of an increase in cases among staff and the lack of substitutes to cover their absences, the district said on its website.

School-district superintendents are weighing how—and when—to reopen, a decision driven partly by the availability of tests. The superintendents have different appetites for risk, and the level of teacher enthusiasm for returning to the classroom varies. Regional surges in pediatric hospitalizations for Covid-19 are contributing to differences across the country.

In contrast to 2020, there is much broader support to continue school in-person following the grim record of remote teaching on student mental health and learning loss.

“We lost almost two years of education,” New York City Mayor Eric Adams said during an interview Sunday on ABC. “We can’t do it again.”



Students crossed a street on New York City's Lower East Side in late December, before schools closed for the holiday break.

In addition to vaccines, a strategy called test-to-stay is fueling the hopes of educators that the rest of this school year will be smoother than last. Instead of quarantining, students exposed to Covid-19 are tested regularly and can remain in school if they are negative. The policy is growing in popularity and has been hailed as effective by researchers.

Washington, D.C., and Baltimore are extending winter break by two days to test staff and students before reopening buildings Wednesday. Chicago is recommending that parents administer rapid tests to their children before returning to school. Nearly 2,200 schools have announced that they will be closed

starting Monday, according to Burbio, a Pelham, N.Y., data company that is monitoring K-12 school closures in 5,000 districts across the country.

“We understand there may be bumps in the road tomorrow,” said U.S. Education Secretary Miguel Cardona on CBS on Sunday. “Superintendents today are getting phone calls learning that some of their schools may have 5-10% of their staff not available due to Covid-19. So we recognize that temporary emergency choices may be necessary to keep children safe.”

Other systems, such as Seattle Public Schools, are pushing ahead and pledging to stay flexible. Last week, the district said it had received 60,000

tests. So it canceled classes on Monday to test teachers. Classes will resume Tuesday.

“We recognize students learn best with teachers in the classroom and are planning to keep students and staff in schools,” the district said on its website. “SPS is positioned, however, to transition classrooms (or schools) to remote instruction, if necessary, at some point in January.”

Mr. Biden has pledged to make 500 million Covid-19 tests available to the public free of charge through a website to be launched in January. The timing of the delivery of those tests remains in question.

Some states’ plans have been

thwarted by supply-chain disruptions. Last week, Massachusetts education officials pledged to deliver 200,000 at-home rapid antigen Covid-19 tests to school districts across the state to teachers and staff so they can test themselves before returning to school after break. While supply-chain problems delayed delivery of tests, schools were still scheduled to open.

The latest Covid-19 surge, fueled by the Omicron variant, is so far concentrated in the Northeast. Most concerning to schools is an uptick in pediatric hospital admissions for Covid-19. Nationwide they are up 66% over the past week, according to the Centers for Disease Control and Prevention.

# Pentagon's Austin Has Mild Covid-19

By Nancy A. Youssef

Defense Secretary Lloyd Austin tested positive for Covid-19 on Sunday, the Pentagon said, becoming one of the highest-ranking officials in the Biden cabinet to contract the coronavirus.

Mr. Austin said that he requested the test after exhibiting symptoms that he described as mild. The Pentagon didn’t say which variant of the virus he contracted.

Mr. Austin said he was home on leave when he came down with the symptoms. He last met with President Biden on Dec. 21 and had tested negative for the virus since then until Sunday’s test, the Pentagon said. Mr. Austin said he was last in the Pentagon on Thursday.

Other senior White House and cabinet-level officials to test positive in recent months include press secretary Jen Psaki and Homeland Security Secretary Alejandro Mayorkas.

Mr. Austin said that his leadership team and Mr. Biden had been informed of the test results and that the defense secretary’s staff is conducting contact tracing among people he had been in contact with over the past week.

Mr. Austin said he would quarantine for five days, in accordance with U.S. Centers for Disease Control and Prevention guidelines.

The Pentagon requires all members of the armed services to be vaccinated or risk being discharged from the U.S. military, though Mr. Austin has allowed the services to determine how to enforce his order.

# Omicron Threatens Businesses

Continued from Page One

tract the virus, a problem that Chief Executive Robin Hayes said has become harder to navigate than when the pandemic first emerged in early 2020.

“This is really the first time we have a...very transmissible phase, variant of Covid at the same time that we’re in a peak travel period,” Mr. Hayes said.

Supermarket operators said they anticipate the Omicron variant’s spread will drive increased absences among cashiers, stockers and other employees, deepening staffing problems the grocery sector has faced for months.

“The industry generally mirrors the overall population, so I think this is somewhat inevitable that it will hit everywhere,” said Neil Stern, CEO of Good Food Holdings LLC. The company operates more than 50 West Coast stores, including the Bristol Farms and Metropolitan Market chains.

In Williamsville, N.Y., Tops Markets LLC said it is relying on overtime and asking available workers to cover additional shifts across the company’s 162 grocery stores. The company said it is monitoring a significant increase in the number of Covid-19 cases among its workers.

Increasing infections have led some retailers to temporarily close stores, such as Apple Inc., which limited access



Delta is among the airlines cutting isolation from 10 to five days for vaccinated staff who test positive.

to New York City-area locations, including its Fifth Avenue flagship.

While cases in the U.S. have hit records, there is growing evidence that the illness caused by the Omicron variant is less severe than that of previous strains of the virus as hospitalizations and deaths continued to lag behind the surge of infections.

Some business leaders, including executives of Delta and JetBlue, called last month on the federal Centers for Disease Control and Prevention to reduce its recommended isolation time for vaccinated people, a move they said would help get healthcare workers and others back on the job more quickly. The CDC last week cut its recommended isolation time to five days from 10, citing new research and the stress on businesses due to

worker absences. Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases, said Sunday the guideline could be tightened to require a negative test after five days of isolation.

Toyota Motor Corp., which employs about 48,000 people across more than 20 facilities in the U.S., said it has generally been carrying extra staff in anticipation that a certain number of workers might be quarantined. The company can test workers on site and has been tracking cases, including exposure and infections, among its employees.

“That said, we do not yet know what will happen in January,” a Toyota spokesman said. The Japanese auto maker is aligning its policies with the new CDC guidelines, which the spokesman said will reduce isolation times.

Delta is also implementing the shorter isolation times, the company has said. A Southwest Airlines Co. spokeswoman said the carrier was reviewing the CDC’s revised isolation guidance.

The Association of Flight Attendants-CWA, a labor union, has pushed back on the new CDC recommendations, warning that it could mean infectious workers staffing flights or boarding planes. The union has called for the prior 10-day isolation period to be maintained.

JetBlue’s Mr. Hayes said the revised CDC guidance protected public health while allowing society to continue to function. He said the new recommendations enabled the airline to maintain operations.

“We’re still losing more people every day than we’re getting come back,” Mr. Hayes said. “Many of our crew mem-

bers are really stepping up and taking additional shifts.”

The deepening challenges that Omicron’s spread poses for businesses have led some economists to cut their growth forecasts for early 2022, anticipating continuing worker shortages for companies and reduced consumer spending on travel and entertainment. So far, economists have said, the new variant hasn’t driven jobless claims noticeably higher.

Some businesses said they are managing, including meat-packing companies, whose workers were among the hardest hit when the coronavirus began spreading in early 2020. Smithfield Foods Inc., the biggest U.S. pork processor by sales, said cases among its employees remain below the general population. Other meat companies, including Tyson Foods Inc., JBS USA Holdings Inc. and Cargill Inc., said they have had no operational disruptions.

Bar Louie, a chain based in Addison, Texas, has recently scaled back hours at some of its roughly 70 restaurants because of staffing shortages, Chief Operating Officer Damian Mazza said. The company has maintained mask rules for workers throughout the pandemic, but as Omicron spreads, cases among workers have jumped in some markets, Mr. Mazza said.

Bar Louie is coping, he said, in part because of a simpler menu the chain developed during the pandemic that has helped its kitchens operate with reduced staff and other Covid-19 related disruptions.

—Christina Rogers, Patrick Thomas and Khadeeja Safdar contributed to this article.

# New Virus Medicine Carries Warnings

By Peter Loftus

The first Covid-19 antiviral pills that can be taken at home are a new treatment option for infected people, but they carry safety warnings and limitations that could complicate treatment decisions for patients, doctors and pharmacists.

In December, the Food and Drug Administration authorized the use of new pills from Merck & Co., with its partner Ridgeback Biotherapeutics, and Pfizer Inc., for the treatment of mild to moderate Covid-19 in people at high risk of worsening to severe disease, such as the elderly or those with certain chronic medical conditions.

Both drugs, which must be prescribed by a doctor, are five-day regimens that are supposed to be started within five days of symptom onset. The drugs work by blocking replication of the virus, and clinical trials showed they reduce the risk of hospitalization and death in people with mild to moderate Covid-19.

Health officials and the drugs’ manufacturers say the benefits of the pills outweigh the risks. They could be especially useful as the Omicron coronavirus variant spreads because some other Covid-19 treatments have been shown to lose effectiveness against the variant. The new pills aren’t expected to lose effectiveness against Omicron because they target parts of the virus that don’t significantly mutate across variants.

“I think they’re likely to be an incredibly important tool to prevent hospitalization,” said Rajesh Gandhi, an infectious-disease specialist at Massachusetts General Hospital in Boston.

Not everyone infected with Covid-19 is a candidate for treatment. The Pfizer drug, Paxlovid, shouldn’t be used at the same time as certain other drugs, including common ones like the cholesterol-lowering pill simvastatin, also known by the brand Zocor.

That is because a component of Paxlovid, an older boosting agent known as ritonavir, can interact with other drugs in dangerous and life-threatening ways.

# Request to Delay 5G Is Rebuffed

Continued from Page One

wireless limits near airports while regulators study the effect signals have on aircraft.

The message from AT&T CEO John Stankey and Verizon CEO Hans Vestberg responded to a letter Transportation Secretary Pete Buttigieg and Federal Aviation Administration chief Steve Dickson sent late Friday. That missive asked the carriers to postpone their planned 5G launch by “no more than two weeks” while officials worked to address the wireless

services’ effect on specific airports over the coming weeks.

Air-safety regulators have said the new cellular services could confuse key cockpit-safety systems.

AT&T and Verizon, which combined serve more than half of all U.S. cellphone connections, disputed officials’ claims of air-safety risks. The companies postponed a planned December debut of the new signals to provide more time for telecom and aviation regulators to share information about the wireless infrastructure and aircraft equipment in question.

Wireless companies later pledged to limit C-band signals for another six months, through early July. The letter Sunday proposed even stricter 5G limits over the same period.

But the telecom CEOs said transportation regulators’ lat-

est delay request would be to “the detriment of millions of our consumer, business and government customers,” noting that carriers spent more than \$80 billion to acquire the licenses in a Federal Communi-

## AT&T and Verizon disputed U.S. officials’ claims of air-safety risks.

cations Commission auction that closed in January 2021.

FCC officials padded the spectrum they auctioned with a swath of buffer frequencies to prevent interference with cockpit systems. But air-safety regulators have expressed concern

that more sensitive altimeters could mistake cellular transmissions for terrain.

AT&T and Verizon have spent the past year preparing to turn on new signals to provide fifth-generation technology, a faster and more capable mobile service. Wireless companies in other countries use similar frequencies, but the spectrum wasn’t available to U.S. providers until recently.

Without a resolution to the dispute, Messrs. Buttigieg and Dickson warned the FAA’s flight limits would bring severe economic consequences.

“Failure to reach a solution by Jan. 5 will force the U.S. aviation sector to take steps to protect the safety of the traveling public, particularly during periods of low visibility or inclement weather,” they wrote in their Dec. 31 letter.

The competing proposals are the latest in a flurry of behind-the-scenes work by aerospace manufacturers and wireless companies, their regulators and senior White House officials. As they attempted to hammer out solutions to allow the new 5G service to go live without prompting severe flight restrictions, the trade group Airlines for America asked the FCC to consider an emergency request to delay the wireless rollout.

The airline trade group said Sunday it continued to urge the FCC and telecom industry to work with the FAA and aviation industry to reach a compromise. An FCC spokeswoman declined to comment on the request but said the commission remained optimistic that “by working together we can both advance the wireless economy and ensure aviation safety.”

## U.S. NEWS

## Tax Season Brings Headaches

By RICHARD RUBIN

WASHINGTON—The third tax-filing season during the coronavirus pandemic is set to begin soon with more delays, uncertainty and frustration likely for taxpayers and tax preparers.

There will be some signs of business as usual. The individual tax deadline will return to its usual mid-April date for the first time since 2019, and the Internal Revenue Service says it has been steadily reducing its backlog of 2020 returns and other lingering paperwork.

Even so, the agency is still contending with piles of work from the messy 2020 tax year while facing new challenges, including the prospect of retroactive legislation and pandemic-era tax-law changes that will require extra attention from taxpayers.

“The IRS is going to start the filing season in a hole,” said Erin Collins, the national taxpayer advocate, who leads an independent group within the IRS.

In late December, the IRS said it was on schedule opening its mail and that it has processed returns it received before April 2021 that didn't require special attention or contained errors.

But that means the agency, which struggled with flat budgets before the pandemic, still had 6.3 million unprocessed individual returns and 2.3 million amended tax returns to process as of Dec. 18. Those amended returns can take the IRS more than 20 weeks rather than the usual 16 weeks, the agency said. It has cut its tally of returns requiring special handling to 42,000 from 9.8 million in May.



The tax deadline returns to its usual mid-April date this year. The IRS building in Washington.

Anything that requires human eyes or hands at the IRS—paper returns, telephone calls and correcting errors made on returns—still could be subject to significant delays.

“I don't even call them any more,” said Richard Pon, a San Francisco accountant, who says it is better to mail letters and wait several months for a reply, rather than charge clients while he waits hours on hold to speak with an IRS employee.

As tax season starts, breaks created by Congress to help people cope with the pandemic's disruptions will cause extra work. The advanced payments of the child tax credit received during 2021 must be reflected on tax returns, and people who were eligible for March's \$1,400 economic stimulus payment but didn't receive it can claim it on their returns.

The IRS will send notices to

taxpayers in late January, showing the government's records of how much people received in stimulus and child-credit payments in 2021. Mismatches between those numbers and what is listed on tax returns can lead to processing delays as the IRS addresses discrepancies or errors. This process could be particularly challenging for households that added children or had significant income changes, said Kathy Pickering, chief tax officer at H&R Block Inc.'s Tax Institute.

“Accuracy has a value now,” said Mark Steber, chief tax information officer at Jackson Hewitt Tax Service Inc., which prepares about two million returns annually. “You'll get your money. There's no doubt of that. But it may take a few extra weeks or months.”

Filing electronically, using direct deposit and making sure child-credit and stimulus

numbers match the IRS notices will help taxpayers avoid slowdowns, Ms. Collins said.

Employees at IRS paper-processing centers are still working under pandemic restrictions, making electronic filing more important, said Douglas O'Donnell, the agency's deputy commissioner for services and enforcement. “The pandemic has created unique challenges for the IRS,” he said. “IRS employees continue working hard to prepare for the upcoming tax season as well as addressing outstanding tax returns.”

The IRS should take some of its new employees—even higher-skilled auditors—and redirect them to address choke points in tax filing, said Nina Olson, Ms. Collins's predecessor, who retired in 2019.

“What they need is to serve the majority of the taxpayers who are trying to comply,” she said.

## Rocky Path For Stocks Seen in '22

Continued from Page One  
low what economists had anticipated.

But few investors expect 2022 to go as well as 2021, with the Federal Reserve on the verge of raising interest rates, a new Covid-19 variant sweeping the country and government aid to families dwindling. Economists in a Journal survey in October forecast 3.6% growth this year.

Already, oil prices have slipped around 10% since their highs in late October, reflecting traders' worries about slowing demand for fuel. The S&P 500 spent much of the past two months trading sideways, while some speculative investments, such as shares of smaller, fast-growing tech companies, fell sharply—hurt by fears they would be especially vulnerable to tighter monetary policies.

One major concern of investors: how different problems might feed on each other. Fresh waves of Covid-19 cases might slow economic growth by reducing consumer spending. But some also worry that they could help sustain already hot inflation by contributing to supply-chain problems and labor shortages—making it difficult for the Fed to push off short-term interest rate increases even if growth does slow.

The biggest threat to riskier assets like stocks is that “there are inflation problems that push the Fed to tighten too much,” said Jim McDonald, chief investment strategist at Northern Trust, the Chicago-based asset management firm. “And one of the causes of that could be pandemic related supply disruptions.”

Such anxieties have been particularly evident in the bond market, where yields on longer-term U.S. Treasury bonds have remained stuck in a narrow range below 2% even as shorter-term yields have climbed—showing investors are both worried about the economic outlook and confident that the Fed is going to raise rates multiple times in 2022.

Low long-term yields might comfort investors in some ways because they play a large role in determining borrowing costs across the economy. Lower yields also tend to boost the stock prices of fast-growing companies in particular by making their future

earnings more valuable.

Still, economists caution that higher short-term rates, even on their own, should also slow the economy. And many think longer-term yields will also rise as investors price in more rate increases beyond this year.

Despite the rising risks, many investors believe markets will power through the coming year, delivering returns that are solid even if they don't quite measure up the past two years of outside gains fueled in large part by government stimulus programs.

Mr. McDonald, for one, said corporate earnings are still likely to grow by double digits in 2022. As a result, his team favors riskier assets such as developed-market stocks and lower-rated corporate bonds over safer assets like cash and higher-rated bonds. He said he thinks longer-term rates should be held in check by technical factors.

Overall, analysts in December expected earnings to grow 9.2% in 2022, according to FactSet, down from an esti-

## Few investors are expecting 2022 to go as well as 2021 did for markets.

ated 45.1% in 2021 but still comparable to 2017, when the S&P 500 gained 19%.

Of comfort to investors, stocks have generally performed well in years when the Fed has just started to raise interest rates. Investors also point to signs that each wave of Covid-19 has delivered a smaller hit to the economy, as people learn how to cope. Many are also optimistic inflation will subside, with the supply of goods catching up to demand. And some argue that increases in Covid-19 cases are more likely to slow inflation than accelerate it, meaning the Fed could delay rate increases if the economy endures a rough patch.

“If we get really much slower growth, I think we get much faster disinflation,” said Brian Nick, chief investment strategist at Nuveen. In that case, he said, it is good that investors are already counting on three rate increases for 2022 because that means the Fed could actually ease financial conditions by delivering less than that.

The prospect of rising interest rates, though, remains a worry for investors, with most expecting an uptick in volatility—even if stocks keep broadly trending higher.

## U.S. WATCH

## ALABAMA, KENTUCKY

## Severe Weather Causes Damage

A line of severe storms damaged homes, knocked out power and downed trees in parts of the southern U.S. late Saturday into Sunday morning.

Authorities closed roads in Hazel Green, Ala., after power lines came down and homes suffered damage. The weather also caused damage to businesses in Hazel Green.

The National Weather Service issued a winter weather advisory for north and parts of north-central Alabama, in effect from 6 p.m. through 3 a.m. Monday. Temperatures are expected to plummet as a cold front moves through.

The storms followed a system earlier Saturday which brought flooding to parts of Kentucky. Gov. Andy Beshear said Sunday that four tornadoes were confirmed. No injuries were reported. The strongest was an EF-2 tornado that caused significant damage in Hopkinsville, the National Weather Service said.

Temperatures dipped Sunday after the severe weather rolled through, and winter storm warnings were posted from eastern Tennessee to Maryland with up to 6 inches of snow possible in some areas.

—Associated Press



A storm downed trees and power lines in Hazel Green, Ala.

## CLEVELAND

## Woman Is Charged In Officer's Slaying

A woman has been charged with aggravated murder in the slaying of an off-duty Cleveland police officer gunned down during a parking-lot carjacking, authorities said.

Cleveland police on Sunday announced the charge against 18-year-old Tamara McLoyd in Friday's shooting death of Officer Shane Bartek, 25, at an apartment building. Police on Saturday announced multiple arrests in the slaying of Officer Bartek, who was approached in the lot and shot twice during a struggle.

Officer Bartek was pronounced dead at Fairview Hospital. The carjacker fled in the officer's vehicle, which was tracked down in suburban Euclid, and one person was arrested at that time, police said.

Officer Bartek had been hired by the Cleveland police in 2019. It wasn't clear whether Ms. McLoyd had an attorney, a listed number in her name couldn't be found Sunday.

It was the first fatal shooting of a Cleveland police officer since detective James Skernivitz was shot and killed in September 2020 during an undercover drug operation. A police informant was also killed.

—Associated Press

## COLORADO

## After Wildfire, Crews Search for 2 Missing

Search teams looked for two missing people on Sunday in the snow-covered but still smoldering debris from a massive Colorado wildfire, while people who barely escaped the flames sorted through what was left after the blaze and investigators tried to determine its cause.

The flames ripped through at least 9.4 square miles and left nearly 1,000 homes and other buildings destroyed in suburbs between Denver and Boulder. It came unusually late in the year following an extremely dry fall and amid a winter nearly devoid of snow. Experts say those conditions, along with high winds, helped the fire spread.

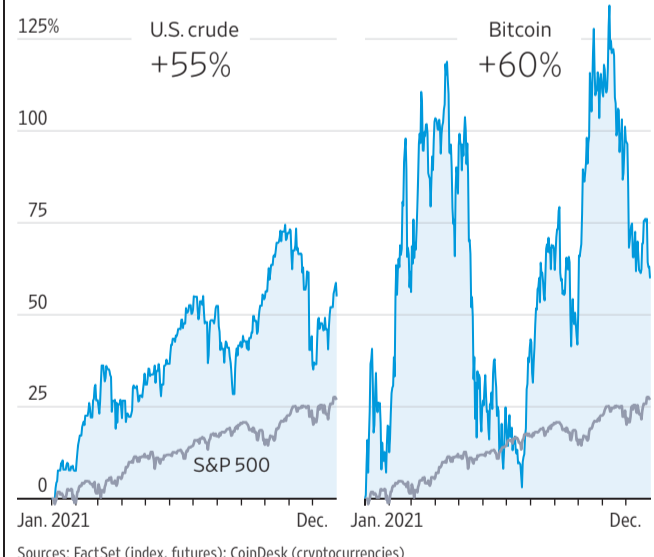
Crews were looking for a woman at a home in Superior and a man living near Marshall. Boulder County Sheriff Joe Pelle said their homes were “deep in hot debris and covered with snow. It is a difficult task.”

Colorado Gov. Jared Polis and federal emergency officials visited some of the damaged neighborhoods Sunday morning.

The cause of the fire is under investigation. Utility officials found no downed power lines around where the fire broke out.

—Associated Press

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U.S. NEWS

Family Searches For Answers

Continued from Page One  
other parents," Ms. Gunner said, adding that 18 half-siblings of Steven had been identified.

In interactions with the other parents, the Gunners learned disturbing new information about Donor 1558: The handsome, athletic, musical student had been diagnosed with schizophrenia and had died of an opioid overdose in 2018, at age 46. And when Ms. Gunner later connected with the mother of Donor 1558, she learned that he had once been hospitalized for behavioral issues. For unknown reasons, he didn't disclose that on a questionnaire he completed before donating sperm.

"The grieving started all over again," Ms. Gunner said. She believes Steven inherited a susceptibility to schizophrenia from his biological father.

Schizophrenia often runs in families, and having a parent with the mental illness raises a child's risk for having it. But such offspring are "much more likely not to develop schizophrenia than they are to develop the illness," said Dr. Niamh Mullins, an assistant professor of psychiatry at Icahn School of Medicine at Mount Sinai.

Scientists have devised and discarded many theories about what causes schizophrenia. Lynn DeLisi, a professor of psychiatry at Harvard Medical School who studies the disorder, said scientists have now identified a few hundred genes that collectively might raise the risk for schizophrenia. Even so, she said, "It is still a mystery how schizophrenia is transmitted."

Researchers are studying possible environmental risk factors for schizophrenia, including heavy marijuana use and childhood physical or emotional trauma. In addition, efforts are under way to develop schizophrenia risk



David and Laura Gunner believe their son, Steven, inherited a susceptibility to schizophrenia from his biological father, a sperm donor.

scores based on genetic data. Such scores aren't yet ready for clinical use, according to experts. But if they do become available, Dr. DeLisi said, "it's something sperm banks ought to consider."

Treatment of infertility is a multibillion-dollar global industry, with hundreds of fertility clinics in the U.S. offering artificial insemination and in vitro fertilization. Despite its scale, the industry is loosely regulated.

Clinics are required by law to track births resulting from IVF but not from artificial insemination, according to experts, so there is no reliable tally of how many children are born after being conceived with donor sperm. And while sperm banks ask donors to fill out health questionnaires, they don't always verify the information.

Donors earn about \$100 to \$150 for each donation, according to Michelle Ottey, consulting lab director at Fairfax Cryobank, the sperm bank that sold Donor 1558's sperm. The men are encouraged to alert sperm banks of significant medical problems that arise



after donation but don't always do so.

The Gunners, who raised Steven and his younger sister in East Aurora, N.Y., decided to push for change. They shared their story with their state senator, Patrick Gallivan, in November and encouraged him to craft legislation that would require reproductive tissue banks to verify health and other types of information provided by sperm, egg and embryo donors.

In December, Mr. Gallivan, a

Republican, introduced the Donor Conceived Person Protection Act. As part of the proposed legislation, donors must waive confidentiality protections so their medical records from the past five years can be checked.

The Food and Drug Administration requires screening for sperm donors for infectious diseases like HIV and hepatitis. In addition, some sperm banks test prospective donors to see if they carry genes associated with rare he-

reditary diseases like cystic fibrosis and Tay-Sachs disease.

But there is no easy way to identify people at risk for schizophrenia, which is believed to affect about 1% of the population.

The Gunners had no indication Steven might develop the disorder. An active, outgoing boy, he loved listening to music and fishing with his dad. He was captain of his junior high football team.

But around age 15, Steven turned sullen. He lost himself in pot and psychedelics and was sometimes delusional. Steven got the schizophrenia diagnosis at age 19.

The Gunners tried desperately to help their son, providing emotional and financial support. But in the ensuing years, his parents said, Steven's behavior grew even more erratic. He would stand in the yard wearing only a blanket, or go shoeless on snowy days. He was in and out of drug rehabilitation and psychiatric hospitals and repeatedly jailed—once after he was involved in an assault.

Ms. Gunner shared some of

these sad details with Donor 1558's mother, whose identity came to light as the result of DNA testing of one of Steven's half-siblings. In an interview, Donor 1558's mother said she was devastated to see echoes of her son's struggles in Steven's, adding that she didn't believe her son had tried to mislead the sperm bank. "When my son died, I thought it was over," she said. "But it is not. This is his legacy."

Steven's death was heart-breaking, said Dr. Ottey of Fairfax Cryobank. In the decades since Donor 1558 donated, Fairfax has improved the process for testing and interviewing donors and vetting their information, she said, adding that email has also made it easier to receive regular health updates from donors. "We do our best to provide really good quality donors and good quality tested donor sperm," she said. "The reality is nothing is an absolute."

Sean Tipton, the chief advocacy and policy officer for the American Society for Reproductive Medicine, said legislative efforts like the one the Gunners support could backfire. Not all medical conditions can be detected in donors, he said, adding that enacting such laws could raise the cost of fertility treatments. What is more, he said, the call for strict vetting of sperm donors' self-reported health data spotlights a broader philosophical question about how much prospective parents can control when trying to conceive a child.

"You can know everything about somebody and that doesn't tell you what their children are going to be like," Mr. Tipton said.

The Gunners are still upset that Donor 1558 was taken at his word when he said he hadn't been hospitalized. But they have come to terms with the contradiction inherent in their advocacy for laws that—had they been in force when they were trying to start a family—would have meant the son they adored would never have been born.

"We love Steven," Ms. Gunner said. "But I saw the suffering he went through. I would never have chosen that for him."

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## WORLD NEWS

## Fire Ravages South African Parliament

Police take man in for questioning as historic building suffers heavy damage in Cape Town

By Aaisha Dadi Patel

JOHANNESBURG—A major fire devastated South Africa's parliament building, with heavy damage to the historic site in the center of Cape Town.

JP Smith, a member of Cape Town's local city council in charge of safety and security, said fire services were first alerted shortly after 6 a.m. local time on Sunday, after plumes of smoke began to fill the air in the section of the building known as the Old Assembly. Hours later the building was still burning, as more than 70 firefighters continued to fight the blaze.

Police took into custody a 49-year-old man for questioning, said Patricia De Lille, the minister of public works. South African authorities said he wasn't a parliament employee and may have gained access to the parliamentary precinct by climbing through a back window.

The flames spread from the Old Assembly into working parts of the parliamentary building that include offices and the gymnasium area, gutting it



More than 70 firefighters in Cape Town on Sunday battled a blaze at South Africa's parliament building, the government's main working legislative venue and part of a designated heritage site in the city center. The ceiling at the National Assembly collapsed.

completely and causing the roof to collapse, said Jermaine Carelse, spokesman for Cape Town's fire and rescue service.

In the National Assembly area, built in the 1920s, the ceiling collapsed and the thick smoke posed risks to the firefighters.

The building complex is a designated heritage site in the Cape Town city center and is the main working legislative site of the South African government.

A previous fire at the Old Assembly last March damaged several areas including offices

and committee rooms.

"This is devastating news," South African President Cyril Ramaphosa said.

"This is devastating, coming as it does a day after our send-off for Archbishop Desmond Tutu," the president's office said separately. "Waking up to

the destruction of Parliament is a terrible setback from what we were basking in yesterday.... The Archbishop would have been devastated as well, as this is a place he prayed for, supported and wanted to see as a repository of our democracy. Notwithstanding the

damage that has been done to this precinct, the work of Parliament will carry on."

Mr. Tutu, the charismatic cleric who won the 1984 Nobel Peace Prize for his global campaign to end the country's racist policies and is credited with coining the term "Rainbow Nation" to describe the optimism of South Africa's transition to a multiracial democracy, died on Dec. 26 at age 90. His funeral was held on Saturday.

Ms. De Lille said the sprinklers weren't activated because water valves in the building had been manually turned off. Officials are investigating why CCTV footage didn't pick up the presence of an intruder.

South African authorities didn't say what the cause of the fire was.

The president's annual state-of-the-nation address is normally delivered in February at the parliament. Another venue is likely to be needed for Mr. Ramaphosa's coming address.

Themba Gubula, spokesman for the National Education, Health, and Allied Workers' Union, which represents support-staff workers employed at the parliamentary precinct, said security personnel at the complex were told not to work overtime during the holiday season because of budget constraints.

## Tutu Laid to Rest, Lauded as a Giant

By Joe Parkinson and Aaisha Dadi Patel

CAPE TOWN, South Africa—The funeral began at 10 a.m. on New Year's Day under a thick blanket of cloud and drizzle, as black-clad mourners filed into the cathedral and past the simple wooden casket of Archbishop Desmond Tutu. Speakers climbed the pulpit at St. George's, where the diminutive cleric spent decades preaching against the racial injustice of South Africa's apartheid gov-

ernment. By midday, as the choir concluded with "Behold Our Great High Priest," sunlight had burned through the fog.

Mr. Tutu, who died on Dec. 26 at age 90, became a moral compass for a nation struggling to navigate the political ravages and social inequalities of the postapartheid era.

Hundreds of mourners had gathered for days ahead of Saturday's service in St. George's, the oldest Anglican church in Southern Africa, which Mr. Tutu mobilized into a refuge

for resistance against white-minority rule during the 1980s.

South African President Cyril Ramaphosa, a former union leader and antiapartheid campaigner, delivered the eulogy, saying Mr. Tutu's message of peaceful coexistence was as vital to the country's future as during the tumultuous transition to democracy, when it helped prevent mass bloodshed.

"He never stopped fighting, he never stopped speaking out, he never stopped caring," Mr. Ramaphosa said.

The death of Mr. Tutu, who also played a crucial postapartheid role as head of the country's Truth and Reconciliation Commission, marks the passing of the last of South Africa's top antiapartheid leaders.

It comes as Africa's most-developed economy faces rising challenges: a weakening economy pummeled by repeated waves of Covid-19, continued racial tensions and infighting in the ruling African National Congress, once led by Nelson Mandela.



Desmond Tutu's coffin is carried out of St. George's Cathedral.

## Mystery Person Breaches North Korea Border From the South

By Dasl Yoon

SEOUL—On a frigid New Year's Day evening, an unidentified person avoided South Korean troops, traversed the heavily fortified Korean demilitarized zone and entered North Korea, Seoul's military said.

The person climbed a tall barbed-wire fence at the eastern part of the inter-Korean border around 6:40 p.m. local time on Saturday, Seoul's military later discovered. The first detection came at 9:20 p.m., as the individual was spotted in the DMZ that divides the two Koreas. The person eventually entered North Korea at 10:40 p.m., Seoul's military said.

South Korea dispatched soldiers to the DMZ, although the effort to prevent the person from entering North Korea was unsuccessful. Details about the individual, motive and current status remain under investigation, South Korea's military said.

No South Korean border soldiers were missing from their units when the crossing occurred, a sign the individual is a civilian.

The South Korean government considers such crossings an illegal defection to North Korea. South Korea sent a message to North Korea to en-

sure the safety of the person, but had yet to receive a response as of Sunday, Seoul's military said.

Crossings from South Korea to North Korea have been extremely rare. The inter-Korean border, about 150 miles long and more than 2 miles wide, is guarded by barbed-wire fences and minefields—and on the South Korean side, motion-detection sensors and other high-tech gear. In recent years,

**Illegal crossings to the North over the heavily-armed border are rare.**

South Korean officials have faced criticisms for failing to quickly detect border crossings.

The latest breach comes at a time when North Korea's borders are shut under strict anti-coronavirus measures, which came into place in early 2020. Pyongyang hasn't reported any Covid-19 infections to date. North Korean leader Kim Jong Un, in a recent year-end speech, stated the country's pandemic efforts remained the country's top priority.

In July 2020, a defector who had been living in South Korea for three years swam back into North Korea. Pyongyang claimed the man had been infected with the coronavirus, prompting the total lockdown of Kaesong, a North Korean border city. South Korean officials later said the man had never tested positive for the virus, but North Korea declared a maximum national emergency, Pyongyang's state media reported.

In September 2020, a South Korean civil servant was shot and killed after drifting into North Korean waters. Seoul officials believed the man had wanted to defect and that North Korean sailors, who were wearing gas masks and protective gear, had burned the body over Covid-19 concerns.

North Korea's Mr. Kim issued an apology for the civil servant's brutal killing, in a letter sent to South Korean President Moon Jae-in. Pyongyang said it burned the man's possessions and was executing orders established for Covid-19 protection, according to Mr. Kim's letter.

Border lapses of North Koreans entering South Korea have also occurred.

About 34,000 North Koreans have defected to South Korea since the late 1990s.



South Korean army soldiers patrolled in Paju, near the North Korean border, on Sunday.

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## FROM PAGE ONE

# Packaging Giant Bets On Paper

*Continued from Page One*

social and governance goals in mind, as the abbreviation implies. That, in turn, has companies striving to operate with less waste and greenhouse-gas emissions.

Graphic says green investing has opened up a market worth more than \$6 billion a year for replacing plastic with paper on store shelves, even if that might result in consumers seeing slightly higher prices.

Graphic's gamble is a big test of whether the flood of ESG capital can transform supply chains. Plastic packaging is frequently less expensive than paper, is more effective in many applications, and sometimes even has a smaller carbon footprint. Consumer-goods companies will have to be persuaded that their customers will pay more and that paper packaging really is greener.

Graphic executives contend their customers have little chance of meeting emissions and waste targets without substantially cleaner supply chains. "A lot of those goals flow through us," said finance chief Stephen Scherger.

Plastic makers say that they are investing in recycling and waste-collection technologies, and that their products compare favorably with paper once factors such as shipping weight and avoided food waste are considered.

Graphic, based in Sandy Springs, Ga., sells packaging material to the nation's biggest food, beverage and consumer-products companies: Coca-Cola Co. and PepsiCo Inc., Kellogg Co. and General Mills Inc., Nestlé SA and Mars Inc., Kimberly-Clark Corp. and Procter & Gamble Co. Its beer-box business generates about \$1 billion annually. It sells some 13 billion cups a year.

## Holy grail

Graphic and other producers of paperboard, a single-sheet cardboard used mainly in packaging, are working to introduce newfangled products such as fiber yokes for six-packs and microwavable meal trays molded from cardboard. Graphic has announced plans for a line of cups with a water-based coating to replace the polyethylene lining, one step closer to the holy grail of a compostable cup.

When Graphic announced plans for the new paperboard plant in 2019, investors initially questioned the cost and necessity. Green investing has since gained momentum, though,



Recycled cardboard at Graphic Packaging plant in Kalamazoo, Mich.; CEO Michael Doss, below right, and finance chief Stephen Scherger.

and new investors have lined up behind the project.

In September, Graphic sold \$100 million of so-called green bonds to help pay for it. The green designation, earned through a Michigan state program to promote recycling facilities, allowed it to sell debt with interest payments not subject to federal and state taxes. Demand for the bonds outstripped supply by a factor of 20, Mr. Scherger said.

Elsewhere, the company is adding \$100 million of equipment to its Texarkana, Texas, mill so it can pulp more loblolly pine trees into extra-strong paperboard for cups and beer cartons. In July, Graphic paid \$280 million for seven converting facilities, which fold paperboard into packaging, bringing its total to 80. In November, it gained even more when it purchased a \$1.45-billion rival in Europe, where trends in sustainable packaging often start.

It has spent about \$180 million moving several Louisiana facilities under one roof to eliminate millions of miles driven between them each year. It installed a boiler that burns tree tops and other organic waste from its Macon, Ga., pine-pulp operations to power its mill there. Energy consumption and emissions at both Southern facilities factor into the carbon footprints for the paperboard yokes that Graphic is selling in Europe to replace shrink wrap.

In July, hedge-fund manager David Einhorn disclosed that his Greenlight Capital had taken a \$15-million stake in Graphic. Greenlight predicts paperboard is set for sustained price gains because too little has been invested in production. "The U.S. has added



so little paperboard capacity that the average mill in this country is over 30 years old," Mr. Einhorn wrote to investors. He said demand should rise with consumption and the ESG-driven push to remove plastic from supply chains.

Plastic became ubiquitous after World War II, when shortages of natural materials touched off a race for synthetic replacements, including nylon and plexiglass. Extracting fossil fuels and turning them into plastic produces a lot of greenhouse gases. Only 14% of plastic packaging is collected for recycling and just a portion of that winds up in new products, while about one-third isn't collected at all, according to a 2016 report by the World Economic Forum, Ellen MacArthur Foundation and McKinsey & Co. Research published in 2019 by Goldman Sachs Group Inc. said only 12% of plastic is recycled, while 28% is incinerated and 60% remains in the environment.

The 2016 study, which is cited regularly, depicted oceans in crisis, fouled by soda bottles, shopping bags and clothing fibers, with a garbage

truck worth of plastic winding up in the water every minute. By 2050, the study said, there would be more plastic in the sea, by weight, than fish.

With governmental authorities from California to China cracking down, stock analysts list plastic use as one of the biggest threats to packaged-goods firms. Companies including Coca-Cola and Anheuser-Busch InBev SA have mentioned plastic-to-paper moves in the sustainability reports they produce for investors and outside firms that calculate corporate ESG scores.

"It takes us a full year to use as much plastic as a leading beverage company uses in just two weeks," cereal maker Kellogg's chief sustainability officer boasted at an investment conference earlier last year, as beverage-company executives waited to pitch the same audience.

In 2019, Graphic's executives unveiled plans to take market share from plastic and build the state-of-the-art recycled-board machine in Kalamazoo. "You're not going to see islands of paper floating around the ocean," said Joe Yost,

Graphic's head of Americas, at a meeting with stock analysts.

Yet even with a rush of companies promising to cut emissions and reduce waste, the new mill was a hard sell. It was a huge expense that would take two years before it was operational and earning money.

Graphic Chief Executive Michael Doss prepared the board of directors for blowback. "Not everyone is going to like this," he recalled telling them. "Our industry has a track record of overexpanding and making poor capital allocations."

Graphic began as a unit of Colorado's Coors Brewing Co. that manufactured boxes that wouldn't get soggy in refrigerated trucks. Coors spun off the box business as a separate public company in the early 1990s. Acquisitions followed, giving Graphic its big presence in the Southern pine belt, where its mills make paperboard from sawmill scraps and trees unfit for lumber.

Graphic holds about 2,400 patents and has more than 500 applications pending.

## Attacking plastic

Its executives say research and development is focused these days on expanding the use of paperboard from grocery shelves to deli, produce and beer coolers. "We are attacking anything that is plastic," said Matt Kearns, a packaging designer for Graphic.

Plastic, though, is less expensive than paperboard. Advancements in paper packaging, such as compostable cups, will likely add to costs. Paperboard producers have increased prices several times over the past year to cover their own rising expenses. Some buyers

are exploring less expensive alternatives to paperboard, said Adam Josephson, a paper and packaging analyst at KeyBank Capital Markets.

"Can companies such as Graphic sell more products when the cost is considerably higher than the products they're already selling?" Mr. Josephson asked. "That is very much in question."

For some companies, going green means using more plastic. Plastic wrap is lighter than boxes, which means less fuel burned in transit. Plastic has relatively low recycling rates, but so do cups and takedown containers that are made of paper but also fused to polyethylene. It takes an industrial process to peel away the reusable tree pulp.

Wendy's Co. said its restaurants will dump plastic-lined paper cups next year and replace them with clear plastic, which it said more consumers will be able to recycle. "This demonstrates how plastic can be viewed as an environmental opportunity instead of a liability," said Tom Salmon, chief executive of Berry Global Group Inc., which is making the cups.

Paper doesn't always have a smaller carbon footprint, either. Making paperboard consumes power and water, and it generates greenhouse gases.

One of Graphic's most promising new products is the KeelClip. The paperboard yoke folds over the top of cans and has finger holes. It is fast replacing plastic wrap and six-pack rings in Europe's beverage aisles. KeelClips are as easy to recycle as cereal boxes, and Graphic says they can have about half the carbon footprint of shrink wrap, a common way to bundle beers in Europe.

Graphic is bringing the KeelClip to America, where it must contend with the ubiquitous plastic six-pack ring. Dirt cheap and light-as-a-feather, the six-pack ring endures despite decades as a symbol of humanity's abuse of nature. Generations of American school children have been shown photos of ensnared wildlife.

The KeelClip eliminates the need for a lot of plastic wrap in transit, and it is much less likely to muzzle a dolphin. However, Graphic says KeelClip's carbon footprint—the emissions generated by every step of its manufacture and distribution—is slightly higher than a six-pack ring.

Each KeelClip generates the equivalent of 19.32 grams of carbon dioxide, compared with plastic rings' 18.96 grams, according to Sphera, an ESG-consulting firm that Graphic hired to analyze the packages.

Graphic says it is working on that. The DiamondClip, aka the EnviroClip, is under development. It will be strong enough to hold six sweaty beers, the company says, but skippy enough to have half the carbon footprint of the plastic rings.

# Get Away To This Ghost Town

*Continued from Page One*

And a spectacular five-star golf resort without guests.

"It's an amazing city that doesn't make any sense," says one European working here.

Ciudad de la Paz is in the grand tradition of strongman leaders building grand monuments to their own power. President Félix Houphouët-Boigny moved the capital of Ivory Coast from Abidjan to his birthplace, Yamoussoukro, and built the world's largest church there, Notre-Dame de la Paix.

Mr. Obiang has built a scaled-back version of the Vatican's St. Peter's Basilica in his own hometown, Mongomo. But he saved his grandest ambitions for the forest capital, a city laid out for a population of some 200,000.

He named it Ciudad de la Paz, Spanish for City of Peace. Equatorial Guinea—composed of some islands in the Gulf of Guinea and a mainland section between Gabon and Cameroon—is Spain's only former colony in sub-Saharan Africa. After it won independence in 1968, the country was run by Mr. Obiang's uncle, Francisco Macías, whose stated governing philosophy was "In politics, the victor wins and the loser dies."

In 1979, Mr. Obiang overthrew his uncle, who died before a firing squad.

For the past 42 years, Mr. Obiang, 79 years old, has ruled

the country as a family enterprise that has drawn international criticism for alleged corruption and human-rights abuses.

In 2013, the U.S. Department of Justice accused the president's son and heir apparent, Vice President Teodoro "Teodorin" Nguema Obiang Mangué, of corruptly accumulating a \$300 million fortune while serving in a government post that paid less than \$100,000 a year.

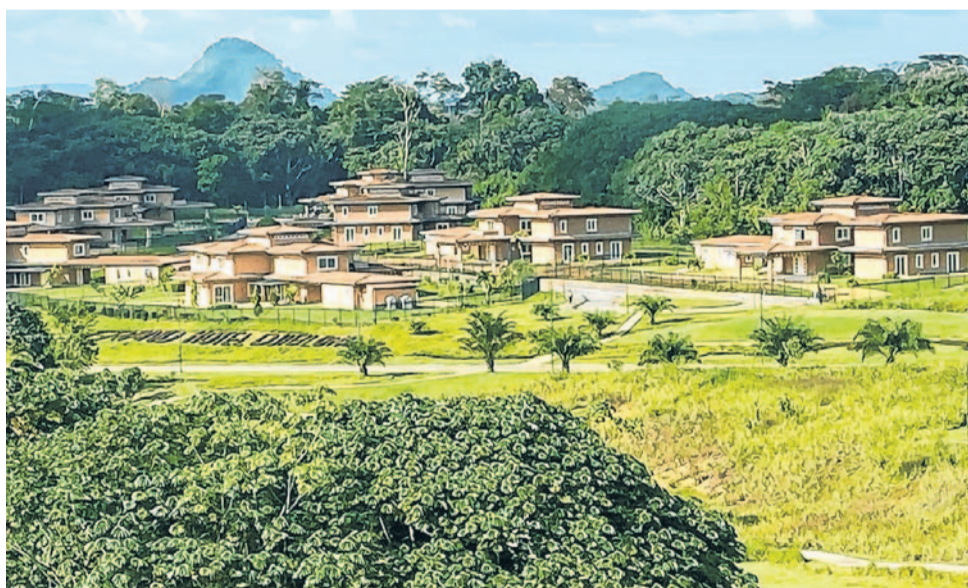
When those corruption allegations surfaced in the press in 2011, Mr. Obiang Mangué called the U.S. ambassador in Malabo asking for help defending his reputation. "I have never stolen money from our country's treasury," he told the ambassador, according to a State Department cable entered into court records, saying that his income came from legitimate government contracts.

The Justice Department went after Mr. Obiang Mangué's assets in civil-forfeiture suits. The U.S. government and Mr. Obiang Mangué settled in 2014. The settlement agreement contained no admission of wrongdoing on the part of Mr. Obiang Mangué.

Oil Minister Gabriel Obiang Lima Abaga, another of the president's children and often the regime's face to the outside world, didn't respond to written requests for comment on allegations of corruption and human-rights violations surrounding the ruling family.

The Equatorial Guinean ambassador in Washington didn't respond to interview requests.

"We are determined to implement the necessary actions to improve governance and fight corruption," the country's



Some of the 50 villas built in Ciudad de la Paz for VIPs who never come.

finance minister, Valentin Ela Maye, told the International Monetary Fund in September.

The discovery of offshore oil and gas in the Gulf of Guinea in 1996 both fueled the alleged corruption and allowed Mr. Obiang to dream up his new capital city.

The president, who had survived a foreign-led coup attempt in 2004, said the new seat of government would be better protected than Malabo, the current capital on Bioko island, from attacks from the sea.

"We need a secure place for my government and for future governments," Mr. Obiang told the BBC in 2012.

At the time, an architectural blog, ArchDaily, described a plan centered around Justice Avenue, 250 feet wide and inspired by the Avenue des Champs-Élysées in Paris.

There was talk of a Formula One racing circuit, a lagoon

with speed boats and sailing yachts and a cathedral reached by a funicular.

But when oil prices tumbled in 2014, the government ran short of cash and work on the city came to a halt. The names of Chinese state-owned construction companies are still painted on signs outside of the shells of government office buildings, but the cranes have stopped lifting and the diggers digging.

Gleaming twin office towers with high-end apartments, shopping center and cinemas collect dust down the road from the unfinished presidential palace.

Hundreds of surveillance cameras still cover every angle down every empty road, though it's not clear anyone's watching through the spider webs covering the lenses.

The project, though stalled, has won Mr. Obiang some ad-

mirers.

In 2013, the president gave New Yorker Victor Mooney, a long-distance rower, \$30,000 to sponsor a trans-Atlantic rowboat christened Spirit of Malabo.

After Mr. Mooney completed his journey in 2014, Mr. Obiang granted him Equatorial Guinean citizenship and promised him a house in Ciudad de la Paz.

Mr. Mooney hasn't visited the city, but expresses no doubt that Mr. Obiang will make good on his vow.

"I haven't occupied the home yet, but I'm sure it's in the works," says Mr. Mooney.

Dr. Ousmane Ba, an American teaching English at the Afro-American University of Central Africa, one of the few functioning institutions in Ciudad de la Paz, credits Mr. Obiang for his vision.

"He laid the foundations of

something that could have been great," says Dr. Ba.

Administrators hope the startup university, built for 5,000 students, will have 500 this year.

Locals estimate there are perhaps 2,000 residents in the city, some 400 of whom work at the Grand Hotel Djibloho.

The \$400 million, Italian-built complex boasts 452 rooms, plus the 50 villas. On a typical day, perhaps 15 or 20 rooms are occupied. Some days the hotel has no guests at all.

The hotel loses about \$5.5 million a year, covered by the Obiang government, according to General Manager Vincenzo Presti, director of London-based Luxury Hotel Management Ltd., the privately held firm operating the hotel.

Hotel staff could be forgiven for thinking they're running a hotel for the sake of running a hotel. To keep up morale at daily staff meetings, Mr. Presti has his team pretend they're operating a hotel in Madrid, New York or some other major city.

To keep his own spirits up, he thinks of the hotel as an opportunity to train young Africans in the hospitality business. "It's like it's a school, even if nobody's here," he says.

The breakfast buffet is loaded with croissants and fresh fruit. There's a spa, a convention center and a fertility clinic run by a Spanish doctor. The golf greens are trimmed. The rooms, including a presidential suite that Mr. Obiang has never slept in, are cleaned daily.

"It's in the middle of the forest," says Mr. Presti. "If we don't keep it up, the forest will enter into the hotel."



## How to Deal With Decision Fatigue



**WORK & LIFE**  
**RACHEL FEINTZEIG**

**N**ew year, same stress. How can we make good calls—or any calls—right now? Worn out from nearly two years of the pandemic, many of us are paralyzed when it comes to major life choices and quotidian decisions alike. Whether it's leaving a job, booking that flight or letting your kid go to a birthday party, the rules and risks keep shifting. All the options seem fraught.

"We can get to this state of, does anything even matter anymore? There's this almost nihilist point that you reach," says Dane Jensen, the chief executive of Third Factor, a Toronto-based performance consulting firm.

An American Psychological Association survey conducted last year found that nearly one-third of adults—and nearly half of millennials—are struggling with basic decisions, like what to eat or wear. About half say planning for the future feels impossible, thanks to the pandemic.

It helps to ratchet down the intensity, says Mr. Jensen, author of the book "The Power of Pressure." Our attention narrows when we're flooded with adrenaline, he says, and we miss important clues and

context that help us better analyze a situation. Ask yourself, "What's not at stake for me right now?" he advises. "What are the important things in my life that will not change regardless of this decision?"

Try replacing individual choices with overarching principles that do the work for you, he adds. If you make, and keep, rules around things like weekly screen time for your kids or what you pack for lunch, you don't have to waste time and energy thinking about other options.

Decision making has grown more complicated as the pandemic drags on. Initially the choices were stark, or nonexistent: School is closed, so we can't go. Now a cascade of ques-

### Decision-making has grown more complicated as the pandemic drags on.

tions arises before you even get out the door. Did my kid just cough? Who watches the baby if there's a daycare quarantine this week? Is everyone in this meeting boosted?

"It just seems like there's more riding on my decisions because everybody's just tired to begin with," says Gary Williams, a 39-year-old father of two in the Charlotte, N.C. area.

He's struggled with decisions

about transferring his children to a new charter school with a mask mandate (yes) and keeping them enrolled in gymnastics (no). Then there's his own work as a high-school math teacher. Should he go back over the basics for students struggling after months of remote school, or forge ahead with new skills they're supposed to be learning?

"There's always a part of you that's like, 'Was this the right thing to do?'" he says.

Humans just aren't great at sifting through options, says Katy Milkman, a professor at the University of Pennsylvania's Wharton School. We're spooked by small probabilities of risk and often rely on stereotypes instead of detailed data. "It's hard to make decisions even when the world isn't throwing you curveball after curveball and freaking you out," says Dr. Milkman, author of the book, "How to Change."

Fortunately, milestone moments like the dawning of a new year can push us toward big-picture thinking and away from our past failings. We think, "That's the old me," she says. "A fresh start could be a jolt that helps you get your act together."

Dr. Milkman recommends reflecting on the beginning of this new chapter, 2022, and being skeptical of your own personal gut reactions, which often aren't grounded in evidence. Instead, for big decisions, tap the wisdom of crowds by consulting five separate people who don't have a stake in the outcome of your choice. Bring-



Kate Stabrawa with her husband and son in Costa Rica.

ing in outside judgment can mitigate our own biases.

When the idea of picking yet another dinner recipe after endless days of home cooking started to haunt Betsy Gehring, she outsourced the task to her three elementary-aged sons. The family has since dined on pizza waffles and cheeseburger muffins, but Ms. Gehring says her boys are excited about cooking—and her mental checklist is one item shorter.

A single parent in Toledo, Ohio, she's found herself overwhelmed by little choices during the pandemic, like whether to tackle the laundry or the dishes during a 15-minute break from her work-from-home job for an insurance company. Then she ends up doing neither.

"I get so tired from making all

the big decisions that then I don't want to make the other decisions," she says.

It's no fun to admit it, but stalling is a decision in and of itself, says Annie Duke, a former professional poker player and author of "How to Decide."

Remind yourself that many decisions can be undone or tweaked later, she says. Picture yourself a year from now, having made the wrong call: what might be the early warning signs of an unhappy outcome? Write them down and promise to plot a change if you notice them.

This moment has given some people the push they needed to commit to things they'd long ignored, delayed or agonized over. For years, Kate Stabrawa and her husband had dreamed of buying a second home in Costa Rica, tackling the subject like they did all big things: talking, pausing, then talking some more. On a trip there last spring, they made a sudden decision and put in an offer on a condo while still at the airport, waiting to fly home.

"We just did it," says Ms. Stabrawa, who works in healthcare communications in Colorado. The pandemic shifted her perspective, she says, making clear her priorities, like getting a new job with more flexibility and having a place to escape to with family.

"It was very much like, what are we waiting for?" she says. "The fastest decision we had ever made."

## You'll Spend More In '22, and That's OK

By JULIA CARPENTER

**H**ere's a prescription for money happiness in 2022: Accept the fact that you'll likely spend more money than you did in 2021.

With inflation driving up the cost of food, rent and more, pressures are mounting on our wallets, so expecting your spending to stay in line with the past year is both unrealistic and a recipe for feeling guilt and self-recrimination. The key, financial planners and researchers say, is thinking ahead about where that extra spending will happen.

"What's going on right now that is so crazy is that no one even has an idea of what the baseline should be. The past may or may not be relevant to the future," said Abigail Sussman, associate professor of marketing at the University of Chicago who studies how consumers make judgments.

Financial experts advise that future budgets allot more to needs, such as higher rent, as well as wants, such as travel. Here are some ways to do just that.

### Keep on Saving

You may have saved a lot of money in the past year, thanks to a strong labor market, rising wages and staying home more often.

Adding more to your existing savings can calm a lot of fears people may have about spending in other categories, said Sarah Behr, financial planner and founder of Simplify Financial in San Francisco. As you're watching that savings account grow, you can relax knowing that you have a cushion.

Check in on your 2021 savings progress. Are you happy with the amount you set aside? Even as you expand your budget, save first before spending on other things. You can set up regularly scheduled withdrawals to automate the process and eliminate stressful decisions.

### Think in Percents, Not Dollars

Having frugal habits helps ward off lifestyle creep. Yet you may be hanging on to outdated ideas about how many dollars to spend in different areas of life. The past two years may have reduced your spending on travel, going out and entertainment, but those circumstances aren't permanent.

Spending more money than you have in the past can lead to feelings of shame, Ms. Behr said. She has talked to clients who have moved up from meager means and struggled to adjust to the latitude more money affords them.

"I'm the one saying, 'Whoa, whoa, whoa, you can afford to go out to eat, you can afford a new car, you



don't have to drive your 2015 Prius," Ms. Behr said. "[Clients] are saving, and they're squirreling away, but there's no change in perspective."

Malik Lee, a managing principal and adviser at Felton & Peel Wealth Management Inc., recommends looking at budgets in terms of percentages of your overall income, rather than dollar amounts.

He points to the 20-30-50 model, a tenet of personal finance that encourages putting at least 20% of your take-home pay into savings; allotting 30% for "wants" like travel and socializing; and designating the final 50% to fixed expenses such as

housing and bills.

"Thinking in percentages of income makes this a lot easier, and it makes it flexible," Mr. Lee said. "As you're increasing your income, that will ensure that your savings will increase with that, and the other 'good' categories will increase, too."

### Pick Your Splurges

Most of us have practice downsizing budgets and cutting expenses. Fewer of us have spent time planning what we will spend more on, especially in terms of luxuries like travel or entertainment, what Ms. Sussman refers to as "pre-commit-

ting to indulgence."

This doesn't mean splashing out on everything, but thinking carefully about the spending that will have the most positive impact, such as setting aside money for a long-awaited vacation.

Instead, consider the spending that brings you the most satisfaction, such as vacations, home-fitness equipment or some other priority. Allotting more money to items like those can make your budget feel rewarding, Ms. Sussman said, so that when you're making trade-offs in other areas of your life—like cutting back on going-out expenses to put more toward your new, bigger apartment—it feels less like a loss and more like a pivot.

Allot money to those savings goals—"I'll spend more on travel in 2022" or "I want to save for a bigger apartment"—by creating a separate bucket for these funds. Name it something fun in your preferred budgeting app or spreadsheet. This way, as you're watching the money grow in the account, you can sprinkle some extra anticipation on the future fulfillment.

### Stop Comparing to Others

Whichever budget works best for you, Ms. Behr warns against measuring your own spending or saving against peers. "A lot of people ask me, 'Do we spend too much money?' or 'How much do other people spend?'" she said. Worrying about spending is natural, but comparing the size of your savings with others is often unproductive, she added. "It's like that old saying: 'Comparison is the thief of joy.'"

FROM TOP: ILLUSTRATION BY CAROLE HÉNAFF; STABRAWA FAMILY

PHOTO ILLUSTRATION BY DAISY KORBIC/WALL STREET JOURNAL; GETTY IMAGES

PERSONAL JOURNAL.

WHAT'S YOUR WORKOUT? | JEN MURPHY

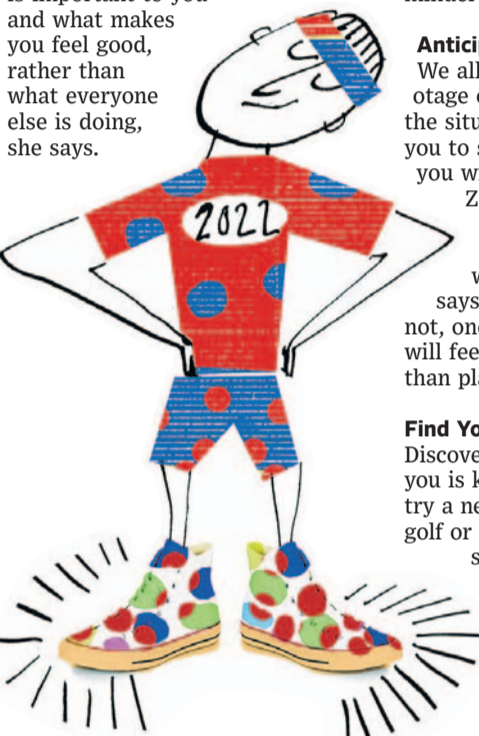
# Fitness Resolutions? Ten Tips for Success

As The Wall Street Journal's What's Your Workout columnist, I have started many a New Year vowing to exercise more and eat healthier. And just like 80% of people who make New Year's resolutions, I have often dropped them before Super Bowl Sunday.

Still, I have figured out a few tricks to staying committed for the long run. Success starts with setting the right resolutions.

"I want to lose weight" or "I want to be more fit" are aspirations, not goals," says Susan David, a psychologist at Harvard Medical School in Boston. "A goal is something specific and measurable."

Those goals also need to have meaning for you, personally. There is a lot of cultural pressure to look a certain way or partake in a trendy workout, such as Peloton, says Dr. David. Don't compare yourself to others. Focus on what is important to you and what makes you feel good, rather than what everyone else is doing, she says.



Achieving your fitness goals really comes down to making changes in your daily habits, she says. "You need to put a strategy in place to meet your long-term goals," Dr. David says.

I have learned to create one big-picture New Year's resolution, plus a road map for how to achieve it by year's end. To stay on track, I have also come up with a few hacks, ranging from buying new running shoes to booking a vacation that requires me to train so I stay motivated. Here are 10 tips that will help you follow through on your 2022 fitness goal.

### Create an Environment That Sets You Up to Succeed

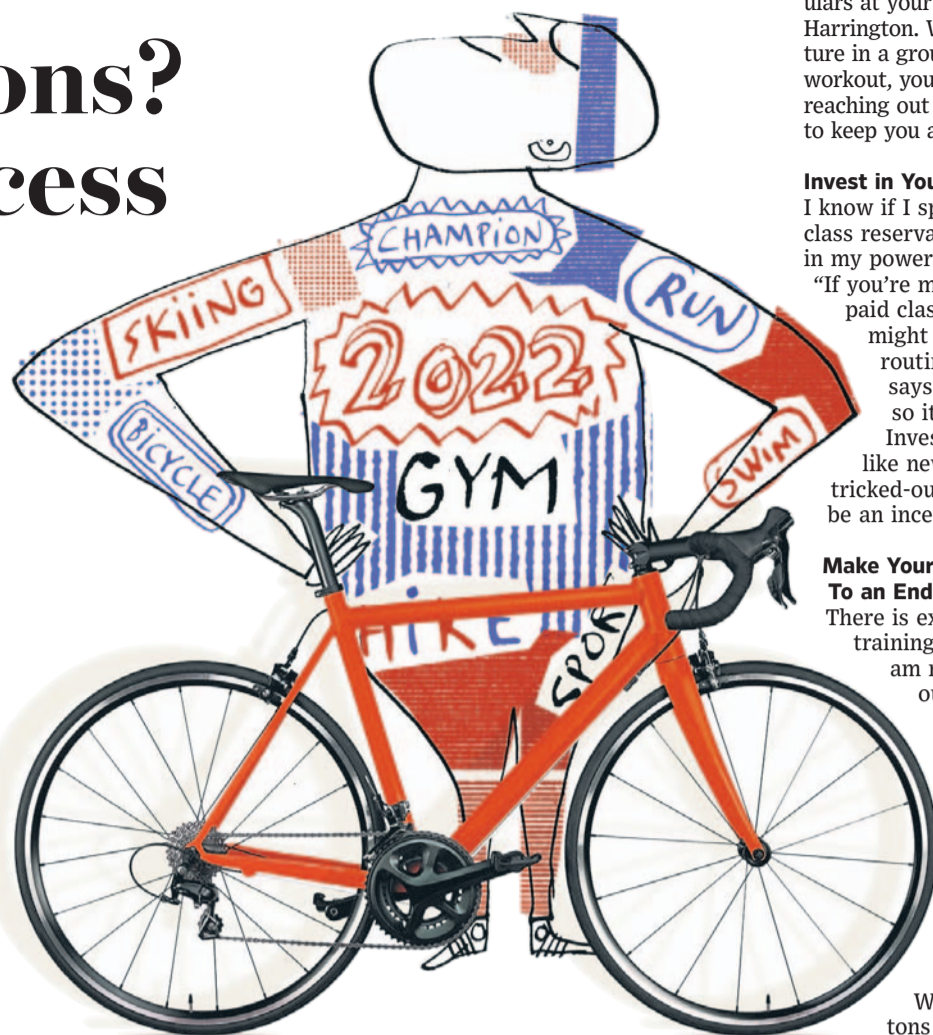
If you cue your setting to encourage good habits, you are more likely to follow through, says Dr. David. "Put your walking shoes in front of the front door or lay out your exercise clothes next to your bed as a reminder of what you intend to do."

### Anticipate Obstacles

We all have temptations that sabotage our workouts. Take note of the situations that regularly cause you to skip workouts. If you know you will be tired after a late Zoom call and want to watch Netflix rather than exercise, commit to a short workout and then a movie, says Dr. David. More often than not, once you start moving you will feel good and exercise longer than planned.

### Find Your Passion

Discovering an activity that excites you is key. Every year I resolve to try a new sport or workout, be it golf or Zumba. Jill Henderzahs-Mason, a physical therapist at the Healthy Living Program with the Mayo Clinic in Rochester, Minn., suggests plugging new activities into your calendar monthly. If you



ulars at your boot camp, says Ms. Harrington. When you become a fixture in a group class and miss a workout, you will have people reaching out to ask where you were to keep you accountable, she says.

### Invest in Your Workout

I know if I splurge on a \$25 yoga class reservation, I do everything in my power to make it to class. "If you're money motivated, prepaid classes and workouts might help you stick to your routine," Ms. Harrington says. "Sign up in advance so it's on your calendar." Investing in pricey gear, like new running shoes or a tricked-out road bike, can also be an incentive.

### Make Your Workout a Means To an End

There is exercise, and there is training. If I pay a race fee, I am more inclined to work out four days a week so that I can perform well in that 5k or half-marathon. If you're not competitive, try booking a vacation around an activity that requires you to have a certain level of fitness, be it a week-long hiking trip in Wyoming's Grand Teton or a ski trip in Colorado.

### Gamify Your Workout

Gadgets and technology like Garmin, Fitbit and Strava allow you to track your workouts and compare your progress to yourself or others, says Ms. Harrington. "If you know you're encouraged by competition, some of the latest tech-focused fitness gadgets can keep you motivated with regular performance updates," she says.

### Give Yourself a Pass Sometimes

A lot of times people don't achieve goals because they have an all-or-nothing approach, Dr. David says. Change is a process, and it is important to be compassionate with yourself. "People think letting themselves off the hook is a failure or weakness, but it often allows us the capacity to regroup and refocus," she says.

have no clue what you are passionate about, start by making a list of what you like and don't like, says Chris Vlaun, co-founder of V Art of Wellness, a fitness company in Park City, Utah and Miami. "If the thought of spinning indoors sounds awful, maybe that's a sign you're an outdoors person and should try a hike," he says.

### Make It Social

Whether you join a running club or commit to a weekly walk where you phone a friend to catch up, that social commitment can help you stay on track. "Walking with a friend is one of the best things you can do for mental and physical health," says Heather Harrington, co-owner of Compass Fitness in Denver. "You get physical exercise while unloading your stress and worries."

### Have a Backup Plan

I treat my workouts like work meetings and schedule them into my week. But that doesn't mean unanticipated diversions don't pop up, derailing my good intentions. I have learned to have backup plans, so if my hourlong workout can't happen, I have 40-, 30- and 20-minute at-home options to fall back on.

### Surround Yourself With A Supportive Community

If you find yourself skipping workouts to join colleagues for happy hour or friends for beer-soaked football-watching weekends, you may need to find more health-minded buddies to help you stick to your routine. A workout pal creates accountability and makes exercise a social affair. It could be a close friend or the strangers who are reg-

MY RIDE | A.J. BAIME

## The Rare Pleasure Of a BMW Alpina

Monty King, 69, a retired special-projects coordinator with R.J. Reynolds Tobacco Co. living in Winston-Salem, N.C., on his 1984 BMW E30 Alpina C1 2.3, as told to A.J. Baime.



Monty King and his rare 1984 BMW E30 Alpina C1 2.3, here and below. 'Most people have no idea what it is,' Mr. King says.

One day six years ago, a friend and I went to a race at Virginia International Raceway, and I noticed this BMW Alpina there. I was a big fan of BMW M cars, which are the German company's highest-performance line of customer vehicles. I had four of them, including a 2004 BMW M3 convertible in a rare Laguna Seca blue paint that I love, and a 2002 Z3 M coupe, the BMW people call the "clown shoe" because it's shaped like, well, a clown's shoe. But this BMW Alpina I spotted—I was instantly interested. Because an Alpina is a rare thing to find in the U.S. In fact, it's rare to see one anywhere, even in Germany.

This car had a note on it with the owner's phone number. So I called him and said, "Listen, I'm interested in buying this car." He told me that he had left a card on the car in case anyone wanted to talk about it, because it was so rare. The car wasn't for sale. "Give me your name and

number," he said, "and if I ever want to sell it, I'll give you a call." So I did. This guy said, "You're Monty King? We went to college together!"

The coincidence was uncanny. We'd gone to school together at the University of Bridgeport in Connecticut. Two years later, he was ready to sell. He called me and I bought the Alpina over the phone. It cost surprisingly not much more than a new BMW 3-series would have cost at that time.

Let me explain what this car is. Alpina was founded in Germany in the 1960s. [It began when a tinkerer named Burkard Bovensiepen developed a new BMW carburetor in his family's typewriter factory in 1962.] It began building out BMW cars into motor-sport and high-performance models with the blessing of BMW itself. Alpina has been doing this ever since, in very small numbers, even to this day. BMW Alpina has built a

huge racing legacy over the decades and a cult following for customer cars.

The 1984 Alpina I own is exceptionally rare. Only 35 of this model were built between 1983 and 1985. To my knowledge, only two ever came to America, brought over by military people who discovered them while stationed overseas. According to what I've been told, there's one on the West Coast and one on the East Coast, mine.

I love to take the Alpina to car shows, because most people have no idea what it is and how special it is. Then I meet people who do know, and I get to see how excited they get. Some people even ask if it's the real thing, because Alpina fans have been known to buy the badging and stick it on regular BMW cars.

I still keep in touch with my old college friend who sold me this car. What a stroke of luck it was for me to stumble upon him, and it, six years ago.



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## ARTS IN REVIEW



ART REVIEW

# A New Perspective on The Dutch Masters

By KAREN WILKIN

**T**he Museum of Fine Arts, Boston, has long been home to notable Dutch and Flemish paintings. The magnificent Rogier van der Weyden “St. Luke Drawing the Virgin” (c. 1435-40), with its magical details, sharply characterized protagonists, and distant riverside town—probably this country’s finest early Netherlandish painting—entered the collection in 1893. Rembrandt’s dramatically lighted “Artist in His Studio” (c. 1628), the painter stepping back to contemplate an ample canvas, was donated in 1938, joining portraits and etchings acquired much earlier. Peter Paul Rubens’s “Mulay Ahmad” (c. 1609), an inventive copy of a lost portrait of the Berber King of Tunis, all gorgeous fabrics and vivid personality, was purchased in 1940. An austere 1655 church interior by Pieter Saenredam came in 1948; Rembrandt’s impressive, full-length seated portraits of the Rev. Johannes Elison and his wife (1634), in 1956; and a late Frans Hals portrait, in 1966. These works were among the glories of a modest collection that included Rubens oil sketches, Dutch landscapes and marine paintings, occasional genre scenes, decorative arts, and an enormous, fully rigged model of the Dutch East India Company ship Valkeniss (1717).

In 2017, the MFA received munificent gifts of important Netherlandish works from the collections of Rose-Marie and Eijk van Otterloo and Susan and Matthew Weatherbie. Since then, additional gifts and purchases, long-term loans, and promised gifts from the collections of the Van Otterloos, Maida and George Abrams, and Kathleen and Martin Feldstein have made the MFA’s holdings of Dutch art from the 17th century, the Golden Age, among the most significant in the U.S., and strengthened its Flemish collections as well.

Now seven enlarged, elegant galleries combine the best of the old and the recently acquired. En route to the new installations, we can preview the strengths that follow, including a good representation of female artists, thanks to a rare series of the five senses, idiosyncratically depicted by the recently rediscovered Flemish painter Michaelina Wautier (1604-1689). Next, the glorious Van der Weyden, two centuries older, heralds the new galleries, an illuminating precursor—a devotional image of an artist at work that is also a source of the secular art that follows.

Installed thematically, the new galleries begin with the various genres explored by Golden Age painters, including such self-portraits as an elegantly dressed Judith Leyster, holding her brushes and scrutinizing herself, and Maria Schalcken, working on a landscape. That miraculous Rembrandt of the studio is opposite. The groupings are visually rich and instructive. Flower paintings, including a sumptuous bouquet by Rachel Ruysch, are set in context by a double portrait of a couple holding



A covered coconut cup (1607), above; Frans Hals’s ‘Portrait of a Woman With Arm Akimbo’ (late 1620s), above right; and an installation view of the ‘Art of the Netherlands in the 17th Century’ gallery at the Museum of Fine Arts, Boston, top

a tulip and a bulb, reminding us of the tulip mania of the 1630s. Throughout, the rhythm is varied and our understanding enlarged by imaginatively presented porcelain, silver, medals and other objects from the period, some of which appear in the paintings.

A large gallery with Flemish paintings (including Rubens’s “Mulay Ahmad”) on one side, Dutch on the other, culminates in Rembrandt’s portraits of the Elisons, with that amazing ship model in the middle, an arrangement reminiscent of galleries in the recently refurbished Rijksmuseum, Amsterdam. Splendid landscapes and marine paintings conjure up the moist, shifting light of the Netherlands. Nearby, an affluent Dutch interior is evoked by period furniture, decorative arts, small paintings that might have been displayed in private quarters, and imposing ones suitable for more public parts of the home. A checkerboard floor reinforces the suggestion of Golden Age domesticity.

The “Global Commerce” gallery pays tribute to Dutch maritime prowess and international trade, from the North Sea to Japan, without ignoring the problematic side. Still lifes of exotic objects and foodstuffs, including sweets, are accompanied by informative wall texts about the increased use of sugar at the time, and the brutal plantation labor and slavery connected with its production in Brazil. Lavishly illustrated atlases, landscapes, and a portrait of the wife of the head of the Dutch East

India Company enlarge the story.

Among the many high points: a fine early Rembrandt, “Portrait of Aeltje Uylenburgh” (1632); a golden-haired “Young Girl in Profile” (c. 1631-32) by his studio mate, Jan Lievens; Frans Hals’s uncompromising woman posed like a man, hand on hip; Hendrick Avercamp’s busy skaters on a frozen canal. Most adorable: Gerrit Dou’s sleeping dog.

The transformative 2017 donations also included an endowment for the newly established Center for Netherlandish Art at the MFA, an innovative project with beautifully designed quarters, state-of-the-art facilities and a vast, comprehensive library, recently acquired from the distinguished scholar Egbert Haverkamp-Bege-mann. The CNA will provide research fellowships and opportunities for collaboration with other institutions. Most important, its scholarship, technical studies, conservation, education programs, outreach and more will focus on the works of art in the collection. One new gallery is devoted to exhibitions arising from the CNA’s research. Expect a surge in graduate students concentrating on Netherlandish art of the 17th century.

## New Galleries of Dutch and Flemish Art

Museum of Fine Arts, Boston, permanent installation

*Ms. Wilkin is an independent curator and critic.*



Rembrandt’s ‘Portrait of Aeltje Uylenburgh’ (1632), above left; Peter Paul Rubens’s ‘Mulay Ahmad’ (c. 1609), above right; and Rachel Ruysch’s ‘Still Life With Flowers’ (1709), below



SPORTS

The Obstacles to Playoff Expansion

The major conferences want more teams to be included. Blowouts show how hard it is to find two title-worthy contenders.

By LAINE HIGGINS

For eight seasons, the College Football Playoff format has shown that it is usually difficult to find two elite teams who can compete closely for the national title, much less four or more.

This year is no different. New Year's Eve blowouts in the semifinals have set up a Jan. 10 title game between Southeastern Conference powers Alabama and Georgia, a sequel to their conference championship game last month. It's the seventh time in the eight seasons of the four-team playoff format that at least one team from the SEC has reached the biggest game, and exact repeat of the 2018 title game.

No one is satisfied with how predictable the final weeks of the college football season have become. Yet no one can agree on how to fix it. Leaders in college athletics have generally moved toward expanding the four-team playoff—yet that's where the consensus ends.

Talks of expanding to a 12-team playoff, which gained momentum earlier this year, have recently stalled in part because of the conflicting business interests of the big conferences involved and a broadly uncertain landscape in college sports. Even proponents of the expanded playoff have seemingly shifted into neutral.

"We want more teams in the playoff, [but] we're fine with four," SEC commissioner Greg Sankey said in December.

Friday's games hardly made the case that more games are needed to get down to the two best teams. Alabama beat Cincinnati by 21 points while Georgia bested Michigan by 23. They were the 10th and 11th of the 16 semifinal games since 2014 to be decided by 17 points or more.

Through eight seasons, the semifinal round has been decided by an average of 21 points—considerably higher than the 14-point margin of victory during the 16-year Bowl Championship Series era.

The size of the playoff field has been a hot topic of debate among



New Year's Eve blowouts in the semifinals have set up a Jan. 10 national championship game between Southeastern Conference powers Alabama and Georgia.

fans since the format's introduction during the 2014 season. Business discussions to expand the field did not begin happening among power brokers until 2019, as the College Football Playoff neared the halfway point of its 12-year \$5.6 billion broadcasting contract with ESPN. That deal expires in 2026 and pays out about \$470 million annually to the College Football Playoff, which then distributes the earnings among participating conferences.

The College Football Playoff management committee—which is made up of the 10 commissioners of leagues that compete in the top tier of Division I football and Notre Dame athletic director Jack

Swarbrick—charged a smaller working group with evaluating the pros and cons of various expansion models.

Swarbrick, Sankey, Mountain West commissioner Craig Thompson and Big 12 commissioner Bob Bowlsby spent the better part of two years mulling over new post-season formats, from six teams all the way up to 16.

Last June, they proposed a 12-team playoff that would award automatic invitations to six conference champions with the highest rankings and six at-large spots for the next highest-ranked teams.

Such a model placated conferences that have regularly been left out of the four-team semifinal,

like the Pac-12, as well as those who felt slighted in the rankings, like the American Athletic Conference, home to teams like Central Florida and Cincinnati.

Then Oklahoma and Texas announced in July that they planned to leave the Big 12 for the SEC—and everything got blown up. Playoff expansion was suddenly the least of everyone's concern as a wave of rapid realignment sent commissioners into survival mode.

Meetings of the College Football Playoff management committee late in the summer and into the fall went nowhere. Everyone wanted a bigger postseason, but commissioners dug in their heels

over the minutiae. College Football Playoff executive director Bill Hancock has urged patience. "We continue to make progress, but a variety of issues remain," he said in a statement in December.

Any change to the playoff format must be approved by the 11-person board of managers after the management committee presents an official recommendation. The board's next meeting takes place on Jan. 10, the morning of the title game.

"In the end, whoever wins is likely to have to beat a good SEC team," wrote Bowlsby in a text message. "It will be true with 4, 8 or 12."

Antonio Brown 'No Longer a Buc' After Quitting During Game

By ANDREW BEATON

Late in the third quarter, Antonio Brown stripped off his jersey and pads on the sidelines of Sunday's Tampa Bay Buccaneers-New York Jets game. He threw some gear into the crowd. He finished by running off the field shirtless, exhorting fans to cheer as he took a shortcut through the end zone to the tunnel.

It was a surreal scene that led to

the end of his tenure with the Tampa Bay Buccaneers and raised questions about the professional future of a receiver who has had regular brushes with trouble.

"He is no longer a Buc," Tampa Bay coach Bruce Arians said after the game. "That is the end of the story." Arians declined to get into further detail about the decision and what happened.

Brown appeared to simply quit

on his team midway through Sunday's game. It was just his second game back after an injury and receiving a three-game suspension from the NFL for using a fake vaccine card, which was only the latest instance of misbehavior for a player who has faced numerous allegations of wrongdoing over the years.

Arians told Fox afterward that he was trying to get Brown to go into the game and that Brown kept re-

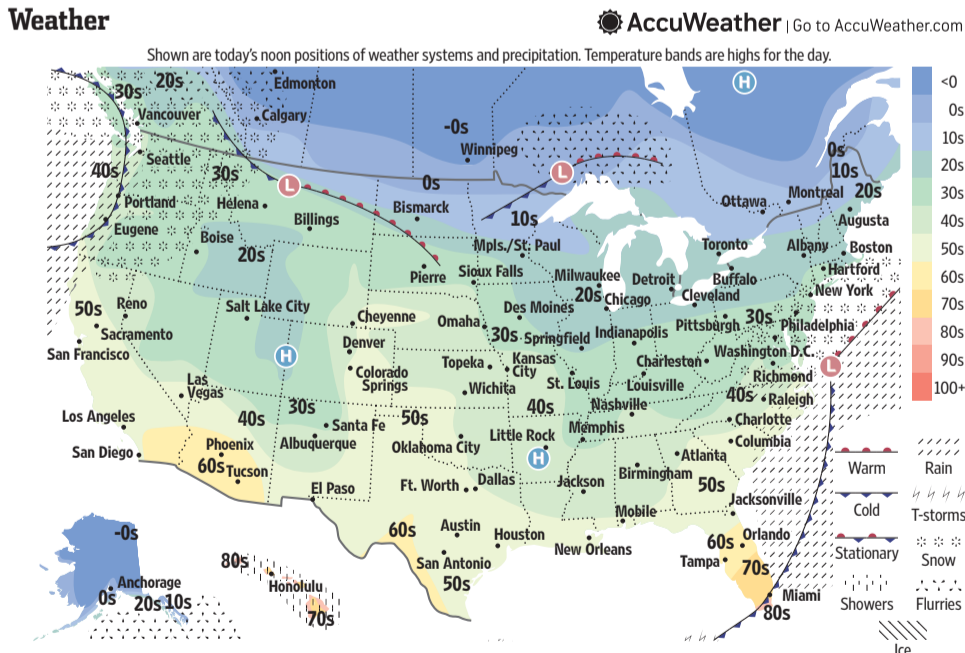
fusing, at which point he told Brown to get out.

It wasn't immediately clear from video of the incident how exactly the situation developed. He could be seen speaking to fellow Bucs receiver Mike Evans, who appeared to be trying to calm his teammate. Nonetheless, Brown ripped off his uniform, pads, undershirt and gloves and jogged off while giving away souvenirs. He waved his arms

and flashed the peace sign as he exited.

Buccaneers quarterback Tom Brady referred to it as a "difficult situation" and said "everyone should be very compassionate and empathetic to some very difficult things that are happening."

Brady turned out to be just fine without Brown—leading Tampa Bay on a game-winning drive in the final minute to win the game 28-24.



Forecasts and graphics provided by AccuWeather, Inc. ©2022

U.S. Forecasts

Table with 3 columns: City, Today (Hi, Lo, W), Tomorrow (Hi, Lo, W). Lists major cities like Anchorage, Atlanta, Austin, etc.

International

Table with 3 columns: City, Today (Hi, Lo, W), Tomorrow (Hi, Lo, W). Lists cities like Frankfurt, Geneva, Havana, etc.

Jeff Chen

Table with 3 columns: City, Today (Hi, Lo, W), Tomorrow (Hi, Lo, W). Lists cities like Frankfurt, Geneva, Havana, etc.

The WSJ Daily Crossword | Edited by Mike Shenk

Crossword puzzle grid with clues for Across and Down. Clues include 'European peaks', 'Safekeeping', 'Bye Bye Bye'.

HALLOWED WORDS | By Sujata Fretz & Jeff Chen

A collection of words and phrases related to Halloween, such as 'It can be wrapped up', 'Distracting tactics', 'Jeong of "The Masked Singer"'.

Previous Puzzle's Solution grid showing the answer to a crossword puzzle, with words like LOGS, SHUE, TUBES, etc.



## OPINION

## Can Social Media Alter a War?



**INSIDE VIEW**  
By Andy Kessler

The Cornell Hockey match-up is legendary. Harvard home fans used to play square-dance music and throw hay on the ice making fun of bumpkins from upstate New York. In retaliation, Cornell fans at Lynah Rink in Ithaca would throw fish on the ice (they still do despite being searched on entry), and for many years they even tied a live chicken to Harvard's goal. I spoke with a recent graduate who explained how students have modernized taunting. Using fake social-media accounts with pictures of attractive coeds, hecklers would inevitably "friend" Harvard's goalie and learn details about his personal life. During the game, the crowd would taunt him about his aunt Millie, dog Muffin or recent breakup. Eventually the goalie would turn and stare at the crowd in confusion. Successful psy-ops!

The same tactics are leaking into war planning. Psychological operations are nothing new: We've had Tokyo Rose, pamphlets dropped from planes, and Iraq's Information Minister Baghdad Bob's spewing lies on CNN. Now Instagram? In February 2012, I wrote a column titled "When Will Social Media Elect a President?" Most readers said never. Well, that ship has sailed. It's time to

ask: When will social media alter wars?

In 2019 during a military exercise, the North Atlantic Treaty Organization's Strategic Communications Center of Excellence deployed a "red team" to see if it could disrupt 150 soldiers. Spending only \$60 on Russian bots and using only open-source data, researchers were able to learn the usernames, phone numbers, emails and identities of soldiers. They also engaged with them on Facebook and Instagram, mapped their connections with other armed-forces members, determined their location within a kilometer, and even got soldiers to send selfies with their equipment. Apparently even soldiers believe that if it isn't on Instagram, it didn't happen.

According to the report on the exercise, they could "pinpoint the exact locations of several battalions" and track troop movements. Here's the scariest part: "The level of personal information we found was very detailed and enabled us to instill [sic] undesirable behaviour during the exercise." Janis Sarts, a director of NATO StratCom, told me: "Every time we attempted to manipulate behaviors, we succeeded."

Facebook did shut down some of the researchers' fake accounts due to suspicious activity. But many groups and fake profiles weren't suspended. This raises the question: Is Facebook ready or even willing to help during a hot war?

Let's say, hypothetically, that Russia invades Ukraine and the U.S. sends in troops. Should the U.S. shut down social media in the battlefield's geographic area? Ban soldiers from having smartphones? Cut power to cell towers? At the Tapa military base near Estonia's border with Russia, soldiers remove SIM cards from their phones and use the internet only at secure hot spots. During operations,

### A 2019 experiment exploited Facebook and Instagram to manipulate soldiers.

soldiers are forced to jump in a lake to disable phones. There isn't a simple solution, because a smartphone can be a valuable tool in a soldier's arsenal.

The Russians also had social-media problems. In 2014, after Malaysia Airlines Flight 17 was shot down over Ukraine, Dutch investigators were able to identify the BUK missile and use public information posted by Russian soldiers and civilians to identify the unit that moved the missile launcher and where it crossed the border into Ukraine.

What to do? In 2010, with little fanfare, U.S. Cyber Command was created. In 2018 Gen. Paul M. Nakasone took charge. In 2019, I wrote a column suggesting the Cyber Command take an offensive

approach. University of California, Berkeley law professor John Yoo told me, "Offensive cyber weapons are cheap. It's defensive cybersecurity tools that are expensive." I suggested that after a cyberattack we should flicker all the lights in Moscow to show we can. A former Muscovite noted that the city's electricity goes out so often residents wouldn't even notice.

Remember the cyberattack and shutdown of the 5,500-mile Colonial Pipeline from Houston to Linden, N.J., in May 2021 that caused gas shortages and panic buying? Colonial paid a ransom in cryptocurrency for a decryption tool to unlock the hacked systems—though some of the ransom was later recovered. What if a similar attack happens again this winter during the hypothetical war?

Last month Gen. Nakasone said that Cyber Command has been active against ransomware groups. "With a number of elements of our government, we have taken actions and we have imposed costs," he said. "That's an important piece that we should always be mindful of." Good!

"Imposed costs" likely means the U.S. now is going on the offensive and making it harder for attackers to operate. Will this extend to the battlefield as well? Are the U.S. armed forces and especially social-media companies ready for cyberattacks on soldiers and to be on a war footing? I hope so. War ain't tidlywinks, or hockey.

Write to [kessler@wsj.com](mailto:kessler@wsj.com).

**BOOKSHELF** | By Melissa Holbrook Pierson

## The Magic Number Seven

### The Week

By David M. Henkin  
(Yale, 264 pages, \$30)

The very notion of a book on the seven-day week can seem genuinely startling. That alone affirms David M. Henkin's thesis in "The Week: A History of the Unnatural Rhythms That Made Us Who We Are," which argues that we are so thoroughly marinated in its conventions that we seldom question its artificiality, or even its existence. Why seven days? Why not 10? (The *décade*, indeed implemented for some years in France after the Revolution, failed to catch on.) What does the week represent to the modern world—and Americans in particular?

If no one can definitively explain the why of a seven-day system—first used in ancient Mesopotamia and appearing in the Book of Genesis—Mr. Henkin at least gives full throat to the how. The Berkeley historian scours American literature, diaries, periodicals, menus and other ephemera from as far back as the 17th century to unearth fascinating evidence of the stickiness of the seven-day cycle. He establishes the historical pressures that rendered the organiza-



tion of the week malleable to changing needs of the marketplace, prevailing religions, social custom and the shape of working life.

Notwithstanding the book's title, it is less about "the week" than how and when the week became entrenched in the United States. Mr. Henkin acknowledges the primacy of Eviatar Zerubavel's 1985 study of all things weekly, "The Seven Day Circle"; his own work does not presume to supplant it. Instead it is deliberately circumscribed in time and

geography to chronicle "how Americans became a people of the week par excellence." Our work, consumer and leisure habits became "intensely week-oriented" in the early 19th century and remain so today. In turn, America led the worldwide shift toward adoption of a universally recognized week as the primary organizer of time, ultimately both necessary to and driven by oncoming globalization. Other countries fell into line, either slowly or all at once, as when in 1873 the Meiji reforms decreed Japanese adherence to a seven-day week.

Mr. Henkin presents abundant, if sometimes tangential, evidence to support the idea that an essential function of the week is to situate people within the nexus of their social and economic moment. (Lengthy appendices detail menu items offered on particular days of the week at bygone restaurants—brilliant as found poetry, but less so as a meaningful argument for the week's imaginative hold.) Superstitions easily affixed themselves to various days, especially "luckless Friday." In another appendix, devoted to marriage days in a 19th-century sample of counties, Friday might as well wear garlic around its neck. It was the fourth day—depending on the fluctuating start of the week—that appeared most propitious, notwithstanding the nursery rhyme ("Thursday's child has far to go . . ."). The Friday shibboleth remains today, but mainly when the day falls on the 13th of the month. Plenty of other markers—laundry Monday, payday Saturday—are long forgotten. Times change. Remember Saturday cartoons?

Conceptions of the week have long been primarily and exquisitely responsive to the ways we buy and sell, work and unwind, which in turn respond to technologic advance. All these have been revolutionized anew by the internet. Now we stream or engage in e-commerce whenever we like. It has untethered us from some long-standing social conventions, from the Saturday movie matinee to the Monday morning commute. The natural world never offered a reason for, say, mandating public executions on the same day each week (Friday, of course). Or making Monday night sacred to football. That we persist in sorting activity in

### Our work and family lives are organized around a conceit that feels as constant as gravity, but the week is a human invention.

weekly cycles can only be explained by an instinctual need to psychologically manage the passage of time. In his epilogue, Mr. Henkin touches on "the fate of the week in the Internet age," when we no longer venture to sales at Main Street stores and increasingly rarely to theaters to witness cinema, and spill our sodas, in the presence of others. News is an unceasing river, no longer the province of the weekly newsmagazine or intoned at the same hour each weeknight. Still, the hold of a notional week is tenacious: I was reading "The Week" on "Giving Tuesday," the day after "Cyber Monday," which was preceded by "Black Friday." Weekly "consumer habits," installed in the mid-19th century, although different in type now, are hard to dislodge.

Thus do days display peculiar traits, almost "physiognomies," in the term of an Atlantic Monthly essay cited by Mr. Henkin: Tuesday "is like those people to whom we dread being introduced, because they have no expression of face, and it is morally certain we shall never be able to recognize them again." It was written in 1887. Surely the scope of social change since then has done away with such sentimental projection? But here's the British group Easy Life evoking the same familiar sensations—in 2019: "And every time that I lay her down / it feels like Sunday."

The current pandemic offered Mr. Henkin a spontaneous real-life test of how psychically rooted the week remains. Absent the touchstones of going to work or play on specific days, many of us felt unmoored not only from time but from ourselves. People reported feeling distraught at no longer knowing if it was Tuesday or Wednesday—and the sense of shock went deeper than missing a few calendar dates. As Mr. Henkin notes, "Losing one's handle on the week raises the specter of lost memory and lost time."

In the end, this timekeeping convention is an emotional construct. We need some means of orienting ourselves to the many working parts of our world, a governor on the chaos of so many interlocking functions and needs. The seven-day wheel turns especially neatly for the uses of industry and finance—but so do people. The human impulse to tell stories imposes a narrative arc with beginning, middle and end—and in the structure of the week a fresh beginning is always on the horizon. The week is eternity in an idea.

Ms. Pierson is the author, most recently, of "The Secret History of Kindness."

## No Justice for Cuba's July 11 Protesters



**AMERICAS**  
By Mary Anastasia O'Grady

While Americans were last-minute gift shopping on Christmas Eve, Luis Aguilar Rivera was uploading a lamentation from Havana on YouTube. The day before, the Cuban military dictatorship had handed Mr. Aguilar Rivera's 21-year-old son—who reportedly has cognitive issues—a 22-year prison sentence for his participation in the anti-government protests of July 11-13. "It seems incredible that in this country, where it is said that the people come first, this is happening. It cannot be," Mr. Aguilar Rivera insisted on the video.

It can be and it is—though not without the use of legendary Soviet coercion still practiced in Cuba, as Mr. Aguilar Rivera explained in his YouTube post. "I have official testimonies that the judge who handed down the sentence started crying when everyone left." He added: "He knows the great injustice that is being committed."

The Aguilar Riveras are part of something much bigger than one case, as U.S. assistant secretary of state for Western Hemisphere affairs, Brian Nichols, tweeted on Dec. 26: "150+ Cubans across the island face up to 25 yrs from sham trials between Dec 13-24. The Government of #Cuba must stop these unjust sentences for peaceful protests. We call for the immediate release of

#11J protesters."

Note the timing. With the international press largely off on holiday, the second half of December was an ideal moment to lock up dissidents and throw away the key. The harsh penalties are meant as a warning to Cubans about what happens to nonconformists. The strategy may have worked so far. Yet its long-run effectiveness is doubtful.

The July protests were history-making because the breadth and size of the crowds on the streets shocked the regime, as did the public's lack of fear and its expressions of deep hatred for the system.

The use of cellphones to capture videos of Cubans pouring into the streets and chanting "liberty" was also new. So was the recording of the dictatorship's brutal reply in the days that followed. Heavily armed riot police and rapid-response brigades beat demonstrators. Plainclothes intelligence agents tracked down dissidents, raided their homes, and thrashed family members. Suspects were dragged off to detention.

The world watched in horror, knowing full well that what goes on in Cuba's dungeons—where neutral observers are not permitted to evaluate conditions—is far worse.

The raw repression was too much for the world to ignore. The European Parliament condemned Cuba for its response to the protests and called for Magnitsky sanctions against those who had

ordered or engaged in the crackdown.

Team Biden had been signaling that it wanted to reinstate Obama administration engagement policies, including American travel to the island and the free flow of remittances. But as images of the state-sanctioned violence against unarmed civilians streamed into living rooms across the U.S., the administration put on hold any change in policy.

### The regime used the Christmas holidays to issue prison sentences of up to 30 years.

Pariah status is costly for the regime because Cuba has trouble attracting investment and, if you don't count human beings, it doesn't export much of anything. It depends heavily on tourism for hard currency.

Even so, as Mr. Nichols noted in his tweet, Havana is now doubling down on its use of terror. It's the only thing holding the status quo together.

This crackdown is the harshest since Cuba's Black Spring in 2003, when some 75 democracy activists were arrested and many received 20-year sentences. This time around, according to data collected by the Havana-based Working Group for July 11 Justice, two people have received 30-year sentences and prosecutors are asking the

same for four others. Another 23 people have received between 20 and 25 years and similar sentences are requested for more than 65 others.

Forty-five minors, age 14 to 17, were arrested for demonstrating. Fourteen of them remain in detention. Of 88 arrested who are between 18 and 21, 45 remain jailed.

On Dec. 23 *Diario de Cuba*, an independent news outlet on the island, reported on the conviction of 15 people who received sentences of between 12 and 30 years for protests on July 12 in the poor neighborhood of La Güinera on the outskirts of Havana. "Seven of them" the news report said, "are under 18 years of age." The convicted were warned that appeals would increase their sentences.

The Ladies in White—an opposition group that began as the female relatives of jailed dissidents—remain targets. On Dec. 27 Cubans learned that one of the group's members, Sissi Abascal, 23, from the province of Matanzas, had received a six-year sentence.

Meantime, Maykel Osorbo and Luis Manuel Otero Alcántara linger in prison. They are leaders of Havana's dissident San Isidro Movement. Neither has been charged. Sources on the island say that both have been offered release if they agree to go into exile. Both have declined.

This genie is not going back in the bottle. Havana, you have a problem.

Write to [OGrady@wsj.com](mailto:OGrady@wsj.com).

## Betty White, a Humble Superstar

By Peter Funt

*Carmel-by-the-Sea, Calif.*  
Whenever TV producers ripped off our "Candid Camera" format, we'd typically threaten legal action. Yet when my Carmel neighbor did it in 2012, with a hidden-camera show called "Off Their Rockers," I sent a fan letter. What else could I do? It was Betty White.

Obits about celebrities often include the term "beloved," which sometimes just means their performances were accomplished or at least profitable. Betty (her real name, not short for anything), who died on New Year's Eve, 18 days short of her 100th birthday, had multiple generations of fans, plus the genuine admiration of those with whom she worked.

She learned about reality television from my father,

Allen Funt, in the early 1960s—and he quickly learned a lot about her. When performers appear on "Candid Camera," it doesn't take long for their off-camera character to become clear. Conditions are

### Along with sitcoms, she shined on 'Candid Camera' and as a game-show guest.

cramped, there's no makeup artist or hair stylist, the hours are long, and, of course, there's no script. It's not for prima donnas.

So, here's 39-year-old Betty White squeezed into a tiny ticket booth in Manhattan, telling moviegoers they must take a pledge not to reveal the film's surprise end-

ing. Warning others not to remove their shoes. And informing one gentleman that to see the film he was interested in he'd have to walk to Queens. She was delightful.

She went on to have a robust career in sitcoms, notably "The Mary Tyler Moore Show," "The Golden Girls" and "Hot in Cleveland," the last of which ran for six seasons, ending when she was 93. Easily overlooked is that Betty White was also one of the last in a special breed that might be called TV's intelligent game-show panelists.

She appeared frequently on "What's My Line?" and "To Tell the Truth," as well as "Password," where she met and married the host, Allen Ludden. Erudite panelists then were people like Bennett Cerf, a co-founder of Random House, syndicated columnist Dorothy Kilgallen and humorist and author Fred Allen—

hired to entertain with intellect. Imagine that. Betty White fit with this crowd as smoothly as she fit into a movie-theater box office.

In Carmel, where Betty lived part-time since 1981 in a magnificent house overlooking Point Lobos, she's best remembered as an animal lover. Her house had an entire room filled with stuffed animals, each of which she named and spoke to frequently.

Along with neighbors Doris Day, Clint Eastwood and my father, she was a regular at animal-welfare fundraisers. At one auction she paid \$9,000 for the privilege of releasing a great horned owl into the wild, exclaiming, "My accountant will kill me!" But of course he wouldn't. She was Betty White.

Mr. Funt is author of "Self-Amused: A Tell-Some Memoir."

## OPINION

## REVIEW &amp; OUTLOOK

## The Warren-Biden Bank Heist

Elizabeth Warren finally got her woman—that is, the Senator and her many acolytes in the Biden Administration have succeeded in ousting Jelena McWilliams as chair of the Federal Deposit Insurance Corp. The coup deserves attention because of its norm-breaking precedent and what it signals for bank mergers and supposedly independent regulatory agencies.

Ms. McWilliams resigned on Dec. 31, effective Feb. 4, to avoid more turmoil at the bank regulator. But as she wrote in these pages on Dec. 16, her resignation comes amid a concerted and unprecedented political effort to strip her of authority before her term as chair expires in June 2023.

The coup has been led by Rohit Chopra, the Warren protege who now runs the Consumer Financial Protection Bureau and is one of four current members of the FDIC board (one post is vacant). The FDIC's longstanding practice and bylaws, based on its interpretation of the law, is that the chair sets the board's agenda.

Every administration for 88 years has honored that understanding, including the supposedly norm-breaking Trump Administration. Democrat Martin Gruenberg was allowed to continue as chair until June 2018 after President Trump took office, and no one attempted to oust him.

Enter the Warren-Biden progressives in a hurry. The Senate confirmed Mr. Chopra on Sept. 30 on a 50-48 vote, and as soon as Oct. 31 he presented Ms. McWilliams with a request for information (RFI) on bank mergers. When she said the draft RFI would have to be vetted by FDIC staff, Mr. Chopra publicly released his own RFI without authority from his post at the CFPB, which the FDIC was obliged to contradict.

Mr. Chopra then moved to neuter Ms. McWilliams by other means. He has asked the Office of Legal Counsel at the Justice Department for an opinion on whether Ms. McWilliams can set the agency's agenda. In a Dec. 14 statement, Mr. Chopra also threatened to "take further steps to exercise independence from management" of the FDIC.

This distorts the meaning of agency "independence," which is supposed to be from the executive branch. Mr. Chopra cites President Biden's July 9 executive order referring to bank mergers, but the FDIC has long held that it is not subject to executive orders on policy. Mr. Chopra wants to make the FDIC a de facto part of the Biden Administration. Who knew the left endorsed the originalist constitutional theory of the "unitary executive"?

Our sources say the plan was for Mr. Chopra and his allies on the board—Mr. Gruenberg and acting Comptroller of the Currency Michael Hsu—to change the FDIC bylaws and strip Ms. McWilliams of her power. Ms. McWilliams made the honorable decision to spare the agency more internal fighting, but her resignation means Mr. Chopra will now essentially run the show. Mr. Gruenberg will become acting chair. He will follow where Mr. Chopra wants to go, as he showed by signing a joint statement with

Mr. Chopra on his draft RFI on Dec. 9.

The real power behind all this is Sen. Warren, who has planted her aides and camp followers throughout the Biden Administration. She may have lost the 2020 Democratic primaries to Mr. Biden, but she has colonized the government's financial regulatory offices.

Her former staffer, Bharat Ramamurti, is deputy director of the White House National Economic Council. His fingerprints were all over the failed nomination of Saule Omarova to be Comptroller of the Currency. Wally Adeyemo, who helped Ms. Warren establish the CFPB, is now deputy Treasury secretary. Lina Khan runs the Federal Trade Commission. Graham Steele, a former aide to Warren Senate ally Sherrod Brown, is assistant Treasury secretary for financial institutions. There are many others.

One result is that Treasury Secretary Janet Yellen seems to have little influence over financial regulation. Ms. Omarova wasn't her choice for Comptroller. Ms. McWilliams sought her support for the FDIC's traditional independence, but Ms. Yellen refused. Her main job these days seems to be telling the public not to worry about inflation.

What do these Warren cadres hope to accomplish? One clear goal is greater influence over the allocation of credit. Using regulation to squeeze financing for fossil fuels will be a priority. Bank mergers are a political target because regulatory approval can be exploited as a tolling station to coerce money for "local communities," to use Mr. Chopra's euphemism for progressive political groups.

Mr. Chopra also wants to reinterpret the law to make it easier to block bank mergers, notably those that have more than \$100 billion in assets. This is a coordinated effort. His Dec. 9 RFI mentioned that figure. On Dec. 10 Maxine Waters sent a letter to federal officials urging a moratorium on bank mergers above \$100 billion. On Dec. 17 the Justice Department's Antitrust Division issued a press release praising Mr. Chopra and promising heightened antitrust review of bank mergers.

The irony is that regional banks are merging to gain economies of scale to compete with giant banks. The 2010 Dodd-Frank Act increased compliance costs, which the biggest banks find easier to afford. Blocking mergers of regional banks will enhance the market power of JP Morgan and Bank of America.

By undermining the independence of federal agencies, Democrats are also creating a precedent that the GOP will follow. The next Republican President will promptly fire the next FDIC chair, among other officials.

The FDIC coup should also focus the Senate's attention on Mr. Biden's pending nominees for the Federal Reserve, another supposedly independent bank regulator. Anyone who endorses the FDIC coup shouldn't be confirmed.

Democrats claim that Trump Republicans broke political norms, and sometimes they did. But one reason is that they see how progressives trample norms when they have power. Watch the Warren left in action.

### A coup at the FDIC breaks norms and signals more political control of finance.

## The End of the GOP Gerrymander Panic

One hundred and fifty political scientists signed an open letter to Congress six weeks ago declaring that "midnight is approaching" for American democracy. Among their concerns was Republican gerrymandering. They wrote that "drawing fair district boundaries . . . should not be partisan"—but the GOP has shown "a clear intent to entrench minority rule."

It has been an article of faith among those who claim to be most knowledgeable about American politics that this year's House of Representatives redistricting would give Republicans an edge in November and even keep the GOP in power indefinitely despite public opposition.

Count this as another conventional-wisdom implosion. It appears that, despite controlling fewer state legislatures, Democrats are as likely as Republicans to benefit from the new maps. A recent analysis by Data for Progress, a left-leaning analysis shop, found that 212 House seats may be to the left of the country in 2022 by one measure, up from 203 in 2020. And that's before the onslaught of well-funded lawsuits by Democratic lawyer Marc Elias targeting Republican-drawn maps.

The expectation of a lopsided GOP gerrymander in 2022 came partly from the misperception that the adoption of "independent" redistricting commissions would extinguish Democratic opportunities to make partisan gains. But like any other political body, the commissions are subject to influence by interest groups.

The map released by California's commission could eliminate three of the 11 GOP seats in the state's House delegation; Democrats currently hold 42 seats. New Jersey's commission polarized along partisan lines, with the designated tie-breaker choosing the map that protects most Democratic gains of the past decade. New York's commission appears to be breaking down, likely handing control to Democrats in Albany, who could cut the number of New York House Republicans to three from eight.

Colorado's redistricting commission did

### Republicans may not be the 2022 redistricting favorites after all.

blunt potential Democratic gains in the increasingly blue state. Conversely, Arizona's drew a map more forgiving toward Democrats than might have been drawn by the state's GOP-controlled Legislature.

As for states that don't have redistricting commissions, Illinois, Maryland and Oregon pursued aggressive Democratic gerrymanders. Republicans did the same in Ohio and North Carolina.

The Texas map strongly favors the GOP, with the two seats it gained in the 2020 Census both likely going to Republicans—though Democrats also may not lose any of their current 13 Lone Star seats. Florida, the second-most populous state under GOP control, may be putting more weight on protecting incumbents than gaining partisan advantage. Under one proposed map, Democrats would be favored to take the state's new House seat; in another, the GOP would.

The Republicans who control Missouri also appear to be taking a light partisan touch. And while Georgia's GOP Legislature is trying to squeeze out a Democratic House seat in redistricting, Republicans in modest-sized southern states like South Carolina, Arkansas, Oklahoma and Mississippi don't have much room to make their congressional delegations any redder.

If pundits and pollsters overestimated Democratic voting strength in 2020, they also underestimated the Democratic willingness to try to hold power through redistricting hardball. Luminaries from former President Obama on down created a panic about a looming democracy-ending Republican gerrymander.

Yet control of the House continues to turn over regularly. Far from governing through "minority rule," Republicans have won more overall votes in most U.S. House elections since 1994, and they currently lead in generic ballot polls for 2022.

Republicans are supposed to be plotting an antidemocratic seizure of power, but they haven't been able to defeat Democrats in congressional redistricting despite major geographic and political advantages. Perhaps midnight for American democracy is still a ways away.

## LETTERS TO THE EDITOR

## The Superfluous Term: Don't Call Us 'Latinx'

Charlotte Allen's op-ed "Latinx Isn't Popular With Latinos" (Dec. 20) is right on the mark. In Spanish, anything pertaining to Latin culture or background is described as either "latino" or "latina," uncapitalized. The gender distinction is a basic characteristic of romance languages, used not only to distinguish male or female, but also objects or concepts that by convention are assigned a gender: "musica latina" (Latin music) or "sabor latino" (Latin flavor).

In English, such a distinction does not exist. But as Ms. Allen suggests, there is already a perfectly appropriate English word, a direct translation from both "latino" and "latina" that totally describes the concept: "Latin." I always found the capitalized use of the Spanish words unnecessary in English. Now, with this new fad of "Latinx," we have arrived at an entirely new dimension, with a made-up word to satisfy some obscure political correctness.

JESUS L. PENABAD  
Tarpon Springs, Fla.

Gracias, Señorita Allen. Thank you for speaking up for the rest of us who are offended by this term. We, as a people, have always been inclusive of others. It's part of our culture, religion and family values. We don't need a new term to explain who we are and how we should behave or think. Those who use "Latinx" don't understand us and shouldn't be allowed to label us, either. Basta! Enough with this term.

LUIS TRUCIOS  
Redwood City, Calif.

The Real Academia Española (Royal Spanish Academy), the recognized arbiter of all things pertaining to the Spanish language, defines the masculine as addressing both genders when referring to groups or crowds. It covers everyone. To refer to the broader public as "Latinos y Latinas" is incorrect grammar. The correct usage is simply "Latinos."

The Real Academia solved this masculine-feminine issue centuries ago. Advocates of "X" would do better to respect the Latin roots of our romance language.

ANGEL GONZALEZ-SANFELIU  
Towson, Md.

Even though the term "Latinx" is unpopular with Latinos, it is still widely used by journalists. This raises the question: Whose anxiety is really being allayed by invoking this expression? What is presented as addressing the imagined concern of another is often a way to make the action's initiator feel better.

PAUL E. GREENBERG  
Brookline, Mass.

I would never call myself "Latinx" or even "Hispanic." I find both offensive. When I was born, there was no such term as Hispanic; it was created by bureaucrats in the Nixon administration to collect all brown people in the same pot for the Census Bureau. It's a made-up word. Furthermore, I am not sure the descriptive rubrics have really garnered anything. I am an American.

DELIA ARMENDARIZ  
Bremerton, Wash.

## How Generous Is Columbia University Really?

Columbia University is clearly perturbed by your editorial "United Auto Workers of the Ivy League" (Dec. 18), calling attention to the hypocrisy of a liberal institution underpaying its core workers. Although Provost Mary Boyce has remained absent from every bargaining session with Student Workers of Columbia, she makes time to defend the administration's treatment of Ph.D. workers like myself in your paper (Letters, Dec. 27).

Columbia's most recent compensation package is not "one of the most generous available at any U.S. university," as Ms. Boyce writes. It pales in comparison to the package at its key local competitor, NYU. Although it appears more generous than Harvard's, it is inferior when the cost of living in Manhattan is considered.

Ms. Boyce's claim that Ph.D. benefits can reach \$100,000 a year is also misleading. The figure includes the \$55,000 cost of tuition and fees charged to Ph.D. student workers,

which Columbia covers. Through an accounting trick, presumably to inflate costs when receiving grant money, Columbia pays itself for having us teach and research. These are not benefits; we cannot pay rent or eat from this bookkeeping illusion.

Our strike proves that Columbia cannot educate without our work; over 1,000 undergraduates will not legally receive credit or grades for courses we teach. The strike is almost over, with Columbia capitulating to key union demands.

But administrators so far refuse to budge on the primary issue: recognition of our entire bargaining unit. In its quest to casualize academic labor, Columbia refuses to recognize hundreds of student workers. Meanwhile, the university increases the cost of tuition to cover the bloated salaries of administrators.

JARED SACKS  
Columbia University  
New York

## Negotiating the U.S.-Japan Chip Pact of '86

I disagree with Chad P. Brown's analysis of the causes and result of U.S. negotiations with Japan on semiconductors in 1986 ("The False Allure of Managed Trade," Review, Dec. 18). At the time, I was counselor to the commerce secretary and a lead U.S. negotiator on the issue. Not only did the U.S. not convince "the Japanese chip industry to reduce its sales globally," we never asked.

We made two requests of Japan. First, greater market access to the tightly closed Japanese market, in which the Japanese government had instructed chip buyers to "buy Japanese." Second, an end to the chronic, illegal dumping (selling abroad at prices below those in the home mar-

ket or below cost) of chips by Japanese makers in the U.S. market.

Japan eventually agreed to both requests. It never was asked to or did restrict the legal, global sales of its producers. Indeed, in the two years following the agreement, the global market share of the Japanese producers actually rose.

CLYDE PRESTOWITZ  
Potomac, Md.

## What Film Audiences Want

Peggy Noonan raises good points on why people aren't going to movies anymore ("West Side Story" and the Decline of the Bijou," Declarations, Dec. 18), but I have different advice for American filmmakers: Write stories with clever and believable narratives. Populate those stories with full-blooded, nuanced characters of all backgrounds that are recognizable in the real world—not some alternate universe of woke projection.

Above all, avoid false sentiment and anything that smacks of a political viewpoint. If moviegoers desire politics, we will happily stay home and turn on cable news.

PHIL RULAND  
Newport Beach, Calif.

## Pepper ... And Salt

THE WALL STREET JOURNAL



"It seems every time you fly, there's less dog room."

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## OPINION

## Will the Crime Wave Soon Crest?

By Barry Latzer

Across the U.S., 2021 was a bad year for crime. The New York City Police Department reported a 4.1% increase in homicides over 2020. Chicago's increase was 5% and Los Angeles suffered a 13% rise in killings. The 2021 figures follow a scary 2020, when the nationwide homicide rate (6.5 per 100,000) was the highest in 23 years.

The pandemic, along with dubious criminal-justice system reforms, undoubtedly made things worse. Covid made police reluctant to interact with suspects except when making arrests for serious crimes. Wholesale releases from jails like New York's Rikers Island put offenders back on the streets. Some states adopted bail reforms that kept offenders from jail entirely. It didn't help that a new crop of progressive prosecutors, in misguided efforts to reduce so-called mass incarceration, declined to prosecute numerous misdemeanors and agreed to light sentences even for some violent felons.

## There's already a backlash against antipolice policies, and demographic trends are encouraging.

But the pandemic won't last forever, and a backlash already is stirring against reforms that fostered crime. The question is whether the factors cited above are the real reasons for the crime surge, or whether they mask longer-term trends pushing the country toward another 25-year crime wave such as the one that horrified the nation from the late 1960s to the early 1990s.

Thankfully the key factors that caused that wave—which I call a



CHRIS SWEDA/CHICAGO TRIBUNE VIA ASSOCIATED PRESS

crime tsunami—aren't present today.

The crime tsunami that began in the late '60s was driven largely by three factors: large-scale rural-to-urban migration of African-Americans and immigration to big cities of Hispanic populations with high violent-crime rates, massive growth in the youth population, and a weak criminal-justice system. One might throw in a fourth: The crack-cocaine epidemic, which sent crime soaring after it began to ease in the early '80s. These elements aren't present today, though attempts to weaken the criminal-justice system are worrisome.

Take immigration. The current immigrant population is characterized by low violent-crime rates. In Los Angeles, for instance, Asians are nearly 12% of the population, but they were only around 2% of the homicide victims in 2021. Racial data for perpetrators in Los Angeles aren't available, but given the strong tendency of violent criminals to assault members of their own social groups, it is safe to conclude that Asian murderers are also a tiny proportion of the population.

Hispanic immigrants have much higher crime rates than Asians, but their rates aren't out of proportion to their population numbers. In 2020

native and immigrant Hispanics were 11% of murder suspects and 12% of the victims nationwide, but they made up more than 18% of the U.S. population. By contrast, blacks, who were 13% of the American population, were half of the homicide offenders and 56% of the victims.

Yet a little-noticed migration trend may reduce crime in the next decade: a significant movement of African-Americans out of big cities. If this trend continues, it could portend reductions in crime. Low-income blacks, especially young males, commit a disproportionate amount of the violent crime in this country. That's why their migration in the '60s raised crime rates in cities. A recent analysis of census data by Politico found that from 2010 to 2020 nine of the 10 cities with the highest proportions of blacks (Houston was the exception) were losing minority population. Some declines were dramatic: Detroit lost more than 277,000 of its African-American residents, Chicago more than 261,000 and New York in excess of 176,000. Unless immigration and migration patterns change in coming decades, this factor is unlikely to support a new crime tsunami.

A second consideration is age

distribution. The American population is aging, and the once-violent baby boomers have mellowed considerably. In 2021 more than 21% of Americans were baby boomers and the 65-plus age group is projected to constitute more than a fifth of the population through 2060. Meanwhile, men 18 to 24 are a declining proportion of Americans. In 2020 they were an estimated 4.7% of the U.S. Their proportion is projected to decline to 4.5% in 2025 and 4.4% in 2030. Though these declines aren't dramatic, the downward trajectory augurs well for violent crime forecasts.

The final consideration is the strength of the criminal-justice system. In response to rising crime in the 1970s and '80s, the system was built up with more police, more prisons and longer sentences. In recent decades imprisonment rates have been falling, mainly because of successful crime reduction, though the decarceration movement has played a role. The imprisoned percentage of the population is at a 25-year low and the black imprisonment rate tumbled 29% from 2009 through 2019. But the pressure to make further reductions is strong and the recent election of district attorneys with qualms about incarcerating criminals suggests that the public in many big cities supports shrinking the system more.

If policy makers keep the justice system strong enough to cope with the latest crime surge, then the U.S. stands a good chance of avoiding the sustained mayhem that tore the country apart for decades.

*Mr. Latzer is a professor emeritus at New York's John Jay College of Criminal Justice and author of "The Myth of Overpunishment: A Defense of the American Justice System and a Proposal to Reduce Incarceration While Protecting the Public," forthcoming in January.*

## Omicron Variant May End Up Saving Lives

By Rob Arnott

Should I try to catch the Omicron variant of Covid to advance the cause of herd immunity?

I've had Covid and recovered, had the Regeneron monoclonal antibody infusion, and had the double-jab vaccine—my antibodies are off the charts. With triple protection, I probably won't catch Omicron. Yet it is spreading like wildfire. Many people with ample antibodies are catching this variant. Importantly, it seldom leads to hospitalization or death.

## It's far less lethal than previous versions, and its fast spread may finally push us to herd immunity.

The prudent response to Omicron might be to encourage vaccinated people and even unvaccinated young adults to catch it, while protecting the at-risk population. One measure of a pathogen's lethality is the case fatality rate—the ratio of the death toll to the known cases. The 28-day average case fatality rate in South Africa, the likely origin of the Omicron variant, tumbled in the past six weeks from 8% to 0.2%, barely higher than for the flu. Omicron will assuredly confer new, complementary antibodies on its victims, providing an additional measure of immunity to more lethal Covid variants.

Omicron takes lives. So does the flu. If antibodies to the Omicron variant are even 50% effective in reducing the risk of death from more-lethal variants, those antibodies could save far more lives than the virus costs. From a personal perspective, which is more likely, dying if I catch the Omicron variant, or dying from another, more lethal variant of Covid because I lack the Omicron antibodies? The answer isn't as simple as our policy elite might suggest.

No politician will do this sort of cost-benefit analysis. Europe and Latin America are in various stages of renewed lockdowns. As usual, they began long after cases were already soaring. Sometimes, as in the Netherlands last week, the lockdowns were initiated after daily case and death counts were already receding. For the European Union, the U.S. and Latin America, the latest case fatality rate is 0.5%, 0.4% and 0.3%, respectively, down from a high of 4% to 7% during the Delta wave in June. If we add in the legions of asymptomatic, mild and untested cases, the true Omicron mortality is likely around 0.2%, roughly in line with seasonal flu.

Bureaucrats in Europe, Latin America and some U.S. states seem to be saying: *Let's wait for cases to soar, then wait a little longer until the crisis is subsiding, then let's blow up the economy after it's too late to save any lives.*

Lockdowns also cost lives. This is the underreported collateral damage from Covid. In an October study for the Reason Foundation, my colleagues and I found that in the U.S., excess deaths (fatalities above historical norms) from homicide, suicide, overdose or accident had amounted to some 82,000 between March 2020 and August 2021. During that period, the murder rate roughly doubled, and overdose deaths rose more than 50%. Accidental deaths are also elevated; after all, more fatal accidents happen at home than in the office. Meanwhile, supply-chain disruptions, fear of hospitals, and delayed diagnoses collectively led to an additional 86,000 excess deaths from cancer, heart and lung disease and stroke. In 15 weeks, through Dec. 18, these excess deaths—none from Covid—have risen by another 56,000.

Every death is a tragedy. Yet we all die eventually, so it is sensible to examine death from a cost-benefit perspective. We keep hearing the mantra "follow the science." True scientific method involves airing opinions and vetting hypotheses, not stifling debate. Beyond the hard sciences, it also involves asking tough cost-benefit questions while anticipating unintended consequences.

Let's explore unconventional answers to end this protracted nightmare. I am not trying to catch Omicron. But I am not afraid: catching it may very well reduce, not increase, my risk of dying from some future Covid variant.

*Mr. Arnott is founding chairman of Research Affiliates, an asset management firm based in Newport Beach, Calif.*

## 2022's Biggest Challenges Come From Russia and Iran

By Joe Lieberman

The biggest challenges the U.S. will face in 2022 won't be Covid-19 or inflation but Russia and Iran. The way the Biden administration handles these two hostile, despotic governments may determine how secure our country will be for years.

Moscow and Tehran are testing the administration's foreign policy, which, in its first year, has been more principled than muscular. The mortifying withdrawal from Afghanistan made allies around the world insecure and enemies, including Russia and Iran, opportunistic.

Russia has massed its troops on Ukraine's border, ready to invade it and subjugate its people. Iran has continued to increase its enrichment of uranium and move closer to building nuclear weapons. It has improved its long-range ballistic missile capacity so it can attack its enemies in the Arab world and Israel as well as American military personnel and bases in the region. The governments of Vladimir Putin and Ali Khamenei have increased the oppression of their citizens, violating the values at the heart of America's foreign policy.

This month the U.S. will sit down with Russia and Iran, respectively in Geneva and Vienna, for critically important talks about these direct challenges. The messages the U.S. sends—during these discussions and through its actions or failures to act—will have enormous consequences for the security, prosperity and freedom of America, Europe and the Middle East.

Russia and Iran have issued outrageous demands. Russia insists that Ukraine never be admitted to the North Atlantic Treaty Organization and that NATO never station troops or equipment in any former Soviet bloc country, even though some are now NATO members.

Iran has demanded that all economic sanctions, whether based on its nuclear treachery, human-rights violations or support of terrorist groups, be lifted even though Tehran has done nothing to merit such capitulation.

Messrs. Putin and Khamenei preside over two hollow economies. They have overseen the degradation of two nations with proud histories and rich cultures. They act like bullies because, they—like most bullies—are insecure, and they both have reasons to be. The U.S. and its allies must bring these realistic views of Russia and Iran to the negotiations so we aren't intimidated into dangerous compromises merely to reach an agreement.

How should the U.S. approach these discussions? First, by understanding that Russia and Iran need an agreement with us more than we do with them. We should participate with absolute self-confidence.

Second, they shouldn't be making demands of us. We should be making demands of them, because they are the wrongdoers and our economy and military are much stronger than theirs.

We should begin with the demand that Russia move its troops from

Ukraine's border and that Iran stop its nuclear development program and agree to international inspections. If not, there will be no relief from economic sanctions, which will be increased and expanded, as President Biden threatened last week.

## U.S. and allied security depends on approaching these threats from a position of strength.

Third, we must give Russia and Iran evidence that we mean what we say by providing defensive and offensive weapons to Ukraine and our allies in the Middle East to protect and defend themselves.

Fourth, we must make clear to the Russians and Iranians that if either makes the egregious mistake of taking more aggressive action

## Millennials Are the Silencing Generation

By F.H. Buckley

OK millennial, you don't care for us baby boomers. You complain that we've taken all the food off the table and left you the crumbs. You say we cling to our jobs and won't make room for you. And you especially resent how, throughout, we took ownership of the zeitgeist, the spirit of the age.

In the 1960s we were a youth movement that demanded to be heard. We marched on the Pentagon and occupied college administration buildings. In the 1970s we mellowed, listened to the Band and the Eagles, and read Charles Reich's "The Greening of America." In the 1980s we rebounded as yuppies. We became investment bankers and lawyers, and the women among us wore suits with padded shoulders. Thereafter we ascended to political power—not always wisely, truth be told. But our music had lyrics and melodies, and our protest songs took on real injustices. We cemented a

civil-rights revolution for women and minorities and left a mark on all succeeding generations.

So, of course you don't like us. We were carefree and exuberant, while you are dour and anxious. We had Woodstock; you have safe spaces. You are Alfred de Musset's *enfants du siècle*, living in the shadow of an earlier, more exciting generation and conscious of having missed out on all the fun.

What you've forgotten, however, is that it's up to each generation to make its own mark. Defining yourself by your resentment of an earlier generation isn't how to do it. So perhaps we still have something to teach you, ungrateful wretches that you are.

What we find missing in your generation, more than anything, is laughter. We grew up on Mad magazine, which taught us to appreciate great literature ("By the shores of Gitchee-Gumee / Out near Feldman's Bagel Factory") and prepared us for Watergate and the Clintons. When we were a little older, we subscribed to National Lampoon, a magazine that knew nothing is funny unless someone is offended, and the more they're offended, the funnier it is. We laughed at "Blazing Saddles" and "Animal House," films you aren't permitted to see unless you download them when no one is looking.

The last time we saw anything funny on late-night television was Norm Macdonald's news updates on "Saturday Night Live" in the 1990s. Now we'll marvel at how anything resembling humor has been surgically removed from "SNL" and the talk shows. Sneering at people you despise isn't an amusing diversion.

The generation before us used to be called the silent generation. But they weren't silent. They invented rock 'n' roll, the music of our time, but a genre you've permitted to die. And they didn't try to cancel anyone

against the U.S., Ukraine, the Arabs or Israel, we will respond and deploy military assets to support our friends, including intelligence and air power.

Such strong, clear acts of principled U.S. diplomatic and military leadership can avoid generational defeats in Europe and the Middle East and restore America's international credibility and trustworthiness. This, in turn, would expand domestic security and prosperity, and that of our allies throughout the world.

A great Roman general said a long time ago, "If you want peace, prepare for war." That is wise counsel worth following with Russia and Iran in 2022.

*Mr. Lieberman was the Democratic vice-presidential nominee in 2000 and a U.S. senator from Connecticut, 1989-2013. He is chairman of United Against Nuclear Iran and of No Labels.*

the way you do. You are the silencing generation. The only thing we wanted to ban was banning itself. And if ever we seemed to have gone too far, if ever we had a momentary regret, we called for madder music and stronger wine.

That rubbed our elders the wrong way. We offended people. You are perpetually offended. We were John Belushi's Bluto; you are Dean Wormer. Perhaps that's why we could roll with Donald Trump's offenses against taste (up to Jan. 6 anyway). Your generation, not ours, elected Joe Biden. He looked like one of Holden Caulfield's phonies to us, and we decided we could tolerate Mr. Trump's mean tweets. So if you want to vaunt your moral superiority, we'll grant you Mr. Biden. Although possibly you're having some second thoughts about that.

Frankly, when I look at your generation and realize that you're our children, I wonder where we went wrong. Except that when I think of our excesses, I can't be surprised that you decided to rebel in your turn. We had thought we had seen the promised land before us, but it bounded away as we approached it. And you saw us fail.

And so we offer you our forgiveness, along with the wish that you'll pardon our offenses. We're bound together, across the generational divide that always separates parents and children, and over which we extend to you our love and hope for the future.

One last word of advice: You won't believe what your kids will say about you.

*Mr. Buckley teaches at Scalia Law School and is author of "Progressive Conservatism: How Republicans Will Become America's Natural Governing Party," forthcoming in July.*

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## WORLD NEWS

## China-Russia Ties Pose Challenge to U.S.

Joint exercises, arms development, sharing of technology aim to limit America's might

Russian President Vladimir Putin and Chinese leader Xi Jinping oversaw an ambitious joint military exercise in China this summer, which along with reported collaborations in aviation, undersea and hypersonic-weapons technology point to a solidifying defense alignment, military analysts said.

By Brett Forrest  
in Washington, Ann M.  
Simmons in Moscow  
and Chao Deng  
in Taipei

U.S. officials and military specialists say it is difficult to pin down the level of collaboration between two nations that tightly control information, and whose actions are increasingly opaque to outsiders. But Western officials and defense experts are growing more convinced of the closer relationship based on recent economic alliances, military exercises and joint defense development, as well as the few public statements from government leaders.

While U.S. officials have long been skeptical of a unified threat from the two countries, some are now changing their view. The Office of the Director of National Intelligence reported that Beijing and Moscow are now more aligned than at any point in the past 60 years.

"They are distinct threats. But they are now interrelated because of the collaboration," said Michael Kofman, a Russian military expert at CNA, a nonprofit research and analysis group in Arlington, Va.

Biden administration officials say they are watching closely but caution against reading too much into actions



A Russian Defense Ministry photograph shows joint China-Russia military exercises held in August in China's Ningxia province.

unlikely to flower into a full military alliance.

Yet U.S. steps to contain the two countries have driven them into a marriage of convenience, giving the previously contentious rivals an incentive to marshal resources and intelligence against a common adversary, according to analysts and U.S. officials. China and Russia are eager to restrain U.S. influence as well as its military and financial potency, which they believe more likely if they work in tandem, according to analysts.

Chinese Foreign Minister Wang Yi said in June that the relationship between China and Russia was poised to reach a "larger scale, broader field, and deeper level." Mr. Putin said relations with China were at historic levels.

While Washington grappled

with the collapse of Afghanistan, Chinese and Russian troops in August executed military drills in northwestern China.

Roughly 13,000 troops and hundreds of aircraft, drones, artillery pieces, anti-aircraft batteries and armored vehicles gathered in the Ningxia province. China's minister of national defense, Wei Fenghe said the military exercises showed a "high level of development of inter-army ties." In October, the two countries launched joint naval drills off Russia's Far East coast.

Relations between China and Russia intensified under U.S. pressure, starting in 2014. That year, the U.S. and its allies initiated sanctions against Russian entities and individuals over the Kremlin's annexation of the Ukrainian peninsula

of Crimea and fomenting rebellion in Ukraine's east.

In a conference call on Thursday, President Biden warned Mr. Putin the U.S. would impose onerous sanctions against Russia if the Kremlin's military buildup on the border of Ukraine moved to an invasion. Mr. Putin said such sanctions would lead to a dangerous rupture with the U.S.

For China's part, a combination of sharpening U.S. rhetoric, tension over Chinese defense agreements in the Middle East and Africa, and a U.S.-U.K. nuclear submarine deal with Australia have formalized a great-power competition with the U.S. Beijing's claims over Taiwan and parts of the South China Sea are further tension points with the potential for a military clash involving the U.S.

"There is quite a common ground between Moscow and Beijing in terms of what we dislike in Washington's politics," Kremlin press secretary Dmitry Peskov said in October. "We dislike the deficit of mutual respect in Washington's approach. We like a devoted noninterference principle. On this ground, we [Russia and China] are close to each other."

In October, after years of Russian ambiguity regarding Taiwan, Russian Foreign Minister Sergei Lavrov said the Kremlin considered the island nation a part of China.

Moscow and Beijing also see advantages of increased engagement in trade, technology and energy. Over the past six years, Messrs Putin and Xi have met more than 30 times.

For decades, leading into China's economic boom, Russia

served as the country's chief arms supplier.

In 2019, Mr. Putin said Russia and China were codeveloping China's antimissile early warning system. The following year, he said Moscow was assisting Beijing's military with technology too sensitive for him to talk about. Russian state media later reported China and Russia were developing a top-secret submarine.

China's development of advanced computer chips gave Russia an avenue to military technologies cut off by Western sanctions.

For the first nine months of 2021, bilateral trade between China and Russia exceeded \$100 billion, nearly equaling trade for all of 2020, according to official Russian data. It reached \$123 billion in November, Mr. Putin said.

In August, the two countries completed the construction of the first rail bridge between them, spanning Siberia's Amur River. The \$55 billion Power of Siberia pipeline, a 1,865-mile channel that began operation in 2019, is forecast to deliver as much as 1.3 trillion cubic feet of Russian natural gas to China by 2025.

"Improving the relationship with Moscow is fundamental leverage that China can take," said Zhu Feng, the director of the Institute of International Studies at Nanjing University. "It's in the tool kit to respond to America's containment of China."

Areas of disharmony between China and Russia tantalize U.S. officials with the possibility of driving a wedge between them, some analysts said.

Beijing maintains working relations with Ukraine, running counter to Russian interests. Russia in October terminated relations with NATO, but China, eager to continue advancing its Belt and Road initiatives across Europe, continues to work with the group.

## Berlusconi Jumps Back Into Politics

By ERIC SYLVERS

Silvio Berlusconi, the three-time former Italian prime minister, has been convicted of tax fraud, is facing charges in several court cases and has stood trial more than 70 times, including for bribing politicians.

Now the 85-year-old wants to be Italy's next president.

Mr. Berlusconi's political power has faded in recent years as a wave of younger antiestablishment and populist leaders swept through Italy. His Forza Italia party is polling well below 10%. He continues to be dogged by judicial problems and has struggled with health issues, including a serious bout of Covid-19.

But Mr. Berlusconi has made the political comeback an art form and now he is trying to pull off one that at first blush looks impossible for one of the most polarizing figures in modern Italian politics. He has defied the political odds over the years, and Italy's system for voting for president—a secret ballot among more than 1,000 parliamentarians and regional

politicians—has led to big surprises in the past.

In 1992, Oscar Luigi Scalfaro, who got six votes in the first round and never more than 30 votes in the first 15 rounds, emerged as a compromise candidate and received almost 700 votes in the 16th round.

"I'm skeptical Berlusconi can pull this off, but it is very difficult to guess with him because he defies all predictions," said Daniele Albertazzi, a politics professor at the University of Surrey in the U.K. who specializes in right-wing populism in Europe and Italian politics.

To mount a successful run for a seven-year term as president, Mr. Berlusconi must ensure nobody is elected in the first three rounds of voting when candidates are selected by two-thirds of eligible electors.

For Mr. Berlusconi, an early round victory is highly unlikely because it would require the support of a large slice of center-left politicians who have vowed to oppose him.

Mario Draghi, Italy's prime minister, is the only person

politicians believe might be elected in the first three rounds. In less than a year in office, the former president of the European Central Bank has set long-overdue overhauls in motion, some of which are necessary for Italy to receive the almost 200 billion euros, equivalent to around \$227 billion, in European Union funds earmarked to help the country bounce back from the pandemic.

Though Mr. Draghi commands a large parliamentary majority, it isn't clear he would enjoy the same support in the vote for the presidency.

In December, Mr. Draghi said the government could continue without him as prime minister and that he is "a grandfather at the service of the institutions," which was widely interpreted as a declaration of interest in becoming president.

Traditionally, presidential hopefuls don't openly declare that they seek the office. Mr. Draghi declined to comment.

From the fourth round, a simple majority suffices to elect a new president, opening a pos-

sible path for Mr. Berlusconi, while also easing the road for Mr. Draghi if he hasn't already won the vote. If Mr. Berlusconi persuades all the electors aligned with Forza Italia and the other center-right parties to choose him, he would still need to rustle up about 50 votes and avoid center-right defections.

Mr. Berlusconi, through a representative, declined to comment.

When Mr. Berlusconi entered politics in 1994, he was already well known to Italians as the owner of soccer team AC Milan. He has since sold the team, but the perpetually tanned magnate's diverse business holdings still include Italy's three main commercial-television networks. That has opened him up to accusations that he had a conflict of interest that made him unfit for office, something he has always brushed off.

"Having all those media assets in the family while he was prime minister was already difficult on many levels, but for the president to have those interests would be beyond the



Silvio Berlusconi, Italy's three-time former prime minister, is facing charges in several court cases as he seeks the presidency.

limit of acceptability," said Paolo Natale, a professor of politics at the University of Milan.

While Mr. Berlusconi's allies have said he is their candidate if he wants the presidency, the secret vote makes it easy for electors to defy party orders.

The leaders of the two largest center-right parties—Brothers of Italy's Giorgia Meloni and the League's Matteo Salvini—have said they would support Mr. Berlusconi. However, there are tensions among the three

parties that could lead some members of Brothers of Italy or the League to not vote for the former premier.

A spokesman for the League affirmed Mr. Salvini's support for Mr. Berlusconi if the former premier decides to run for the presidency. A spokeswoman for Ms. Meloni declined to comment.

The president has a largely ceremonial role in the Italian political system, but can sometimes wield real power.

## WORLD WATCH

SUDAN

## Premier Quits Amid Protests, Deadlock

Sudan's Prime Minister Abdalla Hamdok announced his resignation Sunday amid political deadlock and pro-democracy protests following a military coup that derailed the fragile transition to democratic rule.

Mr. Hamdok called for dialogue to agree on a "national charter" and to "draw a roadmap" to complete the transition. The October coup upended plans to move to democracy after a popular uprising forced the military's overthrow of longtime autocrat Omar al-Bashir and his Islamist government in April 2019.

On Sunday, prior to Mr. Hamdok's resignation, security forces violently dispersed pro-democracy protesters, in the latest demonstrations to denounce the takeover and a subsequent deal that reinstated the prime minister but sidelined the pro-democracy movement. A medical group said at least two people were killed and dozens were injured.

—Associated Press



Protesters in Sudan's capital, Khartoum, held the latest demonstration Sunday against military rule.

HONG KONG

## Third News Outlet to Close Under Pressure

A Hong Kong online news site said Sunday that it would cease operations in light of dete-

riorating press freedoms, days after police raided and arrested seven people for sedition at another pro-democracy outlet.

Citizen News said it would stop updating its site Jan. 4, and it would be shuttered after that, the third outlet to close in re-

cent months, following pro-democracy newspaper Apple Daily and online site Stand News.

Authorities have moved to silence dissent after Beijing implemented a sweeping national security law.

—Associated Press

MALI

## Military Junta Seeks To Extend Its Rule

Mali's military junta wants to extend its rule for five more years, putting off the next presidential election until 2026 despite a deadline of next month set by West African regional mediators.

Under the junta's plan, a constitutional referendum would be held in 2023 and a legislative election would take place in 2025. The presidential election would be put off until 2026, according to the proposal.

The regional bloc known as ECOWAS has threatened to impose more sanctions if the junta fails to conduct the election by the end of February. The bloc called for a meeting in a week.

The military leaders who overthrew Mali's democratically elected president had negotiated an 18-month political transition period that is due to expire at the end of February. The junta's time frame significantly extends their time in power.

—Associated Press

INDIA

## Crowd Surge Kills 12 At Hindu Shrine

A crowd surge at a popular Hindu shrine in Indian-controlled Kashmir killed at least 12 people and injured 15 others on New Year's Day, officials said.

Initial reports suggested an altercation between a group of devotees led to the crush Saturday at the Mata Vaishnav Devi shrine, where tens of thousands gathered to pay respects in the town of Katra near Jammu city.

The pilgrimage resumed after nearly four hours, officials said. An investigation was under way. Deadly crowd surges are fairly common during Indian religious festivals where huge gatherings, sometimes in the millions, cover small areas with few safety or control measures.

In 2013, pilgrims visiting a temple for a Hindu festival in Madhya Pradesh state trampled over each other amid fears that a bridge would collapse, and at least 115 people were crushed to death or died in the river below.

—Associated Press

# BUSINESS & FINANCE

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THE WALL STREET JOURNAL.

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Last Week: S&P 4766.18 ▲0.85% S&P FIN ▲0.55% S&P IT ▲0.47% DJTRANS ▲1.80% WSJ IDX ▼0.40% LIBOR 3M 0.209 NIKKEI 28791.71 ▲0.03% See more at WSJ.com/Markets

## Funds Rush to Bet on Risky Startups

Venture capitalists pour money into low-cost coffee shops, woolly mammoths

By Eliot Brown

Blank Street has a simple business: It sells coffee—sometimes in carts, usually in small stores. It launched its first location 17 months ago, before it began dotting Manhattan and Brooklyn with baristas.

Even a couple of years ago, a rapidly growing chain of no-frills, low-cost coffee shops might have had trouble finding interest from technology investors. In today's booming market for early-stage startups, the New York-based company has received commitments for its third funding round in a year. The \$35 million investment comes three months after the still-fledgling company received \$25 million, said Vinay Menda, Blank Street's chief executive.

"We live in a world where capital is available," said Mr. Menda, a 29-year-old former venture capitalist who co-founded the coffee company in 2020 with Issam Freiha. Fundraising "was a lot easier than it would have been" in the past, he said.

In the past year, there has been a notable rush of funding into the high-risk category of early-stage startups, as investors have clamored to get into companies even before they had a staff or product. While the startup sector has been deluged with increasing amounts of cash for much of



Blank Street found fundraising easier this past year even though venture-capital investors have been known to shun a sector when its best-known company suffers a fall from grace, as China's Luckin Coffee did.

the past decade, most of it has traditionally gone to later-stage private companies that have tested business models.

Investors in 2021 pumped \$93 billion into seed-stage and early-stage startups in the U.S. through Dec. 15, a record. That amount compares with \$52 billion for all of 2020 and \$30 billion in 2016, according to PitchBook Data Inc.

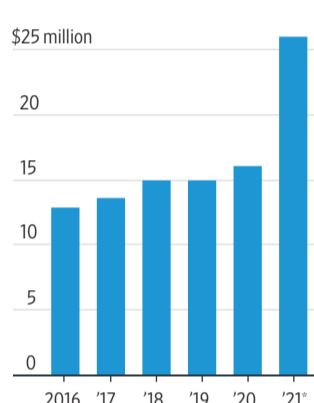
With more money coming in—and the number of new venture-funded startups relatively flat—valuations have surged. The median valuation for the seed- and early-stage companies funded in 2021 was \$26 million, up from \$16 mil-

lion in 2020 and \$13 million in 2016, according to PitchBook.

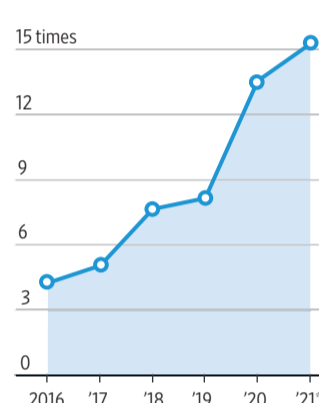
Investors betting on the sector say they see more room for startups to grow. They are emboldened because many venture firms have been posting their best returns since the dot-com boom, thanks to a flourishing software sector and multibillion-dollar profits on companies like Snowflake Inc. and DoorDash Inc. The combined valuations of private startups globally has swelled into the trillions of dollars—becoming an enormous investment category.

The current rush of capital  
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Median valuations of U.S. seed- and early-stage startups



Median price/sales ratio at IPO of tech companies



\*2021 data through Dec. 15. Sources: PitchBook (median valuations); Jay Ritter, University of Florida (median price)

## Tesla Car Deliveries Surge By 87%

By Rebecca Elliott

Tesla Inc.'s annual vehicle deliveries surged 87% in 2021, growing at their fastest pace in years, as the company leveraged its Silicon Valley roots to overcome computer-chip shortages that have plagued the global auto industry.

Elon Musk's electric-vehicle maker said Sunday that it delivered more than 936,000 vehicles globally in 2021, up from nearly half a million the previous year.

The company aims to increase annual deliveries by an average of 50%.

Analysts surveyed by FactSet expected Tesla to put roughly 897,000 vehicles in customer hands last year.

Tesla also said it produced roughly 930,000 vehicles in 2021. More than half of those likely were made in Shanghai, Credit Suisse estimated recently, before Tesla released full-year production figures.

The company's expansion came in a year of tepid growth for the global auto industry, which has been hit by supply-chain disruptions and is estimated to have sold 3% more passenger vehicles last year than in 2020 and 12% fewer than in 2019, according to IHS Markit.

Tesla leaned on in-house software-engineering expertise to keep production lines running last year, quickly rewriting the software necessary to integrate alternative chips into its vehicles, Mr. Musk has said. It also benefited from the supply-chain visibility and supplier relationships that came with being more vertically integrated than many auto makers.

Tesla hasn't been immune to supply-chain problems, however. The company has run factories below capacity and, in February, briefly shut down its Fremont, Calif., plant because of parts shortages. It also delayed production of its all-electric pickup, dubbed the Cybertruck, and semitrailer truck. Mr. Musk has said those vehicles are due to enter production at year-end and in 2023, respectively. He also said he planned to provide an

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## Chip Makers Contend for Scarce Workers

By Stephanie Yang

The world's largest chip makers are fighting for workers to staff the billion-dollar-plus facilities that they are building around the world to address a shortage of semiconductors.

A dwindling supply of qualified workers has worried semiconductor executives for years. Now that concern has been amplified by a global labor shortage, the pandemic-fueled demand for all things digital and a race among governments to bolster their local chip-manufacturing capabilities, accord-

ing to industry officials.

Many industries are experiencing labor shortages. While chip makers have an advantage because their processes are among the most-automated, the high-tech equipment used at their facilities still requires skilled staff to operate it. The scale of expansion taking place is creating exceptional demand for personnel, often in niche fields.

"We are definitely in a war for talent," said Jim Koomen, executive vice president at ASML Holding NV, a maker of semiconductor production tools.

New chip-making facilities, known as fabrication plants, or "fabs," require thousands of college-educated engineers to operate. Technicians oversee and manage the manufacturing process, while researchers help innovate new types of chips and ways of making them.

"This entire semiconductor industry, the skills that need to be grown go anywhere from in the construction industry to support the building of our factories, right up to the most advanced researcher," Intel Corp. Executive Vice President Ann Kelleher, who previously oversaw the company's manu-

facturing operations, said at a recent congressional hearing.

Intel has pledged to make more than \$100 billion in chip-factory investments over the coming years in the U.S. and Europe. Taiwan Semiconductor Manufacturing Co., Samsung Electronics Co. and others also have big expansion plans.

In the U.S. alone, around 70,000 to 90,000 workers or more will have to be added by 2025 from 2020 levels to meet the most critical workforce needs for anticipated fab expansion, according to a report by Eightfold.ai, a talent-man-

agement company. More-ambitious expansion to make the U.S. independent of foreign supply, which some members of Congress are urging, would raise the figure to 300,000 additional workers, according to the study.

In Taiwan, a global powerhouse in chip making, the recruitment gap is at its highest level in more than six years, according to 104 Job Bank. An August report from the recruiting platform estimated that the average monthly shortfall in semiconductor workers was about 27,700 em-

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## Costly Chicken Puts Thighs on Menus

By Patrick Thomas and Heather Haddon

Short supplies and escalating costs of chicken breasts and wings are leading restaurants to add thighs and other dark poultry meat to menus and entrees.

Long overshadowed by more-coveted and profitable products like breasts and tenders, less-loved portions like thighs and legs have for years been directed toward export markets and lower-profile venues. Amid a national supply crunch that has doubled breast-meat prices in 2021,

sent wing markets to record levels and left some suppliers short on both, thighs have fresh appeal for meat companies and restaurant operators.

Poultry producer Perdue Farms Inc. has seen a 15% increase in boneless thigh sales in 2021 and a 20% increase in ground chicken, which is made of mostly dark meat, the company said.

"That demand has been spectacular," said Mark McKay, president of fresh poultry and meats at the Salisbury, Md., company.

Products like thighs have  
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## Beijing Accuses Walmart of 'Stupidity'

By Liza Lin and Stu Woo

A New Year's Eve salvo from Beijing accusing Walmart Inc. of "stupidity and shortsightedness" has driven home a stark challenge for Western businesses in one of their most promising markets: As governments ratchet up accusations of human-rights violations in China, officials there are pressuring foreign companies to take China's side.

Western businesses have suffered through various waves of geopolitical headwinds as they have sought to do business in the world's most populous country. But the experiences of Walmart and semiconductor maker Intel Corp. in recent weeks—and a consumer backlash against big brands such as H&M Hennes and Mauritz AB and Adidas AG last year—demonstrate a new willingness by Beijing to confront criticism by Western governments with counterattacks on Western companies.

The push represents a similar geopolitical challenge to the one companies faced after the 1989 Tiananmen Square massacre, said Jörg Wuttke, the Beijing-based head of the European Chamber of Commerce in China. This time, though, the stakes are higher: "The importance of China has risen many, many times," he said.

At the same time, Western



The recent flashpoint with China centers on Xinjiang. A Walmart Sam's Club store in Beijing

brands are under pressure as never before from their governments, from investors and from consumers at home over a host of political, social and environmental issues. That makes any perception of complicity with Beijing over alleged human-rights abuses a bigger reputational risk.

By going after Intel and Walmart, Beijing is targeting two icons of American business, widening its net beyond the mostly European fashion brands it went after last year. Beijing's assertiveness comes as other big American companies, including Coca-Cola Co. and Airbnb Inc., navigate their

sponsorship of the Beijing Olympics next month. Western brands have been treading carefully over how, or whether, to use the Games for marketing purposes amid rising U.S. criticism of China over human rights.

The recent flashpoint with Beijing centers on Xinjiang, where the U.S. and others have accused China of committing genocide against the region's Uyghur ethnic minority. Washington has invoked a diplomatic boycott of the Olympics—refusing to send official representation but allowing American athletes to compete—over the allegations.

Beijing denies accusations of genocide and other human-rights abuses in the region.

H&M and Adidas both belong to a fashion-industry group that raised concern about the allegations in Xinjiang, a cotton-rich region, in 2020. Both became targets of government criticism and consumer boycotts in China last year. H&M was essentially erased from China's internet, with its products and store locations wiped from most Chinese shopping and map apps.

Both have lost millions of dollars in sales in what was once one of their fastest-grow-  
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### INSIDE



DAVID McKENNEY/GETTY IMAGES



### HEARD ON THE STREET

Rooftop solar companies face long shadows. **B10**

### TECHNOLOGY

This year's electronics show highlights tech trends to look for in an unusual year. **B4**

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## BUSINESS & FINANCE

# IKEA Raises Prices as Costs Climb

By JOSHUA KIRBY

IKEA said it would increase the prices of its products around the world as the furniture retailer grapples with rising transport and raw-materials costs.

Ingka Holding BV, the biggest owner and operator of IKEA stores, said it planned to raise prices across the group by around 9% on average, with variations depending on country and range, amid a global squeeze on supply chains and higher associated costs.

"IKEA continues to face significant transport and raw-material constraints driving up costs, with no anticipated break in the foreseeable future," Ingka said Thursday, adding that it expected disruptions to continue well into 2022.

The company said the largest cost increases relate to transportation and purchasing prices, and are particularly affecting North America and Europe.

"For the first time since higher costs have begun to affect the global economy, we have to pass parts of those increased costs onto our customers," said Tolga Öncü, retail operations manager at Ingka's core IKEA Retail division. He said the company needed to take the pricing ac-



Higher transport and raw-materials costs are affecting IKEA. Above, a store in Manila, the Philippines.

tion now to safeguard its competitiveness and resilience.

Mr. Öncü said the company planned to give back to customers any decrease in purchase prices it gets, and that IKEA was working to expand its lowest-price ranges as a proportion of its total.

To mitigate the impact of supply-chain disruptions and improve the availability of products, the company said different parts of the family-

controlled retail empire had started chartering extra vessels and loaders, while working with partners to secure raw materials and logistics capabilities.

Last year, IKEA said a significant share of its products were missing from store shelves around the world because of transportation strains in many of its biggest markets.

For example, at one point in the U.K. the company esti-

mated that 10% of items—about 1,000 products among 10,000—weren't available in the country.

Still, IKEA has said shortages haven't significantly impacted sales because it has a big enough range to offer shoppers alternatives.

In October, IKEA said revenue rose 6.3% to 37.4 billion euros, equivalent to around \$42.4 billion, in the financial year ended Aug. 31.

## Menus Add Chicken Thighs

Continued from page B1

two advantages for restaurants struggling with the high cost and tight supplies of breasts and tenders: They are cheaper and easier to get, industry officials said. Boneless skinless chicken breast, the poultry industry's flagship product, was priced at under \$1 a pound in late December 2020. Now, it is more than \$2 a pound, according to market research firm Urner Barry. Thighs, meanwhile, cost about 54 cents a pound, compared with 26 cents a year earlier, according to the firm.

Mentions of thighs are growing on U.S. menus, though they remain rare. Around 2% of U.S. menus feature chicken thighs, according to industry research firm Technomic Inc. In comparison, 42% of menus list traditional chicken wings.

At Wing It On, a 10-unit chain specializing in chicken, executives developed a plan to diversify its poultry supply as prices soared. Matt Ensero, chief executive of the Raleigh, N.C., business, said he realized that while wings were coveted among restaurants, suppliers



Chicken thighs are prepared at Wingstop, which is selling the cheaper option.

still had the rest of the bird to sell, making his business account less attractive than other restaurant operators who bought more parts of the chicken.

"You think of the anatomy of the bird, and the wing itself is only 10%. That leaves 90% of the bird that producers have to find a home to," said Mr. Ensero, who estimated his chicken prices have climbed more than 200% from the spring of 2020.

In late 2020, Mr. Ensero said, he approached his suppli-

ers with a "whole bird strategy." He would figure out ways to serve more parts of the chicken if they would give him better terms. They agreed, and Mr. Ensero began selling "high wings" in addition to the chain's traditional offerings last spring.

Customer demand was a trickle in the beginning, and Mr. Ensero said he often gave the item away in orders to get his customers to try them. Wing It On priced the new products at a discount to traditional wings, even though they

had more than twice the meat.

Roughly seven months later, national chain Wingstop Inc. launched a "Thighstop" brand centered on chicken thigh products. The chain enlisted rapper and Wingstop restaurant owner Rick Ross to promote the dark-meat alternative, tweeting a photo of Mr. Ross reading a newspaper with a headline "Wing Shortage."

"We also believe we can make thighs a center of the plate item," CEO Charlie Morrison told investors in November.

Mr. Ensero said Wing It On's thigh wing business shot up 40% after Wingstop's foray into thighs. Wing It On also sells white meat tenders and "Nuggz," which are boneless chicken pieces, and Mr. Ensero said the chain buys about every part of the chicken but the legs.

Fast-casual chains such as Modern Market Eatery and Just Salad started adding thighs to their menus in late 2020, pitching the products as something different and more flavorful.

"Chicken thighs are all about flavor," said Nick Kenner, Just Salad's chief executive. He said more customers are choosing the product rather than the New York-based chain's chicken-breast offerings.

Chicken suppliers are gearing up to sell more thighs and other dark-meat products to U.S. restaurants and grocery stores, executives said. Tyson Foods Inc. CEO Donnie King said in August that demand for the Arkansas-based meat company's boneless dark-meat chicken products is growing. The company recently said it plans to ramp up its automation capabilities for deboning dark-meat products.

The increased use of thigh and boneless dark-meat chunks gives food-service operations an alternative to wings and breast meat, a Tyson spokesman said.

## Tesla Increases Deliveries

Continued from page B1

updated product road map on the company's next earnings call, expected in a few weeks.

Tesla delivered roughly 308,600 vehicles in the final three months of 2021, up from 180,667 a year earlier and 241,391 in the third quarter of 2021.

Model 3 sedans and Model Y compact sport-utility vehicles made up most of Tesla's annual deliveries, more than doubling from a year earlier. The company reported delivering a combined 911,208 Model 3s and Model Ys last year. Deliveries of the company's higher-end models, the Model S luxury sedan and Model X sport-utility vehicle, totaled roughly 24,964, Tesla said, down from roughly 57,000 in 2020.

Tesla last year introduced a revamped version of its luxury sedan called the Model S Plaid to reignite demand.

Analysts expect those results to help Tesla achieve record full-year profit of around \$5 billion on nearly \$52 billion of revenue, according to FactSet.

## Beijing Attacks Walmart

Continued from page B1

ing markets. H&M has kept up an online statement about its concerns over forced-labor allegations in Xinjiang but has declined to comment further on the issue. Adidas has said it faces geopolitical challenges in China but declined to elaborate.

"Many investors have been engaging with their portfolio companies on this Xinjiang issue for some time now," said Anita Dorett, director of the Investor Alliance for Human Rights, whose members include more than 200 institutional investors that manage a combined \$7 trillion in assets. She said investors are concerned about operational, financial, legal and reputational risks that companies might face, if they don't manage human-rights challenges.

Xinjiang hasn't been the only controversy for Western businesses to navigate. Over the past few years, foreign companies have increasingly found themselves targeted over geopolitical issues raised by Beijing, including how companies characterize Taiwan and Hong Kong. Businesspeople in China say multinationals are finding it harder to do business there now, too, be-

cause of stronger domestic competition. More recently, Chinese authorities have tightened their control over several levers of the economy, including its hold on data collection.

The U.S. has passed a sweeping law prohibiting most imports from Xinjiang. Days later, Chinese officials publicly chastised Intel for asking suppliers not to source goods from the region. Intel said it had written to suppliers to comply with U.S. law and that the action didn't represent Intel's stance on Xinjiang.

An Intel spokeswoman declined to elaborate.

### In Intel and Walmart, Beijing is targeting two icons of U.S. business.

Intel also is an Olympics sponsor. In a hearing of the Congressional-Executive Commission on China in July, Congress members asked corporate Olympic sponsors whether they would ask the International Olympic Committee to postpone the coming Beijing Winter Games to give China time to address human-rights concerns. Of the five sponsors at the hearing, only Intel answered yes. "We have stressed with the IOC the importance of human rights to Intel and have encouraged them to take these matters most seriously," said Intel ex-

ecutive Steve Rodgers.

On Friday, the country's anticorruption agency criticized Walmart and warned of a consumer backlash against it, days after social-media users alleged its China-based Walmart and Sam's Club stores had stopped stocking produce from Xinjiang. Walmart declined to comment on the issue.

Many foreign firms are still thriving in China, and some recent business surveys show that confidence in China's growth potential among foreign executives is high. Apple Inc., for instance, has become China's top phone vendor by market share.

China also is a critical market for Tesla Inc., providing one-quarter of the Austin, Texas, auto maker's revenue in the first nine months of 2021. Chinese regulators and home-grown competitors have sparred with Tesla over the years, but Beijing has generally helped foster its growth in the country.

There have been other big bumps for foreign firms since China opened up to them decades ago. After Chinese troops violently ended a pro-democracy protest in Beijing's Tiananmen Square in 1989, amid a recession, new foreign direct investment in China plunged. Businesses sought alternate supply sources in Asia.

In 1993, Levi Strauss & Co. ended its sourcing relationships with factories in China over what it called the country's pervasive violation of human rights. A Chinese govern-

ment spokesman said at the time that the move had nothing to do with human rights and that the country still had tens of thousands of American businesses there. The company returned to China five years later, saying it believed that it could find responsible business partners there.

In 2010, China's human-rights record again made headlines, this time when Google withdrew from China over concerns of censorship and cyberspying. Beijing called Google's move "totally wrong," and a Chinese spokesman said the Google case had harmed the Silicon Valley firm's own reputation more than it had hit China.

Human-rights groups have said that starting around 2017, Chinese authorities in Xinjiang began detaining as many as one million Uyghurs and other mostly Muslim ethnic minorities in camps and subjecting some to forced labor.

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BUSINESS NEWS

# Apple Is China's Top Phone Seller

By YANG JIE

Apple Inc. secured the top spot for phone sales in China for a second straight month in November, according to market-research data, driven by the success of the iPhone 13 series.

The Cupertino, Calif.-based company had a 23.6% market share in November, according to market research firm Counterpoint Research, after outperforming all other phone makers a month earlier for the first time since 2015.

Its nearest rival, Vivo, had a 17.8% market share in November, according to the data.

Apple's move to keep prices of this year's iPhone 13 series in line with iPhone 12 models has been a hit with Chinese consumers, who account for about a fifth of total iPhone sales.

Promotions during China's Black Friday-like shopping season in November, known as "Singles Day," helped major Chinese e-commerce platforms report record sales.

Apple's sales grew 15.5% in November from a month earlier, according to the Counterpoint data.

Apple is also benefiting from the troubles of its former biggest local rival in China for the high-end smartphone market, Huawei Technologies Co. Shipments and sales of Huawei's premium models have plummeted since the company was hit by U.S. sanctions last year.

However, Apple's top spot in China may be short-lived.

Counterpoint analyst Ethan Qi estimated December or January would be a turning point after Chinese iPhone owners finish upgrading their older devices. Mr. Qi said Apple may drop back behind domestic brands like Oppo, Vivo and Honor—a budget brand previously owned by Huawei—early in the new year.

# Companies Thrived Despite Covid

Results in 2021 improve on prepandemic numbers, with biggest businesses faring best

Nearly two years after the coronavirus pandemic brought much of the U.S. economy to a halt, public companies are recording some of their best-ever financial results.

By Theo Francis, Thomas Gryta and Nina Trentmann

Profit growth is strong. Most companies' sales are higher than where they were before Covid-19—often well above. The liquidity crunch many feared in 2020 never materialized, leaving companies with sizable cash cushions. The stock market ended 2021 near record highs and far fewer public companies filed for bankruptcy in 2021 than in the years before the pandemic.

Going into 2022, a surge in Covid-19 cases as a result of the Omicron variant is starting to weigh on U.S. businesses, keeping more workers home sick and leading some companies to cut services.

Government programs last year provided funding for businesses, helping them keep workers, while enhanced unemployment benefits and direct aid to consumers also kept income up, said Kathy Bostjancic, chief U.S. financial economist at Oxford Economics. "The support to households was greater than in the past, so that really helped fuel consumer spending," she said. "That's what fueled revenue growth and profits."

The rebound was real for smaller companies, but it is the biggest companies that fared the best, a Wall Street Journal analysis of corporate financial data shows. For large-capitalization companies in the S&P 500 index, profits and revenue were hurt less by the pandemic's initial economic slowdown. The biggest companies also rebounded more quickly than smaller ones, even as uncer-



In-person sales rebounded even as retailers expanded online ordering. A Miami mall before Christmas.

midcap index, made fewer stops with its armored trucks, recording a 25% drop in revenue as the pandemic led businesses to scale back in April 2020, said CFO Ron Domanico.

In 2021, sales were recovering in those lines of business, growing about 3% a quarter, until the Delta variant slowed growth to about 1% a quarter this fall, Mr. Domanico said. Revenue has returned to about 96% of its pre-pandemic levels and the company doesn't expect a full recovery until later in 2022.

Brink's has more than made up for the slowdown in its pre-pandemic business with a series of acquisitions since early 2020. But the company's costs are also rising with inflation and labor shortages.

Overall, 12-month profit margins are up for public companies since late 2019, even amid rising costs. Here too, bigger companies are doing better.

Large-cap profit margins have long outstripped those of smaller companies. The decline in margins in 2020 was sharper for smaller firms as a group than it was for larger ones. The bigger companies also posted stronger margin growth over the past two years than small-caps.

Stung by the cash crunch that accompanied the financial crisis in 2008 and 2009, many companies rushed to borrow when the pandemic hit in 2020.

Large companies were able to borrow large amounts, issuing a median \$123.6 million in debt in the 12 months ending in late 2020. The year before, they only issued \$6.4 million. In 2021, they started paying it down, cutting debt by \$24 million on average, according to data from FactSet.

Midcap companies borrowed in 2020 too, but to a much lesser degree, and they also used the past 12 months to reduce their debt overall. Midcaps increased their borrowing by a median of \$1.4 million in 2020, according to debt-issuance data from FactSet, but their median debt load declined by a median \$6.2 million in the past year.

tainty deepened over Covid-19 infection rates and the spread of variants, rising inflation and supply-chain woes. "The larger firms are able to navigate the supply-chain issues a lot easier," Ms. Bostjancic said. "They have scale and additional resources."

Companies in the S&P 500 range from clothing retailer Gap Inc., with a market value around \$6.6 billion, to Apple Inc., which surged to a nearly \$3 trillion market value. The median S&P 400 midcap company has a market value of about \$5.7 billion, while the median S&P 600 small-cap sports a \$1.6 billion valuation, data from S&P Global Market Intelligence shows.

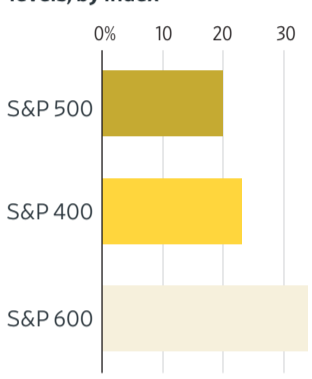
Total sales at all three groups in the most recently reported quarter are up from the comparable period in 2019—and profit growth has been even stronger, data from Refinitiv show.

Within those groups, of course, results vary widely. Looking at the past 12 months of reported financials, sales at a third of small-cap companies still trail 2019 levels, according to data from S&P Global Market Intelligence. Midsize and large companies were more likely to have surpassed that benchmark. Sales at beauty-supply re-

tailer Ulta Beauty Inc. have risen 12% in the 12 months ending this fall over 2019 levels. In 2020, the company had to shut many of its stores for weeks at a time and refocus more intensively on its online operations, Chief Financial Officer Scott Settersten said.

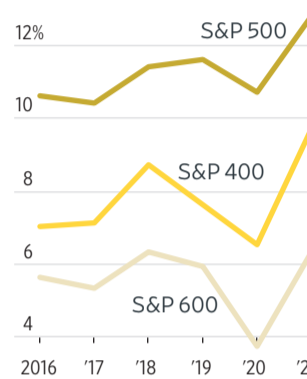
Ulta emphasized self-care products over makeup and expanded augmented-reality features and a program to let customers pick up online orders outside its stores, he said. In-person sales bounced back quickly after its stores reopened

Share of companies where 12-month sales haven't reached late 2019 levels, by index



Source: S&P Global Market Intelligence

Median profit margin by index



in the summer, making up 70% of full-year 2020 sales, and have remained strong. Profit margins have also bounced back, to 10.7% in the 12 months that ended this fall, from 3.6% in the same period in 2020 and 9.7% in 2019, S&P data show.

"The results in 2021 have been extraordinary by any measure," Mr. Settersten said. "People are coming back to the stores but they're also continuing to shop digitally." Even some companies that have caught up are still feeling the pinch. Brink's Co., in S&P's

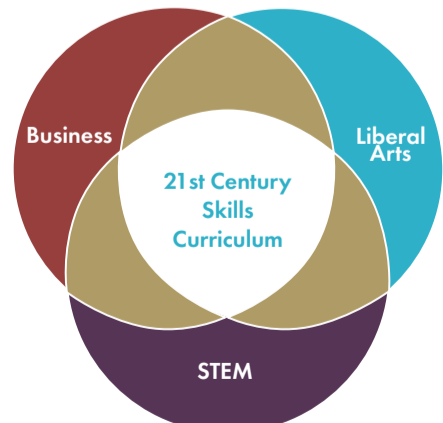
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TECHNOLOGY

# Peloton Went From Winner to Punchline

Miscalculations and reversals compounded challenges caused by Covid-19 pandemic

By SHARON TERLEP

A dust-up over the reboot of HBO's "Sex and the City" capped a tumultuous year for Peloton Interactive Inc., which saw its market value tumble as the company's leaders struggled to gauge demand for its web-connected bikes.

Heading into 2021, Peloton was racing to keep up with orders. Revenue and the share price were soaring, and executives were telling analysts they hadn't considered the possibility that the company could be stuck with a glut of bikes if pandemic-fueled demand subsided.

Less than a year later, Peloton slashed the price of its bikes. It warned investors that annual sales might come in 20% below its projections, citing Americans' return to normalcy as Covid-19 cases waned. The company implemented a hiring freeze amid widening losses.

Peloton's rise into a juggernaut with a \$50 billion market value and decline to a company worth less than \$15 billion were marked by miscalculations and reversals by Chief Executive John Foley and his top lieutenants. The moves compounded challenges caused by the pandemic, from skyrocketing consumer demand to a global sup-

ply-chain quagmire.

"Management's view was that there was a paradigm shift," in which most people would continue to favor home workouts once the pandemic subsided, Raymond James's Aaron Kessler said. He said the company's consumer surveys showed the opposite and, in February, it downgraded Peloton stock on the belief that the company's growth projections were overly rosy. "It was a false narrative," he said. "People did want to return to the gym."

Peloton's leaders acknowledged they both over- and underestimated demand at times. In early 2021, the company came under criticism from consumer advocates and U.S. safety regulators after it refused to recall its Tread+ treadmill before subsequently recalling the machine. The company said it is rolling out deals to fend off rivals, which were almost nonexistent two years ago.

Peloton has said in statements that it believes the company has the right amount of capacity and it is taking "significant corrective action" to improve profitability in future quarters. "Our long term thesis of fitness moving to the home is unchanged," the company said. Mr. Foley declined requests for an interview or comment.

"The growth rate people are expecting from this business is simply unattainable," said UBS analyst Arpine Kocharyan. The firm in May put a sell rating on Peloton stock, arguing that Pel-



A Peloton bike being demonstrated at a New York mall last month.

for a fantastic product and I continue to buy their stock."

In the near term, Peloton could benefit from a rise in Covid-19 cases because of the Omicron variant that is prompting cities and states to implement mask advisories and vaccine mandates for indoor activities including gyms.

Peloton's stock has lost more than three-quarters of its value from a December 2020 high. It trades around \$37, much closer to its \$29 initial public offering price than its \$171 high.

Co-founded by Mr. Foley, a former Barnes & Noble Inc. executive, the company began selling bikes in 2014 and opened its first studio in Manhattan in which instructors led classes that were beamed into members' homes. It went public in September 2019.

Then the pandemic hit and demand exploded. Peloton juggled keeping bikes and treadmills in stock while managing its live studios and more than 100 retail locations in North America and Europe. Executives assured Wall Street that the team was keeping up.

During a May 2020 quarterly earnings call, an analyst predicted Peloton would run short on inventory over the summer, based on company data.

Finance Chief Jill Woodworth responded that inventory wasn't a good predictor of supply. "We feel very confident we can deliver from a supply-chain perspective," she said.

Soon customers were com-

plaining about long wait times and missed deliveries.

By the summer of 2021, Covid-19 vaccines were available and Americans began returning to gyms, offices and travel.

In August, Peloton lowered the price of its original stationary bike by 20%. Mr. Foley said the price cut didn't reflect weaker sales. Rather, he said, the move was aimed at staving off competition and "democratizing access to this great fitness."

The company's cash reserves were down 66% at the end of September compared with its position at the end of March. Ms. Woodworth, the CFO, said Peloton didn't need more cash.

Twelve days later, Peloton announced a \$1 billion stock offering. "We did not need to raise capital, rather, we chose to," a spokeswoman said last week. The money would go to potential future expansion or acquisitions, she said.

In December, a marketing plug backfired when a Peloton bike was blamed for the death of a character in HBO's "Sex and the City" reboot. Peloton said it didn't know the plot when it agreed to have one of its instructors and its bike appear in the episode. The company tried to capitalize with an online ad featuring actor Chris Noth and the instructor. But Peloton deleted the ad soon after when Mr. Noth was accused of sexual assault. Mr. Noth has denied the allegations.

## U.S. Curbs Cramp Huawei's Revenue

By DAN STRUMPF

HONG KONG—Huawei Technologies Co. said revenue dropped by nearly a third in 2021, as the effects of U.S. export restrictions hammered the Chinese tech giant's main business lines.

Huawei's revenue fell 29% to 634 billion yuan, or about \$99 billion, for the year, the company said, an unusual decline in full-year revenue for the technology firm.

Huawei disclosed the decline in revenue in a year-end letter to employees from its chairman, Guo Ping. In the letter, Mr. Guo said the company's efforts to reshape its business following U.S. sanctions were on track but that Huawei would face another challenging year.

The results were in line with Huawei's forecasts, Mr. Guo said. Huawei executives had previously warned of a likely drop in revenue for the year.

After years of booming growth, Huawei was battered last year by far-reaching U.S. export controls, which blocked the company from obtaining critical chips and other components. The effects have been most pronounced on its smartphone business, the world's largest for several months in 2020 before sales all but dried up last year because of challenges in obtaining chips.

"Huawei's smartphone business, which made up around

half of the company's revenues in 2020, is collapsing," said Dan Wang, technology analyst at Gavekal Dragonomics. "Even with heroic effort, Huawei won't be able to maneuver quickly enough into new business lines to stop this bleeding."

Huawei's 5G telecom business was blocked in a number of Western countries following pressure from the U.S., which regards Huawei equipment as vulnerable to espionage or disruption by the Chinese government. Huawei has denied its equipment is a threat and says it is owned by employees and operates independently of the government.

Mr. Guo said Huawei's telecom carrier business was stable in 2021, while its enterprise business, the company's smallest business unit, experienced solid growth. He said the company's consumer business continued to expand into new areas. Among them, he said, was a variety of new consumer devices focused around the company's self-developed operating system, called HarmonyOS. He also said the company was building a software ecosystem for digital infrastructure, called EulerOS.

Mr. Guo said the company remained committed to attracting overseas talent.

Huawei has been concentrating on new areas that are less dependent on foreign supply chains and high-end chips, including software, wearable gadgets and automobiles. Still, executives have said these new business areas aren't likely to make up for falling smartphone sales soon.

Last year also saw the release of Huawei's chief financial officer, Meng Wanzhou, who had been held in Canada for nearly three years after being sought by the U.S. on bank fraud charges related to the company's alleged business in Iran. Ms. Meng returned to China in September after reaching a deferred prosecution agreement with the U.S. in an apparent prisoner swap in which China released two imprisoned Canadians.



Left, a Sleep Number bed. Right, the WasteShark cleans pollution from waterways and collects water-quality data.



## Electronics Show Offers Tech Trends To Look for in an Unusual Year

By SHARA TIBKEN AND DALVIN BROWN

Nothing about this year's CES will be normal. That includes some of the biggest trends expected at the show.

The annual tech conference, which took place online last year, kicks off Monday with in-person press events in Las Vegas. Despite the surge of the Omicron variant of Covid-19, the event's organizer, the Consumer Technology Association, said it would proceed but end a day early. The organization expects up to 75,000 attendees and over 2,200 exhibitors, including Samsung Electronics Co. and Sony Group Corp.

Event mainstays such as Intel Corp., Lenovo Group Ltd., LG Electronics Inc. and Panasonic Corp. have withdrawn or greatly reduced in-person staffing, and the biggest tech firms, including Alphabet Inc.'s Google, Meta Platforms Inc., Microsoft Corp. and Amazon.com Inc., have decided to stay home.

Here is what is expected to be on tap for this year.

### Getting comfy at home

We have spent two years mostly hanging out at home, and tech companies took notice.

They are introducing products designed to help users relax and decompress when they aren't at a computer. They have designed smart beds that can nudge you when it is time to wake up, bathtubs that maintain consistent water temperature and air purifiers that also add fragrances to a room.

Developers are focusing on sensor-assisted products like lamps, toilets and bathtubs that respond based on time of day, air quality or who is in the room.

Bemis Manufacturing Co. will show off a new line of smart air purifiers designed to adjust automatically to indoor air quality and emit essential-oil aromas. At night, the gadgets sense that the lights are lowered, and reduce noise so you can sleep.

Sleep Number Corp. and Sleepme Inc. are among the companies unveiling next-generation bed tech with more-advanced sensing and response capabilities for adults.

### Taking care of kids and parents

CES 2022 will have plenty of tech for the so-called sandwich generation, adults who care for both their kids and their parents: an AI-equipped baby moni-

tor that can detect a covered face or a rollover, room sensors to track the movement of seniors, and health and activity wearables designed to meet the needs of every age group.

Florida-based CarePredict Inc. will show off an update to its wrist-worn Tempo that makes it easier for caregivers to communicate with their older loved ones (or make sure they are properly cared for). The new CareVoice feature lets people send audio messages to the watch wearer, whether it is greetings from a grandchild or a reminder to take medicine.

"It really is a human touch, even when you're not there," CEO Satish Movva said.

The device detects falls and can send an alert when its wearer skips meals, sleeps less or has other activity out of the norm.

### Saving the planet

Some of the products being shown at CES include a hydrogen fuel-cell-powered flying car concept from French company Maca, and a tabletop washer from another French firm, Auum, designed to cut down on single-use plastic by cleaning and drying a glass in 10 sec-

onds. From the Netherlands, RanMarine Technology will show off WasteShark, a floating autonomous drone that cleans pollution from waterways and collects data on water quality.

### Cooking and eating

This year at the show, a half-day food-tech conference will showcase advances in areas such as agriculture, ingredient innovation, meal kits and deliveries, vertical farming and plant-based meat. Impossible Foods will be there, as will MycoTechnology, which will debut a meat alternative made from fungi.

### Looking ahead

The metaverse is a hot topic right now. Hyundai Motor Group will allow visitors to create avatars and test drive new concept cars in cyberspace. The startup Bhaptics will demo gaming gloves designed to replace hand-held VR controllers. Samsung is marketing its metaverse ambitions with a VR home-decorating platform.

And the conference is hosting a new program to discuss nonfungible tokens (aka NFTs), virtual certificates that show you own a digital object.



Huawei at a tech fair in 2021

## Chip Firms Battle for Workers

Continued from page B1

ployees, up 44% from the previous year. Monthly average salaries in chip manufacturing rose to the highest level in over a decade, the report said.

"The talent shortage problem has become even more severe, mainly because of the increase in demand," said Yao Wen Chang, dean of National Taiwan University's College of Electrical Engineering and Computer Science, one of Tai-

wan's top engineering programs. "I'm not optimistic that we can totally resolve this problem."

At ASML, Mr. Koonmen said the Dutch company's staffing needs are expected to increase 10% or more annually over the coming period to keep up with booming demand for its tools driven by the surge in new chip plants going up around the globe.

To attract staff, Mr. Koonmen said, "We are stepping up our game on a number of fronts," including bolstering its recruitment function. The company is fine-tuning its search for the right talent, he said, and deepening ties with universities to have a pipeline of graduates. The company needs people with skills that

range from optics to software skills to electrical engineering.

GlobalFoundries Inc. Chief Financial Officer David Reeder said: "The U.S. labor market in my mind is probably for us the most competitive labor market." He added that it is likely to remain a tight market for several years.

Exacerbating the concern is that interest in chip manufacturing has waned among college graduates in recent years, engineering professors said, since many prefer to find jobs in software or internet services and are reluctant to pursue doctorate degrees without a substantial salary payoff.

Santosh Kurinec, a professor at the Rochester Institute of Technology, said the number of students enrolled in the

school's undergraduate electrical-engineering program has dwindled steadily, from about 50 in the mid-1980s to about 10 now. "Some want to go make an app for Google and Facebook and others," she said.

In Taiwan, a lack of highly skilled engineers could derail efforts to stay at the forefront of advanced technology as semiconductor become more complex. "We need more doctorate degrees who also participate in the next generation for the semiconductor industry," said Terry Tsao, global chief marketing officer of the industry association SEMI and president of its Taiwan branch.

—Asa Fitch, Yang Jie, Reddy Zhao and Robert Wall contributed to this article.

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# Board-Diversity Drive Sparks New Training

Law firms, universities offer classes to prepare and broaden the pool of candidates

By EMILY GLAZER  
AND THEO FRANCIS

U.S. companies are turning to programs aimed at preparing women and people of color for corporate board roles in a bid to comply with calls from regulators and investors to diversify their directors.

Law firms, universities and current directors of companies have launched new or expanded programs over the past few years to coach prospective board candidates, offering training on topics from corporate governance to committee work. Some programs are free or sponsored by companies, while others can cost thousands of dollars.

Sponsors are hoping to broaden the pool of people who are ready to fill board roles beyond former chief executives to other qualified business leaders. They also can match candidates with board openings, as boards are still largely white and male with roles often filled through networks of existing directors.

Some companies may soon face penalties if they don't have a certain number of women or people of color on their boards. California could start assessing fines to companies based in the state that don't abide by its rules after Dec. 31. Nasdaq-listed companies will be required to publish a standardized template of board-level diversity statistics starting in 2022, and must have at least one diverse director—or explain why they haven't—starting in 2023. Institutional investors and proxy

advisers have said they may vote against director nominees if the company's board isn't sufficiently diverse.

"The progress we're seeing is as much about investor pressure and engagement on the issue as it is legal mandates," said Marc Goldstein, head of U.S. research for Institutional Shareholder Services, a proxy advisory firm.

The diversity push helped fuel turnover among corporate boards, with companies in the S&P 500 adding more directors in 2021 than in any year since 2004, according to data from Spencer Stuart. Nearly three-quarters of new independent directors are women or belong to racial or ethnic minority groups, the recruitment and advisory firm said, adding that nearly half those directors were serving on a board for the first time.

Given the influx of first-

time directors, the National Association of Corporate Directors in 2020 introduced a program called Accelerate to help connect diverse candidates with board opportunities. It has about 415 people in the program and roughly 25% of participants have secured a public, private or nonprofit board seat, said Stephanie Mullette, NACD's senior vice president of membership.

Large companies including Amazon.com Inc., Microsoft Corp. and Zillow Group Inc. have provided financial support to the Black Boardroom Initiative, an effort started in June by law firm Perkins Coie LLP. The first cohort, about two dozen people, attended sessions through November about mergers and acquisitions, shareholder activism and cybersecurity risks, among other topics, said Pat Ogawa, a Deloitte executive

and initiative co-founder.

"It's not just training, like you had to go to take Corporate Governance 101 at business school or law school," Mr. Ogawa said. The program, he added, is more about giving candidates tools to find their path to a board seat.

Lisa Nelson, a former Microsoft executive, joined three programs over the past 18 months that offered mentoring and other support to women interested in joining corporate boards. Ms. Nelson, who previously co-founded and led Microsoft's venture fund, said she built many connections over her decade-plus with the tech giant, but also wanted to expand her network. She now sits on six boards.

"I call it a club, and you have to figure out how to get invited to the club," said Ms. Nelson, who also started citing her background as Asian-

American and Pacific Islander as one of the ways she distinguishes herself.

Jan Fields, who serves on several boards, said there is more competition when companies are seeking diverse candidates so she has sought to cast a wider net, such as using recruiting companies or tools like a director database from governance-data firm Equilar Inc. She said Equilar's database has helped her connect with younger candidates who are high-level executives, though often not CEOs, and may be first-time board members.

"It used to be if I called somebody and said we're interested in you for a board, they'd jump right on it," said Ms. Fields, who is chair of the nominating and governance committee of women's clothing retailer Chico's FAS Inc. "Today they're mulling offers from two or three others."

## Startups Draw Bold Investors

Continued from page B1

has caused some prominent investors to raise alarms that the market is overheated. Angst among Silicon Valley insiders about rising startup valuations isn't new, but the willingness to broadcast those concerns is notable.

Fred Wilson, a partner at Union Square Ventures and early backer of Twitter Inc. and Coinbase Global Inc., said in a November blog post he had seen quite a few investment rounds in which companies were valued at \$100 million before they had a sustainable business model.

"They are being delusional, comforted by the likelihood that someone will come along and pay a higher price in the next round," he said of the investors. "The numbers just

don't add up."

Sam Altman, former president of startup incubator Y Combinator—which has backed hits like DoorDash and Airbnb Inc.—predicted in a December tweet that venture capital returns this decade "are going to be much worse than those from the 2010s."

To compete, many venture capitalists say they have spent less time on background checks and other research before investing. A recent rout of high-growth tech stocks has investors particularly on edge, as startup trends often follow the public markets.

Traditional venture firms have been raising new funds quickly, while hedge funds and private-equity investors have moved into the market. Much of the hedge-fund money is aimed at later-stage startups, but the crowded field has pushed other investors to hunt for earlier-stage companies.

**Tiger Global Management**, a New York-based hedge fund and startup investor, has taken part in more than 340 startup investment rounds in 2021, up from 78 the previous year, ac-



Investors in 2021 pumped \$93 billion into seed-stage and early-stage startups like Blank Street.

cording to PitchBook.

Among Tiger Global's investments is Blank Street, which has ambitious growth plans but involves more physical construction than tech investors often like. Mr. Menda said the company's no-frills approach gives it strong profit margins for its stores, and annualized revenue has quadrupled since it raised money in September.

Mr. Menda said its business model was patterned after a group of Asian businesses, in-

cluding Indonesia's **Kopi Kenangan** and China's **Luckin Coffee Inc.**, which pioneered a similar approach attracting customers with low-cost drinks and apps that promote deals.

Luckin, by far the most prominent among that group, presents a tricky comparison. The company, which at one point planned to overtake Starbucks Corp. in China, saw its stock price plunge over 95% in 2020 after it told investors that as much as \$310 million of

its 2019 sales was fabricated by employees. Luckin reached a settlement with the U.S. Securities and Exchange Commission over accounting fraud claims, which it neither admitted nor denied.

Venture-capital investors often shun a sector when its best-known company suffers such a fall from grace, but that hasn't happened with coffee startups. Luckin's business has persevered—it reported rapid growth in its latest quarter and

its stock has recovered some of its losses.

Mr. Menda said Luckin doesn't make for a good comparison with Blank Street given its prior management troubles. Instead, the company looks more to numerous other grab-and-go coffee chains that have raised money recently and grown quickly, including Kopi.

Some companies are turning to more unconventional bets. In September, startup **Colossal Inc.** raised more than \$16 million for its plan to bring back the woolly mammoth as a species in the wild—by modifying the genomes of the Asian elephant to make the animals

look and act like woolly mammoths. The Jurassic Park-like business plan largely calls for making money off new technology, said Ben Lamm, the company's CEO. Colossal also told investors in 2020 there was the potential for "mammoth park attractions," among other potential revenue sources, according to a slide presentation.

Mr. Lamm said the company only set out to raise \$8 million, before finding far more demand than expected.

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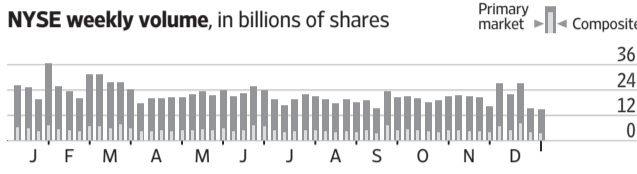
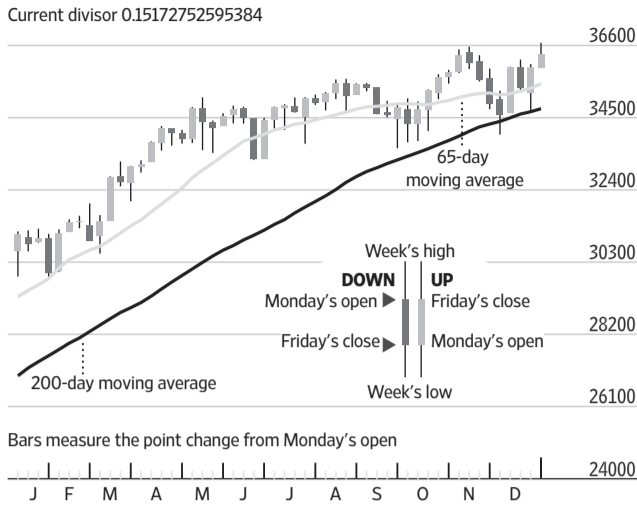
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# MARKETS DIGEST

## Dow Jones Industrial Average

**36338.30** ▲ 387.74, or 1.08% last week  
 Trailing P/E ratio 22.61 30.11  
 P/E estimate \* 18.76 24.91  
 Dividend yield 1.90 1.97  
 All-time high 36488.63, 12/29/21



\*Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.; \*Based on Nasdaq-100 Index

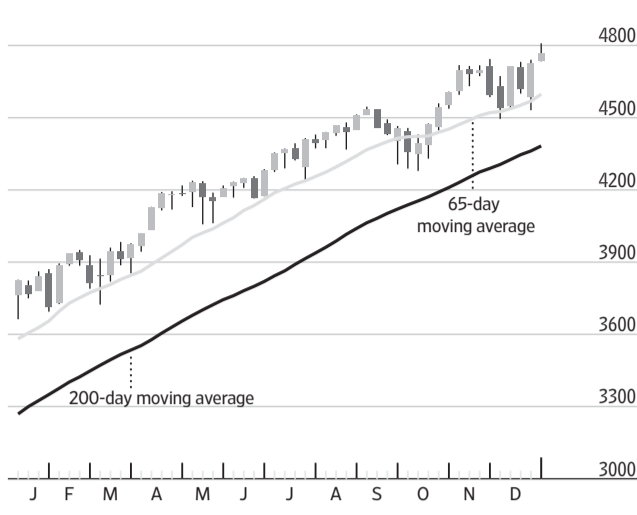
## Major U.S. Stock-Market Indexes

	High	Low	Latest Week Close	Net chg	% chg	Low	52-Week Close (●)	High	% chg	YTD	3-yr. ann.
<b>Dow Jones</b>											
Industrial Average	36679.44	35954.48	<b>36338.30</b>	387.74	1.08	29982.62	●	36488.63	18.7	18.7	15.9
Transportation Avg	16547.77	16141.30	<b>16478.26</b>	291.30	1.80	12087.99	●	17039.38	31.8	31.8	21.6
Utility Average	984.42	954.14	<b>980.78</b>	25.01	2.62	795.61	●	980.78	13.4	13.4	11.2
Total Stock Market	49090.79	48409.41	<b>48634.31</b>	331.66	0.69	38646.40	●	48918.18	24.0	24.0	23.7
Barron's 400	1110.61	1103.47	<b>1106.26</b>	19.03	1.75	842.50	●	1127.2	29.8	29.8	22.0
<b>Nasdaq Stock Market</b>											
Nasdaq Composite	15901.47	15643.94	<b>15644.97</b>	-8.40	-0.05	12609.16	●	16057.44	21.4	21.4	33.1
Nasdaq-100	16607.19	16317.26	<b>16320.08</b>	11.87	0.07	12299.08	●	16573.34	26.6	26.6	37.1
<b>S&amp;P</b>											
500 Index	4808.93	4733.99	<b>4766.18</b>	40.39	0.85	3700.65	●	4793.06	26.9	26.9	23.9
MidCap 400	2864.71	2789.94	<b>2842.00</b>	46.18	1.65	2269.45	●	2910.7	23.2	23.2	19.6
SmallCap 600	1418.43	1383.71	<b>1401.71</b>	14.34	1.03	1106.93	●	1466.02	25.3	25.3	18.4
<b>Other Indexes</b>											
Russell 2000	2274.54	2230.33	<b>2245.31</b>	3.74	0.17	1945.91	●	2442.74	13.7	13.7	18.5
NYSE Composite	17238.65	16963.44	<b>17164.13</b>	200.69	1.18	14376.70	●	17310.51	18.2	18.2	14.7
Value Line	677.10	664.11	<b>671.94</b>	6.74	1.01	561.65	●	696.4	18.1	18.1	12.5
NYSE Arca Biotech	5655.76	5501.48	<b>5518.45</b>	-131.08	-2.32	5217.76	●	6319.77	-3.8	-3.8	9.3
NYSE Arca Pharma	832.78	817.83	<b>827.25</b>	9.42	1.15	667.24	●	828.58	20.0	20.0	13.3
KBW Bank	133.91	130.83	<b>132.22</b>	0.90	0.69	96.96	●	142.61	35.0	35.0	15.5
PHLX <sup>®</sup> Gold/Silver	132.74	128.55	<b>132.45</b>	1.84	1.41	117.06	●	166.01	-8.1	-8.1	23.3
PHLX <sup>®</sup> Oil Service	54.52	52.09	<b>52.72</b>	-0.453	-0.85	44.33	●	69.77	18.9	18.9	-13.2
PHLX <sup>®</sup> Semiconductor	4054.99	3944.82	<b>3946.16</b>	13.78	0.35	2762.75	●	4039.51	41.2	41.2	50.6
Cboe Volatility	19.41	16.62	<b>17.22</b>	-0.74	-4.12	15.01	●	37.21	-24.3	-24.3	-12.2

Sources: FactSet; Dow Jones Market Data

## S&P 500 Index

**4766.18** ▲ 40.39, or 0.85% last week  
 Trailing P/E ratio \* 29.33 40.40  
 P/E estimate \* 22.82 26.75  
 Dividend yield \* 1.26 1.60  
 All-time high 4793.06, 12/29/21



### Track the Markets

Compare the performance of selected global stock indexes, bond ETFs, currencies and commodities at [wsj.com/graphics/track-the-markets](http://wsj.com/graphics/track-the-markets)

- Spain 7-10 year: 9.2
- Hungarian forint: 8.8
- Euro: 8.6
- Danish krone: 8.6
- Bulgarian lev: 8.5
- Swiss market: 8.4
- S&P 500 Industrials: 8.3
- S&P 500: 8.2
- Corn: 8.2

## New to the Market

### Public Offerings of Stock

### IPOs in the U.S. Market

None expected this week

**Lockup Expirations**  
 Below, companies whose officers and other insiders will become eligible to sell shares in their newly public companies for the first time. Such sales can move the stock's price.

Lockup expiration	Issue date	Issuer	Symbol	Offer price(\$)	Offer amt (\$mil.)	Through Friday (%)	Lockup provision
Jan. 3	July 7, '21	AgriFORCE Growing Systems	<b>AGRI</b>	5.00	13.6	-58.4	180 days
Jan. 4	July 8, '21	TransCode Therapeutics	<b>RNAZ</b>	4.00	25.0	-36.5	180 days
	July 7, '21	AltC Acquisition	<b>ALCC</b>	10.00	1000.0	-1.5	180 days
	July 8, '21	Sentage Holdings	<b>SNTG</b>	5.00	22.0	-75.4	180 days
	Oct. 5, '21	Volcon	<b>VLCN</b>	5.50	15.1	96.4	90 days

Sources: Dealogic; Dow Jones Market Data

### IPO Scorecard

Performance of IPOs, most-recent listed first

Company	SYMBOL	Friday's close (\$)	% Chg From Offer 1st-day close	Company	SYMBOL	Friday's close (\$)	% Chg From Offer 1st-day close
Aetherium Acquisition		10.00	...	Sagallium Acquisition		10.03	0.3
<b>GMFIU</b> Dec. 30/\$10.00				<b>SAGAU</b> Dec. 21/\$10.00			0.6
Weisbach Technology/Metals Acquisition		10.03	0.3	NorthView Acquisition		10.05	0.5
<b>WTMAU</b> Dec. 28/\$10.00				<b>NVACU</b> Dec. 20/\$10.00			0.4
Arogo Capital Acquisition		10.01	0.1	AP Acquisition		10.13	1.3
<b>AOGO</b> Dec. 27/\$10.00			-0.1	<b>APACU</b> Dec. 17/\$10.00			0.4
Gardiner Healthcare Acquisitions		10.09	0.9	Revelstone Capital Acquisition		9.93	-0.7
<b>GDNRU</b> Dec. 22/\$10.00			0.7	<b>RCACU</b> Dec. 17/\$10.00			0.4
Larkspur Health Acquisition		10.02	0.2	Ault Disruptive Tech		10.13	1.3
<b>LSPRU</b> Dec. 21/\$10.00			0.4	<b>ADRTU</b> Dec. 16/\$10.00			1.1

Sources: Dow Jones Market Data; FactSet

### Other Stock Offerings

Secondaries and follow-ons expected this week in the U.S. market  
 None expected this week

### Off the Shelf

None expected this week

### Public and Private Borrowing

**Treasuries**  
 Monday, January 3 Thursday, January 6  
 Auction of 13 and 26 week bills; announced on December 30; settles on January 6  
 Auction of 4 and 8 week bills; announced on January 4; settles on January 11

### A Week in the Life of the DJIA

A look at how the Dow Jones Industrial Average component stocks did in the past week and how much each moved the index. The DJIA gained 387.74 points, or 1.08%, on the week. A \$1 change in the price of any DJIA stock = 6.59-point change in the average. To date, a \$1,000 investment on Dec. 31 in each current DJIA stock component would have returned \$35,766, or a gain of 19.22%, on the \$30,000 investment, including reinvested dividends.

Pct chg (%)	Stock price	Point chg in average	Company	Symbol	Close	\$1,000 Invested (year-end '20)
4.52	17.94	118.24	<b>Home Depot</b>	HD	\$415.01	\$1,595
3.73	5.20	34.27	<b>Walmart</b>	WMT	144.69	1,020
3.33	1.68	11.07	<b>Walgreens</b>	WBA	52.16	1,358
2.87	1.58	10.41	<b>Dow</b>	DOW	56.72	1,069
2.32	3.03	19.97	<b>IBM</b>	IBM	133.66	1,168
2.17	3.48	22.94	<b>Procter &amp; Gamble</b>	PG	163.58	1,205
1.75	1.09	7.18	<b>Cisco</b>	CSCO	63.37	1,458
1.70	0.99	6.52	<b>Coca-Cola</b>	KO	59.21	1,114
1.68	2.82	18.59	<b>Johnson &amp; Johnson</b>	JNJ	171.07	1,114
1.60	3.29	21.68	<b>Honeywell</b>	HON	208.51	997
1.52	2.66	17.53	<b>3M</b>	MMM	177.63	1,049
1.36	6.76	44.55	<b>UnitedHealth Group</b>	UNH	502.14	1,452
1.20	0.91	6.00	<b>Merck</b>	MRK	76.64	1,018
1.15	1.78	11.73	<b>Travelers</b>	TRV	156.43	1,140
0.82	1.26	8.30	<b>Walt Disney</b>	DIS	154.89	855
0.81	0.94	6.20	<b>Chevron</b>	CVX	117.35	1,463
0.80	2.12	13.97	<b>McDonald's</b>	MCD	268.07	1,278
0.73	1.29	8.50	<b>Apple</b>	AAPL	177.57	1,346
0.69	1.09	7.18	<b>JPMorgan Chase</b>	JPM	158.35	1,277
0.60	1.00	6.59	<b>Nike</b>	NKE	166.67	1,187
0.53	1.18	7.78	<b>Amgen</b>	AMGN	224.97	1,009
0.49	1.63	10.74	<b>Microsoft</b>	MSFT	336.32	1,525
0.39	0.99	6.52	<b>salesforce.com</b>	CRM	254.13	1,142
0.37	0.19	1.25	<b>Intel</b>	INTC	51.50	1,060
0.26	0.54	3.56	<b>Caterpillar</b>	CAT	206.74	1,160
0.04	0.09	0.59	<b>Visa</b>	V	216.71	997
-0.36	-0.59	-3.89	<b>American Express</b>	AXP	163.60	1,369
-0.65	-2.49	-16.41	<b>Goldman Sachs</b>	GS	382.55	1,476
-1.37	-0.72	-4.75	<b>Verizon</b>	VZ	51.96	925
-1.42	-2.90	-19.11	<b>Boeing</b>	BA	201.32	940

\*Based on Composite price. DJIA is calculated on primary-market price. Source: Dow Jones Market Data; FactSet.

## International Stock Indexes

Region/Country	Index	Close	Latest Week % chg	Low	52-Week Range Close	High	YTD % chg
<b>World</b>	<b>MSCI ACWI</b>	754.83	0.79	642.91	●	758.86	16.8
	<b>MSCI ACWI ex-USA</b>	344.33	0.91	326.50	●	359.82	5.5
	<b>MSCI World</b>	3231.73	0.78	2661.69	●	3243.95	20.1
	<b>MSCI Emerging Markets</b>	1232.01	0.94	1190.08	●	1444.93	-4.6
<b>Americas</b>	<b>MSCI AC Americas</b>	1827.35	0.75	1447.96	●	1836.68	24.5
Canada	<b>S&amp;P/TSX Comp</b>	21222.84	-0.03	17337.02	●	21768.53	21.7
Latin Amer.	<b>MSCIEM Latin America</b>	2129.86	1.41	2036.85	●	2687.02	-13.1
Brazil	<b>BOVESPA</b>	104822.44	-0.07	100774.57	●	130776.27	-11.9
Chile	<b>S&amp;P IPSA</b>	2806.17	0.22	2631.83	●	3396.76	-1.80
Mexico	<b>S&amp;P/BMV IPC</b>	53272.44	0.79	42985.73	●	53304.74	20.9
<b>EMEA</b>	<b>STOXX Europe 600</b>	487.80	1.10	395.85	●	489.95	22.2
	<b>STOXX Europe 50</b>	3818.46	0.95	3075.34	●	3829.03	22.8
Eurozone	<b>Euro STOXX</b>	478.84	1.03	391.80	●	487.72	20.4
	<b>Euro STOXX 50</b>	4298.41	1.02	3481.44	●	4401.49	21.0
Austria	<b>ATX</b>	3861.06	0.19	2780.44	●	3928.28	38.9
Belgium	<b>Bel-20</b>	4310.15	1.07	3621.28	●	4402.32	19.0
France	<b>CAC 40</b>	7153.03	0.94	5399.21	●	7181.11	28.9
Germany	<b>DAX</b>	15884.86	0.82	13432.87	●	16251.13	15.8
Greece	<b>Athex Composite</b>	893.34	0.29	743.49	●	929.26	10.4
Israel	<b>Tel Aviv</b>	1978.06	1.47	1497.68	●	1986.37	32.0
Italy	<b>FTSE MIB</b>	27346.83	1.22	21573	●	27868	23.0
Netherlands	<b>AEX</b>	797.93	0.94	624.61	●	827.57	27.7
Portugal	<b>PSI 20</b>	5569.48	1.06	4648.64	●	5826.31	13.7
Russia	<b>RTS Index</b>	1595.76	0.50	1363.96	●	1919.58	15.0
South Africa	<b>FTSE/JSE All-Share</b>	73709.39	2.99	59408.68	●	73786.45	24.1
Spain	<b>IBEX 35</b>	8713.80	1.75	7757.5	●	9281.1	7.9
Sweden	<b>OMX Stockholm</b>	1037.14	1.92	768.38	●	1037.14	35.0
Switzerland	<b>Swiss Market</b>	12875.66	0.71	10522.22	●	12970.53	20.3
U.K.	<b>FTSE 100</b>	7384.54	0.17	6407.46	●	7420.69	14.3
<b>Asia-Pacific</b>	<b>MSCI AC Asia Pacific</b>	193.12	0.47	187.8	●		

CLOSED-END FUNDS

Listed are the 300 largest closed-end funds as measured by assets. Closed-end funds sell a limited number of shares and invest the proceeds in securities. Unlike open-end funds, closed-ends generally do not buy their shares back from investors who wish to cash in their holdings. Instead, fund shares trade on a stock exchange. NA signifies that the information is not available or not applicable. NS signifies funds not in existence for the entire period. 12 month yield is computed by dividing income dividends paid (during the previous 12 months for periods ending at month-end or during the previous 52 weeks for periods ending at any time other than month-end) by the latest month-end market price adjusted for capital gains distributions. Depending on the fund category, either 12-month yield or total return is listed.

Source: Lipper

Friday, December 31, 2021

Table with columns: Fund (SYM), NAV, Close, Disc, Ret. Includes sections for General Equity Funds, Specialized Equity Funds, and International Equity Funds.

Table with columns: Fund (SYM), NAV, Close, Disc, Ret. Includes sections for International Equity Funds, World Equity Funds, and National Muni Bond Funds.

Table with columns: Fund (SYM), NAV, Close, Disc, Ret. Includes sections for National Muni Bond Funds, U.S. Mortgage Bond Funds, Investment Grade Bond Funds, and Loan Participation Funds.

Table with columns: Fund (SYM), NAV, Close, Disc, Ret. Includes sections for High Yield Bond Funds, Alternative Investment Funds, and Real Estate Funds.

Table with columns: Fund (SYM), NAV, Close, Disc, Ret. Includes sections for Real Estate Funds, Energy Funds, and Commodity Funds.

Table with columns: Fund (SYM), NAV, Close, Disc, Ret. Includes sections for Commodity Funds, Hedge Funds, and Other Domestic Taxable Bond Funds.

Currencies

U.S.-dollar foreign-exchange rates in late New York trading

Table showing currency exchange rates for various countries including Americas, Europe, Asia-Pacific, and Middle East/Africa.

Insider-Trading Spotlight

Trading by 'insiders' of a corporation, such as a company's CEO, vice president or director, potentially conveys new information about the prospects of a company. Insiders are required to report large trades to the SEC within two business days. Here's a look at the biggest individual trades by insiders, based on data received by Refinitiv on December 31, and year-to-date stock performance of the company.

Biggest weekly individual trades

Based on reports filed with regulators this past week

Table listing the biggest weekly individual trades, including columns for Date, Company, Symbol, Insider, Title, No. of shares in trans, Price range, \$ Value in transaction, and Close (\$). Includes sections for Buyers and Sellers.

Buying and selling by sector

Based on actual transaction dates in reports received this past week

Table showing buying and selling activity by sector, including columns for Sector, Buying, Selling, and specific trade details.

\*Half the transactions were indirect \*\*Two day transaction p - Pink Sheets

Dividend Changes

Dividend announcements from December 31.

Table listing dividend changes, including columns for Company, Symbol, Yld%, Amount New/Old, Frq, Payable/Record, and Special notes.

Borrowing Benchmarks | wsj.com/market-data/bonds/benchmarks

Table showing borrowing benchmarks for various categories like Inflation, U.S. consumer price index, International rates, Prime rates, Policy Rates, Overnight repurchase, U.S. government rates, Discount, Federal funds, Cash Prices, Energy, Metals, Gold, Silver, and various commodity prices.

Money Rates

Key annual interest rates paid to borrow or lend money in U.S. and international markets. Rates below are a guide to general levels but don't always represent actual transactions.

Table showing money rates for Inflation, U.S. consumer price index, International rates, Prime rates, Policy Rates, Overnight repurchase, U.S. government rates, Discount, Federal funds, Cash Prices, Energy, Metals, Gold, Silver, and various commodity prices.

Cash Prices | wsj.com/market-data/commodities

These prices reflect buying and selling of a variety of actual or "physical" commodities in the marketplace—separate from the futures price on an exchange, which reflects what the commodity might be worth in future months.

Table showing cash prices for various commodities including Energy, Metals, Gold, Silver, and various agricultural products like Wheat, Corn, Soybeans, etc.

KEY TO CODES: A=ask; B=bid; BP=country elevator bids to producers; C=corrected; E=Manfra, Tordella & Brookes; H=American Commodities Brokerage Co; K=bi-weekly; M=monthly; N=nominal; n.a.=not quoted or not available; R=S&L Energy; S=Platts-TSI; T=GoTook Limited; U=USDA; V=Benchmark Mineral Intelligence; W=weekly; Z=not quoted. \*Data as of 12/30

Source: Dow Jones Market Data

MARKETS

# 3G Capital Buys 75% Of Hunter Douglas

By OLIVIA BUGAULT

3G Capital has agreed to buy a majority stake in Dutch window-coverings maker **Hunter Douglas NV** in a transaction that values the business at about \$6.9 billion, expanding beyond its food-and-beverage focus for its first big deal since 2015.

Shares in Hunter Douglas jumped about 70% on Friday after the New York-based investment group said it would buy a 75% stake in the company for 175 euros a share. The offer represents a 73% premium to the company's closing price on Thursday. 3G said the deal had a value of about \$7.1 billion including debt.

The acquisition will see 3G push into a new industry after it previously blazed a trail through the consumer-goods sector. The private-equity firm had a hand in a number of deals that helped create some of the food-and-drink industry's biggest names, including AB InBev SA, Kraft Heinz Co. and Burger King parent Restaurant Brands International Inc.

Hunter Douglas was founded by the Sonnenberg

family in 1919 and today is one of the world's biggest makers of blinds and shades for windows, including under the Luxaflex brand. It also sells architectural products like cladding. It has 47 manufacturing and 89 assembly operations in more than 100 countries, and employs about 23,000 people.

For 2020, the company generated sales of \$3.54 billion, a 3.9% decline driven by lower product sales.

Following the deal with 3G, which is expected to close in the first quarter of 2022, the Sonnenberg family will hold a 25% stake in the business and David Sonnenberg—currently co-chief executive—will become executive chairman.

“As a private enterprise, Hunter Douglas will have the opportunity to advance and expand our business while preserving the family-led culture,” Mr. Sonnenberg said.

3G said Joao Castro Neves, a senior partner at the firm, is expected to take over as Hunter Douglas's new chief executive. Mr. Castro Neves, a former AB InBev executive, also sits on the boards of Restaurant Brands International and Kraft Heinz.

3G is led by a group of Brazilian businessmen and is known for extensive cost cutting at portfolio companies. Its strategy, known as zero-base budgeting, has been credited with boosting profit, though some critics say it comes at the expense of growth.

3G's last big deal came half a decade ago when the firm, alongside billionaire investor Warren Buffett, orchestrated the merger of two of the biggest names in packaged food—Kraft and Heinz.

Kraft Heinz, backed by 3G, later sought to combine with Unilever PLC in 2017—making a \$143 billion bid—though its advances were rebuffed by the Dove soap maker.

—Mauro Orru contributed to this article.



Joao Castro Neves

# China Evergrande Retools Repayments to Individuals

Property group plans fixed payments to buyers of wealth management products

By REBECCA FENG

**China Evergrande Group** said it has come up with a new repayment plan for disgruntled individual investors who purchased its wealth-management products, as the beleaguered property giant takes further steps to work through a mountain of financial liabilities and overdue payments.

The conglomerate, which earlier last month sought government help to manage its debt crisis, on Friday said one of its units has proposed to pay almost all holders of its wealth-management products 8,000 yuan—equivalent to \$1,255—a month from December to February. The unit, which is known as Evergrande Wealth, said it would come up with another payment plan in March.

Evergrande, one of China's largest developers, previously sold high-yielding investment products to its employees and other individuals—typically buyers of its properties—as part of a strategy to support its highly leveraged business model.

The company expanded aggressively for years by borrowing heavily from banks, domestic and international bond investors, suppliers and individual investors, and used much of the money to acquire land and assets in areas far beyond residential real estate. It expected booming property sales to generate cash to repay its debts, but ran into trouble after Chinese authorities placed curbs on developers' borrowing and Evergrande's apartment sales plunged.

Since the summer, Ever-



An earlier repayment plan was criticized by investors. Above, an Evergrande residential project.

grande has struggled to repay many of its debts after amassing the equivalent of roughly \$300 billion in liabilities as of June 30.

The developer missed multiple interest payments on its outstanding U.S. dollar bonds, including some that were due in December. The world's three largest credit raters have downgraded their ratings on Evergrande to their lowest levels, declaring it in default.

Evergrande hasn't disclosed the total amount it owes in wealth-management products that it issued or guaranteed. In mid-September, it said two subsidiaries had failed to honor their obligations as guarantor for the equivalent of around \$147 million of wealth-management products issued by third parties.

Around that time, individual investors protested outside the developer's headquarters in Shenzhen, demanding payments. At the end of September, Evergrande said it had paid the first 10% installment of those products that were

due in September.

As Evergrande's debt problems mounted in recent months, Chinese authorities made clear that a priority was maintaining social stability and containing the fallout of the conglomerate's troubles on the broader economy and property sector.

In early December, Evergrande turned to the government of its home province of Guangdong for help. Authorities agreed to step in and help the developer manage its debt crisis, and financial regulators said they would help ensure the stability of the broader real-estate market. Evergrande has formed a risk-management committee whose members include representatives from multiple state-owned institutions.

Over the weekend, Evergrande said construction has resumed at most projects where work had previously stalled, and that it was trying to deliver 39,000 finished apartments this month—a fraction of the more than one

million units it has presold.

On Friday, Evergrande Wealth said an earlier plan to repay holders of its wealth-management products had been criticized by investors as unfair. That plan had promised investors a combination of cash, highly discounted new properties and reductions in the money they owe for property they have already purchased. But it only offered to repay those with wealth-management products that had already matured.

Further, the unit said the initial plan was no longer practical because the property projects it funded didn't generate enough cash. Evergrande Wealth “will speed up asset sales...and all proceeds will be used to repay wealth-management products,” it added.

The new repayment solution will apply to all wealth-management products—matured or outstanding ones. The plan excludes certain executives of Evergrande, Evergrande Wealth and their family members.

STREETWISE | By James Mackintosh

# Tesla and Other Investing Mistakes I Made in 2021



Streetwise started the year with a prescient forecast: There is

plenty of scope to be horribly wrong about predictions of speculative excess. As 2021 draws to a close, it is a good time for investors to look back at the decisions they made over the year, and why they made them, with the hope of learning from their mistakes. My mistakes are preserved for posterity in public columns, but investors should keep a diary of why they entered each trade, to avoid the human tendency to rationalize with hindsight.

Both my biggest mistake and one of my biggest successes was Tesla. Start with the mistake: In mid-January I argued that Tesla and other electric-car stocks were in a “wild bubble.” Tesla stock was at \$845, up almost 20% in the first two weeks of the year and an eye-watering 685% in the previous 12 months. While it did fall hard for several months, it is now back above \$1,000, helped both by an extraordinary rally in

October and by another 20% gain in the days around Christmas. “Horribly wrong” just about captures it.

My Tesla success was in November, recommending that investors follow Chief Executive Elon Musk's example and sell after the irrational October run-up. The company may be great, but expectations were too high. The shares plummeted in the following weeks, although they made back much of the loss in the pre-Christmas bounce.

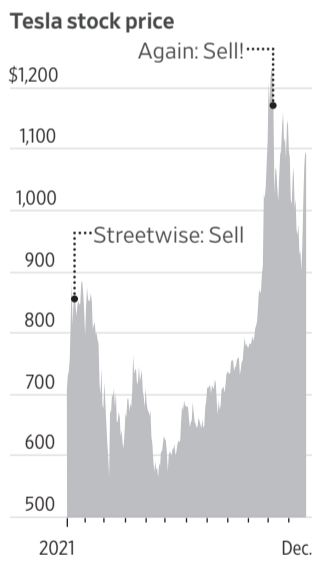
Tesla has been both a bellwether indicator for and an unusual winner from the market in wildly speculative bubble stocks all year. Back in January its peak marked the beginning of the end for the SPAC, clean energy, cannabis and loony-long-shot-idea bubbles that inflated late in 2020.

All had a bit of a revival during Tesla's rollicking October. But strip away Tesla, and the thematic funds that followed the bubbles recorded losses of around 20% this year. Many individual names lost far more, with

hot battery stock QuantumScape down 71%, General Motors-backed electric-car maker Lordstown Motors down 79% and popular Chinese rival NIO down 37%.

Something similar was true for the meme stocks led by GameStop and AMC Entertainment. I pondered the case for issuing new overvalued stock in June, concluding that AMC CEO—or “silverback,” as the self-styled ape who bought the shares call him—Adam Aron was right to issue as much stock as he could get away with. I also thought investors would be dumb to buy it, which has proven right as the shares are now half what they were then.

My correct call on the speculative bubble was marred by my failure to appreciate that Tesla, the bubble's biggest winner, would be almost immune to its bursting. It could be that Tesla stock is just an outlier that will fall back eventually (still my core case). The alternative is that Tesla is doing in one year what it took Amazon 20 years to do after its 1999-2000 dot-com peak:



prove that it is such an outstanding company that its bubble valuation was justified after all. Despite the visible froth in fashionable parts of the market, I stuck with stocks all year on the principle that the economy was recovering and the main alternative, bonds, was so unappealing. But while the stock market turned out to be a great place to be, I was entirely wrong

about bonds from the end of March onward, as they repeatedly refused to follow the macroeconomic playbook. Because of the strong link between long-dated bond yields and the relative performance of growth stocks, this also meant I was wrong-footed in my expectation that cheap “value” stocks would do better.

Instead of bond yields rising as inflation took off, the 10-year Treasury yield peaked at the end of March and the 30-year is higher now than it was for most of the year.

Inflation was the economic story to watch. Again, I was right and wrong. My headline in May was “Everything Screams Inflation,” and it is tempting just to take the credit for being right and early. In fact, along with many economists I expected pandemic-induced inflation to come back down by itself, and the Fed to act if necessary; my headline was about the longer term. Inflation hasn't come back down by itself, and as the year wore on the underlying price trends became more and more wor-

rying, culminating in my reversing course and concluding the Fed was just making excuses to delay action.

What have I learned from the year? It is possible to be exactly right at a high level—as with my bubble-spotting—but to lose money on the implementation, as anyone who shorted Tesla as a result would have done. It is important to be quick to change views as the facts change, shown by the developing patterns in inflation. And it is important to pay attention to details, which is where it first became clear that inflation was broadening out beyond pandemic-affected spending shifts.

As important as the lessons we learn are the ones we refuse to learn. Tempting as it is, I don't think the lesson of 2021 is “Just Buy Stocks,” as that loses the nuance. Unfortunately, “Just Buy Stocks When Bond Yields Are Low, the Economy Is Booming and the Fed Is Behind the Curve” is a hopeless headline. It is also of little use for 2022 as the economy slows back to normal and the Fed moves toward rate rises. Too much has changed.

## THE TICKER | MARKET EVENTS COMING THIS WEEK

Monday	Earnings expected* Estimate/Year Ago	ISM non-mfg index	Friday
<b>Construction spending</b> Oct, previous up 0.2% Nov, expected up 0.7%	RPM Intl <b>0.81/1.06</b>	Nov, previous 69.1 Dec, expected 66.1	<b>Nonfarm payrolls</b> Nov, previous 210,000 Dec, expected 405,000
Tuesday	Thursday	<b>Int'l trade deficit in billions</b> Oct, previous \$67.1 Nov, expected \$72.6	<b>Unemployment rate</b> Nov, previous 4.2% Dec, expected 4.1%
<b>ISM mfg. index</b> Nov, previous 61.1 Dec, expected 60.2	<b>EIA report: natural gas</b> Previous change in stocks in billions of cubic feet down 136	<b>Earnings expected*</b> Estimate/Year Ago Conagra Brands <b>0.68/0.80</b> Constellation Brands <b>2.81/3.09</b> Duck Creek Tech <b>0.01/0.02</b> Helen of Troy Ltd. <b>3.18/3.76</b> Walgreens Boots Alliance <b>1.35/1.22</b>	<b>Consumer Credit</b> Oct, previous up \$16.9 bil. Nov, expected up \$25.0 bil.
Wednesday	<b>Factory orders</b> Oct, previous up 1.0% Nov, expected up 1.5%	<b>Initial jobless claims</b> Previous 198,000 Expected 195,000	<b>Earnings expected*</b> Estimate/Year Ago Acuity Brands, Inc. <b>2.42/2.03</b>
<b>EIA status report</b> Previous change in stocks in millions of barrels Crude-oil stocks down 36 Gasoline stocks down 15 Distillates down 1.7			

\* FactSet Estimates earnings-per-share estimates don't include extraordinary items (Losses in parentheses) ♦ Adjusted for stock split  
Note: Forecasts are from Dow Jones weekly survey of economists



Walgreens Boots Alliance is expected to report per-share earnings of \$1.35 on Thursday.

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# HEARD ON THE STREET

FINANCIAL ANALYSIS & COMMENTARY

## Solar Starts Year With Long Shadows

Rooftop panel companies face gloomy outlook

Rooftop solar companies aren't exactly starting the new year with the sun shining on their faces.

Shares of residential solar companies **Sunrun** and **Sunnova** have fallen 19% and 14%, respectively, since the California Public Utilities Commission put subsidies for rooftop solar—known as net metering—on the chopping block in December. The commission plans to vote on Jan. 27 after taking public comments. Florida is considering legislation that would cut such subsidies.

The shock to their share prices isn't surprising given that the two rooftop solar companies don't yet generate a profit; their shares trade largely on growth prospects. BloombergNEF expects total installations in 2023 to be 19% less than under its base-case scenario without rule changes. California is a leader in rooftop solar adoption and as of 2020 accounted for roughly a third of all new residential solar installations in the U.S., according to Wood Mackenzie and the Solar Energy Industries Association. The state's customers account for roughly 40% of Sunrun's installed base and a quarter of Sunnova's, according to estimates by RBC Capital Markets.

Much of California's rooftop solar growth has been fueled by the net-metering system, which allows solar customers to sell the excess electricity they don't use back to the grid at a pretty generous value, the same retail rate they are charged for their home electricity. That has helped spur solar adoption as intended, but someone else



California's rooftop solar market is no longer at the peak of its growth.

has had to pick up the tab. Since rooftop solar customers pay less on their utility bills, they end up contributing less toward maintaining the grid, which they still use. That has meant the cost burden was shifted to those without rooftop solar, and often those who can't afford it. Various groups peg that cost shift at between \$1 billion and \$3.4 billion a year.

The new rule would cut the rate solar customers get for selling their excess energy by a fair chunk. The rate will decline to 3 to 4 cents per kilowatt-hour during most sunny hours of the day, down from 17 to 44 cents per kWh previously, according to estimates from Pol Lezcano, North America solar analyst at BloombergNEF.

It also adds a carrot in the form of a credit for installations and a stick in the form of a "grid charge" for solar users. The bottom line is that it will take new solar customers about 11 years to make back their upfront investment in their solar panels through reduced electricity bills, a substantial jump from the seven years it currently takes, according to BloombergNEF estimates.

Net-metering rules have always been contentious across the country, but an overhaul seemed inevitable in California. Its solar-heavy grid has an abundance of electric-

ity during daylight hours but a steep drop once the sun sets. That creates strains.

Hawaii, which saw furious growth in rooftop solar before getting rid of net metering in 2015, had to do so largely out of necessity—parts of its grid were overwhelmed by a surge of solar electricity generated during the day.

There are some silver linings to this. One is that California's rooftop solar market is no longer at the peak of its growth, which has slowed in recent years. Solar systems are installed on roughly 15% of California households living in single-family detached structures, according to the National Renewable Energy Laboratory. That means growth, to some extent, has to come from selling battery storage to those existing solar customers.

The new rules create a price incentive for households to add storage to solar systems, according to Mr. Lezcano. BloombergNEF estimates that with the new rules, the payback period for solar-plus-storage will decline to six years by 2027, down from eight years now.

For rooftop solar companies, generous incentives were the training wheels that had to come off at some point. Expect some wobbles ahead, but not a crash.

—Jinjo Lee

## Metaverse Needs More Than a VR Bump

Among the drawbacks to Facebook's recent rebranding as a "metaverse" company are that it is no longer enough just to make a solid videogame device.

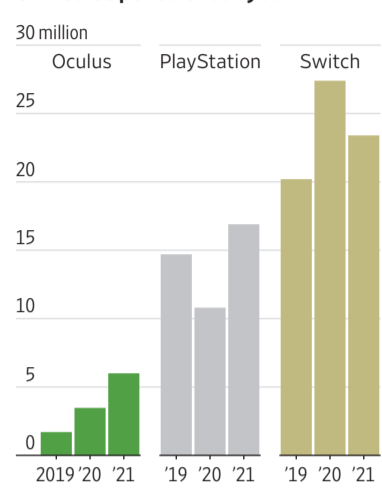
The company now known as **Meta Platforms** appears to have had a decent holiday season for its Oculus VR headset. Analysts for KeyBanc Capital and Jefferies noted in reports last week that downloads of the Oculus app jumped over Christmas; Brent Thill of Jefferies added that daily active users of the app on Christmas Day were up 90% from the same day the previous year. Facebook has never regularly disclosed sales data for Oculus, which it acquired in 2014 for \$2 billion. But IDC estimates unit sales of the VR devices in 2021 will come in between 5.3 million and 6.8 million, once the market research firm's fourth-quarter data is finalized.

Either one would be a nice jump from the 3.5 million Oculus units estimated to have sold last year. And it is far better than the anemic sales from before the company put out its first Quest headset in mid-2019. Oculus devices before that mostly required a cable running to a high-powered PC. Such "tethers" have severely limited the appeal of VR devices even to the gamer crowd.

Analysts estimate **Sony** sold about 5.5 million units of its tethered PlayStation VR headset in the fiscal years 2019 to 2021, according to consensus estimates from Visible Alpha. That is equivalent to about 12% of the total PlayStation console units the company sold in that time.

But while Facebook founder Mark Zuckerberg has long made clear that his ambitions for Oculus go well beyond gaming, the company's name change two months ago significantly raised the stakes on that bet. Proponents of the metaverse concept insist the idea is about more than virtual reality.

Unit sales per calendar year



Source: IDC (Oculus); Visible Alpha (PlayStation & Switch)

But VR is one of the main technologies that would set such a virtual world apart from browsing the internet on computers and mobile devices. "Without VR, there is no presence. And presence is the key point," said VR market analyst Stephanie Llamas of VoxPop.

Hence, a company banking its future on the metaverse will have to get a lot more devices into a lot more hands. Estimated Oculus sales over the past five years amount to less than 3% of Facebook's daily user base in North America and Europe—the two markets that account for the vast majority of its business. It is anyone's guess how many people who got a headset for Christmas will be anything but casual users.

Facebook's metamorphosis assumes that enough people will be willing to invest a few hundred dollars to plug into a virtual world controlled by a company with serious public trust issues now generating more than \$110 billion a year in ad revenue. Getting VR headsets under the Christmas tree may prove to be the easy part.

—Dan Gallagher

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# YEAR-END REVIEW & OUTLOOK

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THE WALL STREET JOURNAL.

Monday, January 3, 2022 | R1

## Omicron Blurs the Outlook for Oil

Traders watch variant, uncertain if rally in energy pauses or if demand resumes and tests output

By JOE WALLACE

The fast-spreading Omicron variant is clouding the outlook for oil markets after a rapid recovery in demand pushed prices to their highest levels in years.

Oil marched higher for much of 2021. Demand lifted as economies revved up, while producers in the Middle East and elsewhere kept millions of barrels of crude each day in the ground. Brent-crude prices, the global benchmark, climbed more than 50% to \$77.78 a barrel.

The rally delivered bumper earnings at companies such as **Exxon Mobil Corp.** and **Chevron Corp.**, making energy the best-performing sector of the S&P 500 for the year. Mining companies including **Glencore PLC** and **Freeport-McMoRan Inc.** also enjoyed share-price runups driven by advances in commodities from coal to copper.

Drivers are feeling the pinch. Average national prices for regular gasoline have risen to about \$3.29 a gallon from \$2.25 a gallon in late 2020, according to AAA, though they are down from about \$3.40 before the emergence of the Omicron variant of Covid-19. Energy contributed to the fastest pace of consumer-price growth in decades in the fall, prompting President Biden to release crude from the strategic reserve.

Crude prices had reached their highest levels since 2014 before governments restricted travel to stall Omicron in late November. They have seesawed since, leading traders to wrestle with two questions: Will Omicron knock oil off its upward trajectory? Or will demand resume its advance, perhaps testing the world's ability to produce crude?

"We've learned that demand can come back with a vengeance," said Francisco Blanch, head of commodities and derivatives research at Bank of America. He thinks Brent prices could reach \$120 a barrel in 2022, barring a jump in Covid-19 hospitalizations or a major outbreak in China.

The world is still using less oil than it did on the eve of coronavirus,



Energy traders and analysts say Omicron won't deliver the kind of shock to oil prices from the first coronavirus shutdowns. Above, a rig operation in Utah in October.

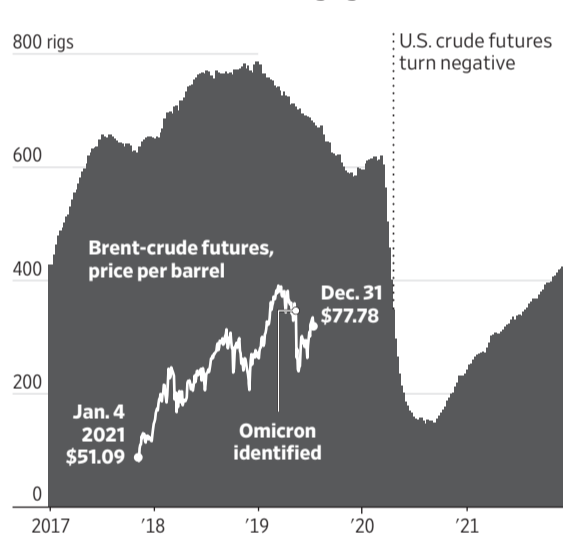
consuming about 96.2 million barrels a day in 2021, according to the International Energy Agency. But demand has snapped back faster than production, and the energy adviser figures demand will reach pre-coronavirus levels of over 100 million barrels a day in the third quarter of 2022.

The longer-term path of demand for—and production of—fossil fuels is another unknown. World leaders in November reached a deal that aims to accelerate emission cuts. The IEA's forecasts for oil demand over the next three decades hinge on the extent to which governments follow through on climate commitments.

Energy traders and analysts say Omicron won't deliver the kind of shock to oil prices unleashed by the first coronavirus shutdowns, when

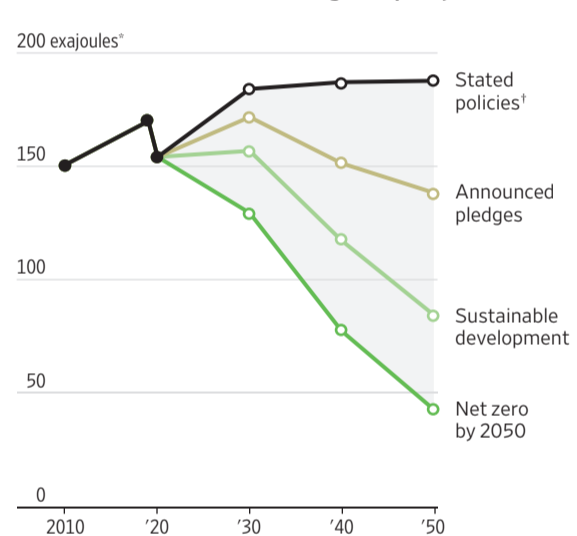
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Number of horizontal oil drilling rigs in the U.S.



\*One exajoule is equal to 10<sup>18</sup> joules. †Under 'stated policies', governments don't achieve their climate goals. Analysts believe 'sustainable development' would keep the temperature rise well below 2°C, an aim of the 2015 Paris accord. Sources: Baker Hughes via FactSet (rigs); International Energy Agency (forecasts); FactSet (futures)

Forecasts for oil demand under global policy scenarios



## Cheaper Stocks Boost S&P 500's Prospects

By MICHAEL WURSTHORN

Investors banking on a roaring bull market in U.S. stocks in 2022 are enjoying the company of an unexpected ally: valuations.

The S&P 500 rose 27% in 2021, capping a third consecutive year of double-digit gains. Yet stocks are cheaper than they were a year ago: The S&P is trading at 21 times analysts' projected earnings over the next 12 months, down from 22.8 times at the end of 2020.

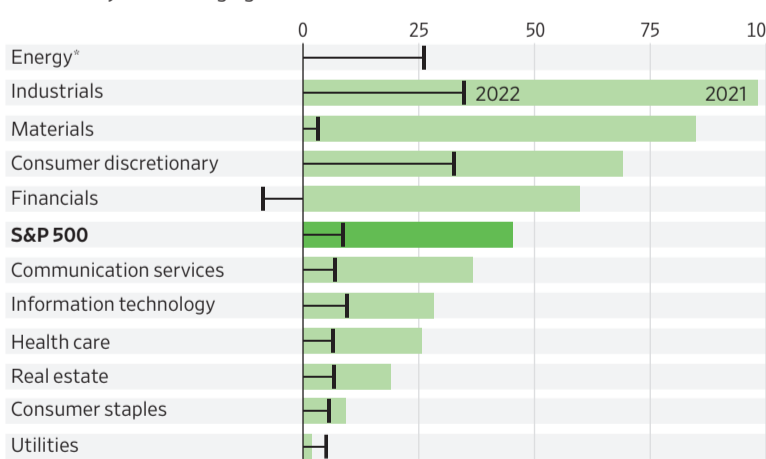
Lower valuations, together with an expanding economy and ultralow interest rates, help explain why most Wall Street forecasters predict the S&P 500 will continue to rise in 2022, even as the Federal Reserve prepares to raise interest rates for the first time since the pandemic struck. Goldman Sachs, RBC, Wells Fargo, Credit Suisse and others predict the S&P 500 will rise between 6% and 11%.

"Earnings can't maintain the 2021 pace, but it should still be a growing environment," said Rob Haworth, a senior investment strategy director at U.S. Bank Wealth Management.

A blowout year of corporate earnings

### Earnings Scorecard

Year-over-year earnings growth of the S&P 500 and its sectors



\*No earnings growth rate for in 2021 due to the sector reporting a loss in the prior year. Source: FactSet

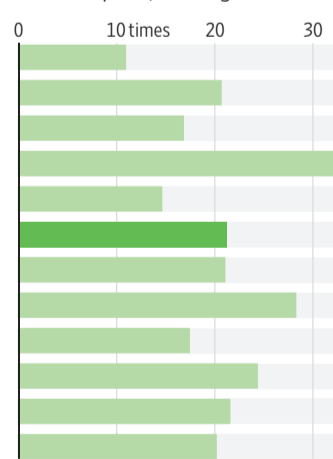
was the story in 2021. S&P 500 profit rose 45%, the most since FactSet started keeping track in 2008.

The coming year will be different, of course. Inflation is surging for the first time in a generation, potentially eating into profit. Fed rate increases will force investors to reassess the

earnings outlook, and of course the Covid-19 pandemic will likely take further twists and turns.

All this means that profit growth will likely revert to more normal levels. The Wall Street estimate for S&P profit growth has fallen to 9% from 16% earlier in 2021.

Forward price/earnings ratio



Meanwhile multiples remain above their long-run average, though the ultralow level of interest rates helps to explain that, many analysts and portfolio managers say.

"What else are you going to do? Putting money into bonds is dead money," said Scott Ladner, chief in-

vestment officer at Horizon Investments. "Your best case is getting money out of the stock market, where there is earning power."

By BlackRock's estimate, the yield on the benchmark 10-year Treasury note would have to approach 3%, up from a recent 1.5%, to entice investors to put their money into anything other than stocks. Even with expectations that the Fed will raise interest rates three times, many analysts see 10-year yields moving no higher than 2% or so.

Some say the economic backdrop for 2022 requires a more nuanced strategy than buying S&P 500 index funds, in part because some sector valuations are at extreme ends of the spectrum.

The S&P 500's tech stocks are currently trading around their highest levels in nearly a decade at 28 times. Consumer-discretionary stock multiples have contracted from 2020's all-time highs, but remain at 33 times, well above levels going back to 1999. For both, the combination of higher rates and lower earnings growth will likely keep a lid on outside gains in

*Please turn to page R3*

### INSIDE

#### CURRENCIES

From NFTs to SNL, crypto continues to burrow into the mainstream culture. **R2**



#### Muni Bonds

Investors poured more money into funds than they had in decades. **R2**

#### COMMODITIES

Gold ended the year with its largest slide since 2015, even as consumer prices jumped. **R14**



#### Coming Next Week

The Personal Investing Monthly report, including mutual funds and ETFs, will appear on Monday, Jan. 10.

JOURNAL REPORT | YEAR-END REVIEW & OUTLOOK OF MARKETS & FINANCE

# NFTs and SNL: Cryptocurrencies Keep Burrowing Into Mainstream

Amid another crazy year for digital tokens, millions of new investors decided to try their hand in 2021

By PAUL VIGNA

Crypto has been many things in its short history. In 2021 it became part of the mainstream.

Elon Musk tweeted about it, often. It was parodied on “Saturday Night Live.” Collins Dictionary dubbed “NFT,” the abbreviation for nonfungible tokens, its word of the year.

Institutional investors looked for ways to get in, and the first bitcoin ETF started trading. Individual traders bought crypto on their phones when they weren’t snapping up **GameStop Corp.**

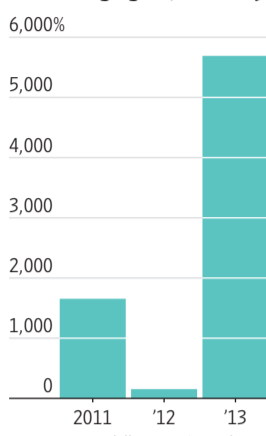
About 16% of the U.S. population holds or has held cryptocurrencies, according to Pew Research Center. In 2015, Pew found that only 1% of Americans held or had held cryptocurrencies. The number of people holding cryptocurrencies globally doubled in 2021 to about 220 million, according to crypto.com.

Crypto prices remained as volatile as ever. From January to April, the price of bitcoin doubled. From April to July, it fell more than 50%. It doubled again a few months later, hitting a record of nearly \$70,000 in November. At 5 p.m. ET Friday, it was trading at \$46,321.84, still up some 60% from its price of roughly \$29,000 at the start of 2021.

In percentage terms, bitcoin’s gains actually represent one of its weaker years. In 2020, the digital currency rose more than 300%. In dollar terms, however, 2021 was by

Bitcoin’s roughly 60% gain in 2021 would actually be one of its weaker years, when measured in percentage terms.

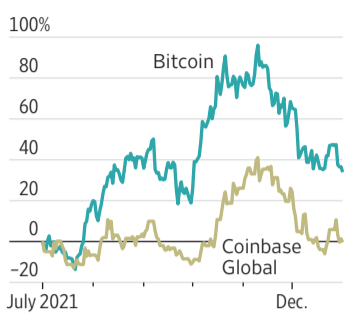
Percentage gain, annually



Sources: in2013dollars.com (annual percentage gain); CoinDesk (bitcoin); FactSet (Coinbase Global, S&P 500); Kraken (Ethereum)

Shares of Coinbase Global were largely tied to the price of bitcoin.

Performance since end of June



Ethereum’s gains outpaced bitcoin’s. The two largest cryptos both outpaced equities.

Performance in 2021



# CLOs Post Record Year With Yields Attracting Investors

By SEBASTIAN PELLEJERO

Investors’ search for higher yields and Wall Street’s shift to a new interest-rate benchmark powered a record year in sales of collateralized loan obligations—securities made of bundles of low-rated corporate loans.

Asset managers including **Ares Management Corp.** and **PGIM Inc.** were on pace to finish 2021 with more than \$186 billion in new CLO sales, according to Leveraged Commentary & Data. That is a high in data going back to 2011, smashing 2018’s previous yearly record of \$128.9 billion.

The U.S. CLO market is now the largest securitized credit sector in the country at \$850 billion outstanding, according to Bank of America Corp. That puts it ahead of other forms of packaged debt known as asset-backed securities—including auto loans, credit-card balances and student loans.

CLOs were among the top-performing credit assets in 2021, attracting investors in search of higher fixed-income yields in a world of near-zero interest rates.

Improving corporate earnings have helped keep default rates low in the underlying leveraged loans, which private-equity firms use to finance corporate buyouts, analysts said. CLOs are the biggest buyers of such loans.

One factor driving sales in the fourth quarter was the year-end transition away from the London interbank offering rate, the scandal-marred interest-rate benchmark that underpins CLOs and trillions of dollars of other financial contracts.

As of Jan. 1, banks are no longer able to issue new debt tied to Libor, while outstanding debt will have until 2023 to transition to a new rate.

Higher-than-expected inflation has also made CLO securities attractive to investors.

The securities typically offer payments that rise and fall with interest rates, unlike the fixed payments on many bonds, increasing the debt’s appeal as many investors expect rates to climb.

Triple-A rated CLO securities have returned 1.4% to investors in 2021 through November, counting interest payments and price changes, according to Bank of America, beating total returns of minus 1.82% from U.S. Treasuries and minus 0.96% from investment-grade corporate bonds. These securities are typically bought by banks and insurance companies.

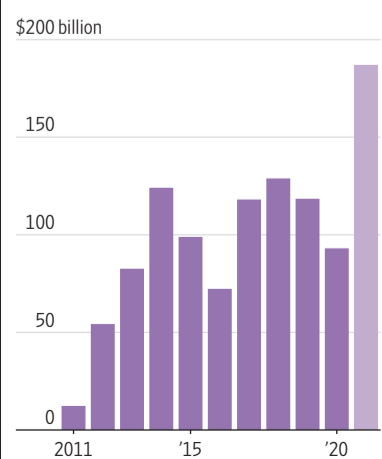
Double-B rated CLO securities had a total return of 8.9% in 2021 over the same period, surpassing those of 3.51% and 4.53% from similarly rated high-yield bonds and leveraged loans, respectively.

Some analysts say that the transition away from Libor could slow the pace of CLO sales. Banks and lenders have come under pressure from regulators to wind down their own and their clients’ exposure to Libor, which is being phased out after regulators discovered traders at large banks manipulated the rate by submitting false data.

But issuers of leveraged loans and CLOs continued to launch deals using Libor through the end of 2021, saying it remained attractive for reasons including favorable rates and familiar behavior, according to executives, lawyers and advisers.

Only a handful have sold securities linked to Wall Street’s preferred Libor replacement, the Secured Overnight Financing Rate, or SOFR.

Sales of new collateralized loan obligations, yearly



Note: 2021 data is as of Dec. 23. Source: Leveraged Commentary & Data

# Cash Floods the Municipal-Bond Market

By HEATHER GILLERS

Investors poured more money into municipal bond funds through mid-December last year than they had in decades, providing the fuel for borrowing by states and cities to fund new bridges, sewers and other state and local projects to a second-straight 10-year high.

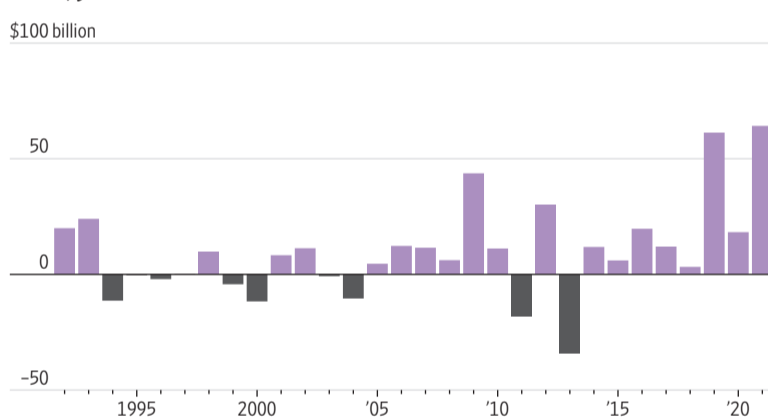
Municipal bond funds now hold an unprecedented 24% of outstanding debt compared with 16% five years ago, according to Federal Reserve data. The move marks the latest step in a fundamental shift away from a buy-and-hold market in which individual investors quietly collect interest year after year.

The record levels of borrowing and investing in 2021 are evidence that investors have moved well past their early worries the pandemic would drive a wave of municipal defaults and bankruptcies. Buoyed by stimulus funds, state and local governments issued \$302.3 billion of debt for new projects as of Dec. 29, the most in at least a decade.

Meanwhile, investors plowed \$64 billion into muni mutual and exchange-traded funds through Dec. 15, according to data from Refinitiv Lipper, more than they ever have during that period since tracking began in 1992. That includes \$22 billion into high-yield funds that hemorrhaged cash in 2020.

“Generally there’s a better credit environment, you have lower supply [and] more demand, and then you just have investors who are willing to take on more risk to replace the yield that they previously got on their high-grade bonds,” said Eric Friedland, director of municipal-bond research at asset manager Lord Abbett.

Net flows to municipal-bond mutual and exchange-traded funds, year to date\*



\*Data through Dec. 15 of each year. †Data through Dec. 29 of each year. Source: Refinitiv Lipper

Bonds issued by state and local governments are particularly precious to investors because they carry interest payments usually free from federal, and often state, taxes. Expectations for possible tax increases under a Democratic administration likely stoked investors’ appetites, Mr. Friedland said.

The S&P Municipal Bond Index had a total 2021 return of 1.76%, including price changes and interest payments through Dec. 30. That compares with minus 2.13% for the S&P U.S. Treasury Bond Index and minus 1.79% for the S&P U.S. Investment Grade Corporate Bond A Index.

High-yield municipal bonds racked up more-substantial gains as investors abandoned their fears of default, with the S&P Municipal Bond High Yield Index returning 6.77% through Dec. 30.

The government and nonprofit borrowers that issue bonds in the nearly \$4 trillion municipal market

are generally in better financial shape than they were in 2020, according to analysts and financial reports. Tax collections and stimulus funds have buoyed municipal balance sheets. The federal infrastructure package recently signed into law could lead to additional money for capital projects.

Defaults, a rarity in the muni market, remain higher than during the pre-pandemic period, though they fell from 2020, according to Municipal Market Analytics. Some borrowers have fared particularly badly. There were 33 defaults in 2021 among assisted-living and other senior-housing borrowers, the most since the firm’s record-keeping began in 2009.

Some state and local governments also remain on shaky ground, using bond money to plug budget gaps or relying on stimulus funds to paper over financial problems. Towns across the U.S. in 2021 resorted to pension-obligation borrowing, using a record-breaking amount of debt to top up retire-

ment funds in the hopes that market returns will outpace interest costs.

Even with borrowing for new projects at a 10-year record, total debt issuance fell short of some expectations. Citigroup Inc. twice revised its forecast for total 2021 issuance downward, after Congress declined to include two bond programs in the infrastructure bill.

Including refinancing deals, municipal borrowers had sold a total of \$454 billion as of Dec. 21, also at least a 10-year record. Cities and states could probably sell roughly \$100 billion more of bonds without driving down prices, according to an analysis of lending capacity by Municipal Market Analytics. The mismatch between supply and demand grew after the 2017 tax overhaul prohibited the use of tax-exempt borrowing for early refinancing while simultaneously making tax-free yield more precious to some investors by capping the state and local tax deduction.

# Oil’s Outlook Turns Hazy With Variant

Continued from page R1

U.S. crude futures briefly turned negative. One reason is that demand for oil from the petrochemicals industry is offsetting a decline in jet-fuel consumption. Giving oil demand another boost, a surge in natural-gas prices in Europe and Asia encouraged utilities to burn fuel oil and coal to generate electricity.

Investors have recently sold oil to

lock in profits, pushing prices lower than justified by the likely effect of Omicron on demand, said Rebecca Babin, senior energy trader at CIBC Private Wealth U.S. “We’ve had a pretty amazing year in energy,” she said.

Drops in demand could help build a buffer of supply. Cuts by the Organization of the Petroleum Exporting Countries and Russia have drained stockpiles in members of the Organization for Economic Cooperation and Development, a group of mainly rich countries, below the five-year average. There are doubts about the cartel’s ability to unwind those curbs following a decline in spending on production during the pandemic.

“There are countries that simply don’t have spare capacity,” said Amrita Sen, founding partner of consulting firm Energy Aspects. Meanwhile, she added, the chances of a revamped nuclear deal that lifts sanctions on Iranian oil exports appear to be fading.

One country that is struggling to pump oil: Nigeria, Africa’s largest supplier, whose crude plays an important role in balancing international markets. It produced 1.29 million barrels of crude a day in November, 360,000 barrels fewer than its OPEC quota, according to the IEA. The agency says operational problems, sabotage and pipeline leaks might hamper a recovery of output.

Drilling activity in the U.S., however, is picking up. Leading the way are private producers that have scooped up market share from publicly traded rivals under pressure from investors to deliver dividends instead of splashing money on wells. That, coupled with rising output in countries including Canada and Brazil, should sate demand for oil, said Edward Morse, head of commodities research at **Citigroup Inc.**

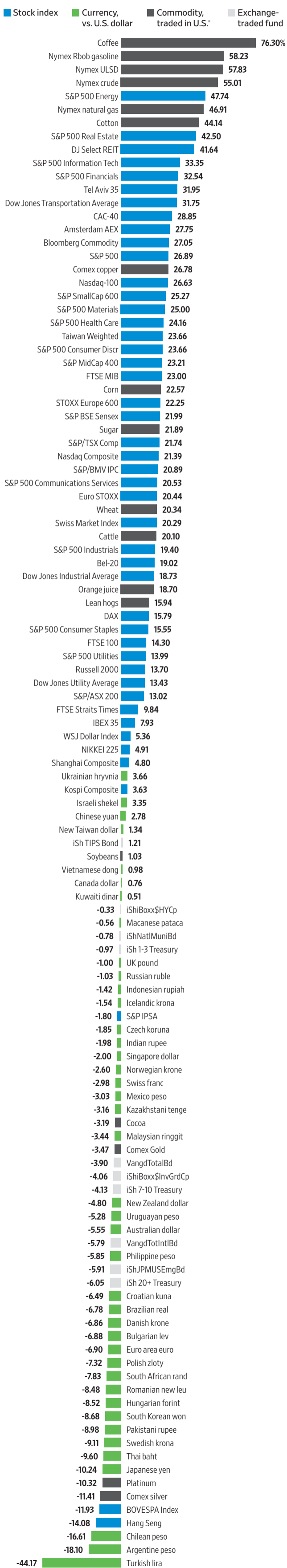
Some banks forecast another run-up in oil prices in the coming years caused by underinvestment in fossil fuels. Citigroup’s Mr. Morse is skeptical, saying the increased adoption of electric vehicles, among other factors, will limit demand growth beginning in 2023 or 2024.



# JOURNAL REPORT | YEAR-END REVIEW & OUTLOOK OF MARKETS & FINANCE

## Track the Markets: Winners and Losers

A look at how selected global stock indexes, bond ETFs, currencies and commodities performed for the year

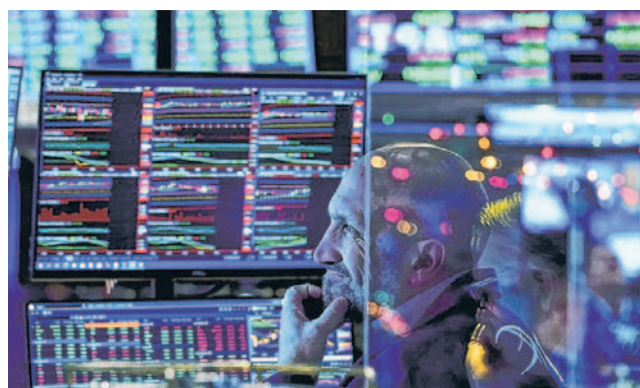


## S&P 500 Valuations Offer Hope

Continued from page R1  
the market's growthier sectors, investors and analysts said.

Meanwhile, some money managers and analysts say energy and financial stocks are relative bargains thanks to solid earnings growth helping to keep valuations in check, even as prices mostly rose across those sectors.

The S&P 500's energy sector trades at 11 times earnings, below average multiples. With analysts predicting a 26% growth in earnings for the sector over 2022, energy stocks appear to have further room to run following 2021's 48% return for the sector. Goldman's analysts



RICHARD DREW/ASSOCIATED PRESS

Wall Street observers expect solid, but more muted, gains in stocks.

pointed to **Hess Corp.** in the energy sector as a stock poised to deliver above-average returns in the coming months.

Financials, meanwhile, trade at nearly 15 times forward earnings. With rates as low as they have been, those stocks seem fairly priced, analysts and investors said. But several rounds of rate increases have the potential to dramatically lift

the fortunes of financial stocks and their profitability around lending. But that is only as long as the economic environment remains robust enough to support a pickup in lending activity, some analysts added.

Jason Brady, chief executive of \$48 billion money manager Thornburg Investment Management, counts **JPMorgan Chase & Co.** and **Visa Inc.** as two of

his picks for 2022. The former carries a below-market multiple, he said, while Visa remains positioned to benefit from continuing economic growth and is somewhat insulated from the threat of inflation.

Small-cap stocks are also a favorite for several money managers, including Keith Buchanan, a portfolio manager at Globalt Investments. Mr. Buchanan pointed to the strengthening dollar as one reason to be optimistic on smaller stocks, especially on the value side. Others added that if the economy continues to strengthen, stocks across the Russell 2000 could be poised for a breakout from more recent tepid performance.

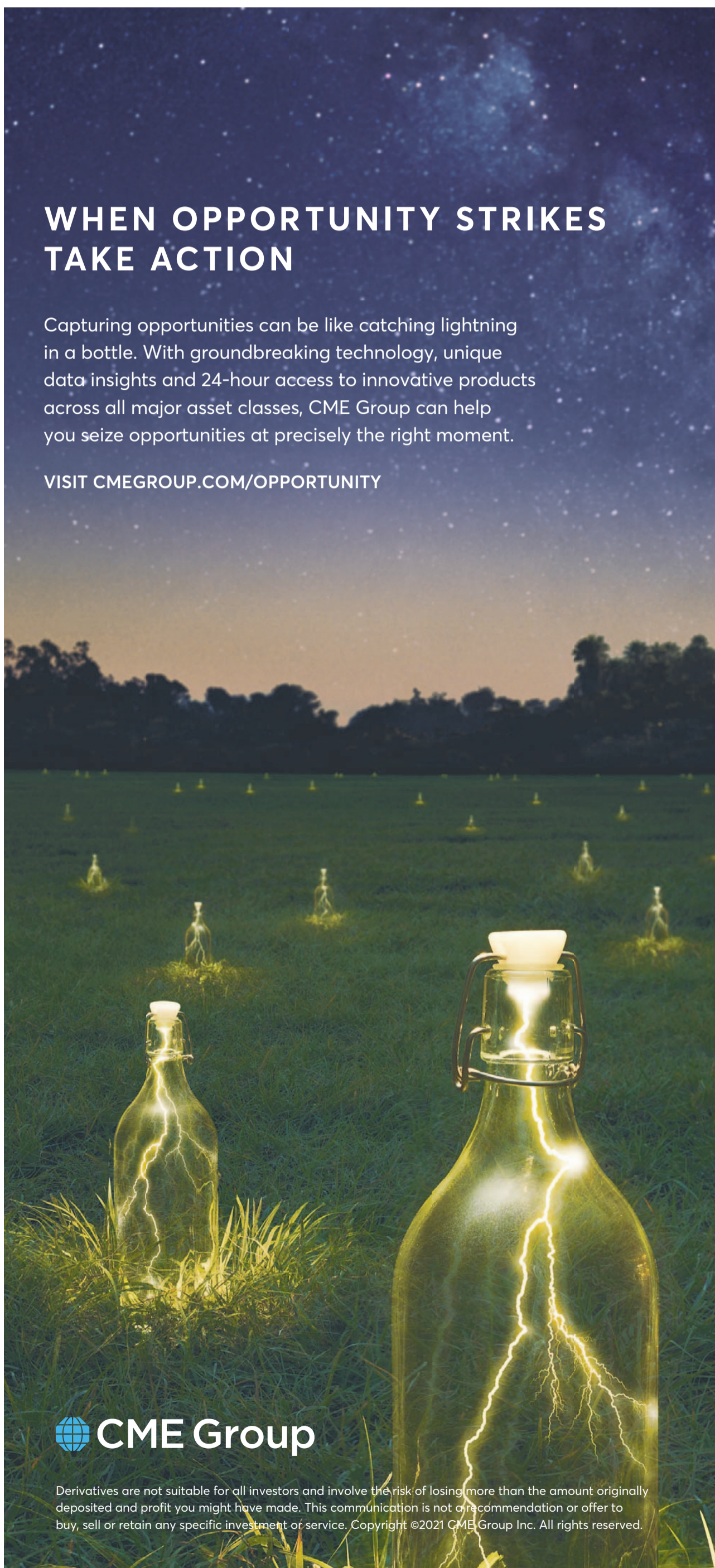
Overall, Wall Street observers are expecting a solid, but more muted, year of stock-market gains.

"This year won't be as good as last, but it won't be horrible by any stretch of the definition," said Mr. Ladner.

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\*Continuous front-month contracts  
Sources: FactSet (stock indexes, bond ETFs, commodities), Tullett Prebon (currencies)

# JOURNAL REPORT | YEAR-END REVIEW & OUTLOOK OF MARKETS & FINANCE: MARKETS DIGEST

## Top 20 Global M&A Deals in 2021

Ranked by deal value excluding net debt of the target company.

Acquirer	Target	Date Announced	Value Billions
Existing Shareholders	VMware (80.65%)	14-Apr	60.8
Discovery	Warner Media	17-May	53.1
Verizon Communications	Mobile Telephone Licence (3,511 C-band spectrum Mobile Licenses, 100%)	24-Feb	45.5
Prosus	Naspers (45.4%)	12-May	39.8
Altimeter Growth	Grab Holdings	13-Apr	37.7
Lionheart Acquisition II	MSP Recovery	12-Jul	32.5
Existing Shareholders	Universal Music Group	21-Sep	32.0
AerCap Holdings	GE Capital Aviation Services	10-Mar	31.1
Blackstone, Carlyle Group, Hellman & Friedman, GIC Pte	Medline Industries (Maj%)	5-Jun	30.0
Churchill Capital IV	Lucid Motors	22-Feb	28.5
Oracle	Cerner	16-Dec	28.1
Canadian Pacific Railway	Kansas City Southern (Bid No 3) Afterpay	10-Aug	27.3
Square	Mobile Telephone Licence (1,621 C-band spectrum Mobile Licenses, 100%)	2-Aug	26.9
AT&T	Roche Holding (33.33%)	4-Nov	20.9
Gores Guggenheim	Polestar Performance	27-Sep	20.1
Soaring Eagle Acquisition	Ginkgo Bioworks	11-May	19.8
Microsoft	Nuance Communications	12-Apr	18.1
Existing Shareholders	Daimler Truck	10-Dec	18.0
Thermo Fisher Scientific	PPD	15-Apr	17.2

## Top 20 Global IPOs Priced in 2021

Ranked by proceeds raised, including over-allotment

Issuer	Exchange	Currency	Offer Price	Pricing Date	Value \$ millions
Rivian Automotive	Nasdaq	USD	78.00	9-Nov	13,724
Kuaishou Technology	Hong Kong	HKD	115.00	29-Jan	6,230
Coupage	NYSE	USD	35.00	10-Mar	4,520
DiDi Global	NYSE	USD	14.00	29-Jun	4,435
InPost	Amsterdam	EUR	16.00	27-Jan	3,905
Krafton	Korea	KRW	498,000.00	29-Jul	3,764
JD Logistics	Hong Kong	HKD	40.36	21-May	3,642
China Three Gorges Renewables	Shanghai	CNY	2.65	7-May	3,523
GLOBALFOUNDRIES	Nasdaq	USD	47.00	27-Oct	2,855
Volvo Car	Stockholm	SEK	53.00	29-Oct	2,690
Vantage Towers	Frankfurt	EUR	24.00	17-Mar	2,643
Allfunds Group	Amsterdam	EUR	11.50	23-Apr	2,610
Nu Holdings	B3 Novo Mercado, NYSE	USD	9.00	8-Dec	2,602
AutoStore Holdings	Oslo	NOK	31.00	20-Oct	2,476
Bumble	Nasdaq	USD	43.00	10-Feb	2,473
Paytm	Bombay, India	INR	2150.00	11-Nov	2,461
Robinhood Markets	Nasdaq	USD	38.00	28-Jul	2,255
KakaoBank	Korea	KRW	39,000.00	22-Jul	2,220
AUTO1 Group	Frankfurt	EUR	38.00	2-Feb	2,209
Playtika Holding	Nasdaq	USD	27.00	14-Jan	2,158

## Top 20 Global Bonds Priced in 2021

Ranked by face value, in U.S. dollars

Issuer	Deal Type	Issuer Nation	Currency	Pricing Date	Value \$ millions
Verizon Communications	Corp IG	United States	USD	11-Mar	25,000
European Union	Supranational	Luxembourg	EUR	15-Jun	24,229
AerCap Ireland Capital	Corp IG	Ireland	USD	21-Oct	21,000
Amazon.com	Corp IG	United States	USD	10-May	18,500
European Union	Supranational	Luxembourg	EUR	13-Jul	18,091
European Union	Supranational	Luxembourg	EUR	29-Jun	17,892
European Union	Supranational	Luxembourg	EUR	18-May	17,172
European Union	Supranational	Luxembourg	EUR	26-Jan	17,016
Italy	Sovereign	Italy	EUR	16-Feb	16,985
European Union	Supranational	Luxembourg	EUR	23-Mar	15,488
Oracle	Corp IG	United States	USD	22-Mar	15,000
Bank of America	Corp IG	United States	USD	16-Apr	15,000
Italy	Sovereign	Italy	EUR	7-Apr	14,200
Apple	Corp IG	United States	USD	1-Feb	14,000
European Union	Supranational	Luxembourg	EUR	12-Oct	13,880
United Kingdom	Sovereign	United Kingdom	GBP	21-Sep	13,679
JPMorgan Chase	Corp IG	United States	USD	15-Apr	13,000
Qatar Petroleum	Corp IG	Qatar	USD	30-Jun	12,500
China Construction Bank	Corp IG	China	CNY	6-Aug	12,358
Italy	Sovereign	Italy	EUR	5-Jan	12,265

Source: Dealogic

## Industry Groups

Best and worst-performing U.S. industry groups in the past year based on the DJ U.S. Total Stock Market Index family

Industry group	% chg from prev year	Industry group	% chg from prev year
Coal	137.3	Toys	-27.7
Tires	82.6	Alternative Electricity	-26.5
Aluminum	78.2	Brewers	-24.4
Exploration & Production	68.1	Renewable Energy Equipment	-24.0
Iron & Steel	67.6	Platinum & Precious Metals	-21.1
Nonferrous Metals	60.2	Farming & Fishing	-20.0
Home Improvement Retailers	55.8	Alternative Fuels	-16.0
Residential REITs	54.5	Fixed Line Telecomm	-13.6
Automobiles	51.7	Telecommunications	-12.4
Home Construction	51.0	Media Agencies	-12.1

Source: S&P Dow Jones Indices

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## Top 10 Rankings

### Global Mergers & Acquisitions

Deals announced in 2021

Adviser	Value \$billions	No. of Deals	Market Share%
Goldman Sachs	1,843.3	599	31.4
JPMorgan	1,499.1	636	25.6
Morgan Stanley	1,228.2	448	20.9
BofA Securities	888.1	374	15.1
Citi	856.5	351	14.6
Barclays	728.5	283	12.4
Credit Suisse	475.7	290	8.1
Evercore Inc	400.4	204	6.8
Lazard	391.7	286	6.7
Deutsche Bank	337.5	178	5.8

### Global Debt Capital Markets

Deals priced in 2021

Bookrunner	Value \$billions	No. of Deals	Market Share%
JPMorgan	657.5	2,683	7.5
BofA Securities	525.9	2,054	6.0
Citi	508.6	2,113	5.8
Goldman Sachs	395.2	1,379	4.5
Morgan Stanley	389.9	1,860	4.5
Barclays	346.2	1,500	4.0
Deutsche Bank	300.5	1,318	3.4
BNP Paribas	278.8	1,222	3.2
Wells Fargo Sec	246.6	1,505	2.8
Credit Suisse	245.7	1,007	2.8

### U.S. Mergers & Acquisitions

Deals announced in 2021

Adviser	Value \$billions	No. of Deals	Market Share%
Goldman Sachs	1,319.5	409	40.2
JPMorgan	1,047.7	413	31.9
Morgan Stanley	800.6	259	24.4
Citi	549.9	200	16.8
BofA Securities	545.2	227	16.6
Barclays	509.6	201	15.5
Evercore Inc	360.2	162	11.0
Credit Suisse	252.0	158	7.7
Lazard	219.1	149	6.7
Centerview Partners	216.9	82	6.6

### U.S. Investment-Grade Bonds

Deals priced in 2021

Bookrunner	Value \$billions	No. of Deals	Market Share%
JPMorgan	199.6	739	12.3
BofA Securities	195.6	711	12.1
Citi	148.4	566	9.1
Goldman Sachs	138.8	390	8.6
Morgan Stanley	117.1	338	7.2
Wells Fargo Sec	79.9	419	4.9
Barclays	64.1	250	4.0
Deutsche Bank	59.0	188	3.6
Mizuho	52.2	240	3.2
HSBC	50.6	141	3.1

### U.S. Core Leveraged Finance<sup>1</sup>

Fees paid in 2021

Bank	Revenue \$millions	2021 Mkt Shr %	2020 Mkt Shr %
JPMorgan	2,008.3	12.2	12.4
BofA Securities	1,488.0	9.1	7.7
Goldman Sachs	1,223.7	7.4	7.6
Barclays	1,075.4	6.5	8.3
Credit Suisse	935.7	5.7	7.4
Deutsche Bank	778.0	4.7	4.5
Morgan Stanley	773.2	4.7	5.4
Citi	687.3	4.2	5.3
RBC Capital Markets	667.0	4.1	4.0
Jefferies LLC	650.4	4.0	3.7

<sup>1</sup>Dealogic Revenue analytics are employed where fees aren't disclosed.

Source: Dealogic

## Who's No. 1?

Top banks in Dealogic rankings across M&A, equity capital markets (ECM), debt capital markets (DCM) and loans, in 2021

Product and Deal Type	No.1 - Ranked Bank	2021 market share (%)	Chg in share from 2020 (pct. points)
<b>Investment Banking</b>			
Global IB Revenue <sup>1</sup>	JPMorgan	9.5	0.4
Global M&A Revenue <sup>1</sup>	Goldman Sachs	11.1	1.2
Global ECM Revenue <sup>1</sup>	Goldman Sachs	11.0	-0.2
Global DCM Revenue <sup>1</sup>	JPMorgan	8.4	-0.4
Global Loans Revenue <sup>1</sup>	JPMorgan	10.8	-0.2
Global M&A	Goldman Sachs	31.4	4.5
U.S. M&A	Goldman Sachs	40.2	5.0
Global M&A Boutique	Evercore Inc	6.8	-1.3
<b>Equity Capital Markets</b>			
Global ECM	Goldman Sachs	9.7	-0.2
Global IPOs	Goldman Sachs	7.1	0.8
Global All Follow-Ons	Goldman Sachs	11.0	0.4
Global Convertible Bonds	Goldman Sachs	13.7	0.3
U.S. ECM	Goldman Sachs	12.7	-0.8
U.S. IPOs	Goldman Sachs	10.1	0.5
U.S. Block Trades	Morgan Stanley	26.2	-7.8
U.S. Non-Block Follow-Ons	JPMorgan	11.9	-1.4
U.S. Convertible Bonds	Goldman Sachs	17.6	0.2
<b>Fixed Income</b>			
Global DCM	JPMorgan	7.5	0.02
Global Investment-Grade Bonds	JPMorgan	6.3	-0.6
Global High-Yield Bonds	JPMorgan	10.0	0.3
U.S. DCM	JPMorgan	12.2	0.4
U.S. Investment-Grade Bonds	JPMorgan	12.3	-0.1
U.S. High-Yield Bonds	JPMorgan	10.9	-0.04
U.S. FIG Bonds	BofA Securities	13.3	0.1
Global Loans	BofA Securities	10.7	2.2
Global Investment-Grade Loans	JPMorgan	11.8	0.8
Global Leveraged Loans	BofA Securities	11.4	2.2
U.S. Loans	BofA Securities	14.9	0.3
U.S. Investment-Grade Loans	JPMorgan	19.4	1.0
U.S. Leveraged Loans	BofA Securities	14.5	1.6
U.S. Total Leveraged Finance	BofA Securities	13.3	1.4
U.S. Core Leveraged Finance	JPMorgan	9.2	-0.6
U.S. Core Leveraged Finance Revenue <sup>1</sup>	JPMorgan	12.2	-0.2

<sup>1</sup>Dealogic Revenue analytics are employed where fees are not disclosed

Source: Dealogic

## Market Boxscores

How the major indexes performed

	Fourth-quarter performance	Close 12/31/21	% chg from 12/31/20
Dow Jones Industrial Average	7.4%	36338.30	18.7
DJ U.S. Total Stock Market	8.8	48634.31	24.0
DJ World (excl. U.S.)	1.0	304.41	5.7
S&P 500	10.6	4766.18	26.9
Nasdaq Composite	8.3	15644.97	21.4
NYSE Composite	6.3	17164.13	18.2
NYSE American Composite	6.1	3427.23	45.2
Value Line (Geometric)	4.1	671.94	18.1
Russell 2000	1.9	2245.31	13.7

Sources: Dow Jones Market Data; S&P Dow Jones Indices

## How the 30 Dow Jones Industrials Performed

Percentage change in the fourth-quarter and year-to-date

Company	4th-qr close	Percent Chg 4th-qr	YTD	Company	4th-qr close	Percent Chg 4th-qr	YTD
UnitedHealth Group	502.14	28.5	43.2	Travelers	156.43	2.9	11.4
Home Depot	415.01	26.4	56.2	Merck	76.64	2.0	-1.7
Apple	177.57	25.5	33.8	3M	177.63	1.3	1.6
Microsoft	336.32	19.3	51.2	Goldman Sachs	382.55	1.2	45.1
Procter & Gamble	163.58	17.0	17.6	IBM	133.66	0.7	11.2
Cisco Systems	63.37	16.4	41.6	Dow	56.72	-1.5	2.2
Chevron	117.35	15.7	39.0	Honeywell International	208.51	-1.8	-2.0
Nike	166.67	14.8	17.8	American Express	163.60	-2.3	35.3
Coca-Cola	59.21	12.8	8.0	Visa	216.71	-2.7	-0.9
McDonald's	268.07	11.2	24.9	JPMorgan Chase	158.35	-3.3	24.6
Walgreens	52.16	10.9	30.8	Intel	51.50	-3.3	3.4
Caterpillar	206.74	7.7	13.6	Verizon	51.96	-3.8	-11.6
Johnson & Johnson	171.07	5.9	8.7	Salesforce.com	254.13	-6.3	14.2
Amgen	224.97	5.8	-2.2				

JOURNAL REPORT NEW YORK STOCK EXCHANGE 2021 TRADING SUMMARY

Stock listings show the year-end earnings ratio, 2021 high, 2021 low, and last trade as well as the net and percentage change from the previous year.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks and their performance metrics.

Dow Jones Industrial Average



Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec. 26500

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks and their performance metrics.

B

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks and their performance metrics.

NYSE Markets Diary

Table with columns: Advances, Decliners, Unchanged, Total Issues. Shows market activity for 2021, 2020, and 2019.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks and their performance metrics.

D

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks and their performance metrics.

E

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks and their performance metrics.

Explanatory Notes

Change values and high-low ranges are adjusted for any stock splits that occurred in the past year.

n-New stock listing in the past trailing 52 weeks; cc-P/E ratio of 100 or more; dd-Indicates a loss in the most recent four quarters

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JOURNAL REPORT NEW YORK STOCK EXCHANGE 2021 TRADING SUMMARY

Main table containing stock trading data for 2021, organized by sector (Energy, Industrials, Technology, Healthcare, Consumer Goods, Financials, etc.) and including columns for stock name, ticker, price, change, and volume.

Summary table for the bottom section, listing key metrics and stock performance highlights.

JOURNAL REPORT NASDAQ 2021 TRADING SUMMARY

Stock listings show the year-end price-to-earnings ratio, 2021 high, 2021 low, and last trade as well as the net and percentage change from the previous year.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like AAO, AAC, ACI, etc.

Nasdaq Composite Index



Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like n AchariVentures, AcordaTherap, etc.

Nasdaq Markets Diary

Table with columns: 2021, 2020, 2019. Rows: Advances, Decliners, Unchanged, Total Issues.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like Adobe, AdvantEdge, etc.

JOURNAL REPORT NEW YORK STOCK EXCHANGE 2021 TRADING SUMMARY

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like n Pontem, n Portent, etc.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like SAP, S&P Global, etc.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like n Squarespace, St.Joe, etc.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like n TortoiseEcolli, TotalEnergies, etc.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like VerticalAerospace, VerticalAero, etc.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like n RCF Acqn, n RCF Acqn A, etc.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like TAL Education, T Energy, etc.

Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Lists various stocks like UBS Group, UDR, etc.

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JOURNAL REPORT NASDAQ 2021 TRADING SUMMARY

Main table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Contains multiple columns of stock data.

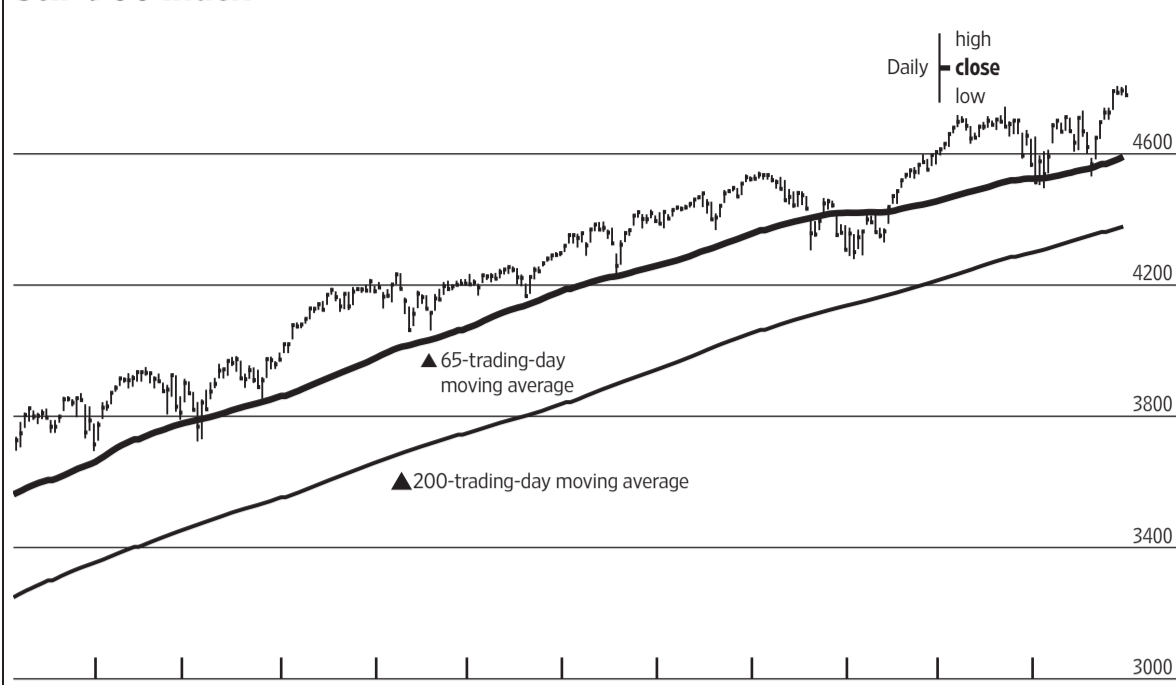
Table with columns: Stock, SymPE, Hi, Lo, Last, Net Chg, Pct Chg. Contains stock data for the bottom section.



JOURNAL REPORT EXCHANGE-TRADED PORTFOLIOS 2021 TRADING SUMMARY

Table with columns: Stock, Sym, Hi, Lo, Last, Net Chg, Pct Chg. Lists top performing and declining stocks in the S&P 500.

S&P 500 Index



Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.

Main table of exchange-traded portfolios with columns: Stock, Sym, Hi, Lo, Last, Net Chg, Pct Chg. Lists various ETPs and their performance.

Table with columns: Stock, Sym, Hi, Lo, Last, Net Chg, Pct Chg. Lists top performing and declining ETPs.

JOURNAL REPORT NASDAQ 2021 TRADING SUMMARY

Table with columns: Stock, Sym, PE, Hi, Lo, Last, Net Chg, Pct Chg. Lists top performing and declining NASDAQ ETPs.

Main table of NASDAQ exchange-traded portfolios with columns: Stock, Sym, PE, Hi, Lo, Last, Net Chg, Pct Chg.

Table with columns: Stock, Sym, PE, Hi, Lo, Last, Net Chg, Pct Chg. Lists top performing and declining NASDAQ ETPs.



JOURNAL REPORT STOCK EXCHANGE-TRADED PORTFOLIOS 2021 TRADING SUMMARY

Table with columns: Stock, Sym, Hi, Lo, Last, Net Chg, Pct Chg, and multiple columns of stock symbols and their corresponding values. The table is organized into several sections, each with a header row and multiple data rows.

JOURNAL REPORT EXCHANGE TRADED PORTFOLIOS 2021 TRADING SUMMARY

Main table containing 10 columns of data for various ETPs, including columns for Stock, Sym, Hi, Lo, Last, Net Chg, Pct Chg, and Dec 2021 performance metrics.

JOURNAL REPORT | PREFERRED STOCKS 2021 TRADING SUMMARY

Table with columns: Stock, Hi, Lo, Last, Net Chg, Pct Chg. Multiple columns for different stock categories (A, C, G, N, O, P, Q, R, S, T, U, V, W, X, Y, Z).

Table with columns: Stock, Hi, Lo, Last, Net Chg, Pct Chg. Multiple columns for different stock categories (A, C, G, N, O, P, Q, R, S, T, U, V, W, X, Y, Z).

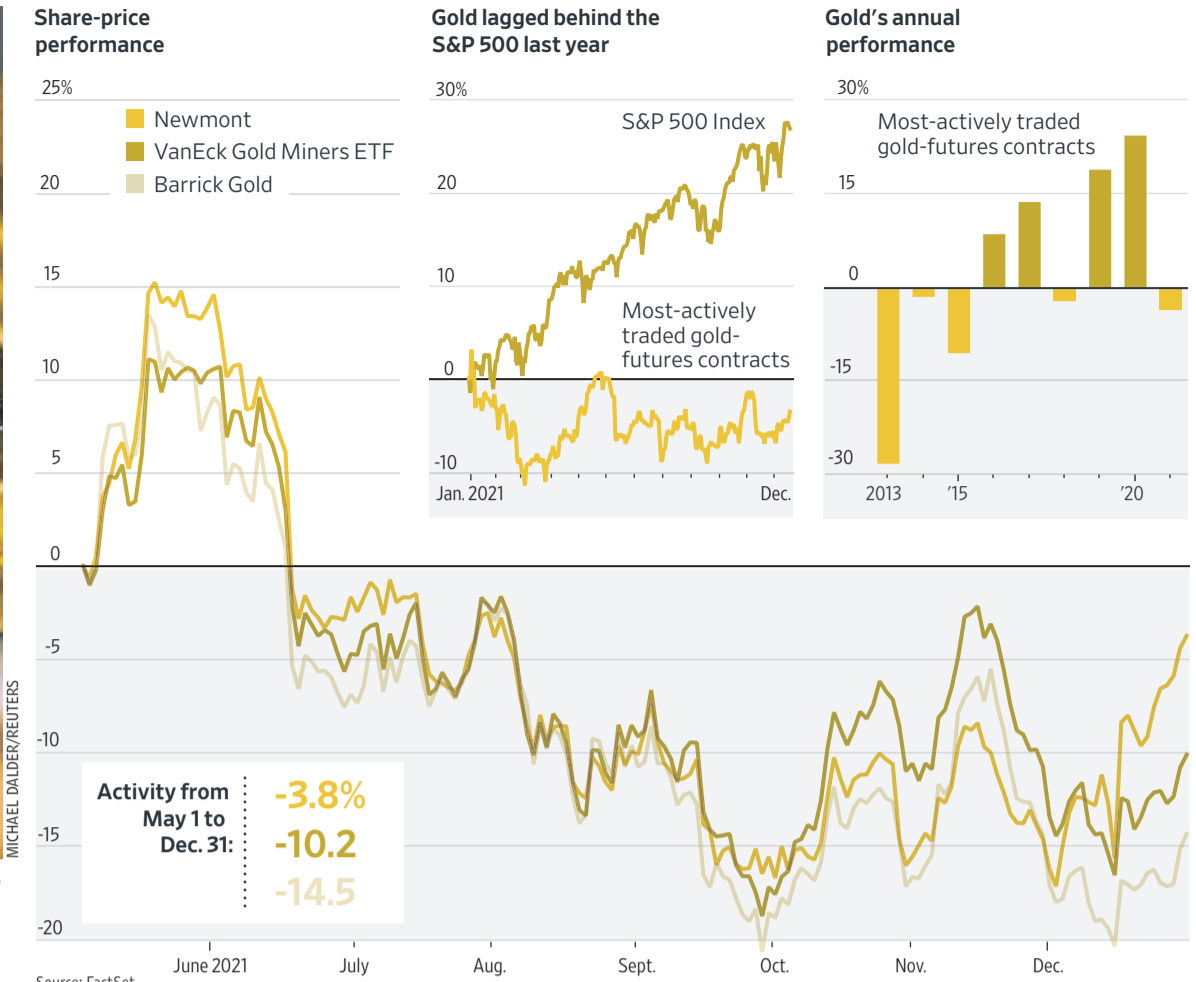
JOURNAL REPORT | EXCHANGE-TRADED PORTFOLIOS 2021 TRADING SUMMARY

Table with columns: Stock, Sym, Hi, Lo, Last, Net Chg, Pct Chg. Multiple columns for different stock categories (A, C, G, N, O, P, Q, R, S, T, U, V, W, X, Y, Z).

JOURNAL REPORT | YEAR-END REVIEW & OUTLOOK OF MARKETS & FINANCE



The price slid about 11% since August 2020, when it hit a high of around \$2,050.



# Gold Ends Year With Largest Fall Since 2015

Fed's signal that it will raise rates to cool inflation weighs on metal as other commodity prices surge

By HARDIKA SINGH

Inflation shot higher in 2021. Gold didn't. Despite consumer prices that surged to a nearly four-decade high in November, gold ended the year with its largest decline since 2015, disappointing investors who bet the

metal would cushion their portfolios from inflation. Most-actively traded gold futures fell roughly 3.5% to \$1,828.60 a troy ounce in 2021, dragged lower by investors' expectations for the Federal Reserve's response to price increases. An accelerated pace of monetary tightening likely means increased competition from yield-bearing assets such as bonds. Investors prize gold as a stable store of value and often use it as protection against swings in stocks or consumer prices. But it offers no

income, so it tends to struggle when rates rise. Recent signals from the Fed have spurred wagers that the central bank will act aggressively to cool inflation. That has driven the yield on the two-year Treasury, which typically climbs when investors expect tighter central bank policy, to its highest levels since the early pandemic. The fall comes from record territory, after worries about rebounding coronavirus cases helped send prices to a high around \$2,050 in August 2020. Gold has slid about 11% since. Prices climbed to five-month highs in November, after data showed surprisingly persistent inflation, but expectations that Fed policy would rapidly slow inflation have helped keep gold in a relatively narrow range around \$1,800. Front-month futures for gold fell 3.5% in 2021 to \$1,827.50. Gold's lackluster performance—during a year where other commodi-

ties have skyrocketed and the S&P 500 has climbed to 70 records—raises worries of greater challenges ahead. The Bank of England in December became the first major central bank to increase rates since the pandemic started. "Theoretically on paper, this should have been an exceptionally strong environment for gold prices, yet they are ending the year lower than where they started," said Chris Vecchio, senior strategist at DailyFX. "I'm really hard-pressed to think that if gold prices couldn't rally significantly in 2021, how will things look better henceforth?" The decline has pressured mining stocks. The **VanEck Gold Miners ETF** ended the year down 11%, while the S&P 500 has gained 27%. U.S.-listed shares of **Barrick Gold Corp.** fell 17%, while Colorado-based **Newmont Corp.** gained 3.6%. Shares of mining companies tend to be more

volatile than gold prices themselves. Some analysts said the cryptocurrency craze may also be hurting gold. Some crypto backers tout bitcoin as an inflation hedge, though it suffers constant volatility and hasn't been tested during any prolonged downturns or inflationary episodes. Mr. Vecchio recommends investors pare down their gold holdings to 3% of their portfolios from 5% and allocate the 2% to cryptocurrency instead. Wade Guenther, partner at Wilshire Phoenix, expects gold will trade in between \$1,700 and \$1,775 throughout most of 2022. He thinks rising rates will likely strengthen the dollar, which could hurt gold by making it more expensive for buyers outside the U.S. "With interest rates, inflation and the dollar, we kind of expect returns for gold will be somewhat muted through the entirety" of 2022, said Mr. Guenther.

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