

DOW JONES | News Corp \* \* \* \* \* \*

**DJIA** 32030.11 **v** 530.49 1.6%

What's

News

The Fed approved an-

age-point interest-rate in-

silient" but that the central

supervision and regulation

of the financial sector. A1

Stocks and government-

bond yields ended lower in

the wake of the Fed's policy

meeting. The S&P 500, Dow

and Nasdaq all fell 1.6%. B1

◆ The SEC has told Coinbase

that it plans to take enforce-

ment action against the com-

pany, the crypto exchange

said, escalating a crackdown

on digital-currency firms. A1

♦ TikTok's chief is slated

to appear before a House

against a ban on the app and

seek to reassure Americans

that their data is safe. B1, B4

Chinese internet con-

glomerate Tencent's quar-

terly revenue edged up 0.5%

from a year earlier, backed by rising demand for digital advertisements. **B2** 

panel Thursday to argue

bank needs to strengthen

crease but signaled that

banking-system turmoil

THURSDAY, MARCH 23, 2023 ~ VOL. CCLXXXI NO. 67

WSJ.com

**10-YR. TREAS. △** 28/32, yield 3.497%

#### **YEN** 131.44

# Fed Boosts Rates Amid Bank Turmoil

**OIL** \$70.90 **▲** \$1.23



**STOXX 600** 447.16 **▲** 0.2%

### **Powell Calls Financial Sector** Sound but Stresses Oversight

#### BY GINA HEEB

NASDAQ 11669.96 **v** 1.6%

Federal Reserve Chair Jerome Powell said the U.S. banking system is "sound and resilient" but the central bank needs to strengthen supervision and regulation of the financial sector after the collapse of several banks this month.

fell Financial stocks Wednesday, continuing the month's downward spiral.

The KBW Nasdaq index of commercial banks and the SPDR S&P Regional Banking

6%, respectively. Shares of maior regional banks, including PNC Financial Services Group Inc. and U.S. Bancorp, were down more than 5%. Giants like JPMorgan Chase & Co. and Bank of America Corp. slipped more than 2%.

First Republic Bank's battered stock fell further Wednesday after Treasury Secretary Janet Yellen said administration officials weren't immediately considering action to insure all bank deposits. Shares

ETF declined nearly 5% and in the troubled lender, which got a rescue from its megabank peers last week in the form of a \$30 billion deposit, closed down more than 15%.

The Fed raised interest rates by an expected guarter point. Investors have worried that

the failure of Silicon Valley Bank and Signature Bank could spread throughout the sector if nervous customers pull deposits, bringing down other small and midsize banks as well. The fire sale of Credit Please turn to page A6

Quarter-point increase comes with signal that hikes could end sooner than recently expected

#### BY NICK TIMIRAOS

WASHINGTON—The Federal Reserve approved another quarter-percentage-point interest-rate increase but signaled that banking-system turmoil might end its rate-rise campaign sooner than seemed likely two weeks ago.

The decision on Wednesday marked the Fed's ninth consecutive rate increase aimed at battling inflation over the past year. It will bring its benchmark federal-funds rate to a range between 4.75% and 5%, the highest level since September 2007.

Fed Chair Jerome Powell said officials had considered skipping a rate increase after banking stress intensified last week. And he hinted that Wednesday's increase could be their last one for now depending on the extent of any lending pullback that follows a bank run earlier this month. Regulators shut Silicon Valley Bank and a second institution, Signature Bank, two weeks ago, and bailed out uninsured depositors to stave off a panic.

Estimates of just how much any credit contraction could

reduce hiring, economic activity and inflation were "rule-ofthumb guesswork, almost, at this point. But we think it's potentially quite real, and that argues for being alert as we go forward," Mr. Powell said at a news conference after the conclusion of the Fed's policy meeting. Later, he said, "it could easily have a significant macroeconomic effect."

Stock initially rose after the Fed announcement, but then slumped Wednesday afternoon. Mr. Powell spoke at the same time Treasury Secretary Janet Yellen told lawmakers she wasn't immediately considering ways to provide broad guarantees to uninsured bank deposits. The S&P 500 lost 65.90 points, or 1.65%, to end at 3936.97. The Dow Jones Industrial Average declined 530.49, or 1.63%, to 32030.11. The Nasdaq Composite dropped 190.15, or 1.60%, to 11669.96. Yields on the 10-year Treasury note fell 0.106 percentage point, closing at 3.497%. All 11 voters on the rate-

setting Federal Open Market Please turn to page A6

#### Banks and the Fed Fed walks a tightrope, balancing two roles. Stocks fall after latest rate increase. Heard on the Street: Rise in

shadow of SVB.

### Holy Month Begins for Muslims Around the World

Carvana's debt swap proposal doesn't have support from the group of investors who own a majority of the company's nearly \$6 billion in unsecured bonds, people familiar with the matter said. B3

 J&J will seek the Supreme Court's review after an appeals court declined to revive the company's bid to use chapter 11 bankruptcy to freeze lawsuits linking its talc products to cancer. **B2** 

#### World-Wide

Russia launched a new wave of missiles and armed drones into Ukraine, shelling residential buildings in the south and killing seven people in a school dormitory in the Kyiv region, hours after China's Xi concluded a visit to Moscow to reinforce a partnership with Putin. A9



# **SEC Plans** To Sue Crypto Exchange Coinbase

BY ALEXANDER OSIPOVICH AND DAVE MICHAELS

The Securities and Exchange Commission has told Coinbase Global Inc. that it plans to take enforcement action against the company, escalating its crackdown on digital-currency firms

#### ◆ A federal judge found

that special counsel Smith's team presented convincing evidence that Trump misled his own lawyers about his retention of classified documents after leaving the White House, according to people familiar with the decision. A4 The Manhattan grand jury investigating Trump's role in a hush-money payment to a porn star was instructed not to meet Wednesday, according to people familiar with the matter, delaying any potential indictment of the former president. A4

**• Macron stood by** his overhaul of France's pension system but proposed several measures for workers, including bonus payments for employees of companies that buy back shares, in a bid to calm an escalating protest movement. A8

Moderna will price its Covid-19 vaccine at about \$130 per dose when it shifts to commercial distribution of the shots later this year, much higher than what the federal government has paid. A2

The Biden administration announced initiatives aimed at transforming the U.S. organ-procurement system, adding more competition to improve transparency and accountability. A4

CONTENTS	Markets B11
Arts in Review A13	Opinion A15-17
Banking & Finance B10	Personal Journal A11-12
Business News B3	Sports A14
Crossword A14	Technology B4-5
Equities B7	U.S. News A2-7
Heard on Street. B12	World News A8-9





TO BREAK THE FAST: Ramadan began at sundown Wednesday, as Muslims prepared for a month of dawn-to-dusk fasting. Above, vermicelli, used to make dishes popular during the holy month, is dried at a factory in Allahabad, India.

### **China Auditions for Lead Global Role**

By JONATHAN CHENG

BEIJING-China now sees itself as a global power—and it is starting to act like one.

Beijing is showing a new assertiveness as Xi Jinping begins his third term as the country's head of state, emerging from three years of "zero-Covid" isolation to a far more unfriendly West—and signaling it feels it has the military and economic heft to

start shaping the world more to its interests.

This month, Beijing surprised the world by brokering a detente between Saudi Arabia and Iran, a bold foray into the Middle East's turbulent rivalries.

Now, Mr. Xi said he wants to insert himself into efforts to end the Russia-Ukraine war, as he returns home from several days of warm meetings in Moscow with President Vladimir Putin of Russia and plans Moscow, Russia launched a his first conversation since the beginning of the war with President Volodvmvr Zelensky of Ukraine.

The moves might not result in lasting diplomatic breakthroughs, and China's perceived inclination toward Russia on the Ukraine war has undercut Mr. Xi's credibility as a neutral arbiter among Kyiv's backers. Early Wednesday, as Mr. Xi was preparing to leave

new wave of missiles and armed drones into Ukraine, killing seven people in a school dormitory in the Kyiv region.

But China's willingness to wade into these conflicts in such a strident way marks a new phase in the country's vision for itself and its role in the world. It sends a message that China and its allies are no Please turn to page A10

by targeting the biggest U.S crypto exchange, Coinbase said Wednesday.

Coinbase said it had received a letter from the SEC known as a Wells notice, in which regulators say they believe companies or individuals violated investor-protection laws. The notices aren't final because the agency's commissioners must authorize any lawsuits or enforcement settlements.

By warning Coinbase about a potential lawsuit, the SEC is setting its sights on one of the biggest names in crypto, a publicly traded company that has helped bring tens of millions of customers into the digital-currency markets since it was founded in 2012. A lawsuit would represent SEC Chair Gary Gensler's biggest step to assert his agency's jurisdiction over crypto. If Coinbase prevailed in a lawsuit, it would embolden the crypto industry's claims that Mr. Gensler has overreached and that virtual currencies shouldn't be subject Please turn to page A4

• SEC says celebrities illegally touted crypto... B11

MIT Scientists Twist Apart Oreos In Search for Perfect Method

Team aimed to solve frustrating problem of getting creme to stick to both wafers

#### BY AYLIN WOODWARD

It's safe to say many people eat Oreos the same way. They twist them apart, then consume the cookie as two separate creme-covered wafers.

Yet more than a century after the Oreo's inception, many connoisseurs haven't solved a frustrating problem: how to twist it so *both* wafers end up with filling on them.

Michelle Deignan, vice president of Oreo in the U.S., said

there is no secret method. That, it seems, made it a worthy challenge for some scientists at the Massachusetts Institute of Technology.

"I've always been annoyed that I have to twist them apart and then push creme from one side onto the other," said Crystal Owens, a Ph.D. candidate in MIT's mechanical engineering department.

She led a group of researchers on a quest to figure out if Please turn to page A10

### Workers Embrace ChatGPT **Despite Their Bosses' Fears**

#### BY LINDSAY ELLIS

Office drama is brewing around when employees—and their bosses-are allowed to use ChatGPT at work.

The generative artificial intelligence technology from OpenAI—a startup backed by billions of dollars from Microsoft Corp.—was released at the end of November and instantly embraced by many workers to create professional-sounding emails and PowerPoint presentations, as well as strings of code that automate tasks.

Just as quickly, their co-

pushing back on bot-written work. When it is appropriate (and when it isn't) to use AI to communicate, evaluate human performance and create productivity hacks to get a job done faster is now debated inside organizations, big and small, across sectors. Surveys indicate that ChatGPT is already widely used among employees, with some highlighting that it makes them more productive. Many leaders are nervous about what corporate intelligence workers might be sharing.

Several big companies, in-

workers and managers began cluding JPMorgan Chase & Co. and Verizon Communications Inc., have blocked access to ChatGPT. Others are encouraging alternatives. Amazon.com Inc., for instance, has urged some of its engineers who want coding advice or shortcuts to use its internal AI tool named CodeWhisperer, an Amazon spokeswoman said.

Software engineer Richie Flores, 31 years old, said he used ChatGPT in his job at Nor-Please turn to page A12

 Publishers seek compensation for help with Al.... .... B1

#### A2 | Thursday, March 23, 2023

# **U.S. NEWS**



'Oumuamua, pictured here in an artist's rendition, likely traveled for many millions of years before arriving in our solar system. It passed by the sun at nearly 196,000 miles an hour.

# **Distant Traveler Is a Comet, Study Says**

#### BY AYLIN WOODWARD

Nearly six years ago, a space object roughly the size of a football field baffled scientists as it zipped through our solar system. The irregular shape and motion of the object, dubbed 'Oumuamua, led to one of the most controversial astronomical mysteries, with theories that ranged from asteroid to alien probe.

But a study published Wednesday in the journal Nature offers another answer: 'Oumuamua is a typical comet that expelled gas in an odd way as it traveled through our solar system.

"We've gone through every weird, crazy, possible theoryideas that stretch the imagination to match all of these observed things, and then we figure out that it is just the simplest thing you could possibly imagine, which is just a waterrich comet," said Darryl Seligman, a postdoctoral researcher at Cornell University and co-author of the new study.

Astronomers first spotted 'Oumuamua at an observatory in Hawaii in October 2017. It passed by the sun at speeds of nearly 196,000 miles an hour. The body's trajectory indithe stars, having likely traveled for many millions of years before arriving.

Observatories had just weeks to characterize the interstellar object before it made a hook turn past the sun and continued its journey back into the greater Milky Way.

In that short window of scrutiny, scientists could collect only a limited amount of information about it. Pronounced "oh moo-uh moo-uh," the name means a messenger from afar arriving first in the Hawaiian language, according to the National Aeronautics and Space Administration.

But this interstellar messenger—the first known of its kind-defied explanation, according to Davide Farnocchia, a navigational engineer at the agency's Jet Propulsion Laboratory in Pasadena, Calif., who wasn't involved in the research. Observations showed 'Oumuamua appeared to move like an icy comet, yet lacked the tail and head of dust typical of such space objects. Its long, pancake-like profile, which appeared inert, was more reminiscent of an asteroid.

Among the largest of its mysteries, Dr. Farnocchia said,

propelled by forces beyond the gravity of the sun or planets. Nongravitational forces are observed in typical comets—the closer a comet gets to the sun and heats up, the more of its ice transitions into gas-creating its tail while changing its motion in space. This process is known as outgassing.

#### Astronomers first spotted the object at a Hawaii observatory in October 2017.

Evidence suggested 'Oumuamua was also under the influence of nongravitational forces, yet lacked the tail and other characteristics typical of an outgassing comet. The contradictory observations prompted a gamut of ideas.

Some scientists, including Dr. Seligman, first suggested it was an iceberg made of pure hydrogen that had been outgassing over time. Arizona State University astrophysicist Steve Desch co-led research that posited 'Oumuamua is part of a Pluto-

### U.S. WATCH

cated that it came from across was that 'Oumuamua was being like exoplanet from outside our lapse of those pockets and the formation of channels within the ice through which trapped gas escaped to the comet's surface and accelerated it.

"It is sort of the cleanest explanation for a lot of the strange behavior," she said. Drs. Loeb and Desch, neither

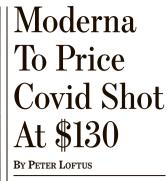
of whom was involved in the new study, aren't convinced.

Dr. Desch said he didn't find any issues in the authors' calculations, but that he didn't understand their motivation to look for another solution to the mystery: "This problem is as solved as it gets in astrophysics: 'Oumuamua is a fragment of an exo-Pluto's surface," he added.

Dr. Loeb said he takes issue with the authors' characterization of 'Oumuamua as a typical comet. "It must be a very unusual comet if it is a comet at all," he said.

Dr. Loeb said the topic of extraterrestrial intelligence remains taboo among his astronomy colleagues. But he continues to explore the idea that 'Oumuamua is, for example, a piece of alien technology that harnesses the pressure of sunlight to move.

NASA's Dr. Farnocchia said a natural origin for the object seems far more plausible.



Moderna Inc. will price its Covid-19 vaccine at about \$130 a dose when it shifts to commercial distribution of the shots later this year, much higher than what the federal government has paid.

The plans fueled criticism of the company from lawmakers who explored the cost of the shots at a Senate hearing Wednesday.

The cost could vary depending on contracts reached with health systems, pharmacies, federal health programs and other potential buyers, but the company has settled on a price of about \$130, Moderna President Stephen Hoge said.

"We tried to think very reasonably about the price of this, and I think we've landed on a price that is consistent with value," Dr. Hoge said.

For the many people who are insured, the higher pricing might not add to their expense, since their plans aren't likely to assess a copay or other out-ofpocket cost. However, people without insurance could be forced to pay out, though Moderna said it is developing financial-assistance programs.

Moderna, like other Covid-19 vaccine makers, has been developing a list price for its shots and negotiating contracts as the federal government winds down its exclusive pandemic purchasing arrangements.

The U.S. paid Moderna between \$15 and \$26 a dose and made them available at no cost. Sales will shift to the commercial market after the Biden administration ends the national emergency in May and government supplies are used up.

Moderna disclosed its planned price, which was earlier reported by Reuters, as it faces criticism.

Sen. Bernie Sanders (I., Vt.) sent a letter to Moderna Chief Executive Stéphane Bancel in January asking him to reconsider, saying that the company had received federal funding to develop its Covid-19 vaccine and that charging a high price could put it out of reach for some people and boost costs for government health programs. Sens. Elizabeth Warren (D., Mass.) and Peter Welch (D., Vt.)

Coffee Not Linked to Cardiac Condition

#### NEW MEXICO **Settlement Finalized** In 'Rust' Inquiry

A workplace-safety-violation settlement in the 2021 shooting death of a cinematographer by

#### BY JULIE WERNAU

Coffee lovers take heart. America's favorite stimulant might not be so risky for cardiac health after all, but there may still be other health effects, researchers say.

Coffee consumption doesn't increase abnormal heartbeats associated with an increased risk of the most common heart rhythm disturbance, according to a new study published Wednesday in the New England Journal of Medicine.

Researchers monitored the hearts, activity and sleep of 100 people without underlying heart conditions over two weeks. They found that the key cardiac risk marker remained about the same for coffee drinkers as it did for non-coffee drinkers. The irregular heart rhythm known as atrial fibrillation, can lead to dangerous blood clots that can cause stroke and heart failure.

"The common arrhythmia known as atrial fibrillation isn't caused or worsened by caffeine, despite the widespread belief among many physicians and patients that coffee should be avoided in these conditions," said Deepak Bhatt, director of Mount Sinai Heart in New York, who wasn't involved in the study. Cardiologists have long con-

sidered coffee a potential heart health risk in individuals with underlying health conditions since it contains caffeine, a stimulant that increases heart rate. A study published in the Journal of the American Heart Association in 2022 found that drinking two or more cups of coffee a day was associated with twice the risk of heart death in people with severe hypertension compared with noncoffee drinkers. But other rehas shown an search association between moderate coffee intake and a reduced risk of mortality in the population overall. Researchers are still trying to understand the under-

lying reasons for these effects.

Alec Baldwin on the set of a Western movie was finalized. After a 20-day vetting period with no objections, the agree-

ment between New Mexico workplace-safety regulators and Rust Movie Productions was concluded along with a \$100,000 fine against the company that originally bankrolled the movie "Rust."

Matthew Maez, a spokesman for the state Environment Department and its workplace safety bureau, confirmed the conclusion of the workplacesafety probe of Rust Movie Productions under a final order. It was unclear whether the fine has been paid.

Separately, Mr. Baldwin and weapons supervisor Hannah Gutierrez-Reed are confronting felony involuntary manslaughter charges in the shooting death of cinematographer Halyna Hutchins, who died shortly after being wounded during rehearsals at a ranch on the outskirts of Santa Fe in October 2021.

Authorities say Mr. Baldwin was pointing a pistol at Ms. Hutchins when the gun went off, killing her and wounding director Joel Souza.

Mr. Baldwin and Ms. Gutierrez-Reed have pleaded not guilty, and an evidentiary hearing is scheduled in May to determine whether the case can proceed to trial. Mr. Baldwin was both a lead actor and co-producer on "Rust." A conviction on the charges carries a punishment of up to 18 months in prison.

*—Associated Press* 

#### CALIFORNIA **Tornado Touches Down in Los Angeles**

A rare tornado touched down in a Los Angeles suburb on Wednesday, ripping roofs off a line of commercial buildings and sending the debris twisting into the sky and across a city block, injuring one person.

The National Weather Service sent teams to assess damage in Montebello and later confirmed that a tornado had touched



solar system that sloughed off

versity astrophysicist Avi Loeb

has been an advocate of a non-

natural origin for 'Oumuamua.

He posited in multiple papers

and a book that its odd accel-

eration could be because it is

But the new study used

modeling to determine that

'Oumuamua is in fact a comet

that was restructured during

its long journey. The object

was born in another solar sys-

tem as a normal comet made

of ice, said study co-author

Jennifer Bergner, an astro-

chemist at the University of

through interstellar space to-

ward our part of the Milky

Way, it was hit with cosmic

rays. The radiation from those

rays separated the hydrogen

from some of the comet's ice-

forming water molecules. That

hydrogen was then trapped in-

side tiny pockets within the

ice deep inside 'Oumuamua,

proached the sun, the heat

from our star rearranged its icy

structure-leading to the col-

'Oumuamua ap-

according to Dr. Bergner.

Once

As the comet traveled

California, Berkeley.

a piece of alien technology.

By contrast, Harvard Uni-

layers of nitrogen ice.

Two people hugged after a student allegedly shot and wounded two administrators at East High School in Denver Wednesday. Police said the suspect fled. His vehicle was later found in a remote area.

**Administrators Shot** 

A 17-year-old student shot

and wounded two administra-

tors at his Denver high school

Wednesday as they searched

ment because of the boy's be-

havioral issues, authorities said.

cle was later found in a remote

mountain area about 50 miles

southwest of Denver, but he re-

day in mid-April 2020 to 300

a day two weeks later and 15 a

day by July 1. The essay incor-

rectly stated that deaths de-

creased from 100 in mid-April

to 40 a day two weeks later

Fox Business host Maria

Bartiromo's last name was

misspelled as Baritromo in one

reference in some editions

Wednesday in a Business & Fi-

nance article about Dominion

Voting Systems' defamation

lawsuit against Fox News.

and two a day by July 1.

mained at large. A shelter in

The student fled and his vehi-

him for weapons, a daily require-

At Denver School

COLORADO

down around 11:20 a.m.

"It's definitely not something that's common for the region." said meteorologist Rose Schoenfeld with the weather service.

One person was injured and was taken to a hospital in Montebello, said Alex Gillman, a city spokesman. He didn't know the severity of the injury.

Debris was spread over more than one city block. Inspectors checked 17 buildings in the area, and 11 of them were red-tagged as uninhabitable, according to the fire department. Several cars were also damaged.

*—Associated Press* place order was issued by au-

### CORRECTIONS ビ AMPLIFICATIONS

In the U.S. in the last quarter of 2022, people who had been vaccinated and boosted were about one-tenth as likely as unvaccinated people to be killed by Covid, and half to one-third as likely as people who were vaccinated but not boosted. An essay on Covid measures in Saturday's Review section misstated the proportions as 10 times less likely and two to three times less likely, respectively. Also, Covid deaths in New York City declined from more than 700 a

Readers can alert The Wall Street Journal to any errors in news articles by emailing wsjcontact@wsj.com or by calling 888-410-2667.

thorities around the small town of Bailey, in Park County.

The aun used in the shooting wasn't immediately recovered. Denver Police Chief Ron Thomas said.

One of the wounded administrators was released from the hospital Wednesday afternoon and the second remained in serious condition, said Heather Burke, a spokesperson for Denver Health hospital.

There were no school resource officers on campus at the time of Wednesday's shooting, Mr. Thomas said.

also sent a letter to Mr. Bancel requesting information about the planned price increase.

Mr. Bancel said at the hearing the company's pricing reflects the cost and complexities of distributing vaccines to thousands of customers, rather than to a single purchaser in the government.

#### China Approves **Homegrown Vaccine**

SINGAPORE-China approved its first homegrown mRNA vaccine for Covid-19. adding a key tool to combat future outbreaks of the virus that was missing due to Beiiing's reluctance to allow Western-made shots using the gene-based technology.

**CSPC** Pharmaceutical Group Ltd.'s messenger-RNA vaccine was given emergency-use clearance by regulators, the company said in a filing to the Hong Kong stock exchange Wednesday.

The vaccine was designed to work against the latest variants and also proved effective against older strains, it said. -Clarence Leong

-Associated Press

#### THE WALL STREET JOURNAL

#### (USPS 664-880) (Eastern Edition ISSN 0099-9660) (Central Edition ISSN 1092-0935) (Western Edition ISSN 0193-2241)

Editorial and publication headquarters: 1211 Avenue of the Americas, New York, N.Y. 10036

Published daily except Sundays and general legal holidays. Periodicals postage paid at New York, N.Y., and other mailing offices.

Postmaster: Send address changes to The Wall Street Journal. 200 Burnett Rd., Chicopee, MA 01020.

All Advertising published in The Wall Street Journal is subject to the applicable rate card, copies of which are available from the Advertising Services Department, Dow Jones & Co. Inc., 1211 Avenue of the Americas, New York, N.Y. 10036. The Journal reserves the right not to accept an advertiser's order. Only publication of an advertisement shall constitute final acceptance of the advertiser's order

Letters to the Editor: Fax: 212-416-2891: email: wsi.ltrs@wsi.com

**Need assistance with your subscription?** By web: customercenter.wsj.com; By email: wsjsupport@wsj.com By phone: 1-800-JOURNAL (1-800-568-7625)

**Reprints & licensing:** By email: customreprints@dowjones.com By phone: 1-800-843-0008

WSJ back issues and framed pages: wsjshop.com

Our newspapers are 100% sourced from sustainably certified mills

#### GOT A TIP FOR US? SUBMIT IT AT WSJ.COM/TIPS

THE WALL STREET JOURNAL.

### U.S. NEWS

# Kansas Hunts for Water as Aquifer Runs Dry

Some favor expensive aqueduct proposal to bring resource from the Missouri River

#### BY SHANNON NAJMABADI

GARDEN CITY, Kan.-Southwest Kansas officials have long pushed a moonshot aqueduct project to send Missouri River water across the state to their region, where a \$12.5 billion agricultural economy relies on a dwindling underground aquifer.

While the effort has been dismissed as legally impossible and expensive, the persistence of the idea demonstrates how drought and a steadily shrinking water supply have created broad consensus that water policies need to be overhauled. In Kansas, where federal data shows that nearly every county was experiencing some level of drought at the end of 2022, water is among the most urgent issues facing the state legislature this year.

"Water has a certain value," said Clay Scott, a Ulysses, Kan., farmer and one of the aqueduct's proponents. "Every year it just continues to climb."

Projects that move water have been used to fuel development or to irrigate crops in Western states such as Arizona and California. The Kansas agueduct would be farther east reflecting spreading concern about the scarcity of water amid a changing climate and growing population centers.

Similar projects are being discussed elsewhere. groundwater-conservation district in Texas is interested in studying water-transportation projects, including a version of the Kansas aqueduct route extended to Texas, said district manager Steve Walthour.

Some arid states have looked east to boost limited water supplies. The Arizona state legislature in 2021 asked Congress to study a plan to transport Mississippi River floodwaters to the Colorado River, upon which seven states including Arizona rely.

The U.S. Army Corps of En-

gineers first assessed the feasibility for a Kansas aqueduct in 1982, as part of a federal study looking at ways to supplement the Ogallala Aquifer, the region's critical source of groundwater. A 2015 update of the study estimated it would cost between \$5 billion and \$20 billion to build the concrete-lined canal system and up to \$522 million in annual energy costs to pump the water uphill to its terminal reser-

voir in western Kansas. Proponents of the Kansas aqueduct say it is needed to sustain the economy of the state's southwest and could sell water to other Western areas that have already taken extreme measures to conserve water or find new water sources.

Without a means to augment the region's underground

High end of the expected cost to build the Kansas aqueduct

reserves, "we will continue to dry up the infrastructure for feed yards and dairies and grain elevators and cotton said Mr. Scott, who is a gins." member of the board for the Southwest Kansas Groundwater Management District.

Opponents say the idea is too expensive, and would need to fend off a likely onslaught of lawsuits from states along the Missouri River or landowners whose property would be used to build a canal system.

"The legal, economic, physical and regulatory hurdles this thing faces are virtually infinite," said Burke Griggs, a law professor at Washburn University in Topeka, Kan., who is an expert in water law and who previously represented Kansas in federal and interstate water issues. "There's no way this will ever be built."

Even those who have taken no position on an aqueduct say much of the aquifer could run dry before the project is complete.

"By the time you got done with studying, planning, litigating, constructing," said Connie Owen, who heads the Water Office, an Kansas agency that writes the state's water plan, "it is too late."

The Ogallala Aquifer lies under parts of eight central U.S. states, running from South Dakota to Texas. It adds \$3.8 billion to the value of the land in western Kansas, one 2022 study found.

Blake Brownie Wilson, with the Kansas Geological Survey, says 80% to 90% of the aquifer's water in Kansas goes to irrigation. In some parts of southwest Kansas, the aquifer has dropped more than 100 feet since it began being mined. About 30% of it had been pumped as of 2013. An additional 39% was expected to be gone by 2063 given current rates of use.

In December, a board in the Kansas Water Office recommended that the state stop its policy of slowly draining the aquifer. "Planned depletion was the operative approach," Ms. Owen said. "It still is."

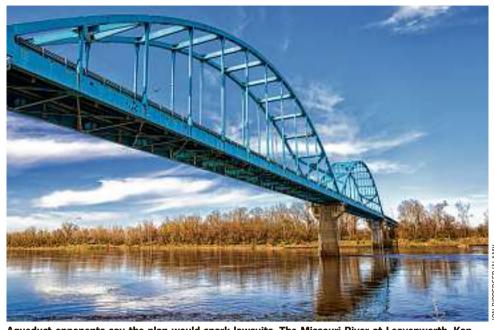
Recent drought has increased pressure on the aquifer's use. Groundwater levels fell nearly 3 feet in southwest Kansas, which is experiencing the most intense and widespread drought nationwide. Less than an inch of rainfall typically seeps into the aquifer to recharge it each year.

The groundwater district that manages water use in southwest Kansas thinks conserving water is appropriate but not enough. Officials in the district have been the primary proponents of the aqueduct plan in Kansas.

The project remains a long shot. Kansas lawmakers this vear are focused on bills aimed at promoting conservation and dedicating tax revenue to water projects.

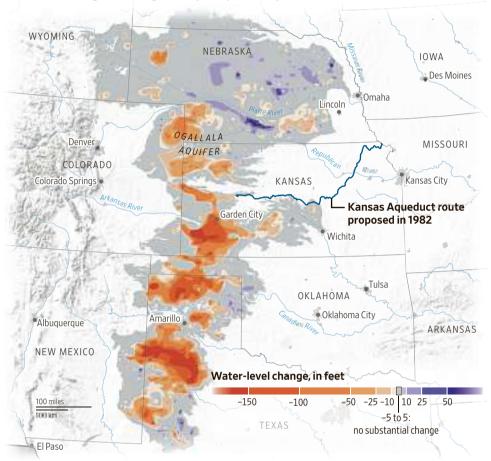
Proponents say it is the right time to look into an aqueduct because of how long it would take to be built.

"We can't afford to wait any longer," said Mr. Scott.



Aqueduct opponents say the plan would spark lawsuits. The Missouri River at Leavenworth, Kan.

Water-level changes of the Ogallala aquifer, predevelopment (about 1950) to 2017



Sources: Southwest Kansas Groundwater Management District No. 3 (proposed aqueduct); U.S. Geological Survey (Ogallala Aguifer)

Emma Brown/THE WALL STREET JOURNAL

#### BY ALISON SIDER

Air-traffic officials on Wednesday said they are trying to ease what they expect ation Administration wrote in a schedule changes.

notice Wednesday. To address the looming issue, the agency said it would summer for air travel in the give airlines flexibility to reduce operations during the peak summer travel period by forgoing using some of their takeoff and landing rights at New York airports and Washington, D.C.'s Ronald Reagan Washington National Airport. In return, it asked airlines to operate larger planes to accommodate passenger demand with fewer flights, and to keep passengers informed about

Airline executives and government officials expect a busy U.S. and abroad, and are hoping

was to blame. Airlines pared Airport and Newark Liberty United Airlines Holdings Inc. back on some of their summer flying plans to account for staffing shortages and other growing pains that emerged

International Airport, the FAA said Wednesday.

controllers at the facility is ports, and for flights between about 54% of its target level, which the FAA said can slow things down in the complicated and crowded region, and could exacerbate snafus when weather is bad or when demand spikes during busy periods this summer. The facility has other controllers in some stage of training who can cover many of the positions. Delta Air Lines Inc. and

said they would seek to return up to 10% of their takeoff and Staffing of fully trained landing rights at those air-New York and Washington Reagan for the season. They committed to using bigger planes to the extent it is possible and said they would develop resilience plans to mitigate disruptions this summer. American Airlines Group Inc. wrote that it is evaluating whether to seek a similar waiver allowing it to temporarily give up flying rights.

could be flight delays and other snarls in the New Yorkarea skies this summer.

The number of flights at New York airports is set to rise while a key air-traffic control facility there continues to struggle with a staffing shortfall. The combined impact could lead to a 45% increase in delays in New York this summer if no action is taken, the Federal Avi-

to avoid the kinds of strains carriers and airports saw last summer when travelers flocked back. This summer, the industry expects even more appetite for international travel, particularly for trips to Europe and other trans-Atlantic destinations, that could add to strains.

The problems led to tensions last summer between airlines and regulators over who during travel's rapid rebound.

They also complained last year about short staffing at some critical air-traffic control facilities. including in Florida and the New York area, which they said contributed to cascading delays.

The staffing shortfalls re-main at a facility that handles traffic for LaGuardia Airport, John F. Kennedy International



#### **BEYOND THE EDGE**

TAG HEUER AQUARACER

TAG HEUER BOUTIQUE FIFTH AVENUE & 54TH STREET

### U.S. NEWS

# **Trump Grand Jury Called Off for Day**

Panel's activities are closely watched as hush-money probe nears its end

#### BY CORINNE RAMEY AND JENNIFER CALFAS

The Manhattan grand jury investigating Donald Trump's role in a hush-money payment to a porn star was instructed not to meet Wednesday, according to people familiar with the matter, delaying any potential indictment of the former president.

The district attorney's office notified court officials Tuesday night about the change in plans, the people said. The grand jury was rescheduled to reconvene Thursday, according to the people. It wasn't clear what prompted the change.

A spokeswoman for Manhattan District Attorney Alvin Bragg said the office couldn't comment on grand-jury matters

The change in schedule was earlier reported by Insider.

The grand jury's activities have been closely watched as the hush-money investigation into Mr. Trump, run by Mr. Bragg, nears its end. The jury could still hear from additional witnesses, or prosecutors could formally present charges, which is the final step before the panel votes on whether to indict.

Any potential indictment wouldn't be public until it is unsealed by a judge. While the timing of any possible surrender by Mr. Trump is unknown, law-enforcement officials said they anticipated it likely wouldn't happen this week.

Mr. Trump has said he the weekend, he called on his



A barricade was erected Wednesday outside the offices of Manhattan District Attorney Alvin Bragg in anticipation of possible protests.

didn't do anything wrong and accused Mr. Bragg, a Democrat, of damaging his electoral prospects. On Tuesday he criticized Michael Cohen, a key potential prosecution witness who served as his personal lawyer at the time of the payment, on the eve of the 2016 presidential election. "In the history of our Country there cannot have been a more damaged or less credible witness at trial than fully disbarred lawyer and felon, Michael Cohen," Mr. Trump wrote on his social-media network. Over

supporters to protest.

Police have erected barricades around and near a lower Manhattan courthouse as people in New York City and across the U.S. await the grand iury's vote. Very few demonstrators of any political persuasion had gathered by midday Wednesday.

The New York Police Department said it was ready to respond to any protests or counter protests. A department representative said there would be an uptick in uniformed officers in each of the city's five boroughs.

The grand jury has been hearing testimony about the payment to porn star Stormy Daniels and its aftermath since late January. Robert Costello, a lawyer who briefly advised Mr. Cohen, appeared Monday at the request of Mr. Trump's lawyers. He told reporters after his testimony that in 2018, Mr. Cohen said the payment to Ms. Daniels was intended to protect Mr. Trump's wife.

Mr. Cohen has said publicly that Mr. Trump told him to pay Ms. Daniels to keep her from going public about an alleged affair with Mr. Trump, which he denies.

State prosecutors have considered charging Mr. Trump with falsifying business records after their federal counterparts found that the reimbursements to Mr. Cohen were falsely labeled as legal expenses.

\* \* \* \* \* \*

All of the major players involved in the payment, including Mr. Cohen, have testified before the grand jury. While Ms. Daniels has met virtually with prosecutors, she hasn't appeared before the panel.

—James Fanelli and Will Parker

contributed to this article.

Judge Finds Former President Likely Misled Lawyers

#### BY C. RYAN BARBER AND SADIE GURMAN

WASHINGTON—A federal judge found that special counsel Jack Smith's team presented convincing evidence that President Donald Trump misled his own lawyers about his retention of classified documents after leaving the White House, according to people familiar with the decision.

Judge Beryl Howell made that finding Friday in a sealed decision siding with federal prosecutors in their bid to bypass attorney-client privilege claims raised by one of Mr. Trump's lawyers, Evan Corcoran, and compel him to provide more testimony. Judge Howell wrote that prosecutors had made a "prima facie showing that the former president had committed criminal violations," the people said. A three-judge appeals court panel on Wednesday denied Mr. Trump's request to halt the or-



legal challenge brought by Mr. Trump, and the other related to Mr. Corcoran's effort to preserve the confidentiality of notes, including audio recordings, that he considers work product.

Judge Howell's ruling came on the final day of her sevenyear term as chief judge of the federal trial court in Washington. In that role, she oversaw all grand jury disputes and ruled repeatedly for Mr. Smith's team as it pressed for more documents and testimony in its investigations into the handling of classified materials at Mar-a-Lago, Mr. Trump's  $\stackrel{\science}{=}$  Florida estate, and efforts by Mr. Trump and his allies to overturn the 2020 election.

dered another Trump lawyer, Jennifer Little, to testify as part of the special counsel inquiry, according to people familiar with the decision.

Federal prosecutors are aiming to bring Ms. Little and Mr. Corcoran before the grand jury this week, the people said.

Ms. Little and a lawyer for Mr. Corcoran didn't respond to requests to comment. A spokesman for the special counsel's office declined to comment.

ABC News earlier reported details of Judge Howell's ruling.

The decision dropped at a

# U.S. Moves To Revamp Organ Transplant Network

#### BY STEPHANIE ARMOUR

The Biden administration on Wednesday announced initiatives aimed at transforming the U.S. organ-procurement system, adding more competition to improve transparency and accountability.

The Health Resources and Services Administration said it would solicit multiple contracts for managing and improving the Organ Procurement and Transplantation Network, which was estab-lished by Congress in 1984 and manages the nation's organ-transplant system under contract with the federal government.

Soliciting multiple con-tracts could likely lead to breaking up the United Network for Organ Sharing, a nonprofit that administers the Organ Procurement and Transplantation Network.

Pressure to overhaul the organ-procurement system has been growing.

A 2022 report from the National Academies of Sciences, Engineering, and Medicine found that minority groups had inequitable access to transplant waiting lists and that there was significant nonuse of donated organs-approximately 1 in 5 kidneys from deceased donors aren't used.

In the U.S., more than 110,000 patients are on the national transplant wait list, and each day at least 17 die waiting for an organ transplant, the report said.

The initiatives also aim to further the independence of the directors who serve on the Organ Procurement and Transplant Network through awarding multiple contracts, according to the agency.

DeSantis **Takes New** Tack on Ukraine

pend-Judge Howell's ruling.

In her Friday ruling, Judge Howell invoked the crimefraud exception to attorneyclient privilege, which applies in instances where there is reason to believe legal advice has been used in furtherance of a crime. Her ruling also or-

time of rising legal peril for Mr. Trump. The Washington grand jury looking into the handling of the Mar-a-Lago documents is separate from the Manhattan grand jury investigating Mr. Trump's role in a hush-money payment to a porn star, which is coming closer to voting on a potential indictment of the former president.

An SEC lawsuit against a whether to proceed with a lawsuit after delivering a Wells notice, although that deadline can be extended.

For now, the SEC's notice doesn't require any changes to Coinbase's current products or services, Mr. Grewal said.

The scope of an SEC lawsuit could change over the coming months as regulators and lawyers for Coinbase spar over the investigation, said Marc Fagel, a former director of the SEC's San Francisco office. Companies like Coinbase sometimes try to settle after receiving Wells notices if they can limit the damage to their business, he said.

In February, rival crypto exchange Kraken agreed to stop offering staking services to U.S. customers and pay \$30 million in penalties to the SEC as part of a settlement with the agency.

The SEC alleged in a separate lawsuit filed in July that Coinbase had listed at least seven digital assets that should have been registered with the SEC before they were sold or traded. The SEC made the allegations as part of an insidertrading lawsuit against a former Coinbase employee, Ishan Wahi, who tipped his brother to cryptocurrencies that would be added to Coinbase's trading platform, which instantly boosted their value.

Mr. Wahi in February pleaded guilty to criminal charges filed by federal prosecutors in Manhattan. But he is fighting the SEC, which didn't name Coinbase as a defendant in its lawsuit against Mr. Wahi, Mr. Wahi's brother and another trader.

#### BY ALEX LEARY

WASHINGTON-Florida Gov. Ron DeSantis, a likely 2024 Republican presidential candidate, sought to qualify his controversial remark that Russia's invasion of Ukraine was a "territorial dispute."

"Well, I think it's been mischaracterized," he told broadcaster Piers Morgan for an interview to be shown Thursday on the streaming service Fox Nation. Mr. Morgan included the comments in a column Wednesday for The New York Post.

"Obviously, Russia invaded. That was wrong," Mr. DeSantis said, according to the column. "They invaded Crimea and took that in 2014. That was wrong.'

He added, "What I'm referring to is where the fighting is going on now which is that eastern border region Donbas, and then Crimea, and you have a situation where Russia has had that. I don't think legitimately but they had .... so it wasn't that I thought Russia had a right to that.'

Mr. DeSantis said last week that the U.S. shouldn't necessarily help defend Ukraine against Russia's invasion and should instead focus resources on issues closer to home.

It aligned him with the position of former President Donald Trump and some conservatives who have increasingly questioned the tens of billions the U.S. has provided in security assistance to Ukraine.

While the U.S. has many vital national interests-securing our borders, addressing the crisis of readiness within our military, achieving energy security and independence, and checking the economic, cultural, and military power of the Chinese Communist Party-becoming further entangled in a territorial dispute between Ukraine and Russia is not one of them." Mr. DeSantis had said in a statement broadcast on "Tucker Carlson Tonight," on Fox News.

Everyone should be welcome at the table.

We're on a mission to provide a billion meals by 2030. Because over 30 million Americans don't know where their next meal is coming from. It could be anyone, even your neighbors. Let's break the cycle of hunger, together.



rs is a program of Albertsons Compo a 501 (c)(3) designated nonprofit. nies Foundation



SEC to Sue Crypto Exchange

Continued from Page One to U.S. securities laws.

The notice concerned several aspects of Coinbase's business, including assets listed on its crypto exchange, staking service Coinbase Earn and wallet service, the company said.

Coinbase Earn is a program that allows customers to earn rewards on their digital assets by staking, a process in which crypto investors lock up their coins to facilitate transactions on the underlying blockchain network. A crypto wallet holds digital tokens for users.

We are prepared for this disappointing outcome and confident in the legality of our assets and services," Coinbase Chief Legal Officer Paul Grewal said. "If needed, we welcome a legal process to provide the clarity we have been advocating for and to demonstrate that the SEC simply has not been fair or reasonable when it comes to its engagement on digital assets."

An SEC spokeswoman declined to comment.

Coinbase's stock fell about 13% after hours after falling 8% in regular trading. Crypto-related stocks and bitcoin have rallied in recent weeks but turned negative following the Federal Reserve's rate increase announcement on Wednesday.

crypto exchange carries potentially existential consequences since regulators can seek injunctions that would block the company from activities the SEC argues violate the law. Despite a yearslong crackdown on crypto sales and trading, the SEC has sued only a few crypto exchanges.

In a message he posted to Twitter late Wednesday, Coinbase Chief Executive Brian Armstrong referred to the change in the SEC's position toward his company over the past two years. The SEC allowed Coinbase to go public in 2021, he wrote, including after reviewing its disclosures that "clearly explained our asset listing process and included 57 references to staking."

Coinbase shares debuted on public markets on April 14, 2021, three days before Mr. Gensler was sworn in as SEC chair. While the SEC took enforcement actions against crypto companies during the Trump administration, the agency has gone after bigger companies since Mr. Gensler took over.

The SEC on Wednesday sued crypto entrepreneur Justin Sun and settled with celebrities Lindsay Lohan and Jake Paul over money they made by touting Mr. Sun's business without making required disclosures.

The SEC's enforcement process gives companies the right to respond to the SEC's Wells notice and argue why regulators are wrong. Regulators have six months to decide



### Enjoy 12 Classics + Bonus Steak Knives Worth \$239.99—Now JUST \$69.99 + \$19.99 shipping & tax

Malbec is on top of the world. It rose from humble origins in southern France (where it was typically used in blends) to international stardom in the high-



Jorge Noguera works his magic in Salta,

altitude vineyards of Argentina. To celebrate World Malbec Day (April 17), we're giving you the best of both worlds with this **exclusive offer.** 

#### "Argentina has become one of the world's most exciting wine countries" – critic James Suckling

Today's tour starts in Salta, home to some of the world's highest vineyards and the hugely popular Ascencion Malbec. One impressed fan writes, "Words cannot explain how wonderful this wine is." Plus, taste classic reds from legends in Mendoza: Opi Sadler's signature **90-point, gold medalist,** Hervé Fabre's fine, **barrel-aged Reserva** and a bold release from the acclaimed Zuccardi family. Then head down to Patagonia for a rich new arrival made by the Schroeder family, experts in the region since 1927.

Malbec's success in Argentina has captured the attention of French winemakers, who have started making 100% Malbec releases. Superstar Hervé Sabardeil's **gold-medal sensation** is our very favorite, thanks to its silky layers of wild fruit flavor and herb nuance.

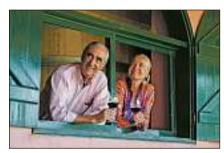
We'd also like to send you a special gift in celebration of World Malbec Day: a **bonus set of steak knives.** They're the perfect complement to your case (as you'll taste, Malbec and steak are a match made in heaven).

#### Discover mighty Malbec and more

All this is only \$69.99 as your introduction to the WSJwine Discovery Club. Enjoy today's collection, then look forward to a dozen exciting new releases every three months, from top regions around the world. Take only the cases you want—with a savings of at least 20%. You can change wines, delay delivery, skip or cancel anytime. We'll also reward you with bonus bottles and other member-only treats. Plus, every wine comes with our **100% money-back guarantee.** 

Give it a try—and happy World Malbec Day.

home to the world's highest vineyards.



*Hervé and Diane Fabre raise a glass to Malbec at their acclaimed estate.* 



A juicy steak is the perfect complement to Malbec and your bonus gift below.

#### YOUR SPECIAL GIFT

To accompany your Malbec, we'll also send you a set of four high-quality steak knives—based on a traditional French design. Worth \$39.99



# OR CALL 1-877-975-9463 guote code AD7D005



Offer available to first-time WSJwine Discovery Club members only and limited to one case per household. Wines and offer may vary by state. 100% money-back guarantee applies to each wine. Offer subject to availability and club enrollment. All orders fulfilled by licensed retailers/wineries and applicable taxes are paid. You must be at least 21 years old to order. Offer valid in U.S. only (excluding AR, DE, ID, MS, RI, UT). \$75 shipping surcharge applies to AK and HI delivery. WSJwine is operated independently of The Wall Street Journal's news department. Full terms and conditions online. Void where prohibited by law. Please drink responsibly.

### U.S. NEWS

# Fed Walks a Tightrope, Balancing Two Roles

Officials nod to bank troubles, but press ahead with slower rate increases

#### BY GREG IP

The Federal Reserve is responsible for the financial system and the macroeconomy. In theory, these are different jobs calling for different tools.

In recent weeks, the Fed has tried to stay ANALYSIS faithful to that separation of roles. When Silicon Valley Bank failed two weeks ago, the Fed sought to contain the damage by lending generously to other banks from its discount window. On Wednesday, though, it continued its campaign to slow the economy and bring down too-high inflation, with a quarter-percentage-point increase in interest rates and a forecast of one more.

In reality, of course, these two jobs aren't so easily separated. Higher interest rates cool growth and inflation through a broad range of channels, one of which is raising financial institutions' own cost of borrowing, causing them to lend less. This usually happens smoothly but sometimes violently; banks or less regulated lenders fail or come close to failing, assets crater and the public panics, whacking the economy more than the Fed intended. This is the origin of the Wall Street adage, "The Fed tightens until something breaks."

In its actions Wednesday, the Fed recognized that something was breaking. Recent data had pointed to economic growth accelerating and underlying inflation remaining stubbornly high. Fed Chair Jerome Powell indicated to Congress earlier this month that would likely require rates to rise above 5.25%, perhaps by a lot. The projections released Wednesday show Mr. Powell and his colleagues have abandoned those plans and still see the target range for the federal-funds rate, which is now 4.75% to 5%, topping out between 5% and 5.25% this year, unchanged from December's meeting.

"We're looking at what's happening among the banks and asking, is there going to be some tightening in credit conditions," Mr. Powell told reporters. "In a way, that substitutes for rate hikes."

Because of this expected credit crunch, Fed officials nudged expected growth down to 0.4% this year from 0.5% in their December projections, and 1.2% next year from 1.6%.

If the Fed's forecasts and assumptions turn out right,



\* \*

Fed Chair Jerome Powell at Wednesday's post-raise news conference in Washington.

with the bank instability largely contained and inflation gliding back to 2% from 5% to 6% now, then this balancing act will have been a success. A truly systemic financial crisis will have been avoided at relatively low cost, in terms of financial market wreckage or inflation.

There are many other ways things could go, of course, and two in particular are of greatest concern. One is that the Fed may have overreacted. It.

and other regulators, may have expanded the banking safety net for an isolated problem without truly systemic repercussions. And by lowering the path for rates this year, the Fed may have loosened overall financial conditions, setting back the fight against inflation. There are precedents. In

1987, the Fed's newly installed chairman Alan Greenspan was establishing his hawkish credentials by raising interest rates when the stock market crashed.

He quickly cut them. The market crash left no economic imprint, inflation ground higher, and the Fed had to tighten more, resulting in a recession from 1990-91. In 1998, Mr. Greenspan again cut rates in response to the dislocations caused by a huge, flailing hedge fund, Long-Term Capital Management. By the time he resumed raising rates the internet bubble had inflated further.

Mr. Powell has steered clear of those scenarios in that he didn't stop raising rates this week, much less cut them, and could in principle accelerate the pace of rate increases fairly easily.

The other risk is that the financial system is more fragile than the Fed realizes, and that by raising rates this week the Fed made it more fragile.

SVB was an outlier but many banks have unrealized bond losses and a heavy dependence on uninsured deposits. Those deposits have been migrating to too-big-to-fail banks or higher-yielding money-market funds—a dynamic this week's rate increase could aggravate. There may be other, unnoticed risks, lurking in the financial system.

In 2007, in the opening weeks of the financial crisis. then-Fed chairman Ben Bernanke tried to keep financial stability and monetary policy separate by cutting the discount rate but not the federalfunds rate. But the mortgage crisis only worsened from there and within months, the Fed was easing monetary policv.

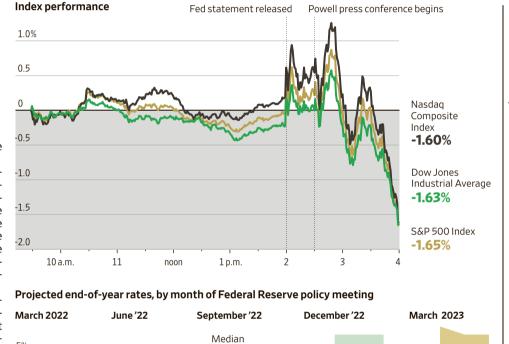
There is little reason to think the financial system is as vulnerable as it was then. But the Fed may yet find that keeping its two jobs separate hasn't gotten any easier.

### Interest Rates Rise Amid Woes

Continued from Page One Committee agreed to the rate increase.

New projections showed almost all 18 officials who participated in the meeting expect the fed-funds rate to rise to at least 5.1%, implying one more quarter-point increase and no rate cuts this year. The quarterly projections were little changed from those released in December.

Mr. Powell said officials intended their postmeeting policv statement to suggest greater uncertainty about future rate rises. Since they began lifting borrowing costs one year ago, the statement had said they anticipated "ongoing increases." But Wednes-



### Powell Says Banks Are Sound

Continued from Page One Suisse Group AG to rival UBS Group AG over the weekend further fanned concerns about the global financial system.

Mr. Powell said that deposit outflows had stabilized over the past week. He also said there was no reason to think that the problems that led to Silicon Valley Bank's downfall are systemic.

"These are not weaknesses that are at all broadly through the banking system," he said. "This was a bank that was an outlier in terms of both its percentage of uninsured deposits and in terms of its holdings of duration risk."

The Fed is reviewing its oversight function and rethinking a number of its own rules related to midsize banks. The speed of the deposit run at SVB was "very different from what we've seen in the past," Mr. Powell said, adding that "supervision and regulation need to keep up with what's happening in the world." Regulators took the unusual step of guaranteeing all the deposits of SVB, rather than only those within the government's \$250.000 cap. The move was meant to shore up confidence in the banking system and keep customers of similar-size banks from vanking their money. 'You've seen that we have the tools to protect depositors when there's a threat of serious harm to the economy and the financial system and we're prepared to use those, and I think depositors should assume that their deposits are safe," Mr. Powell said. Lawmakers have discussed raising the Federal Deposit Insurance Corp.'s \$250,000 cap. At a Senate hearing Wednesday as Mr. Powell was speaking, Ms. Yellen said that could be something to considereventually. "Right now, we need to focus on improving the confidence of the public that we do have a sound banking system, and we can debate in the days ahead whether or not \$250,000 is the right level for deposit insurance," she said. Mr. Powell stressed that the Fed is still focused on its campaign to curb inflation despite the bank turmoil, but he signaled that further rate increases could be limited. Fed policy makers considered whether to pause interest rates in the days leading up to the meeting, he said. Some investors worried a rate pause would have signaled that the central bank was deeply worried about the health of banks and the U.S. economy.

concerns that would probably shake confidence," said Abbott Cooper, an activist investor and founder of bank-focused investment-management firm Driver Management. "They have a very, very narrow tightrope to walk."

Unrest in the banking sector could make it more difficult for some consumers to obtain loans to buy homes, cars and other big-ticket items. Mr. Powell said he expects the recent disruptions in banking to tighten credit conditions for households and businesses, which would weigh on economic growth.

"Such a tightening in financial conditions would work in the same direction as rate tightening," he said. "You can think of it as being the equivalent of a rate hike or perhaps more than that."

A number of regional banks hold commercial real-estate debt, such as rental-apartment mortgages or loans backed by office buildings.

Many of the office proper-

day's statement said instead "Some additional policy firming may be appropriate."

Mr. Powell "opened the door to the possibility that this was the last rate increase," said Marc Sumerlin, a former economic adviser to President George W. Bush.

Fed officials have at times over the past year acknowledged the risk of being forced to simultaneously fight two problems-financial instability and inflation. Several have said they would use emergency lending tools, along the lines of those unveiled this month, to stabilize credit markets so the Fed could continue to raise rates or hold rates at higher levels to combat inflation.

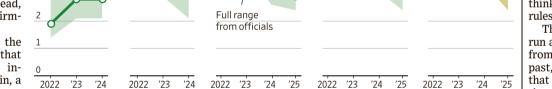
The recent bank turmoil offers the strongest evidence vet of spillovers from higher interest rates to the broader economy. The upheaval has served as a stiff reminder of the perils Fed officials, regulators, lawmakers and the White House face trying to corral inflation that soared to a 40year high last year.

U.S. policy makers cushioned the economic shock created by the Covid-19 pandemic in 2020 and 2021 by providing extensive financial aid and cheap money. Congress and the White House have largely delegated to the Fed the task of taming price pressures.

The fed-funds rate influences other borrowing costs throughout the economy, including rates on mortgages, credit cards and auto loans. The Fed has been raising rates to cool inflation by slowing economic growth. It believes those policy moves work through markets by tightening financial conditions, such as by raising borrowing costs or lowering prices of stocks and other assets.

Mr. Powell said Wednesday it was possible banking turmoil would further tighten conditions, meaning there could be less of a need for the Fed to raise rates.

Since officials' previous



Sources: FactSet (index performance); Federal Reserve (projected end-of-year rates)

reports

and lower inflation.

half-point after

meeting.

Bank

Central bankers are con-

cerned that prices will keep

rising steadily if consumers

and businesses expect them to.

suggested officials would de-

bate whether to raise rates by

a quarter-point or a bigger

showed hiring, spending and

inflation were stronger early

this year than they thought at

the time of their most recent

An astonishing run on the

changed everything.

\$200 billion Silicon Valley

SVB's depositors were heavily

concentrated in the tightknit

world of venture capital and

startup firms, which were

burning cash and withdrawing

deposits as the once-highfly-

ing technology sector cooled.

looking to raise capital from

investors and that it would re-

cord a loss on longer-dated se-

curities whose values had

fallen as interest rates shot

up. Nearly a quarter of the

bank's deposits fled over the

next day and the bank was

taken over by regulators on

Valley Bank management

failed badly," Mr. Powell said.

pervisors at the San Francisco

Fed or regulators in Washing-

ton hadn't forced the bank to

correct deficiencies in time.

referring to the Fed's previ-

ously announced internal audit

that will be made public by

"At a basic level, Silicon

He didn't say why bank su-

March 10.

On March 8, SVB said it was

Two weeks ago, Mr. Powell

meeting, Jan. 31-Feb. 1, the May 1.

Fed has sharply economy had shown surprising The strength, leading to concerns boosted lending to banks, inthat aggressive rate rises over cluding through a new facility the previous year hadn't done with more generous terms, to enough to slow the economy ease fears of broader contagion.

> Still, banking-sector tremors are likely to lead to a pullback in lending because banks will face increased scrutiny from bank examiners and their own management teams to reduce risk taking.

Banks could also see earnings squeezed if they feel pressure to raise deposit rates, which could further crimp lending.

The failure of SVB could provide a catalyst for more consumers and businesses to move money out of loweryielding bank accounts and into higher-vielding moneymarket funds. While moneymarket mutual funds have been offering interest rates close to 4.5% as the Fed has raised short-term rates rapidly, the national average savings deposit rate stood at less than 0.3% last week, according to Bankrate.com.

The Fed's emergency lending authorities can address liquidity strains, or the ability to get cash to where it is needed in the financial system. But those tools can't solve more fundamental business challenges caused by a potential end to low bank deposit rates, for example.

"I think we're looking at a sizable credit crunch," said Daleep Singh, a former executive at the New York Fed who is now chief global economist at PGIM Fixed Income.

Economists said the Fed's own forecasts and Mr. Powell's comments appeared to reflect

similar concerns. Officials could have downplayed the fallout from SVB's collapse as an idiosyncratic episode caused by a poorly managed bank, but "they didn't brush it under the carpet," said Priya Misra, head of interest-rate strategy at TD Securities.

Banking stress had led to questions in the past week over whether the Fed would even raise rates at all, particularly before Swiss authorities on Sunday arranged a forced marriage of banking giants UBS Group AG and Credit Suisse Group AG.

Some analysts said the Fed would have been hard-pressed not to raise interest rates given the economy's recent strength and aggressive measures taken to shore up confidence in the banking system.

"Right now pausing would cause disruption," said Donald Kohn, a former Fed vice chair. Deciding against raising rates would "signal that they don't have confidence in their financial stability tools.'

Others disagreed. It would have been better for the Fed to move cautiously by deferring a possible increase until the central bank's next meeting, in early May, given the fragile financial backdrop, said Jan Hatzius, chief economist at Goldman Sachs.

"If more issues crop up after Wednesday, that's also not going to be very confidence inspiring," he said.

Watch a Video

Scan this control to watch a video of the Fed's news conference. Scan this code

"Half a point seems like they're ignoring it. Not having a raise at all would suggest

ties have lost value during the pandemic era, and a large proportion of commercial mortgages are set to expire this vear.

Mr. Powell said commercial real estate wasn't comparable to the problems at SVB.

"We're well aware of the concentrations people have in commercial real estate," he said. "I really don't see that as at all analogous to this."

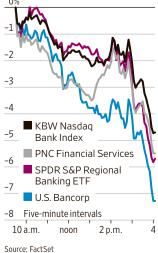
Bank shares have been under acute pressure this month. Banks including PacWest Bancorp and Western Alliance Bancorp have lost more than half their value this month. First Republic shares are down nearly 90% this month.

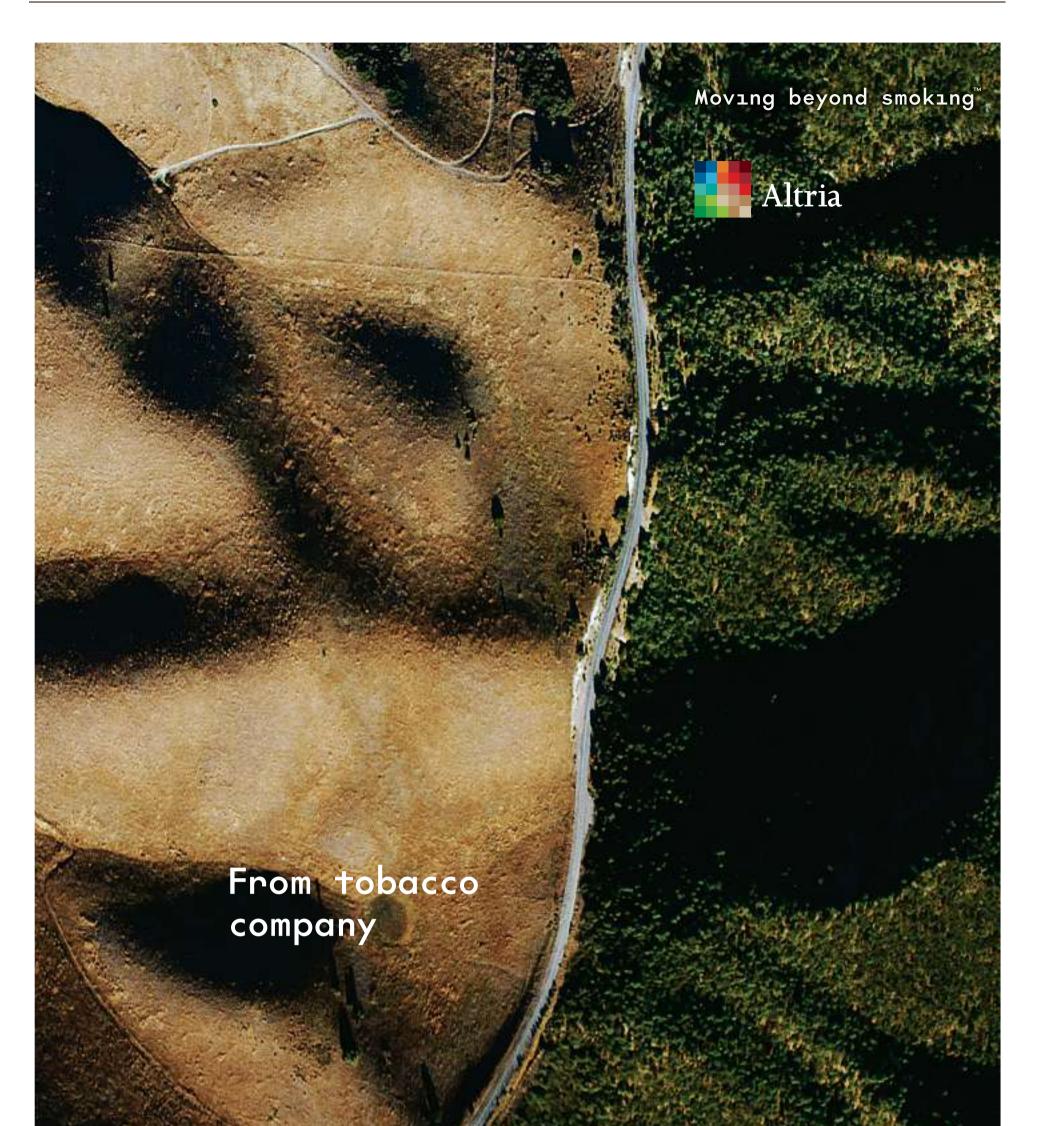
PacWest shares fell 17% Wednesday as the Los Angeles bank said it borrowed billions of dollars after a steep fall in deposits.

The bank, which has been in focus in part because a large amount of its deposits come from venture-related customers, said it borrowed from the Fed and the Federal Home Loan Bank and received financing from Apollo Global Management Inc.'s Atlas SP Partners.

-Akane Otani, David Harrison and Hannah Miao contributed to this article.

Share-price and index performance Wednesday





# To tobacco harm reduction company.

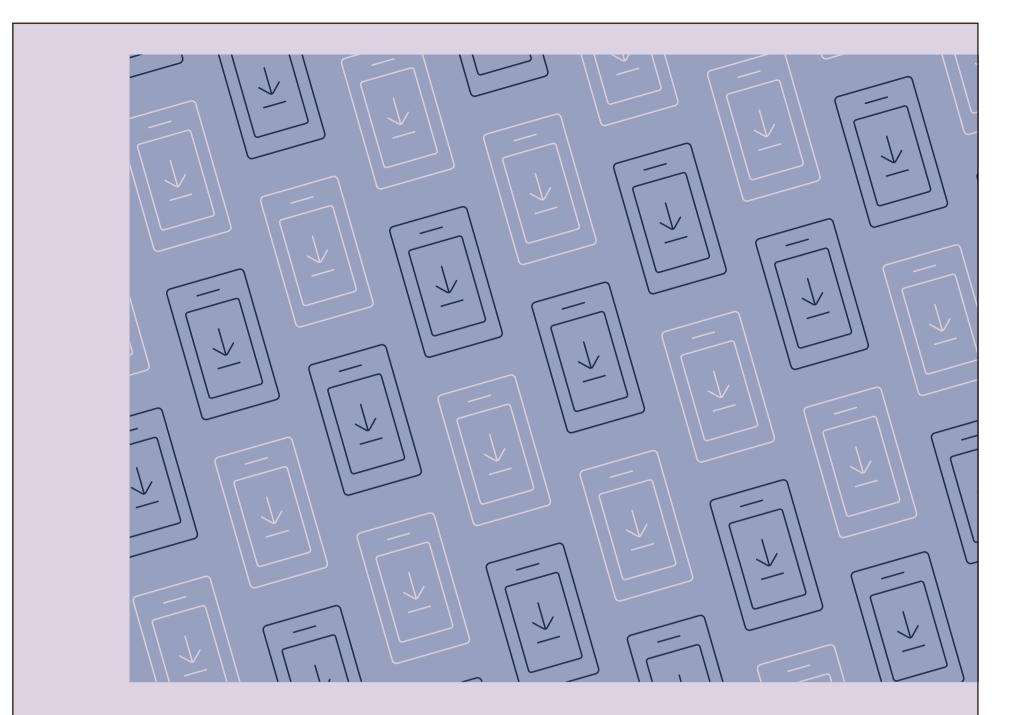
Altria's companies are leading the way in moving adult smokers away from cigarettes – by taking action to transition millions towards less harmful choices.

We are investing in a diverse mix of businesses that further broaden options. And our companies are encouraging adult smokers to transition to a range of choices that go beyond traditional, combustible cigarettes.

© Altria Client Services LLC 2023

Learn what we're doing at altria.com

#### **A6B** | Thursday, March 23, 2023



# Explore WSJ

Your WSJ subscription doesn't stop here. Visit our digital product showcase to explore, download and sign up for more of what you're entitled to.





# THE WALL STREET JOURNAL.

© 2023 Dow Jones & Co., Inc. All rights reserved. 6DJ9331

### U.S. NEWS

NΥ





# DNA Unlocks Family Secret Of Beethoven

#### BY AMY DOCKSER MARCUS

Ludwig van Beethoven's impressive head of hair is yielding new clues about his health problems and his ancestry.

Friends kept locks of the composer's hair as keepsakes, and some snipped tokens of remembrance at his deathbed. Nearly two centuries later, an international team of researchers said they used some of those strands to sequence Beethoven's genome, the complete set of DNA found in every cell.

The researchers reported in a paper published Wednesday in the journal Current Biology that they hoped studying his DNA might help determine the cause of Beethoven's progressive hearing loss, chronic gastrointestinal complaints and severe liver disease culminating in his death at the age of 56 in 1827.

Historians and scholars have long mined Beethoven's journals and letters for clues about his health woes. They were inspired by a document found a day after his death in Vienna in a hidden compartment of his writing desk. Addressing his brothers, Beethoven requested that details about his medical ailments be made public after his death.

The researchers didn't find a genetic cause for Beethoven's deafness or stomach pain. They found genetic risk for liver disease and evidence of hepatitis B infection, which can lead to scarring of the liver known as cirrhosis.

The analysis also revealed unexpected findings about Beethoven's ancestry and the origins of some of the locks of hair.

In 1994, members of the American Beethoven Society, then led by musicologist William Meredith, an author of the paper, bought a lock of Beethoven's hair at Sotheby's in London. The hair—called the Hiller lock, after fellow composer Ferdinand Hiller who snipped it the day of Beethoven's funeral—went on display at the Ira F. Brilliant Center for Beethoven Studies at San Jose State University



Clockwise from top left: Beethoven's hair is examined at the Max Planck Institute in Germany; the Hiller lock, which wasn't what researchers expected, and a Beethoven monument in Vienna.

in California. Some visitors asked whether it had been tested for DNA. Some strands were sent for testing but the technology for extracting DNA from hair wasn't advanced enough to provide answers, Dr. Meredith said.

In 2014, Dr. Meredith said he was approached by Tristan Begg, a biological anthropologist and Beethoven fan who had volunteered at the Beethoven center as a college student. Mr. Begg proposed reviving the DNA project by testing the Hiller lock and other strands of Beethoven's hair. A member of the American Beethoven Society's board, Kevin Brown, bought more locks of Beethoven's hair for testing, including the one used by the paper's authors to sequence Beethoven's genome.

They used eight locks attributed to Beethoven for the study. DNA testing combined with detailed records of how and when the locks were obtained led the group of biologists, geneticists, genealogists and immunologists to conclude that five locks were authentic, said Mr. Begg, the paper's lead author.

The other three locks lacked sufficient DNA for testing or yielded DNA results that led the researchers to

conclude they couldn't have been from Beethoven.

The Hiller lock, the most famous of the bunch, was determined to be the hair of a woman, the scientists reported.

The Hiller lock, on display for years at the Beethoven center in San Jose, was removed from view pending the results of the study, said Dr. Meredith, who is the emeritus founding director of the center.

Researchers in the group also tracked down and took saliva samples for genetic testing from five male Van Beethoven relatives in Belgium. They had good genealogical records that demonstrated a common ancestor with the composer: Aert Van Beethoven, born in 1535.

They compared the Y chromosome of Beethoven's genome against that of the five living men from the Van Beethoven line. A male's Y chromosome remains nearly identical to his father's and is passed down through generations. The five living Van Beethovens were related to each other—but not to Ludwig van Beethoven, the researchers found.

The finding indicates that between the birth of Aert Van Beethoven's son around 1572 in Kampenhout, Belgium, and the birth of the famous composer 200 years later in Bonn, Germany, the father of a Beethoven wasn't the child's biological parent.

The researchers said they

don't know in which generation the biological link was broken. Another author of the study, Maarten H.D. Larmuseau, a geneticist at Katholieke Universiteit Leuven in Belgium and a specialist in "extra pair paternity," when a father raising a child isn't a biological parent, said scholars have questioned the paternity of Beethoven's father, whose baptismal record has never been found.

The living Van Beethoven men were shocked to learn they likely aren't biologically related to the composer, Dr. Larmuseau said. "I reminded them that there is still a legal and genealogical connection with Beethoven, but people also value the biological connection and it is gone now," he said.

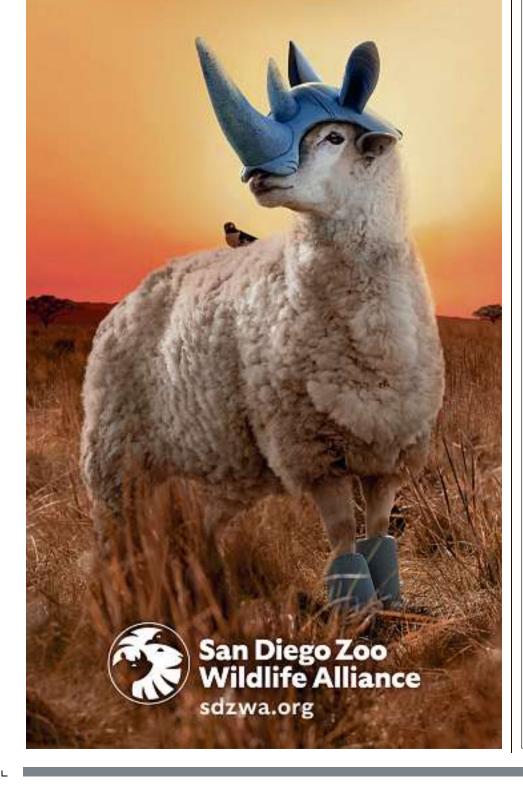
Dr. Larmuseau, who has worked to find relatives through consumer DNA testing databases and genealogical records, said they have identified 145 people with the Van Beethoven surname. Consumer DNA testing could reveal new relatives who have the same Y chromosome as Beethoven, opening up other avenues of inquiry into his ancestry, said Dr. Larmuseau.

Beethoven never married and has no known legal descendants. Scholars have suggested a person he referred to in his letters as his "immortal beloved" was a married woman and that her daughter was Beethoven's child. Her daughter died without having children, according to scholars.

# You can't replace wildlife



# once it's gone.





# Megan is more than an analyst with a successful career.

### She's on top of her GAME.

As a student, Megan Martucci '18, MBA '19, served as chair of the Global Asset Management Education (GAME) Forum, the largest student-run financial conference in the world. As a School of Business alumna, role model and difference maker, she comes back to Quinnipiac to help today's students become tomorrow's leaders.



Quinnipiac School of Business

### Thank you to our sponsors



**A8** | Thursday, March 23, 2023

# WORLD NEWS

# **Macron Offers Bonuses as Workers Revolt**

French president proposes payments, other measures after raising retirement age

#### BY MATTHEW DALTON

PARIS-President Emmanuel Macron stood by his overhaul of France's pension system but proposed several measures for workers-including bonus payments for emplovees of companies that buy back shares—in a bid to calm an escalating protest movement against his government.

In his first public remarks since pushing through the overhaul last week without a vote in Parliament, Mr. Macron on Wednesday said the law and its centerpiece, raising the retirement age to 64 from 62 by 2030, were needed to fix a pension system that would become unaffordable in a matter of years. He said he wanted the law's provisions to enter into force by the end of this year, defying polls that show the public is largely opposed to the overhaul. "Between the polls and the

short term, and the general interest of the country, I choose the general interest of the country," Mr. Macron said in an interview on French television.

The president, however, said he would propose measures to improve working conditions and training for people in their 50s. Mr. Macron said he wanted to raise pay in certain parts of the country for workers who earn less than the minimum wage. And he proposed to arrange bonus payments for workers in companies that buy back shares.

'They must distribute more to their employees," he said, adding: "A democracy must listen to the extreme anger that is expressed in the framework of the republic and respond."

Mr. Macron is facing increasingly unruly protests over his pension overhaul. The demonstrations have taken a violent turn in the past week, when he decided to bypass Parliament. He risks a lengthy and destructive movement, akin to the yellow-vest protests that roiled



Fishermen protested a government move Wednesday in Rennes, France, to raise the retirement age to 64.

the country for more than a year starting in 2018. His decision has also rekindled anger against France's political institutions and the vast powers given to the executive branch.

Each night, thousands have gathered in central Paris to protest, burning trash that has crowds with tear gas. been piling up on the streets because of a strike by sanitation workers against the pension law. They scuffled with the police and launched fireworks at them. Police responded by dispersing the

Gérald Darmanin, the interior minister, said 94 police officers have been injured in the protests since last Thursday.

"I have asked them not to give in to provocations," Mr. Darmanin said after visiting a police station on Tuesday.

Unions have organized a nationwide protest and strike for Thursday. Strikes have continued to block some of the country's refineries, stressing fuel supplies; 7% of French gas stations had no fuel at all. The government has requisitioned some workers to reopen fuel depots and begin picking up the trash in French cities.

"The street and the strikers will not lower their weapons as long as pension reform is on the table," said energy workers of the far-left CGT union.

Mr. Macron's government survived two no-confidence votes on Monday—one of them narrowly.

Mr. Macron brushed aside questions about how his government could continue to govern facing near majority opposition from lawmakers.

He expressed little regret about how his government pushed through the pension law. "If I have one, it's not having succeeded to convince about the necessity of this reform, which isn't pleasant," he said. "But me, I don't have regrets."

# U.K. Inflation Resumes Its Rise, Defying Expectations

#### By PAUL HANNON AND MAX COLCHESTER

LONDON-Britain's inflation is proving stubbornly high.

Price increases in February picked up to 10.4% from 10.1% in January as the cost of food rose at the fastest pace since records began in 1989. That left the U.K. with the highest rate of inflation among the Group of Seven wealthy democracies.

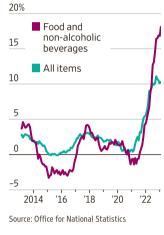
Though the increase was unexpected given recent declines, economists still foresee the pace of inflation falling sharply in months ahead, as the country's overall economic picture improves. Declines in the pace of price increases are expected from April, with the independent budget watchdog last week forecasting that the inflation rate would end the year at 2.9%.

"It is likely that the trend from here will be sharply lower this year," said Tom Stevenson, an investment director at Fidelity International. "The latest reading for the year to February is a hangover from the past year's energy, fueland food-price hikes and tells us little about where inflation is heading from here.

However, the February pickup in the core rate of inflation-which strips out food and energy—to 6.2% from 5.8% will be a concern for the Bank of England's policy makers, who are set to announce their latest rate decision on Thursday.

The latest inflation figure makes an 11th rise in the BOE's key interest rate more likely,

U.K. consumer prices. change from a year earlier



economists say. "The decision will hinge on

whether policy makers believe

the backward-looking inflation natural gas. Since that likely as it assesses the need for fursurprise is likely to be the start of a trend or whether it is a one-off linked to normal monthly volatility," said Kallum Pickering, an economist at Berenberg Bank.

The yield on 10-year U.K. government bonds rose after the release of the inflation figures, an indication that investors view a rate rise on Thursday as more probable. Yields move inversely to prices.

The BOE had been confident that price rises would ease sharply over coming months, and in February forecast that inflation would fall to 3% by this time next year.

April 2022 saw a big rise in home-energy prices as Russia's invasion of Ukraine sparked fears of a shortage of won't be repeated this year, the annual rate of inflation is set to drop sharply this April. Economists at JPMorgan expect the inflation rate will fall to 7.4% in April, and decline further from July, when household energy prices are likely to be falling.

However, policy makers are worried that businesses will pass on their higher energy costs, and that workers will secure big pay rises that will pressure employers to raise their prices, which would extend the period of high inflation.

That is a concern shared by European Central the Bank. Speaking in Frankfurt, President Christine ECB Lagarde said the bank's policy makers would focus on wages ther rate rises."We are neither committed to raise further nor are we finished with hiking rates," she said.

She warned that historically low unemployment in Europe could help unleash "a more prolonged cost-push shock coming from wage growth."

Despite the rise in inflation in Britain, the country's overall outlook is far less gloomy than it was entering the winter.

After some of the biggest strikes in decades, sparked by what is referred to in the U.K. as a "cost of living crisis" and high inflation, the British government in the past week has begun sealing pay deals with trade union leaders to end repeated walkouts by train workers and nurses.

#### ADVERTISEMENT

#### THE WALL STREET JOURNAL.

**CEO** Council

The Wall Street Journal CEO Council provides the world's most influential decision makers with the network and facts they need to lead strategically and drive the next era of industry, policy and the global economy.

Member Voices | Three of our members respond to the below question:

What should CEOs do to prepare their organizations for more uncertain economic times?



Milind Pant Chief Executive Officer, Amway

"At Amway, despite uncertain times, our focus remains on the long-term growth and success of micro-entrepreneurs in building health and wellness communities. We continue to invest in digital platforms and experience, nutrition science, and innovation. At the same time, the organization remains disciplined on costs and capital spending to mitigate the effects of inflation and economic slowdown. We are also transparent with employees about the headwinds, to nurture trust and collaboration and strengthen a growth mindset."



Kim A. Keck President and CEO, Blue Cross Blue Shield Association

"A strong sense of purpose helps us stay true to our long-term strategy—our North Star. Our people are at the heart of our efforts to create an equitable, affordable system of health. Values-driven, transparent communication creates a culture of trust and accountability to ensure we focus not just on the what-our business goals-but on how we work together to achieve them. This enables the flexibility and agility needed to respond to uncertainty."



#### Priscilla Almodovar Chief Executive Officer, Fannie Mae

"Economic headwinds require companies to prepare, adapt, and evolve while maintaining focus. CEOs must manage capital and be decisive so they can continue to serve their customers and other stakeholders through any downturn when others may be forced to pull back. Fannie Mae and our employees are built for these moments-effectively managing risk, being a stable source of liquidity to the housing market and facilitating affordable. equitable and sustainable access to homeownership and rental housing across America."

Membership is by invitation: CEOCouncil@wsj.com Learn more at CEOCouncil.wsj.com/inquire

THE WALL STREET JOURNAL. TRUST YOUR DECISIONS

The Wall Street Journal news organization was not involved in the creation of this content

2023 Dow Jones & Co, Inc. All rights reserved.6DJ9348

### WORLD NEWS

# Conflict Threatens To Trigger Nuclear Arms Race

#### By LAURENCE NORMAN

The war in Ukraine has accelerated the unraveling of the international arms-control architecture painstakingly con-structed from the Cold War onward, heightening concern among experts that a new nuclear arms race could emerge as decades of restraint on the numbers of weapons collapses.

Russian President Vladimir Putin said last month that Moscow was suspending application of the New Start agreement, one of the last armscontrol treaties still operating. The treaty limits the numbers of strategic nuclear weapons deployed by Russia and the U.S. His announcement follows thinly veiled threats from Moscow of its readiness to use nuclear weapons in Ukraine.

Some experts say Russia's use of nuclear-capable missiles to deliver conventional warheads in Ukraine has complicated future arms-control talks, while the ice-cold relations between Washington and Moscow have dimmed hopes that Russia and the U.S. can negotiate a replacement for New Start by the time the current treaty expires in February 2026.

Proliferation concerns are increasing globally, with Iran recently producing near-weapons grade enriched uranium, and U.S.-North Korea negotiations over Pyongyang's expanding weapons program stalled. There is talk among U.S. allies of the need to re-examine their nonnuclear weapons policies in today's more volatile era.

Meanwhile, debate is heating up in Washington about the benefits of seeking future U.S.-Russia arms-control deals while China's growing nuclear arsenal is free from constraints and Beijing shows no interest in negotiating controls.

Even if the Kremlin hasn't killed the New Start treaty by 2026, the chances of the U.S. Congress agreeing to a replacement that doesn't take account of China's nuclear advances is "essentially zero," says Matthew Kroenig, director of the Atlantic Council's Scowcroft Center for Strategy and Security and a former senior Penta-

### By JON EMONT

Indonesia made a pitch at a Moscow tourism fair last year

# **Moscow Strikes Targets Across Ukraine**

#### BY JARED MALSIN

Russia launched a new wave of missiles and armed drones into Ukraine, shelling residential buildings in the south and killing seven people in a school dormitory in the Kyiv region, hours after China's president concluded a visit to Moscow to reinforce a partnership with Russian President Vladimir Putin.

Rockets slammed into an apartment block in the southern Ukrainian city of Zaporizhzhia on Wednesday, according to Ukrainian officials and a video of the incident shared by Ukrainian President Volodymyr Zelensky. One person was killed and at least 33 people, including three children, were injured, authorities said.

Separately, Mr. Zelensky visited Ukrainian troops on the front lines in eastern Ukraine near the city of Bakhmut, his office said. He issued military awards to troops defending the area, which has become a central battlefield in the war.

Russia's attacks on Wednesday renewed its strategy of striking civilian infrastructure deep behind the front lines, while positions in eastern Ukraine have become entrenched, with neither side capturing large sections of territory in recent months.

missile-and-drone The strikes coincided with the end of Xi Jinping's visit to Moscow, which the Chinese leader said was aimed at reinforcing a friendship with Mr. Putin and paving the way for a possible Chinese role in negotiations between Moscow and Kyiv. Mr. Xi is expected to speak virtually with Mr. Zelensky for the first time since Russia's full-scale invasion of Ukraine, The Wall Street Journal has reported.

The intensified shelling highlighted the limited space for negotiations with the Kremlin as Russia's assault continues, Ukrainian officials said. Mr. Zelensky has reached out to China in the past as a part of a broader strategy of seeking diplomatic partners outside of the West and intensifying pressure on Russia.

Mr. Zelensky said the over-



One person was killed and at least 33 injured Wednesday when a Russian missile hit a residential building in southern Zaporizhzhia.

night attacks represent "a night of Russian terror" in a post on Twitter. "Every time someone tries to hear the word 'peace' in Moscow, another order is given there for such criminal strikes."

"I don't think that China has ever been in a position as an impartial broker between Russia and Ukraine," said Yevgeniya Gaber, a former Ukrainian diplomat. "Regarding the Chinese peace initiative, that's the best and shortest way to freeze the situation on the ground, to reward Russia with territorial gains."

Antony Blinken, U.S. secretary of state, has said China is considering whether to supply Russia with weapons and ammunition. "As we speak today, we have not seen them cross that line," he said Wednesday during a Senate Appropriations Committee hearing.

Ukraine's air defenses shot down 16 out of 21 drones launched by Russia, the Ukrainian air force said Wednesday, identifying the aircraft as Iranian-made Shaheds. Iran began supplying Russia with the drones last year, deepening a military alliance between the two countries and helping Moscow's forces for a time to bypass Ukrainian air defenses. At least one of the drones

fired overnight slammed into a school dorm in the Kyiv region, killing seven people,

The intensified shelling highlights the slim chances for peace negotiations.

sparking a fire and leaving others trapped beneath the rubble, Ukrainian authorities.

Military analysts and Western officials say the Russian attacks on Ukraine's energy grid, schools, housing and public buildings are part of an attempt to wear down Ukraine's civilian population. Ukraine has improved its air defenses with

homegrown expertise and the addition of Western systems, but the low- and slow-flying drones have proved challenging.

Two Russian missiles hit a building on the grounds of a monastery in Odessa, in southern Ukraine, injuring at least three people, said Andriy Yermak, the chief of Ukraine's presidential staff.

Air defenses shot down all the drones fired at the capital, Kyiv, the city's military administration said in a Telegram post. It wasn't clear whether the statement also referred to the drone that struck the school dorm in the wider area.

Ukrainian authorities issued air-raid warnings across central and northern Ukraine throughout the night.

In an attempt to counter Russian drone attacks, Western governments have sent Ukraine sophisticated weapons systems such as the Patriot and SAMP-T batteries, along with electrical generators and spare parts to help the country repair its energy grid.

Ukrainian and Western officials also have said that Russia is slowly depleting its stocks of cruise missiles and drones, forcing it to pull equipment from the far reaches of its territory to resupply. Russia has said it won't run out of weapons.

Ukraine's improved ability to respond to air attacks and keep the electricity and heating on in important cities has raised hopes that the country can withstand Russia's apparent strategy of exhausting the civilian population or triggering a new exodus of Ukrainian refugees to Europe.

On his visit to the east, Mr. Zelensky noted the extent of the destruction there. "But the most important thing today is victory," he said.

The president handed out awards and posed for photos with troops. "You have a tough fate," he told them. "But a historic one, to defend Ukraine and return everything to Ukraine for our children.'

—Ann M. Simmons contributed to this article.

**Bali Bristles at a Growing Influx of Russians** 

visa given to business investors, said he encourages his fellow Russians to learn Indonesian or English and to legal-

gon adviser. "The future of arms control looks pretty bleak." Mr. Putin's announcement of

The unraveling of post-Cold War pacts spurs growing concerns worldwide.

New Start's suspension hasn't completely killed it-Russian officials say they won't permit inspections to verify their declarations but will stay within the treaty limits of each side deploying no more than 1,550 nuclear warheads. But, it has severely weakened it.

For now, U.S. officials say they are confident that Russia ended 2022 within the treaty limits. But over time, Washington's confidence in Russia's adherence to the warhead limit and other ceilings likely will decline.

In addition to deployed warheads, the treaty also caps the number of strategic missiles and bombers both sides can have. Russia's linking of U.S. sup-

port for Ukraine to discussions on implementing the treaty has created concerns among arms-control advocates.

Lynn Rusten, vice president for the Nuclear Threat Initiative's Global Nuclear Policy Program, says that by seeking to hold New Start hostage to U.S. policy on Ukraine, the Kremlin is making it "virtually impossible for the U.S. and Russia to get back to the negotiating table."

All this has set off a debate in Washington over future U.S. nuclear strategy. While some see Russia's suspension of New Start as an opportunity for the U.S. to expand its nuclear heft, many experts believe the U.S. should refrain from tearing up New Start as long as Moscow abides by the warhead ceiling and let Russia take responsibility for either salvaging the treaty before 2026 or killing it.

as Covid-19 travel restrictions eased: "It's Time for Bali."

The tropical island's economy had been hit hard by the pandemic, but not everything has gone according to plan as tourists have returned.

Tens of thousands of Russians have traveled to Bali over the past year, including those looking to get distance from their country's war with Ukraine. Some have taken up work—as tennis coaches, photographers and even stand-up comedians-in violation of their visa conditions, Bali officials and residents said.

That has caused a backlash in the otherwise laid-back holiday hot spot. Irate residents have launched social-media campaigns against alleged Russian transgressions, pushing authorities to crack down.

Bali Gov. Wayan Koster said last week that he had asked the central government to end the policy that entitles tourists from Russia and Ukraine to obtain visas upon arriving, rather than applying for approval beforehand. Official data show travel from Ukraine has also grown, though Indonesia received seven times as many tourists from Russia last year as it did from Ukraine and local resentment has focused largely on Russians.



Tourists enjoy a beach in Bali. Since the Ukraine war, some Russians are staying and taking jobs in Bali.

"There are many visa violations, like tourists who take jobs, economic crimes, overstays," Mr. Koster told The Wall Street Journal, referring to travelers from the two countries.

invaded Russia Since Ukraine in February 2022, hundreds of thousands of its citizens have poured into neighboring countries such as Georgia and Armenia, where the Russian language is widely spoken. A smaller number have traveled to destinations farther away, including Bali, where food and rent are relatively cheap and enforcement of immigration rules is typically lax.

In October, the month after Moscow ordered a broad mobilization to generate new troops to fight in Ukraine, the number of Russians entering Indonesia doubled to 12,000, and increased every month through January, the latest month for which official data is publicly available. Roughly 22,000 travelers from Russia arrived in Bali in January, more than any nationality other than Australians. Some are staving for long pe-

riods and doing online jobs such

as social-media marketing for Russian companies. Others offer services as barbers, physical trainers and masseuses, catering in part to the mushrooming Russian community, Russians and Indonesians there said.

"There are so many Russians here now that we built kind of a *cabang*, it means a small Moscow in Bali," said Anton Zanimonets, a Russian national who has lived on the island with his family since 2019, using the Indonesian word for chapter. Mr. Zanimonets, who works in real estate and has a ze their businesses.

Indonesian Tourism Minister Sandiaga Uno has said he would study the Bali governor's proposal to end visas on arrival for Russians and Ukrainians.

Immigration authorities have appealed to locals to avoid making viral online posts about alleged misbehavior by foreigners, saying such content makes Bali seem unsafe and hurts tourism. Any complaints should be made directly to the government, an immigration spokesman said.

Thirteen Russians have been deported this year as of mid-March, nearly a third of all deportees. Authorities said some of those who were forced to leave had overstayed their visas to avoid conscription in Russia, or illegally took gigs such as tennis coaching and photography. This month, three Russian women were deported for sex work.

Some people on the island say denying Russians visas on arrival could put off vacationers from the country. Others say tourists from elsewhere also create problems.

"I'm personally not sure if that's only Russia," said Kadek Siska, who works for an ecotourism venture. "But on social media, lots of people mention Russian tourists.

# European Regulators Take Aim at 'Greenwashing'

#### BY KIM MACKRAEL

BRUSSELS-European officials rolled out proposals aimed at forcing companies to back up environmental and sustainability claims they make concerning consumer products with scientific evidence.

The move is part of a broad regulatory push that could set precedents for corporate rules elsewhere.

The European Commission, the bloc's executive body, on Wednesday proposed legislation targeting what critics broadly

have defined as "greenwashing." The rules target ecofriendly labeling, such as assertions that a product was made from recycled material or with neutral carbon emissions.

The commission said a range of environmental claims would need to be verified independently and backed up with scientific evidence. The proposals are part of a wider EU effort officials say is aimed at making it easier for consumers to choose environmentally sustainable products.

Consumer-advocacy groups

said the legislation should help tackle a problem they see as pervasive at companies amid pressure from governments, investors and consumers for more environmentally sustainable products. Environmental claims often are vague or misleading, officials involved in drafting the rules say, and consumers have few tools available to them to determine whether a claim is justified.

The legislation, if passed, could have effects beyond Europe. Regulations adopted in the EU, a market of roughly

450 million people, often result in broader global changes because global companies prefer to avoid working under multiple sets of rules.

Business groups said they welcome efforts to tackle greenwashing, but are wary of having to follow different rules in different markets. Lobby group BusinessEurope said the EU should make sure the new rules don't conflict with other, similar legislation.

Deceptive advertising has long been policed by regulators worldwide. The EU's pro-

posed rules aim to go further by requiring companies to provide evidence for their claims before they make them.

The EU proposal is part of the bloc's broader efforts to fight climate change, which include a bevy of legislation targeting vehicle emissions, renewable energy and other initiatives.

The proposed law must be negotiated and approved by member countries and the European Parliament before it can become law and could change during that process.

### WORLD WATCH

#### UNITED KINGDOM

#### Johnson Denies Lying **About Covid Parties**

Former British Prime Minister Boris Johnson insisted "hand on heart" Wednesday that he never lied to lawmakers about rulebreaking government parties during the pandemic, mounting a robust defense at a hearing that could damage or even end his tumultuous political career.

The House of Commons standards committee questioned Mr. Johnson about misleading statements he made to Parliament regarding several gatherings in government buildings that breached lockdown rules. If the committee finds that he deliberately lied, he could face suspension or even lose his seat in the Commons.

Mr. Johnson came out swinging, telling the committee after taking an oath on a Bible: "Hand on

heart...I did not lie to the House. "If anybody thinks I was partying during lockdown, they are completely wrong," he testified.

If the House of Commons Committee of Privileges concludes Mr. Johnson lied deliberately, it likely would end hopes of a return to power for the 58-year-old Conservative Party politician.

—Associated Press

#### BRAZIL

#### **Police Foil Gang Plot Targeting Officials**

Federal police raided locations in several states Wednesday to crack down on a gang accused of plotting assassinations and kidnappings of public officials including a former judge who presided over Brazil's biggest corruption case.

One of the suspects' targets was Sen. Sérgio Moro, who as a judge presided over the Carwash bribery and money laundering probe that began in 2014, said Justice Minister Flávio Dino. The suspects rented houses near Mr. Moro's home and office in Parana's



PRECIOUS RESOURCE: A man washed clothes Wednesday in India on World Water Day. The United Nations began a three-day meeting-the first world conference on water in over 45 years-to address the '21st century emergency' that is wasting the world's most important resource and has left billions of people without clean water.

#### CHAD Rebels Get Life In Ex-Ruler's Death

More than 400 rebels accused of killing Chad's former president were sentenced to life in prison. The rebels were convicted of terrorism, using child soldiers and undermining Chad's integrity and security, an appeals

court ruled Tuesday. The monthlong mass trial charged 454 members of the Front For Change and Concord rebel

group with killing longtime President Idriss Deby Itno, who died in murky circumstances in 2021 two days after winning a sixth term. Two dozen people on trial were acquitted, and it's unclear exactly how many were convicted.

Defense lawyers said they will appeal the verdict. Mr. Deby ran the country for more than three decades. He died of unspecified injuries when he visited troops fighting the rebel group, which was trying to get control of the oil-rich Central African nation. –Associated Press

#### LEBANON

#### **Protesters Storm Government Building**

Lebanese security forces Wednesday fired tear gas to disperse hundreds of protesters, mainly retired soldiers, who tried to break through the fence at the government headquarters in Beirut.

The violence came amid widespread anger over the harsh economic conditions in the country. where mismanagement by the ruling class has been rampant for

years, preceding the economic meltdown that started in late 2019.

The retired soldiers and police demanding better pay clashed with riot police and troops. Several people suffered breathing problems from the tear gas. The protesters hurled stones at the officers.

The protest was called for by retired soldiers and depositors who have had limited access to their savings. Cash withdrawals from accounts are restricted amid currency shortages. -Associated Press

China Seeks To Raise Global Role

Continued from Page One longer obliged to conform to a U.S.-led global order, and that Beijing poses a challenge to Washington as it tries to shape a world it sees as divided between democracies and autocracies.

position China as a country with which nations that are wary of U.S. hegemony can do business, seek security guarantees and find respect.

-Associated Press

capital, Curitiba, and erected walls

to create rooms that could be

used for stowing hostages, he

said. Mr. Dino said authorities are

investigating whether the gang in-

tended to kill or kidnap Mr. Moro.

Investigators determined the sus-

Federal Police said the crimi-

nals aimed to use their kidnapped

hostages for extortion. Mr. Dino

was a public prosecutor in São

told reporters that another target

Paulo state's organized-crime unit.

pects were setting up teams to

execute their plans, he added.

"In advancing modernization, China will neither tread the old path of colonization and plunder, nor the crooked path taken by some countries to seek hegemony once they grow strong," Mr. Xi said this month as he unveiled his Global Civilization Initiative, cautioning unnamed countries to "refrain from imposing their own values or models on others."

Mr. Xi, at legislative sessions that confirmed his third term as China's president this month, also warned darkly of a U.S.-led effort to contain and suppress China.

expert at the Carnegie Endowment for International Peace. "They honestly believe they have a different way of being a major power and exerting its influence in the world and they believe the U.S. is too securityfocused, that it uses its military too often."

Mr. Haenle represented the U.S. at the Beijing-organized six-party talks aimed at addressing North Korea's nuclear-weapons program—a tentative foray by Beijing into international diplomacy in the mid-2000s that fell apart. Today, he sees a strikingly differFreeman Spogli Institute for International Studies, said that while some of China's rhetoric falls flat in Western capitals, "there are a lot of studies that show that those themes work particularly well in the developing world—the idea of the U.S. resorting to military intervention, and the idea of China being peacemakers."

There is also an element of defense in Mr. Xi's newly energized diplomacy. In the three years Mr. Xi's strict zero-Covid policy effectively sealed his has sapped any momentum that Beijing had enjoyed in Western European capitals, and even in the far more favorable Eastern European countries that, before the Ukraine war, had appeared to be falling more closely into Beijing's orbit.

Mr. Xi is also concerned about growing international attention and sympathy for Taiwan. The island's leaders have rallied its public to the potential for conflict and moved quickly to upgrade its capabilities—all while raising its profile among Western powers and emerging as a symbol of to reopen its long-shut embassy in the Solomon Islands, where diplomatic advances by Beijing have raised concerns in Washington of rising Chinese influence across the Pacific islands.

China has also stepped gingerly into Afghanistan, where the U.S.'s hasty retreat in August 2021 offered Beijing a chance to establish itself as a more influential player. In Myanmar, rebels called this month for China to intervene in that country's civil war. China last year positioned itself as a neutral mediator in the Horn of Africa.

### FROM PAGE ONE

China long hewed to a policy of biding one's time while slowly building up economic, political and military might. That began to shift as China's economic and political interests came to span the globe, with infrastructure projects tied to its Belt and Road Initiative in Latin America, Africa and Southeast Asia. It has hundreds of billions of dollars of investments and growing diasporas worldwide that must be protected, as well as a voracious appetite for strategic resources.

Mr. Xi has in the past few weeks promoted three initiatives expanding his vision for the world, titled the Global Development Initiative, the Global Security Initiative and the Global Civilization Initiative. Their sweeping ideals seek to

Mr. Xi's sharpened rhetoric reflects a belief that China can serve as a counterpoint to the West. Rather than an authoritarian country, as President Biden would have it, Mr. Xi wants nations, particularly in the global south, to regard China as a voice of reason, an economic model and a benign power that can stand up to a U.S.-led Western order it sees as hectoring and bullying.

"Coming out of Covid, there's an attempt to put China forward in a different light, and a large part of it is to create a contrast between the roles that China and the U.S. play," said Paul Haenle, a China ent approach from China, particularly in its willingness to take risks on the global stage.

Mr. Xi has been emboldened by his success in asserting Beijing's authority in Hong Kong, Xinjiang and the South China Sea, despite Western denunciations. In some cases, Beijing found considerable support among developing nations for its portrayal of the U.S. as seeking only to block China's rise.

In Xinjiang, the far western region of China where the U.S. and its allies have accused Mr. Xi of carrying out forms of genocide against Muslim minorities. China's vigorous diplomatic efforts have resulted in virtual silence from Muslimmajority countries.

Oriana Skylar Mastro, a fellow at Stanford University's

Xi Jinping aims to portray China as an alternative to the U.S. on the world stage.

country off from the outside world, Mr. Biden's efforts to rally a global coalition of wealthy Western-aligned countries have in many ways created a far more daunting international environment for China.

Mounting suspicion of China's motives has replaced the largely welcoming embrace that China had grown accustomed to in previous decades, a shift that began toward the end of the Trump administration.

Farther afield, China's perceived alignment with Russia

defiance against Mr. Xi.

Scoring diplomatic victories on the global stage helps serve as testimony that Washington's efforts to isolate or challenge China won't work.

Back in China, Mr. Xi's message that the U.S. is encircling the country to forestall China's rise offers a powerful narrative that feeds nationalism.

On Tuesday, Mr. Xi told Mr. Putin that the world was going through changes unseen in a century—language pointing to the brighter future he said he hopes to usher in.

While jumping into the fray on Russia-Ukraine and Saudi-Iran diplomacy, China has been active on other fronts recently, winning diplomatic recognition from Honduras, one of Taiwan's last remaining allies, and prompting Washington to race

It remains to be seen whether Mr. Xi's efforts will allow Beijing to carve out a role for itself on the global stage. Like the U.S., China has found that its growing overseas footprint, particularly in countries such as Pakistan, can get it bogged down in security concerns and complaints it is acting as an imperialist power, precisely the charge Beijing has leveled against the U.S.

"[Beijing is] saying how embarrassing it is to the U.S. that [it was] able to do this on Saudi-Iran," said Stanford's Dr. Mastro, who is also a nonresident fellow at the American Enterprise Institute, a Washington think tank. "They're trying to show the world that they are not a threat, that the United States is a threat, and this is another data point."

### **MIT Tries** To Perfect Oreo Twist

Continued from Page One there was a trick to getting the creme to glom onto both halves.

Usually, Ms. Owens studies materials that could be used as ink for 3-D printing, squishing them between two counter-rotating metal plates in a device known as a rheometer to study how the fluids deform and respond to torsion, or twisting forces.

One day during the Covid-19 lockdown in 2021, she said, "we just kind of realized that this is a perfect analogy for what happens when you try to twist open an Oreo."

So she and her colleagues set out to discover if there was a solution to the cookie conundrum.

In a recent study, they glued Oreos of various flavors to the rheometer, then twisted them at different speeds. Materials with similar mechanical properties to Oreo cremetoothpaste, yogurt, ice cream—split down the middle when subjected to enough torsion, Ms. Owens said.

After putting more than 1,000 Oreos to the test, the researchers discovered that the fickle filling stuck to just one wafer about 80% of the time.

And the speed of the twisting didn't matter. Even at the rheometer's slowest twisting speed, which took about five minutes to separate the halves, the creme stayed on one side. At the maximum speed—about 100 times faster than a person can twist—the creme flew off both halves, Ms. Owens said.

"We also tested the cookies by hand-twisting, peeling, pressing, sliding and doing other basic motions to get an Oreo apart," she said. "There was no combination of anything that we could do by hand or in the rheometer that changed anything in our results.'

That suggests the creme is stronger than it is sticky, so is more likely to stay together than adhere to the wafer.

She and her colleagues published their findings last April in the peer-reviewed journal Physics of Fluids. In their paper, they shared suggestions on how Oreo, which is owned by one of the world's largest snacks companies, Mondelēz International, could tweak

Crystal Owens in an MIT lab with a 3D-printed Oreo.

production to address the issue.

One idea was to flip the wafers so that the more textured outside surface, which contains the word Oreo, would face inward, said Max Fan, an undergraduate in MIT's department of mechanical engineering and co-author of the study.

Another was to attach both wafers simultaneously to a blob of creme. Ms. Owens and her colleagues think that the wafer to which the filling is applied first has a tighter bond to the creme.

The company declined to share specifics on the Oreo manufacturing process, but Ms. Deignan said that Oreo "loved this data-informed creativity.

Schlathölter, a Thomas physicist at the Netherland's University of Groningen who wasn't involved in the study, had his university students try to replicate the MIT team's results with Dutch Oreos. They twisted by hand, which may have affected the outcome, he said.

"To my surprise, many students observed a pretty even splitting of the filling," Dr. Schlathölter said. "European Oreos seem to be different." He thinks the difference is in the creme formula.

MIT's Ms. Owens said she suspects the manufacturing process is different in Europe, not the recipe. Oreo's Ms. Deignan had no explanation for the differing results.

Oreos are sold in more than 100 countries, and social media is filled with opinions about how best to eat them. One YouTube video with more than 13 million views, called "you're eating Oreos WRONG," shows a woman skewering the creme with a fork and drowning it in milk. Others involve using straws as pipettes to get the creme soggy.

Ms. Owens said she is looking to apply the same study concept to other snack foods, such as macarons, ice cream sandwiches and Nutter Butter cookies.

The Oreo research, she said, was a fun, easy way to make her regular physics and engineering work more accessible to the general public. She and Mr. Fan developed a simpler rheometer to test the cookies, which they dubbed an "Oreometer," that people can 3Dprint at home. It uses rubber bands and pennies to twist apart the cookie.

"For me this all started as a personal question," Ms. Owens said. "But I guess everyone else was also thinking like, 'Oh, let's understand my Oreos better.' '



# PERSONAL JOURNAL.

© 2023 Dow Jones ප් Company. All Rights Reserved.

THE WALL STREET JOURNAL.

#### Thursday, March 23, 2023 | A11

Pop star Taylor Swift kicked off her 52-concert Eras Tour in Glendale, Ariz., on Friday.

up on Las Vegas shows this weekend. On Friday night, she is attending solo with a \$760 standingroom-only floor ticket. For Saturday night, She initially planned to take a friend, but her 10-year-old son, Eli, begged to go instead.

Eli has heard reminders from his dad about the responsibility that comes with taking a \$350 ticket to see his mom's favorite artist, Ms. Morgan said. "Is my kid going to be able to hang three hours?" she said.

Claire Ginther, a 26-year-old from Huntington Beach, Calif., has a shoe dilemma. To see Ms. Swift in Las Vegas this weekend, she had planned an outfit based on the pastel, 1960s aesthetic of Ms. Swift's "Lover" album. Her new go-go boots arrived this week, but now she is debating switching to sneakers for comfort. With her 5'1" height and \$750 floor tickets, she risks not being able to see much, she said.

For advice, she is combing through TikTok, where concertgoers are trading survival tips. "You'd think people are talking about running the L.A. Marathon," she said. "They're talking about going to see Taylor Swift."

Meanwhile, Ms. Ginther wonders about Ms. Swift's stamina lasting until the tour's closing shows in Los Angeles in August, for which Ms. Ginther said she paid \$100 for a nosebleed seat. "Is she just going to be crawling to the finish line when she gets to L.A.?"

For an April show in Texas, Catherine Frisina, 33, plans to hydrate sparingly with Liquid I.V., a powder that is mixed with water and promises an energy boost. "If Taylor doesn't need a bathroom break neither do I," she said.

Andrea Alfano, who fueled up with pizza for back-to-back concerts on the tour's opening weekend, said making it through the actual show isn't the hardest part.

"The adrenaline of being there carries you through the show itself," the 26-year-old daycare teacher said. It was after the show in Glendale—facing an hourslong wait for an Uber—when she realized she was tired and her cowboyboot-clad feet hurt. "The hardest part is getting out of the stadium."

At three hours, Rob Dobyns said his favorite part about Ms. Swift's coming show in Kansas City is that his wife and three teen daughters are going and he isn't. The 45-yearold prefers '90s Seattle grunge bands but calls himself a Taylor Swift fan by proxy. "I couldn't tell you the name of any songs but as they're constantly screamed

#### By ANNE STEELE

assie Meiler endured six hours in an online waiting room to score tickets to one of Taylor Swift's coming concerts. Now, she is gearing up—literally—for the stamina test of the pop star's 44-song, three-hour show.

Instead of heels, the 27-year-old plans to wear platform Keds, the sneaker brand Ms. Swift once endorsed. Rather than a sparkly fringe jacket similar to what Ms. Swift sports onstage, Ms. Meiler is seeking a cooler option for the April show in Tampa, Fla., that she will attend, perhaps in vest form.

She will swap her usual cocktail or white wine for an electrolyte drink, she said. Mentally, Ms. Meiler is pulling confidence from the 24-hour dance marathons she completed in college: "If I can do that, I can do a Taylor Swift tour."

Ms. Swift stunned fans opening night on her first tour in five years by performing a 190-minute set that followed two opening acts. Word spread quickly online of the stadium show's length, prompting nervous strategy brainstorms among fans now rethinking everything from their elaborate outfits to hydration methods. The Eras Tour, which is scheduled to run 52 stadium dates, is forecast to become the highestgrossing tour of all time, according to concert-data tracker Pollstar. The show is a combination of Ms.

# Swift Fans Training For Marathon Shows

#### Wardrobe, hydration strategies devised for 44-song, 3-hour concerts

Swift's pandemic pursuits and her efforts to take ownership of her life's work by rerecording her early music. After her festival-style shows for her 2019 "Lover" album were canceled because of Covid-19, she released two surprise albums penned in pandemic isolation.

The Eras Tour set list spans her entire catalog, including songs from "Folklore," which won the Grammy for Album of the Year and "Evermore," which earned a Grammy nomination—as well as hits that she rerecorded from "Fearless" and "Red." Late last year, she released "Midnights," which shattered sales records.

Packing so much material into

Stadium shows are a badge of honor for music's biggest stars. Only an elite few can fill them, and on this tour Ms. Swift has sold out multiple nights in each city she visits. Her Homeric effort, which includes the 10-minute version of fan-favorite song "All Too Well," is baffling fans and industry insiders.

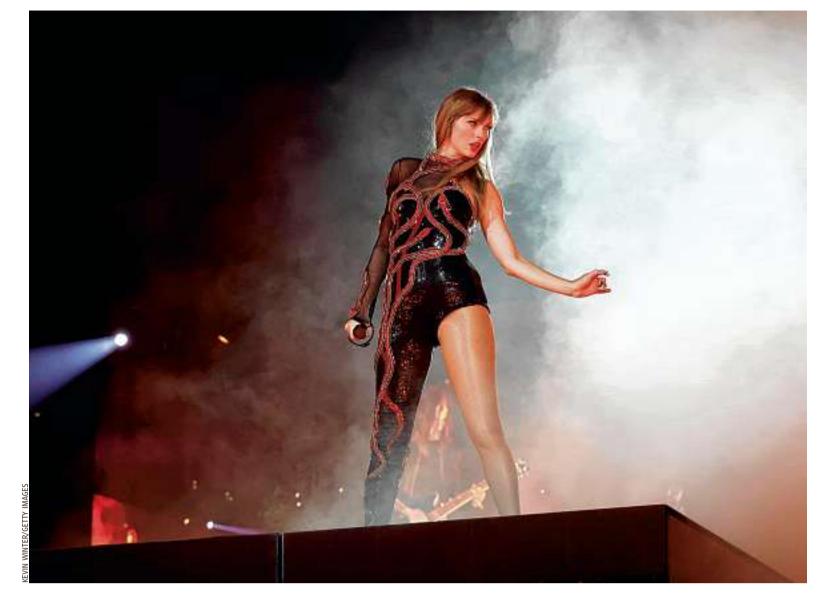
'If Taylor doesn't need a bathroom break neither do I, ' says fan Catherine Frisina. lead for the entirety of the show, and she's doing it in heels," he said. A representative for Ms. Swift

didn't respond to a request for comment.

In addition to singing and dancing, Ms. Swift flies, runs, climbs and, yes, even dives around the stadium—in a series of custom Christian Louboutins.

"Three-hour shows. @taylorswift is definitely a distance swimmer," Olympic gold-medalist swimmer Katie Ledecky tweeted Tuesday.

Mr. Hubbard estimated that if Ms. Swift's movements were tracked as soccer players were during the World Cup, she travels a



one show amounts to an endurance test for Ms. Swift, too. Her 44-song set dwarfs that of other rock stars known for long shows, according to data from Setlist.fm. Prince's 2004 shows and Beyoncé's 2018 Coachella sets each averaged 32 songs. Bruce Springsteen averaged 29 songs in 1985 and 27 in 2012. Bob Dylan's 1978 world tour averaged 28 songs, according to Setlist.fm.

"Sure, Springsteen and Prince ayed these legendary long shows,

played these legendary long shows, but they were not singing the entire time. They had bands, and a whole lot of instrumental work that extended out the show," said Nathan Hubbard, former Ticketmaster chief executive and co-host of the Ringer's "Every Single Album: Taylor Swift" podcast series.

"Taylor is singing as the center

mile during the show, maybe two.

Former NFL defensive end J.J. Watt lauded Ms. Swift's rigor in a 2½-minute video posted to Twitter after seeing her Saturday show in Glendale, Ariz. "She did not stop the whole time—there was no halftime, there was no TV timeouts," he said. "She crushed it, and she didn't even look tired. I was tired, and I was just sitting there."

Daniela Morgan, 40, is doubling

throughout the house, I could probably sing along to several."

His wife, whom he calls "the hype man for our family," will make the three-hour trek from Council Bluffs, Iowa, to Kansas City, Mo., where the four of them will stay in a hote. Back home, Mr. Dobyns, a retired cop turned software engineer, has plans for a marathon of his own: scary movies, beer and steaks for himself and the dog.

## Bosses Sour on Work From Home



rim the travel budget, reduce head count and...crack down on remote work?

Companies trying to run leaner and more efficiently in a cooling economy are deploying familiar strategies from past downturns. (See ya, catered lunches.) Some are also taking new aim at their employees'

work-from-home arrangements. The latest back-to-office push re-

flects bosses' renewed sense of congetrol and their concern that employ-≦ ees' at-home productivity is falling to È unaffordable levels.

"There's a lightning-in-a-bottle efg fect that rallies people together,"

says Allan Jones, founder and chief executive of Bambee, a human-resources software and consulting firm in Los Angeles. "But lightning strikes and then it dissipates."

Mr. Jones says he and most executives in his network have concluded that the initial success of remote work is unsustainable. Facing a global crisis that threatened to drive companies out of business—and often did—a lot of employees cranked up their effort. They worked well on Zoom and Slack with colleagues they already knew. Sure, there were a few distractions in the house, but no one was sneaking off for a round of golf or a leisurely lunch at a restaurant during the workday because everything was closed.

A couple of years on, things are different—and less efficient in the eyes of managers like Mr. Jones. He says he recently told his roughly 175-person staff that he's tempted to require five in-person days a week but will preserve two remote days and add a third in the summer if the team's output doesn't lag behind.

So far, it doesn't look great. Alone in the office when we spoke by video, he picked up his phone to check how many clients were signing up for Bambee's HR software and management service.

"Our new subscribers today are half of what they normally are at this time," he reported, adding that a 30% drop is typical when everyone is at home. It isn't principle or personal preference that sours him on remote work, he says. "It's in the numbers."

He didn't say how long he'd give his team to close the gap before mandating more office time, but some companies, even in the ostensibly remote-friendly tech sector, are running out of patience in the face of a potential recession.

Meta Platforms Inc., a leader in remote work, recently told employees that it is pausing new applications to



work from home. Salesforce Inc. executives said this month that remote hires took too long to get up to speed and that increasing sales representatives' in-person schedules to four days a week was part of the company's renewed focus on efficiency, along with layoffs.

Three days in the office is now the standard at cybersecurity firm Rapid7 Inc., which until a few months ago didn't have set requirements. The company says it studied employees' in-person and at-home performance to arrive at that number.

"We experienced the benefits of workplace flexibility," says Corey Thomas, Rapid7's CEO. "We also saw the long-term strain on collaboration, cross-team communication, and especially development for emergent hires and new managers."

LinkedIn reports that about 12% of job listings on its platform are for remote positions, down from 20% around this time last year. Jennifer Shappley, LinkedIn's global vice president of talent acquisition, says people who are determined to work remotely might have to consider freelancing, trading some job security and company-sponsored benefits for flexibility.

Postings for independent-contractor roles are growing four times as fast as full-time openings on LinkedIn, as businesses continue to need labor but balk at commitment.

Such a trend could favor companies like freelance marketplace operator Upwork Inc. Perhaps you've seen the company's TV commercials, featuring a zombie who implies that traditional office work is dying.

Yet Upwork included its own remote employees on a list of operational risks in an annual securities filing in January, cautioning investors that managing, training and motivating people "can be more difficult with a remote workforce."

Upwork says it remains committed to remote work because the benefit of being able to hire the best candidates, wherever they are, outweighs the risks.

Some startup founders and investors are weighing facetime and technical skill differently.

Andra Capital, a Silicon Valley venture firm, is pushing portfolio companies to require at least three office days a week. "To generate what I call the drive for excellence, you really need to be there," says managing partner Haydar Haba.

At artificial-intelligence startup Prodia, co-founder Mikhail Avady says he and his partners are debating how to get the most out of precious venture capital as they prepare to make their first hires.

Do they go for top-flight remote talent or people they can work with side-by-side in the company's home base of Atlanta?

"I would probably push harder for an Atlanta person, even if they're a little bit worse," Mr. Avady says.

#### A12 | Thursday, March 23, 2023

### PERSONAL JOURNAL.



ooking a business trip today isn't as simple as clicking "Buy" on your go-to airline and heading for the airport lounge.

With ticket prices in the stratosphere and concern about the economy high, cost-conscious road warriors are cheating on their favorite airline, loyalty status be damned. Others are flying to alternative airports and renting a car, booking undesirable flights or driving to their destination. Companies are encouraging travelers to cram more meetings into a single trip to get more bang for their buck, or adding more parameters to their travel policies.

Airlines say red-hot travel demand is driving higher prices. The average U.S. round-trip ticket price booked in February was \$571, up 23% from a year earlier and 8% from January, according to Airlines Reporting Corp., which processes travel-agency ticket sales.

Jerry Abiog took a convoluted route from Atlanta to Boston for a conference in early March to save money.

The Atlanta executive's six-hour journey on Southwest Airlines included a stop in Greenville, S.C., and a connection in Baltimore. Delta Air Lines could have gotten him there nonstop in less than half the time, but the tickets he priced were at least \$200 more. Mr. Abiog says he could justify the nonstop if the price gap were narrow, but this was too much for his self-funded AI startup.

"That's the sacrifice you've got to make," he says.

#### **Closer examination**

Brandon Strauss, co-founder of Atlanta-based KesselRun Corporate Travel Solutions, says businesses are committed to work travel after the long pandemic pause, but are carefully scrutinizing the value of each trip in part because of higher ticket prices.

"The return on investment has more focus today than I can remember in the 20 years I've been doing it," Mr. Strauss says.

More clients of his travel-management company have added a step to the approval process for business trips, he says. Trips that



# Business Travel Suddenly Becomes a Lot More Work

Higher fares and tighter budgets add a degree of difficulty for travelers

might have gotten automatic approval in the past now require manual manager approval before ticketing.

George Kalka, vice president of business travel for Oshkosh, Wis.based Fox World Travel, says one client recently asked the agency to add airports within a 60-mile radius to search results when employees shop for travel. Others are lowering the maximum amount travelers can spend over the lowest comparable airfare on a route.

Another change: limits on oneday business trips. Mr. Kalka points to a "significant decrease" in such bookings at his agency, in favor of longer trips with more on the agenda. (JetBlue Airways Chief Executive Robin Hayes last week cited this as a reason the airline plans to reduce hourly flights between Boston and New York.)

"They're saying if we're going to

buy airfare that's this high, it's not going to be a one day in and out, or an overnight" says Mr. Kalka. "They're saying take the second overnight, see more customers."

Small and midsize companies and travelers on their own dime are making the most travelhabit tweaks, agencies say.

Big businesses often have contracts with airlines that save them 2% to 5% for domestic airfares and as much as 9% to 11% for international airfares, says Tracie Carillo, a San Antonio-based senior vice president of business development and

dent of business development and marketing at Travel Incorporated, a corporate travel-management company in Duluth, Ga. Companies make those deals in exchange



The average U.S. round-trip ticket price booked in February was \$571, up 23% from a year earlier.

for a certain volume of business. "They have to prove that they still deserve those [prepandemic] discounts," Ms. Carillo says.

Plus, the most frequent fliers, the salespeople and consultants on the road week-in, week-out, aren't about to suffer the indignities of an onerous connection, out-of-theway airport, no-name airline or sitting in the economy cabin, no extra legroom even.

Tighten the travel policy too much and companies risk losing top-producing employees to a competitor in a still-robust labor market, Ms. Carillo and other business-travel executives say.

#### Extra hoops

Georganne Bender isn't bound by any corporate contracts and books the travel for the retail consulting business she co-owns. Price is a deciding factor, which is why she and her partner flew from Chicago to St. Louis and drove a rental car  $2\frac{1}{2}$  hours to Lebanon, Mo., for a recent client visit.

They paid \$442 round trip for two on Southwest Airlines, compared with about \$700 a person to fly nonstop on another airline into Springfield, Mo., Ms. Bender says. That's not to say she recom-

mends the cost-saving move. "It's exhausting," she says.

Matthew Beyranevand, a math educator, author and speaker from Massachusetts, has status with Delta and hopes to ascend to the next level this year. But he has found his eye wandering to other airlines to save money.

He flew American Airlines from Boston to Charlotte, N.C., to visit a school district earlier this year because American's nonstop was

cheaper than a connecting flight on Delta.

He missed the lounge access that comes with his premium Delta credit card when he flies the airline. Still, he recently booked JetBlue over Delta for a vacation to Fort Lauderdale, Fla., in January 2024 because the round-trip ticket prices were \$300 cheaper.

"At some point you have to be like: You know what? Is it really worth it when ultimately all I'm trying to do is travel from one place to the next?" he says.

Delta declined to comment on individual travelers' decisions but spokesman Morgan Durrant noted that Chief Executive Ed Bastian last week told investors the airline had the 10 highest sale days in its history in the past 30 days.



### Employees Embrace ChatGPT

more than 900 workers by Monster.com, half said they have used ChatGPT for tasks such as writing and responding to emails. About a quarter said they feared a manager would look down on them for using the shortcut, but many thought their bosses would another campus. In the message, they encouraged students to care for one another and support those who might be struggling with their mental health. The email—whose final line was "Paraphrase from OpenAI's ChatGPT AI language model, personal communication, Feb. 15, 2023"—drew criticism.



#### **OYSTER PERPETUAL DATEJUST 41**



ROLEX 🗑 OYSTER PERPETUAL AND DATEJUST ARE ® TRADEMARKS.

*Continued from Page One* throp Grumman Corp., an aerospace and defense contractor, for months before the company blocked the tool a few weeks ago. The company said it doesn't allow company or customer data to be shared on outside platforms until those tools are fully vetted.

Mr. Flores said he wasn't doing that. Instead, he would turn to ChatGPT to ask questions about coding concepts. In one case, he asked Chat-GPT to explain how he would design a tool that would connect to a database, and Chat-GPT answered in plain language, not code, with the steps to do so. Mr. Flores said he used that guidance to create the code himself.

"It's, like, a really cool, patient mentor, who's not going to be annoyed by you asking a lot of questions," he said, adding that the efficiency gains helped him meet deadlines without working nights or weekends.

Concerns about privacy and trade secrets cut across industries, but some sectors have their own set of issues.

ChatGPT excites lawyers because it can cut out drudgework, including summarizing case law, said Jamie Buckley, chief product officer for Lexis-Nexis Legal and Professional. Law firms have put policies in place that range from restricting workers from inputting proprietary information into the ChatGPT platform to banning lawyers from sharing unedited AI-generated text with clients as legal advice. One concern is accuracy, he said.

Many companies are still grappling with how to monitor and regulate generative AI in the workplace. More than 40% of nearly 12,000 workers said they use ChatGPT or other AI tools at work, according to a January survey by Fishbowl, the workplace chat application. Almost 70% said they do so without telling their boss. In a February survey of praise them for finding ways to speed up work. Several highprofile CEOs, including Mark Zuckerberg of Meta Platforms Inc., have ordered employees this year to stamp out waste and boost their productivity as efficiency becomes paramount.

Figma, a software company, is trying to determine how workers might already be using ChatGPT, a spokeswoman said.

Figma product manager Robert Bye, 31, of Orlando, Fla., said he has integrated the tool into his workflow, but is careful not to share confidential information on it.

Mr. Bye said he has asked ChatGPT to pretend it held his job at a tech company without naming Figma in the query—and then share a 10point vision statement based on draft thoughts he plugged in. He also asked it to rewrite drafts to sound more informative, colloquial, concise, emotive or aspirational. He said he edits any raw AI-generated text before using it.

Mr. Bye, who is dyslexic,

#### 'I spend more time on the stuff that I'm good at,' says a ChatGPT user.

said writing takes him hours and ChatGPT makes him more efficient. He uses it often enough that it is bookmarked on his web browser alongside his email and calendar. "I spend more time on the stuff that I'm good at, which isn't written language," he said.

Many employers are concerned that using AI generated text removes the human touch, especially at the moments when it is most needed.

Two Vanderbilt University employees left their positions after they used ChatGPT to draft an email to students following a mass shooting on Camilla Benbow, the Vanderbilt dean who oversees the office that sent the email to students, said she was troubled that the message "so missed the crucial need for personal

# 70%

Workers using AI who said they didn't tell their boss.

connection and empathy."

Michael Ringman, chief information officer at Telus International Inc., turned to ChatGPT as he wrote yearend reviews in January. He asked how the tool would review a top performer. In another case, he shared with ChatGPT criteria for reviews to see what it would say.

Though he didn't directly copy sentences from the output into his direct reports' reviews, he said it helped shape his write-ups about team members' accomplishments. Mr. Ringman cautioned that leaders should spend time on performance evaluations and be careful about using a bot that is potentially biased to evaluate staff. He said he hasn't issued team guidelines on the proper use of ChatGPT.

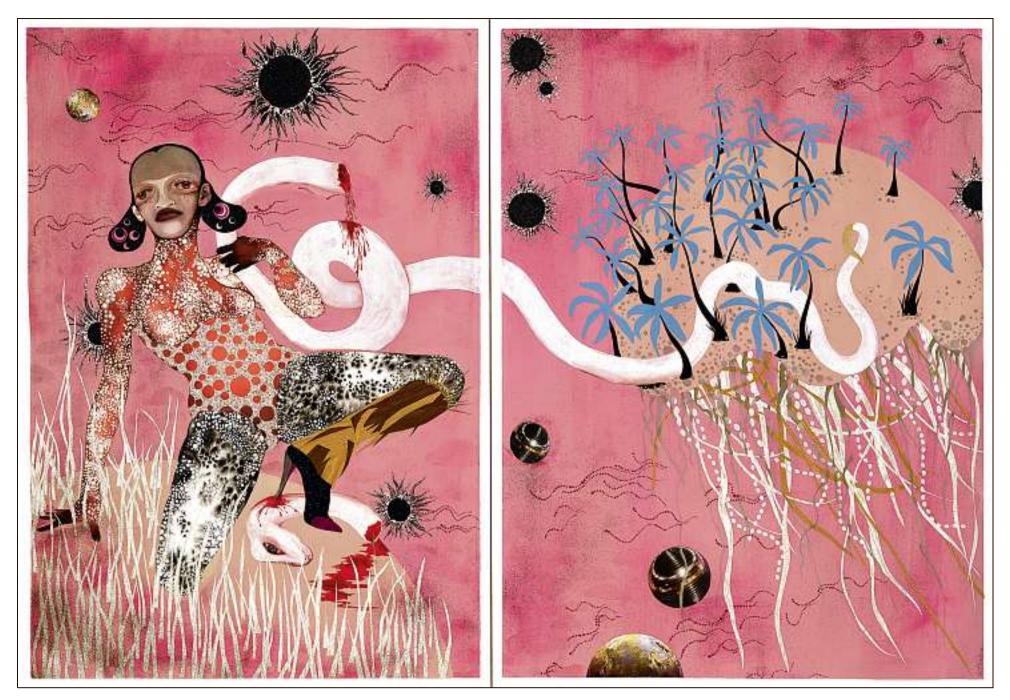
Though potentially a timesaver, there are serious risks to using ChatGPT to evaluate workers, said Ben Jackson, founder of Hear Me Out, a culture-strategy firm. Employees might be unsettled, he said, if software-generated feedback becomes a factor in who is promoted or pushed out.

"It's easy to see the benefits of using a technology like generative artificial intelligence when you are the person saving time by using it," he said. "It's also easier to ignore the potential risks."

—Sebastian Herrera contributed to this article.

#### THE WALL STREET JOURNAL.

# ARTS IN REVIEW



#### **ART REVIEW**

# Wangechi Mutu: Between Nature and Artifice

Featuring more than 100 works, a sprawling retrospective highlights the Kenyan-born artist's stunning surrealism

#### BY PETER PLAGENS

New York he subtitle of the retrospective exhibition "Wangechi Mutu: Intertwined" at the New Museum is taken from a 2003 work on paper by the artist. It depicts two young, barely clothed female club-goers with the heads of less-thanfriendly dogs orally sharing something resembling a belt. In its way, the painting encapsulates the character of the entire show: grotesque, brilliantly imaginative, carefully crafted, and beautiful in a jarring way, with the forces of African nature and Western artifice doing an impassioned pas de deux. Curated by Margot Norton, Vivian Crockett and Ian Wallace, "Intertwined" is the second major museum survey of Ms. Mutu (who was born in Kenya in 1972) in a decade, and the two exhibitions testify to the artist's emergence, in her undoctrinaire surrealism, as the Louise Bourgeois of her generation. Ms. Mutu's father imported paper, and during her childhood in Africa she got to draw as much as she wanted. Her post-secondary education took place at the Parsons School of Design and the Cooper Union in New York and culminated in a master of fine arts degree from Yale in 2000. After a half-dozen quite successful years as an artist in New York. Ms. Mutu created a grand studio-home in

Nairobi; she currently divides her working time between Brooklyn, where she has a second studio, and Kenya.

Ms. Mutu's current retrospective includes 115 works of art and occupies the three most prominent gallery floors, with additional large sculptures in a lobby gallery and in another up on the seventh floor. In other words, she has practically the entire museum to herself, and for the most part the art commands the territory granted it.

The large, semi-sinister and stunning works on paper (watercolor with collage elements) that propelled Ms. Mutu to early fame haven't lost any of their initial impact. "Riding Death in My Sleep" (2002) depicts a squatting female figure who is either tattooed with or wearing a kind of psychedelic leopard skin and sporting high-heeled boots as she presides over a hillock of mushrooms with a couple of snake-like creatures flying overhead. The iconography's weirdness is scaffolded, however, by Ms. Mutu's tightly conceived composition, a quality that gives her pictorial works a leg up on those of her competitors and imitators.

with materials ranging from cast bronze to red soil, synthetic hair and glass beads, and in sizes from conventional table-top scale to 30 feet long ("Sleeping Serpent," 2014). Two of the best pieces are "The Glider" (2021) and "The Seated I" (2019), and they're as different as works coming from the same artist could be. "Glider," 9 feet long and only about 2 feet high, looks like a giant grounded, legless insect; it also looks like it is bronze or rusted steel, but is instead composed of soil, charcoal, paper pulp, wood glue and a few other ingredients. Adroit material inventiveness—at times even the kind of sleight-of-hand used in this piece—sets Ms. Mutu above most of her contemporaries. "Glider," by the way, doesn't glide; it strains against itself and against larger forces, perhaps even alluding to Ms. Mutu's being both an African artist in a Western world and a Western artist in an African world.

"The Seated I"—made for the Metropolitan Museum of Art's facade program in 2019—has a static pose and is made of bronze. This makes it a bit inert compared to the rest of the artist's oeuvre, but it is symbolically powerful. A larger-than-life kneeling figure (presumably female) is wrapped in coils, the upper half of her face resembling a tribal carving, and the lower a polished circular metal mirror. Viewers looking into it can see themselves in relation to the sculpture and, by implication, in relation to the artist.

As morphologically diverse as Ms. Mutu's work is, it emits an emotionally consistent force: proud but a bit skeptical, joyful with a tinge of fear. At times there's a bit of overreach, as is the case with "The End of Carrying All" (2015), an 11-minute, threechannel, animated video that shows a woman with a heavy basket atop her head struggling through a hostile landscape, beset by plagues of locusts and birds. As she labors onward, she herself grows smaller while her burden swells and morphs into artifacts of industrial civilization (a building, a spoked wheel). At the end both turn into a slithery blob that goes over the edge of a cliff. Didactic would be an understatement. The darkened galleries, frequent deployment of theatrical lighting, and the inclusion in one corner of a gallery of Ms. Mutu softly singing "Amazing Grace" amount to overkill. Her work packs a powerful enough punch on its own, and these enhancements only weigh it down. Nevertheless, "Intertwined" is a satisfying overview of a prodigiously talented and seemingly tireless artist.

Her sculpture—dramatic almost to a fault—is varied and inventive,

Clockwise from below: Wangechi Mutu's 'The Seated I' (2019), 'Yo Mama' (2003) and 'Riding Death in My Sleep' (2002); installation view of the show at the New Museum



#### Wangechi Mutu: Intertwined New Museum, through June 4

*Mr. Plagens is an artist and writer in Connecticut.* 





# SPORTS

# **Baseball Gets Fantasy Finale**

Shohei Ohtani struck out Angels teammate Mike Trout to close out Japan's 3-2 victory in the final of the World Baseball Classic

#### By LINDSEY ADLER

he most memorable event of the 2023 baseball season took place on Tuesday night, over a week before the MLB regular season is set to begin. With a full count and two outs in the bottom of the ninth inning of a onerun game, Los Angeles Angels superstar Shohei Ohtani stood on the mound in Miami and faced his Angels teammate, Mike Trout.

It was the U.S. against Japan in the title game of the World Baseball Classic. But it was also the marquee moment baseball fans have been hoping to see since Ohtani made his MLB debut in 2018: The two greatest baseball players in the world, performing in a high-leverage moment in a championship game. The twist was that they were opponents, not teammates.

"The baseball world won tonight," said Team USA manager Mark DeRosa after Japan's 3-2 victory in the final.

Ohtani didn't spare Trout in his effort to close out the victory for Japan. He set up the at-bat with a sweeping slider, then fired off four consecutive fastballs to Trout, all around 100 miles per hour or faster. Ohtani struck Trout out swinging on another sweeping slider, ending the game, the tournament, and setting up quite a scenario in the Angels clubhouse when the two report back to spring training this week.

"This was probably the funnest 10 days I've ever had," Trout said after the game. As a member of the Angels, he has only appeared briefly in the MLB playoffs once. Ohtani hasn't appeared in the playoffs at all.

Ohtani won the battle against Trout, but the two typically stolid superstars spent the tournament showing big emotions as they each worked their way toward that final at-bat. Trout was the first to reach base against Japan, legging out a



Japan's Shohei Ohtani celebrates after striking out Team USA's Mike Trout to clinch the World Baseball Classic.

first-inning double and giving an emphatic salute as he found himself safe. Ohtani was the engine of Team Japan, delivering a pregame speech to his teammates in the clubhouse before the final game of the tournament.

The two players have to this point spent their MLB careers mostly languishing in Anaheim, with the chance to compete for a championship maddeningly out of reach. In this matchup, Trout and Ohtani weren't just given the opportunities to experience baseball on a big stage. They were clear leaders for their respective teams. The chance to see the longtime teammates face off against one another represented the best that international baseball has to offer.

"This is the greatest game in the world," Angels manager Phil Nevin said after watching his star players from Arizona. "No other sport can bring drama like baseball."

Earlier in the tournament, it was expected that Ohtani would pitch in a quarterfinals game then return to spring training to make an exhibition start to line him up for opening day. When Japan reached the WBC final, the Angels authorized him to depart from his typical routine to be available to pitch against the U.S. Now, he closed out the tournament and

won its MVP, and is still on track to take the ball on Angels opening day.

This year's WBC turned out to be a massive success for MLBeven accounting for major injuries to Mets closer Edwin Diaz (out for the season with a knee injury) and Astros second baseman Jose Altuve (broken thumb after being hit by a pitch).

They were reminders of the risk of playing fulleffort games in March. The tournament turned out to have high-energy, competitive games, and the final matchup of USA-World Baseball Classic Japan was undoubtedly a pairing of baseball powerhouses.

The WBC will return in 2026, MLB commissioner Rob Manfred told reporters in Miami on Tuesday.

"The World Series is always gonna be the World Series," Manfred said. "This is a different kind of competition. We do it to grow the game and internationalize the game."

Ohtani was named the tournament's MVP after hitting .435, with a .606 on base percentage and a .739 slugging percentage in seven

games for Japan. He also had a 1.86 ERA in three appearancestwo starts and his appearance as the closer in the final. The tournament furthered his status as an international spectacle, and he wept on the field as he lined up with the rest of Team Japan to be honored during the trophy ceremony.

Ohtani and Trout, along with Team Mexico pitcher Patrick Sandoval, will return to the An-

gels clubhouse with plenty of material for trash talking and an early-season taste of championship excitement. Whether the experience will benefit the Angels

will be played remains to be seen. They still face tough competition this season, particularly against the de-

fending champion Astros in the American League West.

MLB's regular season begins a week from Thursday, and players who faced one another in the WBC will be reunited as teammates for the long season marathon. For years, baseball wanted to see Ohtani and Trout playing on a big stage. They got there as opponents, but the next step for their careers will be getting there as teammates



'This was probably the funnest 10 days I've ever had,' Mike Trout said.

#### The WSJ Daily Crossword | Edited by Mike Shenk



figure, for 24 Shows scorn 27 Who says?

### **UCLA Is Bringing Some Familiar Faces** To Its Rematch With Gonzaga

The next time the

#### BY LAINE HIGGINS

THE LAST TIME THAT UCLA



#### LOWER CLASS | By Sean Biggins

Across	25 Ranger, Pacer,	
1 Co. that operated	Corsair and Citation	deputy 52 Chainsaw
Ambassadors	28 Soft shoe, for	brand
Clubs	short	54 Raised
4 Left hanging	31 A, in Austria	railways
11 "Just a	32 Dole medley	55 Booster
Friend" rapper Markie	33 Obsessed captain	57 Chocolaty Post cereal
14 Witchy one	35 Nephew of	61 Sudden
15 Canadian	Caligula	movement
dollar coins, familiarly	37 2100, in letters	62 The Basketball Hall of Fame
16 German- American	38 Bill Gates	is named for
photographer	and Oprah	him
Barth	Winfrey, famously, and	64 2006 film
17 Whom	a hint to some	starring rapper T.I.
Captain Renault wants	three-letter abbreviations in this puzzle	65 Increased interest?
rounded up, in "Casablanca"	43 Dandy	66 Lucy of "Kill Bill"
19 FedEx alternative	44 Interstate access	67 Word ignored when
20 In short	45 Excessive	indexing
supply	degrees	68 "Stop
21 Family	46 Hosts for	moving!"
adoptee, sometimes	roasts	69 Slugger Mel
22 "Wowza!"	48 QB stat	Down
	50 Delivery	1 For that
23 Pop	possibility	reason

			your game!"
			30 Charley horse spot
	41	42	32 Composition
50			34 "America, an Epic Rhapsody" composer Ernest
58	59	60	36 Nutritional fig.
0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	00	39 Foil relative
66			40 Like the writing portion of the ACT
07			41 However,
			informally
2 Pap	orpo	t	. 42 1040 ID
der	nizen		46 Rough chipped flint
3 Cor		sof	47 Wipe out
4 Liti			49 One in bondage
	rning I acce	ssory	51 Adjust to, as a thermostat
6 Sev	/er		52 Hägar the
7 Bur	ngling	ļ	Horrible's dog
8 Tin	nid bu	nch	53 Botanical
9 Imp	orove	d	accessory
10 CIA fore	erunn	er	56 Gremlin, Pacer and Hornet
	sterity		58 Peace Prize city
	asure		59 Fail to say
12 Cra nee		tim's	60 Barricade
13 Dia		4	62 Vaccine dose
cha		-	63generis
-	Previo	us Pu	zzle's Solution
		ELL	ACKILSA

				u	31	u	~~	ie						
S	С	А	R		F	L	А	С	Κ		L	Ι	S	А
L	0	С	Ι		L	Е	R	0	Ι		Ι	С	0	Ν
Α	L	Е	S		А	Т	0	L	L		۷	Е	Ν	Т
B	А	S	Κ	E	Т	В	А	$\bigcirc$	L	Ν	Е	$\bigcirc$	S	
			F	Τ	F	Е	R		S	0	D			
	S	А	R	G	Е			Н	Τ	Т	J	0	В	S
B	Τ	К	E	Н	E	$\mathbb{C}$	Μ	Е	$\mathbb{T}$			R	U	Е
Е	G	R	Е	Т		Ι	L	L		S	А	Ι	Ν	Т
Е	Μ	0			Т	А	B	L	E	С	$\bigcirc$	0		Н
Ρ	Α	Ν	G	R	Α	Μ			М	Α	Ι	Ν	S	
			С	0	Х		А	Ρ	Τ	L	Е			
	B	E	$\bigcirc$	$\bigcirc$	Т	Ι	G	Н	Т	Е	Ν	Ι	Ν	G
W	A	D	Е		I	D	I	0	Т		I	S	Е	Е
А	S	Ι	F		Ρ	Е	Ν	Ν	Е		S	L	0	Е
G	E	Т	S		S	Α	G	Ε	R		Т	E	Ν	К

and Gonzaga met in the NCAA men's tournament, the Bruins were a No. 11 seed that played its way from the play-in round to the 2021 Final Four. Gonzaga was a No. 1 seed that had yet to lose a single game that season.

It looked like a blowout on paper. On the court. it came down to a wild 40-foot banked shot from Zags freshman Jalen Suggs at the buzzer.

"He made a shot that all of us are going to have to watch for the next 30 years,' said Michael Lewis, then an assistant coach for UCLA.

It was a heartbreaking moment for the Bruins that also launched UCLA back into the ranks of college basketball elites under coach Mick Cronin. On Thursday night, the No. 2 seed Bruins will gauge how far they have come over the past two years when they face No. 3 seed Gonzaga in this year's Sweet 16 in Las Vegas.

This isn't really a new Bruins team, however. The 2023 Bruins include several players who were around when UCLA reached the Final Four in 2021-and now form the core of one of the most experienced teams in the tournament.

Redshirt senior Tyger Campbell, a shifty 5-foot-11 point guard named after Tiger Woods, has developed into a long-range threat this season. Senior Jaime Jaquez Jr., a 6-foot-7 wing, brings a sky-high basketball I.Q. and a knack for rebounding. There's also fifth-year David Singleton, one of the most prolific and accurate 3-point shooters in the tournament.

Campbell and Jaquez have the most March Madness experience of any players left in the 2023 field. Together they have logged 773 minutes across 11 games at the NCAA tournament from 2021 to 2023. The next most experienced player in the 2023 NCAA tournament will also

UCLA's Jaime Jaquez, left, and Gonzaga's Drew Timme in 2021.

be on the court on Thursday: Gonzaga senior Drew Timme. The forward has played 350 minutes in 11 games over the last three seasons.

"They know what it takes," said Johnny Juzang, the leading scorer during the Bruins' 2021 tournament run who is now a rookie with the Utah Jazz. "They've got a lot of fight.'

Postseason experience helps when games go down to the wire, but is particularly important in win-or-gohome situations like the NCAA tournament.

"When it gets down to the crunchtime of the game, I think we just developed a trust over the years, a trust in one another, a trust that we can take care of the ball and get a great shot or get a defensive stop as well," Jaquez said.

Jaquez could have joined Juzang in leaving after his junior year, when the Bruins lost to a red hot North Carolina team in the 2022 Sweet 16. He didn't, he said, because he wanted to deliver another title banner to the rafters at Pauley Pavilion.

"I just wanted to come back, take one more year, cement a real legacy here at UCLA and try one more time for that national championship," Jaquez said in September.

In Cronin's fourth season in Westwood, the Bruins collected the most regular season wins of any team in the six major conferences (27) and fielded the second-best defense in the nation, according to basketball statistics guru Ken Pomeroy. The biggest reason UCLA didn't earn a No. 1 seed for the 2023 tournament was the comparatively soft schedule it faced in the Pac-12.

On the downside, injuries are piling up: junior Jaylen Clark is out with an Achilles injury, freshman center Adem Bona is battling a bum shoulder and Singleton sprained his ankle in the second round.

Gonzaga was the team that had the benefit of experience when the teams played in 2021. This year's team doesn't quite have the same edge.

"Although they played one of the greatest games in NCAA tournament history. it's two different teams," said Lewis, now head coach at Ball State.

Not only are Campbell and Jaquez back for UCLA—they have returned with their memorable hairdos. Campbell sports a mop of shoulder-length dreads with their own Twitter account while Jaquez pairs a crisp sweatband with a sharp goatee.

"I think our hair shows a little bit of our personality," Campbell said last week. "We're just trying to have fun. We're here to win games."

# **OPINION**

# The Moral-Hazard Presidency



WONDER LAND By Daniel Henninger

ing': world is running out of time to avoid catastrophe, new UN report warns."

climate time-

bomb is tick-

The

For my money, the climate can wait. What about the ticking bombs that may be sending the United States toward financial catastrophe?

This month brought a national near-death experience with the collapse of Silicon Valley Bank and days later an echo across the Atlantic when UBS agreed to take over Credit Suisse. On Wednesday the Federal Reserve announced the most watched 25basis-point increase in central-bank history.

It's still unclear whether this bank panic is heading toward self-resolution or more government interventions. The most striking event is the speed with which the Biden administration broke the barrier of \$250,000 on insured deposits to guarantee all deposits. A question in the air has been whether this will become explicit federal policy. On Tuesday, Treasury Secretary Janet Yellen told a meeting of the American Bankers Association the government might do exactly that to avoid the "risk of contagion."

With this administration, no "emergency" is a one-off policy decision. Instead, they

permanent federal bailouts, related projects but most spe-backstops, guarantees and cifically to support alternaapocasubsidies. By instinct and calthe culation, Mr. Biden and the White House staff running this presidency have been bailing many others. out every bad bet in sight. screamed this week: "'The

Exhibit A is the executive order issued in August, citing the pandemic as an "emergency" under the 2003 Heroes Act, that forgives some \$400 billion in student-loan debt. The Supreme Court heard oral arguments recently on the dubious constitutionality of that order. But it remains a bailout of the legal commitments borrowers made to pay back their obligations to the U.S. government. With a wave of the presidential hand, that effectively nationalizes those costs

among all American citizens. In his State of the Union speech, Mr. Biden announced a no-limits bailout of Social Security and Medicare. A howling sound erupted from the back of the House chamber when the president accused Republicans of wanting to "sunset" the two entitlements. Still, Mr. Biden stipulated that the entitlements are now "off the books" and "not to be touched."

The morning-after analysis naturally emphasized that Mr. Biden had put Republicans on the defensive. More notable, though, is Mr. Biden's unmistakable message, emphasized in subsequent speeches, that any bipartisan discussion of reforming the two terminally entitlements—such as ill bumping up the Social Security retirement age by a few months—is off the table.

The Biden Inflation Reduction Act includes some \$370

tive-energy technologies such as wind and solar. Democrats have taken to calling these outlays "investments." Forget the false euphemism. They are subsidies, and should be properly regarded as Biden bailouts of private-sector initiatives that still can't survive in a competitive market.

#### **Biden's government** is willing to bail out and backstop just about everything.

It's one thing to bail out a bank or two to stop a financial panic. But the clear intention of the mandarins in the Biden White House is to eliminate the risk of all government obligations past and future.

We're hearing a lot about moral hazard these days, the idea that diminishing market discipline in finance is dangerous. But Joe Biden's bailout presidency is eroding discipline's useful function across the economy and culture.

Once established, the bailout queue will be endless. One of the most intriguing fallouts from the pandemic is the severe financial stress of several big-city transit systems—the MTA in New York, BART in San Francisco, Philadelphia's Septa and Chicago's RTA. Because of sharp declines in ridership, these systems are facing fiscal cliffs, which in turn puts the future of Democratrun Northern cities at risk. The usual hopeful rescue become pretexts to justify billion for an array of climate- plans abound, but before long

federal bailouts will be . . . on the table.

Urban public-education and healthcare systems are also teetering, squeezed by the pandemic, higher-wage settlements with striking teachers or nurses, and steady urban population losses. Mr. Biden already made the initial down payment on future federal rescues of these liberal enclaves with the \$1.9 trillion American Rescue Plan, which nominally was for the pandemic but realistically began the bailouts for decades of budget profligacy. One can argue that bailout

economics on this scale will hit the inflation wall, and it has. Or one might expect that inflation's costs—such as the current interplay between interest rates and the related bank panic-would chasten Biden White House officials. It has not.

Mr. Biden quipped this week in Nevada that his programs are more popular than he is. No joke, because that surely is the re-election calculation of the White House's political team.

Despite the impossible grandiosity of Mr. Biden's agenda, all his bailout issuesstudent debt, Social Security, schools, the climate apocalypse, Medicare drug-price controls, the debt ceilinghave in common that they repeatedly put any Republican challenger on the defensive, with the media expected to press the president's accusatory spin. Mr. Biden's role in this strategy is pretty easy: Just deliver the White House's paint-by-numbers campaign Unanswered, it speeches. could win.

Write henninger@wsj.com.

### Trump's Indictment Won't Win Him Votes

#### By Karl Rove

anhattan District Attorney Alvin Bragg's looming indictment of Donald Trump should be judged on its legal merits. I agree with attorney-turnedcolumnist David French—if the underlying theory of the case is untested and risky, "then don't file the charge"-and former federal prosecutor Andrew McCarthy—"this is a really dumb case."

But if the charge is filed and the former president doesn't plead guilty, the case will be heard. With Mr. Trump running

he denies—he clearly believes there's no such thing as bad press. As he told an Iowa audience in 2016, "I could stand in the middle of Fifth Avenue and shoot somebody, and I wouldn't lose any voters." But that might no longer be true.

Still, believing a scandal is a terrible thing to waste, Mr. Trump has already stepped up

Some Republicans may rally around him, but the appeal of his antics is wearing thin. current and potential 2024 GOP competitors briefly in an awkward place. The easiest thing is to dismiss any charges as about "revenge" (former South Carolina Gov. Nikki Haley) or "politically charged" (former Vice President Mike Pence). The most adroit comment was from Gov. Ron De-Santis, who decried the "highprofile politicized prosecution," while adding, "I don't know what goes into paying hush money to a porn star." This pears to focus exclusively on won Mr. DeSantis a slap from winning the votes of true be-Mr. Trump, who said that "Ron

The possibility of an indict- sign of eroding support. And he ment does, however, put his may get both negatives: Even small demonstrations could come across as semi-crazy.

All in all, the upsides for Mr. Trump of his indictment are likely temporary. The idea of the married Mr. Trump having an affair with a porn star then illegally funneling money to pay for her silence has the odor of raunchy truth. Nothing about it will convince anyone who voted against Mr. Trump to switch allegiance.

Mr. Trump's strategy aplievers. But many are suffering **BOOKSHELF** | By Barbara Spindel

# A Shock To the Conscience

#### Seventy Times Seven

By Alex Mar

(Penguin Press, 368 pages, \$28)

**6 C** eventy Times Seven: A True Story of Murder and Mercy" centers on a horrific crime, and author Alex Mar doesn't shrink from its brutality. On May 14, 1985, in Gary, Ind., a 78-year-old retired Bible teacher named Ruth Pelke was killed during a home invasion by four teenage girls who fled with her car and \$10. Paula Cooper, who stabbed Pelke more than 30 times with a butcher knife, was sentenced to death the following year, becoming, at age 16, the youngest person then on death row in America. She was 15 at the time of the homicide.

Ms. Mar's riveting book begins, however, with another appalling act of violence, six years earlier. The girl's erratic, alcoholic mother made a plan to kill herself, along with Paula and her older sister, via carbon-monoxide poisoning in their home's garage. They all survived, and in the vears leading up to Pelke's murder, Cooper, whose father beat her frequently and severely, cycled in and out of foster care and juvenile detention.



Jack Crawford was the ambitious prosecutor overseeing Cooper's case. When deciding whether to seek the death penalty against a defendant, Ms. Mar explains, he would ask himself, "Do the facts of this murder shock the conscience?" By opening "Seventy Times Seven" with the failed murder-suicide, rather than with the attack on Pelke, Ms. Mar seems to suggest that Cooper's victimization at the hands of her parents and a system that did little to help her ought to shock the conscience too.

The author uses Cooper's chilling case to explore larger issues of justice, retribution and forgiveness. Pelke was white and the four defendants were black. Before pursuing capital punishment for Cooper, who was tried as an adult, Mr. Crawford consulted with Gary's most prominent black ministers. He received their tacit approval; their sympathies were with the devout victim, not with the perpetrators. Pelke's devastated family also supported the maximum penalty. The case received ample media coverage, but there was little outcry over the prospect of a 10th-grader being condemned to the electric chair.

After the sentencing, Mr. Crawford issued a press release reflecting the Reagan era's tough-on-crime climate: "Paula Cooper is the youngest person ever to receive the death sentence in modern American legal history and is the first female juvenile ever to receive that penalty."

At that point, Cooper's story began to spark international outrage, particularly in Italy, where more than two million people eventually signed petitions demanding that her life be spared. After his 1987 visit to the United States, Pope John Paul II, through a spokesperson, expressed hope that Cooper's death sentence would be lifted.

Cooper's biggest advocate, however, turned out to be an unlikely one: the victim's grandson. One night at work at a Gary steel mill, Bill Pelke had a vision of his grandmother crying and believed that she was crying for Paula Cooper. He became convinced that "she would not want this girl... to be killed in her name." Turning to his Bible for guidance, Pelke was drawn to a passage in the Gospel of Matthew that lends the book its title. Peter asks Jesus,

again, there will be political fallout, especially if more indictments follow, such as for his fundraising. Since Saturmishandling classified documents. With Mr. Trump, there always seems to be one more scandal around the corner.

An indictment would likely provoke many MAGA Republicans to rally around Mr. Trump, at least temporarily. His standing in 2024 GOP primary polls might improve as a shoddy case from a left-wing district attorney is likely to anger partisans.

The indictment talk has also moved Mr. Trump from his recent relative obscurity back to front-page headlines, in which he always revels. Even though accused of paying \$130,000 to an adult-film star for her silence about their alleged 2006 affair—accusations

day, when he broke the indictment news, on through Wednesday, I've received 41 emails or texts from his team asking for contributions.

In all of his cash demands, Mr. Trump plays the victim. Dismissing the indictment as the left's "most twisted scheme yet," he offered supporters "YOUR Official Trump Gold Card Membership" for \$47 on Sunday. By Tuesday, he was asking for only \$1 to fight "witch hunt-crazed radicals" who want to "stop our movement for good." If the Washington Post report that he has only raised \$1.5 million from this barrage is true, his donors could be getting burned out.

DeSanctimonious" would learn "about FALSE ACCUSATIONS & FAKE STORIES," then made slanderous suggestions about the popular Florida governor. The only person who looks bad in that exchange-very bad-is the former president.

Mr. Trump further damaged his standing by calling on supporters to respond to an indictment with "PROTEST! PRO-TEST! PROTEST!!!" He forecast in a fundraising email that "millions of patriots" would "peacefully defend our movement from the vicious political persecution." This is stupid. If MA-GAites protest and it gets ugly, it damages Mr. Trump's 2024 chances by reminding swing the political-action committee voters of his role in the Jan. 6 attack on the U.S. Capitol. If, as author of "The Triumph of Wilis far more likely, any protests are poorly attended, it'll be a

Trump fatigue and there weren't enough of them to reelect him last time.

The most probable result of his current ranting and raving will be to convince more Republicans that he's unelectable. Some who supported him last time because of his policies now want to turn the page. He promised we'd get tired of winning. Instead, we've grown tired of his losing and increasingly crazed antics. He'd be better off playing down his indictment and focusing on winning in court. But then he wouldn't be Donald Trump.

Mr. Rove helped organize American Crossroads and is liam McKinley' (Simon & Schuster, 2015).

### Covid Shots: Two if by Land, None if by Sea

#### By Margery Smelkinson And Leslie Bienen

ovak Djokovic isn't playing at the Miami Open this week. The Serbian tennis star is unwelcome in the U.S. because he hasn't been vaccinated against Covid. Although he had the virus in 2020, he was famously deported from Australia in January 2022 for the same reason-but he claimed the men's singles title in this year's Australian Open.

The U.S. is alone among developed countries in continuing to demand proof of Covid vaccination from visitors. Mr. Djokovic, who would also have needed a visa to enter the U.S., opted not to play in Miami when the Biden administration refused his request for an exemption from the vaccine requirement.

President Biden said in September that "the pandemic is over." and his administration has declared that the public-health emergency will

and Prevention spokesman says that won't affect the restrictions on entry by air, which Mr. Biden imposed by presidential proclamation in October 2021. The Department of Homeland Security has a similar requirement for entry by land and ferry from Canada and Mexico.

#### DeSantis discovers an apparent loophole in the vaccine mandate.

But there appears to be a way visitors can avoid the vaccine mandate. "It is not clear to me why, even by the terms of your own proclamation, Mr. Djokovic could not legally enter this country via Gov. Ron DeSantis boat," wrote in a March 7 letter to Mr. Biden. Ferries from the Bahamas run to seaports in South Florida, and the website of Fort Lauderdale-based officially end May 11. But a Balearia Caribbean declares:

vaccination is required to enter Florida when traveling by ferry." Mr. DeSantis asked for "that confirmation this method of travel into Florida would be permissible."

His press secretary, Bryan Griffin, says the governor received no answer. Our editor at the Journal emailed Marsha Espinosa and Luis Miranda, respectively DHS's assistant secretary for public affairs and her chief deputy, asking if it's true that the vaccine requirement doesn't apply at seaports. Ms. Espinosa and Mr. Miranda likewise didn't respond.

Mr. Biden's proclamation never made sense. By October 2021 it was clear that the shots don't stop viral spread. Foreigners are no more infectious than citizens and greencard holders, who weren't subject to the mandate and have faced no Covid travel restrictions since June. The policy also hampers tourism, which was down 35% in 2022 compared with 2019. In Eu-

Centers for Disease Control "Currently, no Covid test or rope, which lifted restrictions last year, the decline was only 21%

> The administration may be clinging to the mandate out of partisanship. Last month the House voted 227-201 to terminate it, with only seven Democrats in favor. The White House issued a statement crediting the policy with "reducing the spread of COVID-19 and the burdens it places on the health care system."

If administration officials believed this, they'd rush to close the seaport loophole—or to clarify that the Florida governor is mistaken. That they're ducking the question suggests they realize the policy is pointless-in which case why continue to impose it on Mr. Djokovic or anyone else who wants to visit America?

Ms. Smelkinson is an infectious-disease scientist whose research has focused on influenza and SARS-CoV-2. Dr. Bienen is a veterinarian who researches zoonotic diseases and public-health policy.

"Lord, how many times shall I forgive my brother or sister who sins against me? Up to seven times?" Jesus responds, "I tell you, not seven times, but seventy times seven."

#### After her trial for a brutal murder, a 16-yearold girl's death sentence raised questions about the balance of justice and mercy.

Pelke absorbed that teaching wholly and began a long correspondence with Cooper. Ms. Mar had access to Cooper's letters to Pelke, in which the inmate is sometimes combative and defensive and other times reflective and contrite. (They eventually exchanged some 200 letters and, later, around 1,000 emails, and he visited her in prison 14 times.) To the dismay of most of his relatives, Pelke publicly called for the commutation of her death sentence. Devoting himself to death-penalty abolitionism, he traveled the country to speak about his revelation, joining a group of activists who, in the author's words, have "radical sympathy for those who have committed horrific crimes."

Ms. Mar-a documentary filmmaker and author of 2015's "Witches of America"—includes useful background on Supreme Court decisions on capital punishment and juveniles and on the evolving science related to the adolescent brain. She also creates a vivid and bleak portrait of 1980s Gary, where the loss of steel jobs and white flight to the suburbs decimated the tax base and hastened the city's economic decline and steep rise in crime.

"Seventy Times Seven" is a bit overcrowded with characters. Many are compelling, particularly Monica Foster, one of Cooper's appellate attorneys, who says of her passion for defending death-row inmates, "I always want to save my people more than [prosecutors] want to kill them." But Ms. Mar is needlessly detailed about others, including two Italian journalists who covered Cooper's case, the state Supreme Court justice who presided over her appeal, and the local politician who sponsored a bill raising Indiana's minimum age for the death penalty. These side stories pull energy from the propulsive narrative of Cooper and Bill Pelke, whose intertwined but disparate fates I won't reveal here.

Overall, the author chronicles Cooper's case with sensitivity and addresses challenges of juvenile punishment with insight. She recognizes the primal desire for retribution after violent crimes. But she weighs this impulse against the possibility of rehabilitation for juveniles. "If a society is saying that a teenager cannot be rehabilitated over the many years left in their life, to the degree that their execution is the only option," Ms. Mar writes, "then it is unclear who the system considers salvageable.

The terms of the debate have shifted in recent decades: The Supreme Court banned the death penalty for juveniles in 2005, consistent with a broader trend toward considering them less culpable for their actions than adults. But in 2021 a more conservative Court eased the way to sentencing juvenile offenders to life in prison without parole. The questions raised by this probing and moving book are being posed differently now. Their answers remain unresolved.

Ms. Spindel's book reviews appear in the Christian Science Monitor, the San Francisco Chronicle and elsewhere.

### **OPINION**

#### **REVIEW & OUTLOOK**

### Joe Biden's Weak Defenses

hina's Xi Jinping traveled to Moscow this week to commune with Vladimir the U.S. Compare that scene to

President Biden's proposed fiscal 2024 defense budget, which isn't serious about matching American military power to growing threats.

To the extent the press is

covering Mr. Biden's \$842 billion Pentagon budget, it is to note the number is large. Yet defense spending at 3% of the economy is low by historical standards. The Pentagon says the proposal is a 0.8% real increase over fiscal 2023, but that is based on an inflation fantasy. This is a defense cut, and not from an epiphany of fiscal restraint. Mr. Biden is choosing to put welfare entitlements over national security. The risks of his choice are worth examining:

• A Navy in shoal waters. The U.S. Navy is the beat cop for deterring bad behavior in the Pacific, but the U.S. fleet would shrink to 291 ships by 2028 from 297 now. The Biden Pentagon wants to retire ships prematurely, such as the cruiser USS Vicksburg, which taxpayers have spent hundreds of millions of dollars to upgrade for longer service.

The Navy is also telling the U.S. Marines to find another ride to work, declining to buy any San Antonio-class amphibious warships. This will wreak havoc on the production line and make it harder to grow the Navy to 355 ships, as Congress says it wants.

The Navy failed to submit a shipbuilding plan, and an institution that can't articulate its strategy or reason for existing won't command public support to grow. The Navy is already struggling to buy and maintain enough of the best platforms for deterring China, such as the Virginia-class attack submarine.

• An under-powered Air Force. The Air Force deserves points for buying 72 fighters, which is the minimum needed to keep inventory stable. Meanwhile, the service asks to retire 310 aircraft, and some of this is inevitable. The F-15C/Ds leaving Okinawa with no permanent replacement are structurally exhausted; the A-10 is 40 years old and too rudimentary to operate against adversaries like China.

The Air Force is making a worthy effort to deploy unmanned aircraft that work in teams with Putin, cementing the new axis against manned jets like the F-35, though these are years

> His budget isn't close to adequate to meet the world's growing threats.

away from joining the fleet at scale. The service isn't asking to increase its notoriously low flying hours, which would allow pilots to be ready for a fight over Taiwan. Increased investment in the B-21 bomber

is good news, but the aircraft's first flight is already slipping by a few months.

• A shrinking U.S. Army. The land force takes a deep cut in purchasing power with a budget that treads water at \$185.5 billion. The active-duty Army is contracting to 452,000 from 485,000 as recently as fiscal 2022, despite missions and deployments that are

but spending to recruit is a choice, and the war in Ukraine is a reminder that human talent matters as much as equipment. The shrinking Army is also a note to conservatives who want to carve up the ground force to build up the Navy

bulk. Defense officials tout \$30.6 billion for munitions, up 12% over last year, and some will be procured through more efficient multiyear contracts. The Pentagon would buy 118 long-range antiship missiles, more than double the 48 in years past. But inventories are still well below the roughly 1,000 fired to defend Taiwan in

#### That the U.S. now must protect against running out of ammunition is a testament to how

much American defenses have atrophied since the Cold War. Some compare Mr. Biden to Jimmy Carter as he presides over growing threats and hot inflation.

But that's unfair—to Mr. Carter, who shook off his illusions about the Soviet Union late in his term and began the defense buildup that Ronald Reagan accelerated. Congress will no doubt try to improve the Biden blueprint, which is a relief, but Americans should know this President isn't doing nearly enough to protect them from the world's multiplying dangers.

### Albany's Toxic Rent Control Plan

The 'good cause

eviction' plan would

crush property values.

make New York unlivable for anyone but the super wealthy? Their latest rent-stabilized apartments after Democrats

push to extend rent control to nearly all apartments makes you wonder.

The state Senate and Assembly last week released budget proposals that include tenant protections aligned

with what they call a "good cause eviction" standard. Don't be fooled. Their plan has nothing to do with preventing landlords from tably declined to buy Signature's \$11 billion in evicting tenants in bad faith, which landlords already can't do. It's destructive rent control

re progressives in Albany trying to the property value of apartment buildings across the state. This is what happened to

passed a law in 2019 that eliminated owners' ability to raise rents when units become vacant or when the tenincome exceeds ant's \$200,000.

New York Community Bancorp this week agreed to assume deposits and many assets of failed Signature Bank, but it noloans against New York City rent-stabilized apartments. "It's toxic waste, one investment banker told Bloomberg News. "From an investor point of view, these are dead assets." Progressives' new rent control plan would make all multifamily housing loans in the state toxic. It would also lead to an erosion in living conditions as owners skimp on maintenance and kill investment in new supply. A recent study by the Federal Reserve Bank of New York found that apartment buildings with regulated rents have lower levels of maintenance and more code violations. We're told progressives in the Legislature hope Gov. Kathy Hochul will support their rent control plan in budget negotiations if they agree to zoning reforms she is pushing. The trade's not worth it, but never underestimate the capacity of Democrats in Albany for economic destruction.

#### LETTERS TO THE EDITOR

#### A Wake-Up Call From Stanford Law School

The disruption of Judge Kyle Duncan's talk at Stanford Law School ("My Struggle Session at Stanford Law School," op-ed, March 18) was a terrible event—terrible for the speaker, the students who wished to hear him and the law school's environment as a place of civil discourse. But it was also a necessary wake-up call. Not only for Stanford, I hope, but for U.S. universities in general.

It is no longer possible to ignore the rise of ideological intolerance among a segment of the student body. Most students—left as well as center and right—want to engage in serious discussion of controversial issues, which is impossible when particular ideologies seize control of the conversation and shut down alternatives. That is why it is so important for groups like the Federalist Society to bring a diversity of voices, and for law schools to welcome and protect them.

Nor is it possible to ignore the damage that university diversity bureaucracies can do to the scholarly values of liberal education. Diversity and inclusion are of course good things, but neither value is advanced by partisanship and censorship.

The good news is that the institutions charged with defending liberal education have taken note. The Stanford administration is exploring ways to strengthen academic freedom and clarify the substance and enforcement of rules of student conduct. Faculty are discussing long-term ways to improve the climate of discourse at the law school. And I have heard that students on both sides of the divide are thinking of ways to draw back from the abyss. It is too soon to be sure. but on the rubble of this disaster some good things may grow. PROF. MICHAEL W. MCCONNELL Stanford Law School

Stanford, Calif.

As a graduate of Stanford Law School, I am appalled by the treatment of Judge Duncan. In my day, SLS was hardly a level playing field for conservative views. But there was an atmosphere of collegiality, and I can't imagine this humiliation (of the law school, not Judge Duncan) taking place then. If this kind of behavior is condoned or let slide at an institution like Stanford Law School, then God save us all, because the American legal system will no longer be equipped to do so.

> MICHAEL C. DORAN Menlo Park, Calif.

No school of civil engineering would be taken seriously if it designed and built buildings that fell down. Likewise, no law school can be taken seriously if it fails to follow its own rules. Allowing law students to learn bad law (that shouting down a speaker is "free speech") is only the logical follow on.

> **CHUCK DAVIS** Chesterbrook, Pa.

#### Vladimir Putin and the U.S. National Interest

Your contrast of President Reagan's approach to the Cold War and Gov. Ron DeSantis's position on the conflict in Ukraine misses the mark ("DeSantis's First Big Mistake," Review & Outlook, March 16). Marxism was founded on the theory that a global conflict between socialism and capitalism is inevitable. Leninism added that communist parties must engineer the global revolution. This was the Soviet aim.

Vladimir Putin is no communist; he's a Russian nationalist. As such, he may pose a threat to some countries that neighbor Russia, but he poses no threat to the U.S. or Western Europe unless he's provoked into a larger war. **RICHARD BROWN** Babylon, N.Y.

Mr. DeSantis lost my support with his statement that the U.S. shouldn't become "further entangled in a territorial dispute between Ukraine and Russia." This is no territorial dispute. Mr. Putin has invaded Ukraine to take it over and force it to submit to his authoritarian rule.

Governor, I support your courageous defense of life, real marriage, religious freedom, sexual identity, and the rights of parents not to have their children indoctrinated. Standing up for freedom against Mr. Putin is just as important. If Mr. Putin can seize Ukraine, he will invade other countries, too, and China may well conclude that it should invade Taiwan. **BRYAN BERRY** 

Joliet, Ill.

Your editorial criticizes Mr. DeSantis for his reservations about our Ukraine policy and advocates "keeping an adversary like Mr. Putin off the NATO border." I am not sure how to accomplish this so long as NATO's border keeps moving eastward. In fact, doesn't putting Finland in NATO achieve the very thing the editorial seems to oppose?

**ROBERT R. REILLY** Director, Westminster Institute Vienna, Va.

Is Social Security for Insurance or Investment? M. Todd Henderson regards Social will be enormous. Recent bank bailouts come to mind.

steady or increasing.

The Army excuse is the tight labor market, and Air Force: Too late. It's been done.

One bright spot is an effort to buy bombs in some war games.

by another name.

Under the Democratic plan, rents on market-rate housing would be effectively capped at 3%, or 1.5 times the consumer-price index in the region where the unit is located, whichever is higher. If landlords raise rents above this rate, they couldn't evict tenants who refuse to pay. Only owner-occupied buildings with fewer than four units would be exempt.

But what if landlords need to raise rents above the cap to cover the cost of repairs, rising taxes or insurance premiums? They'd have to spend thousands of dollars on legal costs to justify the increase to local housing courts, which are currently jammed with tens of thousands of cases dating back years.

One immediate effect would be to reduce

### The Fed Tries to Thread the Needle

Powell is keeping up

the fight against

inflation, for now.

ederal Reserve Chairman Jerome Powell wants you to know the American banking system is safe and he will get inflation under control. If

we're all lucky, maybe both will turn out to be true. That's the optimistic take, anyway, on what you might call the Fed's thread-the-needle policy meeting this week.

The Federal Open Market Committee (FOMC) pressed ahead Wednesday with a quarter-point increase to the fed funds rate, bringing the target range to 4.75%-5%. This was less than the half-point increase markets had expected before the recent bank panic, and it came with a softening of the FOMC's language about possible future rate hikes. The quarterly summary of economic projections by Fed officials released Wednesday still foresees the rate topping out at 5.1% this year, so the rate-rising cycle appears to be one more and done.

That's out of step with inflation that remains well above the Fed's 2% target, and the central bank's prediction that inflation will fall rapidly this year may be too optimistic given its poor forecasting record. As Mr. Powell noted in his press conference, only two weeks ago the price data had signaled higher inflation.

But then came Silicon Valley Bank's failure and other turmoil that has exposed the threats that rapidly rising rates pose to a financial system distorted by more than a decade of very loose monetary policy. The market pressure on the Fed not to increase rates at all was suddenly intense, so credit the Fed for going ahead despite the lobbying.

Mr. Powell asserted in his press conference that the Fed views inflation and bank turmoil as two separate challenges. He'll keep using rate increases and a shrinking Fed balance sheet to tame infla-

tion, while relying on supervision and targeted intervention to stave off banking panics. This is the right message to send markets to maintain anti-inflation credibility, while trying to lift confidence that the current financial panic is under control.

Mr. Powell is also betting that the banking ructions will aid the fight against inflation as financial conditions tighten beyond the level implied by the Fed's monetary policies. This is possible because the coming credit crunch is likely to slow growth.

But it's also risky. One danger is that the Fed's lender-of-last-resort activities prove insufficient to control a larger panic if one develops, prompting pressure for a sudden easing no matter the inflation rate at the time. The Fed could be forced to ease before it has conquered inflation.

For now Mr. Powell is hoping he can both calm markets and break inflation. It's a difficult act, but then the monetary mania followed by inflation and financial panic are problems of the central bank's creation. That's why it now has to thread this needle.

Security as a forced savings and investment plan ("A Capitalist Way to Fix Social Security," op-ed, March 15). In fact, it's a forced insurance plan. It provides workers a minimum guaranteed income after retirement. No investment plan can guarantee results.

If Social Security becomes an investment program, consider what would follow the inevitable market crash. The pressure for the government to replace retirees' lost income

#### **Remember When the Party Conventions Used to Matter?**

After reading Karl Rove's op-ed regarding the manipulation of the primary schedule ("How to Stop 2024 From Looking Like 2016," March 16), I am more than convinced that the primaries are a waste of time and money that render the eventual partv conventions useless.

I enjoyed the old system of infighting and bargaining when the convention delegates actually chose their party's standard-bearers. Todav. I usually don't tune into the conventions, as they are meaningless assemblage of partygoers and saber-rattlers living it up on the party's dime. Let's do it the proper way, without all the expense and hype of the primaries, by letting the convention delegates do the heavy lifting.

NORMAN S. MOSS Apopka, Fla.

#### Advice Is Better Than a Gift

"Weddings, Showers Are Going Gift-Free" (Personal Journal, March 14) lists some alternative options to gifts. When my husband and I married after retirement, we asked guests to bring no gifts, but to bring a note with their advice for a happy marriage or a favorite recipe. These are the gifts we wanted, and we got a great selection of advice and recipes. **MOLLY NEWCOMB** Carmen, Idaho

Letters intended for publication should be emailed to wsj.ltrs@wsj.com. Please include your city, state and telephone number. All letters are subject to editing, and unpublished letters cannot be acknowledged.

**CARL SCHROEDER** Olympia, Wash.

While many corporate workers receive far less than they paid into Social Security, the workers who really get taken to the cleaners are the selfemployed. As a 76-year-old, I have been paying into Social Security since 1965. Self-employed since 1982, I had to write a personal check to the IRS as both an "employer" and "employee" for 25 years. Through March 2023, I have received a mere 5% of my contributions. With a personal retirement option that returned even 4% a vear. my contributions would be worth over \$5 million today. Ouch. JIM EMERY

Savannah, Ga.

#### Who's Behind Israel's Chaos?

Your editorial "Israel Needs Judicial Reform—but How?" (March 13) says that the Israeli opposition is "sowing chaos." What's sowing chaos is the government trying to ram through major changes to the way Israel is governed with a slim majority in the Knesset. The changes would give the parties in power significant control over judicial appointments and eliminate the main source of checks and balances in Israel's democratic system. RAPHAEL M. LERNER Glencoe, Ill.

#### Pepper ... And Salt

THE WALL STREET JOURNAL



"What really riles me is that he's catching and releasing.

### **OPINION**

# Generation Z Yearns for Stability

#### By Suzy Welch

ot long ago, a friend who teaches a communications course at a Midwestern business school asked me to speak to her class. Her instructions were invitingly wide: "Just tell them about your career." And so I did, trying to hit all the points that might be relevant to students about to enter the job market.

When I was done, my friend opened the floor to questions and, much to my excitement, a line formed at the mic. Then came the first question: "You've had such a long career," the student said. "Could

#### The cure to professional malaise and existential dread? Focus on making life meaningful, not safe.

you please tell us how you've avoided burnout? Like, what do you do for self-care?" As the student sat down, so did about half of the other students in the queue, signaling their question had been taken.

I'll spare you my answer, but perhaps you can guess it. I am of the generation that thought work was what you did, even when it was hard. You pushed through. Burnout wasn't an option. Self-care is what you did when you retired.

I thought of this encounter earlier this month after reading a survey from Handshake, an employment site for Generation Z, which asked 1,800 new graduates what they wanted most from their future employers. The overwhelming majority—85%—answered "stability." High pay and benefits also ranked high, but both of them in my estimation are proxies for the same thing. The desire for "a fast-growing company," on the other hand, garnered only 29% of the vote.

I suppose I shouldn't have been surprised. My own business-school students at New York University often express their anxieties about the possible post-Covid pre-recession job market that awaits them. A mega-trends report by Accenture recently dubbed this the era of "permacrisis."

Many of my students say they feel as if they're at their limits. "You're always hearing the world is filled with opportunity," one student told me last semester. "And then you turn around and there are layoffs everywhere, and everyone is saying AI is going to make us all obsolete." She confessed there were days she wished she could crawl under her covers to escape the static and ambiguity of it all, not to mention—as she also did—the threats of global warming and nuclear war.

Such is the Gen Z zeitgeist, I suspect, that suddenly makes stability so sexy. Could it be that kids these days simply want to be normal? That success is coming to be defined as striving for a regular job at an established company, exploding options and cool optics be damned?

This isn't to be derisive. I feel for my students and their cohort. I, too, often wish things in this world were better, easier and simpler—just as they used to be, even though we



didn't know it at the time.

Yet lump me in with the boomer and Generation X executives who are receiving this zeitgeist into their ranks. I hear similar stories from these leaders, and many of them are equally frustrated, if for much different reasons. They have, like me, ridden out a recession or two, lived through 9/11, survived the internet changing everything, seen the other side of the financial meltdown of 2008, and absorbed the personal losses, agonies and crises that punctuate any life. We are the "life goes on, it always does" crew, but our job has become not merely knowing that but selling it.

"I spend half my time basically doing therapy, cheering people up, getting them going," a Fortune 50 CEO recently told me of his experience with his staff. He doubtless has a heart for his company—he tenderly referred to his workers as "mentally depleted"—but he said he wasn't happy about the drain on his time. He also noted that he was often goading on employees whose definition of "full-time" diverged from his own. "Who works 40 hours a week?" he lamented. "No one under 35 suddenly does."

The CEO of a diversified global company said much the same thing after a recent conference. Though he had given up on getting people back in the office five days a week, he noted that remote work had hardly diminished the yearning for leadership engagement: "Our people are desperate for the human touch. We have to stop doing what we want to be doing a lot of the time and just listen, and help people."

This executive was also empathetic but not particularly thrilled. When you are running a business, you want to, well, run it. You don't want to fill your calendar assuring people that life is going to calm down, that stability is coming, that things will eventually be normal. Especially when you know such things will never come to pass.

What, then, might be the message to the future and current employees who so ardently seek stability? It can't be a version of "Toughen up." People are hurting. They need understanding. The answer also shouldn't be anything like the one I gave to the Midwestern class seeking anti-burnout and self-care advice. Caught in the headlights, I ended up blurting out something about "grit," "resilience" and the importance of "staying optimistic."

What I wish I had said was a harder truth: Even though your parents tried for you, no one gets a perfect life, let alone a normal one. Although there have been periods of "Ozzie and Harriet" tranquility, they have been rare, if they were even real in the first place.

As you get older—and yes, you will all get older—all you can really hope for is good health and a meaningful life. Our health is often out of our hands, but making meaning of the change around us—making it about something greater and better than simply change itself—is something we can all endeavor to do, perhaps now more than ever.

Let's make that the new normal together.

Ms. Welch, a longtime CNBC contributor and author, is a professor of management practice at NYU's Stern School of Business and a senior adviser at the Brunswick Group.

### The Fed's Policies Haunt Financial Markets

#### **By Judy Shelton**

G rowth prospects for the economy are mixed, with recessionary fears still looming even as the unemployment rate is puzzlingly low. The worst inflation in 40 years seems to be coming down, albeit slowly and not with certainty.

Does that mean the Federal Reserve's model is working? Yes and no, which is a problem. Worry about the Fed, and its ability to make the right decisions about monetary policy, is haunting financial markets.

Certainly the model isn't working the way Fed policy makers thought it would. Chairman Jerome Powell announced in brusque terms in August that restoring price stability would require "using our tools forcefully to bring demand and supply into better balance." The message was clear: Aggressive interest-rate hikes were needed. "While higher interest rates, slower growth and softer labormarket conditions will bring down inflation, they will also bring some pain to households and businesses," Mr. Powell explained. "These are the unfortunate costs of reducing inflation."

But if the Fed believes the price of vanquishing inflation is slower economic growth and higher unemployment, what happens when the growth numbers beat expectations and labor markets seem robust? Monthly declines in the consumer-price index may be satisfying, but it's hard to claim the Fed's model is working as predicted when the process for bringing down inflation doesn't comport with economic fact.

To resolve the problem of inadequate supply relative to heightened demand—which spurred this inflation—a more rational economic solution would be to provide a stable monetary platform for productive investment, with the price of capital determined by the interplay of demand and supply. Growth, in other words, achieved through maximum employment and strong economic activity. is the answer.

Participants in the real economy

down—and they fueled the high levels of spending that were a principal cause of inflation.

Mr. Powell encouraged the fiscal assistance at the time and seems reluctant now to criticize government budgetary actions that increase aggregate demand. The lesson should be that paying people not to work is inflationary; paying people who are working to increase supplies of goods and services isn't inflationary.

#### Paying people not to work is inflationary; paying people to increase supplies of goods and services isn't.

Meanwhile, the Fed's policy makers are too quick to dismiss the effect of interest-rate manipulation on

be absorbed or passed on while remaining profitable, enterprises close down and economic output is reduced. The Fed's formula may lead it to pursue a monetary policy that reduces supply more than it curbs demand—with worsening inflation.

None of which is to suggest that the zero-interest-rate policy that the Fed followed as recently as a year ago encouraged productive capital investment or contributed to healthy job creation. The emergency measures the Fed enacted beginning in March 2020 should have been viewed as an anomaly. Financial markets, however, were all too familiar with the Fed's tactical responses of imposing zero rates and engaging in quantitative easing through massive purchases of government securities.

The breakneck climb to today's range of 4.5% to 4.75% for federal funds has been strenuous, but it has improved the overall well-being of the economy by reintroducing meaningful interest rates. The nominal rate the Fed pays on reserve balances—its key policy rate—needs to be higher than the inflation rate to deliver a positive return. The current 4.65% rate is likely perceived as providing a level of compensation roughly commensurate with a 2.5% return on a risk-free asset scaled up by the Fed's 2% target inflation rate.

Normalization after the pandemic, however, might have fundamentally changed the landscape for lenders even as it confounded the Fed's operating model. This may explain why financial conditions began improving in the last two months of 2022 despite the Fed's tightening. A report from the Federal Reserve Bank of St. Louis notes: "Looking toward the future, it may be important to track the correlation of the financial conditions index and the effective monetary policy rate, which have recently diverged, to predict the behavior of consumption and inflation."

In other words, when capital is allocated through meaningful price signals that reward long-term investment in productive economic opportunities, people become gainfully employed and real growth leads to greater prosperity. Call it the difference between normal and crazy.

are more aware of the needs and opportunities in the aftermath of the pandemic than members of the Fed's monetary policy decision-making committee are. After all, the massive fiscal transfers through government payments provided in 2020 and 2021, including stimulus checks and unemployment insurance, are running supply. "What we can control is demand," Mr. Powell stated in a Marketplace interview last May. "We can't really affect supply with our policies." But how can higher interest rates not influence the formation of new businesses or the viability of existing ones? When the cost of borrowing increases beyond what can

Ms. Shelton, a monetary economist, is a senior fellow at the Independent Institute and author of "Money Meltdown."

### The Chinese Communist Party's Plan A for Taking Taiwan

#### By Simone Gao

Recent moves by the Chinese government suggest that Beijing is preparing for a war over Taiwan. China's newly enacted Law on Reservists delays the retirement age for reserve officers to 60 from 55. Since March 1, local Defense Mobilization Offices have been established in at least 10 provinces to help the government shift to a wartime footing. At the 20th National Congress of the Party last year, the Central Politburo elevated five provincial party secretaries with experience in the defense industry.

That doesn't necessarily mean a military invasion is imminent. It would be the Chinese Communist Party's Plan B. The more likely scenario is a less costly takeover of Taiwan through a time-tested party strategy called the united front. An indication of the united front's ascendancy is the election this month of Wang Huning, deputy head of the Central Leading Group on Taiwan, as chairman of the National Committee of the Chinese People's Political Consultative Conference—the government body in Beijing that leads the united front.

The united front, which involves infiltrating and co-opting the opposition, was instrumental in the Communist Party's rise in China following the civil war with the Kuomintang, also known as the Chinese Nationalist Party. Initially, the Kuomintang was far more powerful than the Communist Party. But the communists prevailed by infiltrating Kuomintang troops, turning many generals into sympathizers or planting communist spies as their secretaries.

After seizing power in the mainland in 1949, the Communist Party built united front departments throughout its organization. Thanks to Taiwan's many ties with mainland China, the party has penetrated Taiwan's businesses, media, religious groups, political parties and even military. Beijing's ability to influence and overtake through these routes shouldn't be underestimated.

Mr. Xi's current intimidation tactics, such as flying warplanes near Taiwan, could be described as part of the party's "use war to enforce peace" strategy. He wants Taiwan to believe that war is imminent if it doesn't bend to his will. But if the united front effort fails, he is likely to resort to force. Unlike his predecessors, he has set a deadline for taking over the island. The Party's 19th National Congress Report, issued in 2017, sets 2049. the 100th anniversary of the People's Republic of China, as the deadline for achieving the "great rejuvenation" of the Chinese nation, also known as the Chinese Dream—a term coined by Mr. Xi himself. The same document says "reunification of the motherland" is a prerequisite for that rejuvenation.

Conventional wisdom holds that Mr. Xi has set himself the task of reunifying the People's Republic of China and Taiwan. A deputy to the National People's Congress, the party's legislative body, and a retired officer of the People's Liberation Army both told me that Mr. Xi was able to amend the constitution and

Infiltrating, intimidating and co-opting the opposition would be less costly than an invasion.

vitiate the party rules barring reelection to a third term because he promised to regain Taiwan. They said this wasn't officially written into any party document but was expressed to certain high-level officials. If Mr. Xi fails to take Taiwan, he will have to step down in disgrace, they said.

How will the West know if Mr. Xi will stick to the united front or resort to force? Taiwan's presidential election

in January 2024 is one bellwether. If the Kuomintang candidate loses and the more independence-minded Democratic Progressive Party retains power, Beijing may see the chances of a socalled peaceful reunification diminish significantly. The Communist Party will try to influence the election's outcome by propagating the fear that reelecting the Democratic Progressive Party's candidate will trigger an invasion, whether that is Beijing's intent or not.

Some military experts say a Chinese invasion of Taiwan is unlikely in the next couple of years, based on the general rule that a country usually displays signs of preparation before taking military action. China expert and former CIA officer John Culver has said China likely would show signs of war intentions as early as 18 to 24 months in advance, with steps such as increasing critical munitions inventories and precision-guided weapons.

But maybe not. The retired officer who served in the PLA for decades and drafted battle plans for war over Taiwan said general preparations for war with Taiwan, including massive weapons production, in large part were done long ago. China has been preparing since the party took power in 1949. The army may need only a few months of mobilization before firing the first shot.

Mr. Xi may also see his window of opportunity closing to retake Taiwan. China's economy is losing steam while the Western alliance is strengthening. Whether the Chinese Communist Party sticks with the united front or opts for confrontation, it may have to decide soon.

*Ms. Gao is a journalist and host of "Zooming In With Simone Gao," an online current-affairs program.* 

#### THE WALL STREET JOURNAL. PUBLISHED SINCE 1889 BY DOW JONES & COMPANY

**Rupert Murdoch** Executive Chairman, News Corp

> Emma Tucker Editor in Chief

Liz Harris, Managing Editor Jason Anders, Deputy Editor in Chief Neal Lipschutz, Deputy Editor in Chief Thorold Barker, Europe; Elena Cherney, News; Andrew Dowell, Asia; Brent Jones, Culture, Training & Outreach; Alex Martin, Print & Writing; Michael W. Miller, Features & Weekend; Emma Moody, Standards; Shazna Nessa, Visuals; Philana Patterson, Audio; Matthew Rose, Enterprise; Michael Siconolfi, Investigations; Amanda Wills, Video

Paul A. Gigot Editor of the Editorial Page Gerard Baker, Editor at Large DOW JONES News Corp. **Robert Thomson** Chief Executive Officer, News Corp **Almar Latour** Chief Executive Officer and Publisher

DOW JONES MANAGEMENT: Daniel Bernard, Chief Experience Officer; Mae M. Cheng, SVP, Barron's Group; David Cho, Barron's Editor in Chief; Jason P. Conti, General Counsel, Chief Compliance Officer; Dianne DeSevo Chief People Officer; Frank Filippo, EVP, Business Information & Services, Operations; Elizabeth O'Melia, Chief Financial Officer; Josh Stinchcomb, EVP & Chief Revenue Officer, WSJ / Barron's Group; Sherry Weiss, Chief Marketing Officer

EDITORIAL AND CORPORATE HEADQUARTERS: 1211 Avenue of the Americas New York, N.Y., 10036 Telephone 1-800-DOWJONES

### 

James Piereson writing for Newsweek, March 22:

News of the Stanford incident [in which law students disrupted a speech by a federal judge] must have landed like an explosion in the conference room where Supreme Court Justices debate pending cases, and where they are now wrestling with the meaning of diversity and its supposed benefits for higher education. If diversity is so important for freedom of thought and the robust exchange of ideas, why are students and administrators shutting down debates in the name of diversity? Why, indeed, are these attacks on the First Amendment led by deans of "diversity, equity, and inclusion?" . . . For some Justices, several of whom were members of the Federalist Society or have spoken at events sponsored by the group, the Stanford episode may have provoked further skepticism about the diversity campaign on campus. Far from being beneficial, they may have concluded, it has proven harmful to the purposes of higher education. The diversity campaign is turning colleges and universities into seminaries for intolerance.

#### **A18** | Thursday, March 23, 2023





EVERY SHADE OF YOU

With the Aqua Terra Shades collection, Eddie Redmayne has embraced the power of colour to express his personal style. Just like the actor, these OMEGA watches have mastered a variety of roles, offering different tones to match the mood you're in. Discover the 38 mm range in stainless steel, which includes five exclusive choices, all backed by the trusted precision of a Co-Axial Master Chronometer movement. Whichever look you desire, there's a shade to tell your story.



#AquaTerraShades

SEAMASTER AQUA TERRA SHADES Co-Axial Master Chronometer **TECHNOLOGY: HUAWEI TO LAUNCH 4G PHONE IN CHINA B4** 

© 2023 Dow Jones ඒ Company. All Rights Reserved.

THE WALL STREET JOURNAL.

Thursday, March 23, 2023 | **B1** 

**DJTRANS** ▼ 2.03% **WSJ\$IDX** ▼ 0.49% 2-YR.TREAS. yield 3.977% NIKKEI (Midday) 27400.37 ▼0.24% See more at WSJ.com/Markets **S&P** 3936.97 ▼ 1.65% **S&P FIN** ▼ 2.37% **S&P IT** ▼ 0.92%

# **Stocks, Yields Fall After Fed Rate Move**

BY MATT GROSSMAN AND WILL HORNER

Stocks and governmentbond yields sank after the Federal Reserve raised interest rates but signaled that further rate hikes might be limited.

Stock investors took the decision warily, especially after Chairman Jerome Powell said in a news conference that the central bank will have to wait and see how badly turmoil in tress, she isn't considering

the banking sector will drag plans to guarantee all bank dedown inflation and hiring.

That effect could lead to fewer rate increases—but likely only insofar as tighter credit conditions from banks introduce their own economic friction.

Meanwhile, in a Senate hearing, Treasury Secretary Janet Yellen said that even as officials try to contain the fallout from recent banking dis-

posits. The comments tempered some investors' views of how far the government would go to accommodate the uninsured deposits of troubled banks' customers.

The S&P 500 lost 65.90, or 1.6%, to 3936.97. The Dow Jones Industrial Average fell 530.49, or 1.6%, to 32030.11, and the tech-heavy Nasdaq Composite lost 190.15, or 1.6%, to 11669.96. Short-term Treasury yields, which closely follow Fed policy expectations, declined as traders discounted how much more the Fed will raise rates going forward.

"The Fed is saying, 'We know our actions are causing economic slippage, but we need to take them anyway because inflation is still hot,' " said Jason Pride, chief investment officer of Glenmede's private-wealth business. Mr. Pride said his team is taking a cau-

tious approach to stocks.

The move in bond yields was more decisive. Treasury yields moved lower after the central bank's 2 p.m. decision and fell further as Mr. Powell spoke half an hour later. The policy-sensitive two-year yield ended at 3.977%, down from 4.175% on Tuesday. The benchmark 10-year yield settled at 3.497%, compared with 3.603% a day earlier. Yields fall as bond prices rise.

March\*

13.3%

12

After a quarter-point increase, the Fed's rate target stands at 4.75% to 5%. In projections, the Fed indicated the target could end 2023 barely above 5%, pointing to limited room for further increases this vear.

"There might be just one more hike in the books, and that sent rates tumbling," said Judith Raneri, a portfolio manager at Gabelli Funds who fo-Please turn to page B11

Publishers

Seek Pay

For Help

Since the arrival of chat-

# Apple, Microsoft **Rule Markets as FAANG Era Ends**

#### BY HARDIKA SINGH

The FAANG era is apparently over. The U.S. market is dominated by just two stocks now

The combined weighting of Apple Inc. and Microsoft Corp. in the S&P 500 has risen to 13.3%, the highest level on record, while the influence of other big technology stocks has waned of late. That is according to Strategas Securities data going back to 1990.

Not since International Business Machines Corp. and AT&T in 1978 have two stocks made up a greater share of the benchmark, said Howard Silverblatt, senior index analyst at S&P Dow Jones Indices.

For much of the past decade, investors simultaneously bid up shares of Facebook parent Meta Platforms Inc., Amazon.com Inc., Apple, Netflix Inc. and Google owner Alphabet Inc.

The robust gains in the stocks year after year reinforced bets that they could only go up, helping the trade become so popular that it earned the FAANG nickname.

As their share prices surged, so did their concentrapeak in August 2020, the group swelled to make up about one-quarter of the index. Although that share has since edged down to 21%, some

investors still worry the index is top-heavy and a significant pullback in a few stocks could leave broader markets susceptible to a fall.

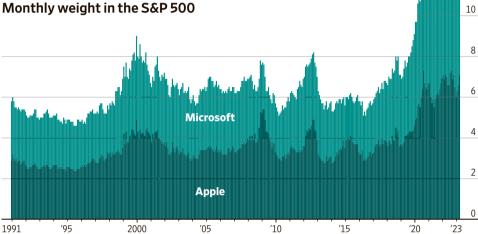
The big tech stocks began to diverge once worries about inflation began bubbling and the Federal Reserve started raising interest rates, dimming the allure of some growth stocks.

They faced company-specific issues as well. Meta, for example, has seen challenges stemming from competition and privacy restrictions, while Netflix has battled subscriber losses and struggled to control content costs.

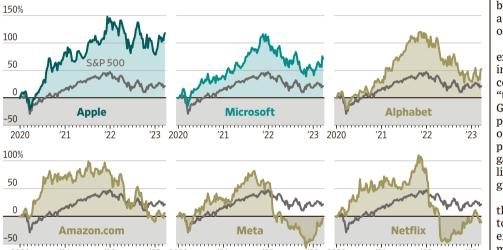
Todd Sohn, ETF strategist at Strategas, said Apple and Microsoft have emerged as havens in the stock-market turmoil, bringing their weightings in the S&P 500 to 7.11% and 6.14%, respectively.

The stocks have gained 21% and 14% respectively in 2023 after suffering steep losses last year.

"It's just been monumen-







23 2020 2020 '22 '23 2020 '21 '21 '22 '21 '22 '23

#### bots that can carry on conversations, make up sonnets and ace the LSAT, many people 4 By Keach Hagey, Alexandra Bruell, Tom Dotan 2 and Miles Kruppa have been in awe at the artifi-0 cial-intelligence technology's capabilities.

Publishers of online content share in that sense of wonder. They also see a threat to their businesses, and are headed to a showdown with the makers of the technology.

In recent weeks, publishing executives have begun examining the extent to which their content has been used to "train" AI tools such as Chat-GPT, how they should be compensated and what their legal options are, according to people familiar with meetings organized by the News Media Alliance, a publishing trade group.

"We have valuable content that's being used constantly to generate revenue for others off the backs of investments that we make, that requires real human work, and that has to be compensated, said Danielle Coffey, executive vice president and general counsel of the News Media Alliance. ChatGPT, released in November by parent company OpenAI, operates as a standalone tool but is also being integrated into Microsoft Corp.'s Bing search engine and other tools. Alphabet Inc.'s Google this week opened to the public its own conversational program, Bard, which also can generate humanlike responses

The combined weighting of Apple

and Microsoft in the S&P 500 has risen to the highest level on record.

Sources: Strategas Securities (weight); FactSet (stocks and index)



TikTok CEO Shou Zi Chew

**TikTok CEO to Face Critics in House** 

By Stu Woo

WASHINGTON-TikTok Chief Executive Officer Shou Zi Chew has navigated both Western and Chinese business over the course of his fast rise to the corner office.

That cultural straddle has helped land him the top job at one of the world's biggest tech companies. His background

with a skeptical American Congress. Many members have threatened to ban TikTok, saying its Chinese ownership poses a national-security threat.

On Thursday, the 40-yearold Singaporean Army reservist and former Goldman Sachs Group Inc. banker is slated to appear before a House panel to

may now help him connect argue against a ban and reassure Americans their data are safe and Beijing won't be able to influence what viewers see on TikTok.

Born and raised in Singapore, then educated in London and at Harvard Business School, Mr. Chew spent some of his early career cutting deals for a venture-capital firm in Asia. He then quickly moved

to the C-suite as the chief financial officer of a Chinese smartphone giant at age 32.

He runs TikTok from offices in Singapore but travels often, including frequently to the U.S. He met his wife, a Taiwanese-American who grew up in Please turn to page B4

◆ TikTok enlists influencers to show up for testimony...... B4 Reddit has had talks with Please turn to page B5

### **SVB Made Frantic Dash for Funds** Before Seizure but Ran Out of Time

their accounts via smartphone apps and telling their startup networks to do the same. But

> By Hannah Miao, Gregory Zuckerman and Ben Eisen

inside Silicon Valley Bank, executives were trying to navigate the U.S. banking system's creaky apparatus for emergency lending and to persuade its custodian bank to stay open late to

Tencentik

EARNINGS

Tencent's quarterly

revenue edged up from

digital sales even as

profit fell. B2

Depositors were draining handle a multibillion-dollar transfer.

Regulators shut down SVB around the time a multibilliondollar cash infusion was set to arrive, marking the second-largest bank failure in U.S. history. Inside the bank, employees

are now replaying SVB's last hours. "This team was on a path to reconstruct the balance sheet the right way," an SVB employee said Friday during a meeting of the bank's treasury department, according to a re-

INSIDE

cording heard by The Wall Street Journal. "Time and circumstances didn't allow us to do that."

Withdrawals accelerated late in the morning on the West Coast on Thursday, March 9. Executives paced the office on phone calls as employees watched and texted details to each other.

That's when SVB, at the time controlled by SVB Financial Group, started looking for help, Please turn to page B10



### **Don't Move Money** from Your Bank. Insure it.

You don't need to go farther than your bank to find access to safety for large-dollar deposits.

Thousands of banks across the nation have been offering IntraFi services for over 20 years to keep large deposits safe.

Ask your bank today.

#### IntraFiNetworkDeposits.com



Terms and conditions apply. IntraFi is a registered service mark of IntraFi Network LLC.

**BUSINESS NEWS** Hopes for a freight rebound fade amid a glut of inventory at retailers. B3



**ENERGY** Insurer Chubb requires oil-and-gas companies that it covers to cut emissions. B10

#### **B2** | Thursday, March 23, 2023

### **BUSINESS & FINANCE**

#### These indexes cite notable references to most parent companies and businesspeople in today's edition. Articles on regional page inserts aren't cited in these indexes.

INDEX TO BUSINESSES

A Advanced Micro Devices 	First Republic Bank A1,A6 GameStopB11 General MotorsB11	PacWest Banc Papa John's International Pfizer PNC Financial
American AirlinesA3 AmgenB12	Huawei TechnologiesB4	R
Apollo Global ManagementA6,B3 AppleB1	ITM PowerB12	Recruit Rio Tinto S
Ares Management B3,B11 B	Johnson & JohnsonB2 JPMorgan ChaseA1 M	Silicon Valley Stellantis
Bank of AmericaA1 Bank of New York MellonB10 BASFB11 BiogenB12 ByteDanceB4	Meta PlatformsB1,B5 MichelinB11 MicrosoftB1,B5,B12 ModernaA2 Mubadala Investments B11	Tencent Thyssenkrupp Tron Foundatio
C - G	N - P	UBS
Carvana	Nel       B12         Netflix       B1         News Corp       B5         Novo Nordisk       B12         Nvidia       B12         OpenAI       B1         Pacific Investment       Management         Management       B3	United Airlines U.S. Bancorp Verizon Comm Virgin Orbit Volkswagen Western Alliar Bancorp

Bank A1,A6 B11 rsB11	PacWest BancorpA6 Papa John's InternationalB2 PfizerB12 PNC Financial Services
ologiesB4	A1 R
B12	RecruitB2 Rio TintoB11 <b>S</b>
nnsonB2 iseA1	Silicon Valley BankB1 StellantisB11
nsB1,B5 B11 .B1,B5,B12 A2 estments	TencentB2 Thyssenkrupp Nucera B12 Tron FoundationB2
B11	U - W
P 	UBSA6,B11 United AirlinesA3 U.S. BancorpA1 Verizon Communications A1 Virgin OrbitB3 VolkswagenB11 Western Alliance BancorpA6

### **INDEX TO PEOPLE**

A	Hassabis, DemisB5	S
Advani, AmanB3 Altman, SamB5	Hatzius, JanA6 Hoge, StephenA2 Hyams, ChrisB2	Salvato, Luca Schwartz, Dave Silverblatt, Howard
Bancel, StéphaneA2	Kingsbury, ThomasB3 Kress, ColetteB12	Simpson, Shelley
Becker, GregB10 Branson, RichardB3	L	Singh, Daleep Sohn, Todd
Burdel, SebastienB11	Lau, MartinB2 Lum, JenniferB5	Sun, Justin Svindland, Paul
C	M - R	T - Z
Chew, Shou ZiB1,B4 Collins, ChrisB2	Moore, JosephB12	Tewari, Akash
<b>D - K</b>	Morrow, BillB4 Nadella, SatyaB5	Vince, Robin Walton, Nathan
Dusen, Lori VanB11	Petropoulos, TedB11	Weiss, Rich
Friend, MatthewB3	Pickering, KallumA8	Yiming, Zhang
Gates, BillB5	Pride, JasonB1	Yu, Richard
Greenburg, EvanB10	Raneri, JudithB1	Zhengfei, Ren
Gugino, AnnB2	Ruddy, ChrisB4	Zuckerberg, Mark

### Job Platform Indeed To Lay Off 15% of Staff As Headwinds Loom

#### BY DENNY JACOB

Internet job-search platform Indeed on Wednesday said it expects to lay off about 2,200 employees, or 15% of its workforce.

It is the latest company to plan for a reduced head count as economic uncertainty ripples across sectors

The Recruit Holdings Co.owned platform said the cuts will come from nearly every team, function, level and region at Indeed and Indeed Flex, an app for job seekers looking to find temporary work.

"It is becoming increasingly likely that HR Tech revenue will decline in FY2023 and potentially again in FY2024," said Chief Executive Chris Hyams in a message to emplovees



#### Indeed CEO Chris Hyams

"We have held out longer than many other companies, but the revenue trends are undeniable," he added.

Mr. Hyams said Indeed will implement additional cost-saving measures in a plan he said would be outlined Thursday. Indeed joins a stream of

# **Tencent's Digital-Ad Recovery** Buoys Sales; Annual Profit Falls

200

150

100

50

2013 '15

40 2022

▲0.5%

#### BY RAFFAELE HUANG

SINGAPORE—Chinese internet conglomerate Tencent Holdings Ltd.'s quarterly revenue edged up 0.5% from a year earlier, backed by rising demand for digital advertisements, as executives said businesses were shaking off the impact from Beijing's tough pandemic controls.

October-December revenue rose to the equivalent of \$20.8 billion after two quarters of contractions.

As China's sluggish economy casts a shadow over Tencent's various business areas, the company in recent quarters has been conducting layoffs and controlling costs to streamline business operations and improve profitability. Tencent said it cut more than 4,000 jobs last year.

.B1

.B11

B

.R1

.B11

.B12

B11

..B4

.. B4

China's economy grew 3% in 2022, among its slowest growth rates in decades, as Beijing stuck with rigid pandemic-control measures until late in the year.

"Last year's efforts have resulted in a more focused business structure, more responsive teams, and pushed our employees and managers to focus more on costs and efficiency," said Tencent President Martin Lau in a Wednesday news conference.

He added that executives were encouraged about signs of economic improvement after China lifted its tough pandemic controls in December.

For the fourth quarter, net profit rose 12%, boosted by a one-time gain of \$12.46 billion from the disposal of stock in



Tencent's quarterly revenue,

25

20

15

10

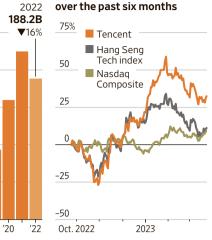
0

2019

20

Note: 1 billion yuan = \$145 million





Sources: S&P Capital IQ; the company (revenue, profit); FactSet (performance

the food-delivery company Meituan. In November, the internet company said it would distribute \$20 billion of Meituan shares to Tencent shareholders.

'22

For the full year, Tencent's profit declined 16%, its first annual decline in profit since it went public in 2004.

'21

Tencent, along with other internet-platform companies, has emerged from an extended regulatory crackdown on the technology sector. Some easing of regulatory pressure as as business-strategy well shifts helped the tech company's market capitalization more than double by January from a trough in October.

Still, tighter regulatory oversight in China has become the new norm, and uncertainty lingers among investors about what could follow. Short-video content could face closer scrutiny as regulators said last

month that they were studying measures to curb addiction among young people. Pony Ma, Tencent's chief executive, was among the internet executives left out of an annual political gathering this month after having attended for years. Li Keqiang, before stepping

down as China's premier, told lawmakers at the meeting that the government would support the country's digital economy and focus on improving regulatory oversight of the tech sector.

Tencent's online-advertising revenue rose 15% in the October-December quarter, recovering after four consecutive quarters of decline. That was driven by increases in ad spending from e-commerce platforms and videogame advertisers.

A part of that came from Tencent's efforts to build its short-video streaming service on the social-media app WeChat, which the company aims to rival ByteDance Ltd.'s Douvin-TikTok's Chinese sibling. Advertising revenue generated from the service reached 1 billion yuan, equivalent to \$145.3 million, in the fourth quarter.

Meanwhile, Tencent's videogame revenue fell 2% in the fourth quarter from a year earlier amid weaker consumption and a lack of new games at home. During the clampdown, Tencent took a hit as Beijing handed out fewer publishing licenses and tightened rules that significantly cut down on videogame playtime available to young people.

China's videogame market shrank by 10% last year, the first decline in more than a decade. as title debuts and financing activities slowed, according to industry research firm CNG.

# J&J Taking Talc Case to High Court

#### By JONATHAN RANDLES

Johnson & Johnson will seek the Supreme Court's review after a federal appeals court declined to revive the company's bid to use chapter 11 bankruptcy to freeze nearly 40,000 lawsuits linking its talc products to cancer.

J&J said it would turn to the nation's highest court after judges on the Third U.S. Circuit Court of Appeals in Philadelphia voted Wednesday against having the entire ap-

opened a path to freezing the U.S. and Canada in 2020 and talc lawsuits against its affiliates, including J&J itself. Other profitable companies have used the same strategy. known in legal circles as the Texas Two-Step, to try to address mass cancer litigation.

Wednesday's ruling means J&J's hopes for reviving its talc subsidiary's chapter 11 case now depend on the U.S. Supreme Court, which takes only a small fraction of the petitions it receives.

Without intervention from the Supreme Court, J&J would have to defend personal injury claims pending across the country alleging its talc products contained asbestos and caused ovarian cancer. J&J, which has denied that its talc products are unsafe, has spent roughly \$4.5 billion in recent years defending and settling talc-related claims. The company stopped selling talc-based baby powder in the

said last year that it would cease selling it worldwide in 2023

A spokeswoman said J&J would seek to keep talc-related litigation on pause pending any Supreme Court review. The company has said it created LTL and initiated the

Amount J&J has spent dealing with talc-related claims

ing to resume tort lawsuits in state courts.

"This unanimous ruling by the Third Circuit is another step in closing the door on the attempted abuse of the bankruptcy system by Johnson & Johnson, and reopening the doors of courthouses across the nation for thousands of victims of the company's negligence and greed," plaintiffs' lawyer Leigh O'Dell said.

In the January decision, a three-judge panel on the Third Circuit found that LTL wasn't eligible for bankruptcy because its parent company J&J had agreed to fund the expenses of the chapter 11 case and any potential settlement with injury claimants. Judge Thomas Ambro, a bankruptcy scholar who wrote January's ruling, said the funding agreement gave LTL access to as much as \$61.5 billion when it filed for chapter 11 in 2021.

Mr. Hyams said job openings in the U.S. declined recently and that the company expects the trend to continue over the next two to three years.

"With future job openings at or below prepandemic levels. our organization is simply too big for what lies ahead," said Mr. Hyams, who said he would be taking a 25% cut in his base pay.

companies that have announced layoffs and job cuts in recent months as businesses pull back on hiring and reduce payroll expenses.

The labor market, which has recently shown signs of cooling, had 10.8 million openings in January, according to the Labor Department.

Some companies are keeping job posts up without filling roles.

pellate court reconsider a January ruling by a panel of judges dismissing the chapter 11 case of J&J subsidiary LTL Management LLC.

J&J created the LTL subsidiary in 2021 and placed it in chapter 11 to move mass talcinjury lawsuits the business faced to bankruptcy court for resolution. While the parent company didn't file for chapter 11, LTL's bankruptcy filing bankruptcy in 2021 to fairly and equitably resolve current and future talc-injury lawsuits for claimants.

Lawyers representing consumers who have sued J&J over its talc products said Wednesday they were prepar-

# Papa John's Finance Chief Resigns

#### BY COLIN KELLAHER AND JENNIFER WILLIAMS-ALVAREZ

Papa John's International Inc. said its finance chief has resigned as the pizza chain has faced a series of leadership changes and is grappling with inflationary pressures.

The Louisville, Ky., company on Wednesday said Ann Gugino has stepped down as chief financial officer.

Ms. Gugino, a former Target Corp. executive who joined the company as CFO in October 2020, will remain with Papa John's until May 31 to assist with the transition, the company said, adding that it has launched a search for a permanent finance chief.

Chris Collins, who joined the company in 2021 and is currently vice president of treasury and tax, will serve as interim principal financial and accounting officer.

Papa John's said Ms. Gugino's departure would qualify her for severance benefits consistent with a termination without cause, including continuation of her base salary for a year and a pro rata payment of her 2023 annual bonus.

Mr. Collins is expected with his interim appointment to receive an annual base salary of \$300,000, a one-time cash bonus of \$50,000 and \$100,000 in restricted stock units, according to a regula-



Papa John's has launched a search for a permanent successor to CFO Ann Gugino.

tory filing. He will be eligible for an annual incentive award with a target participation rate of 75% of his base salary for the time in the role.

Papa John's this month said Jeffrey Smith, chief executive of Starboard Value LP, had resigned as chairman, a role he had held since the activist hedge fund invested \$200 million in the thenstruggling pizza chain four years ago.

Papa John's at the time also said it had agreed to buy back nearly 2.18 million shares held by Starboard at \$82.52 apiece, a 4% discount to the stock price at the time,

cutting the hedge fund's 7.8% stake to roughly 2%.

At the time of Starboard's investment, Papa John's for more than a year was suffering from declining same-store sales, which the company in part attributed to controversies involving its founder and former chief executive, John Schnatter. Mr. Schnatter left Papa John's board in March 2019 after making racially charged statements, following earlier giving up his chairman's seat.

In February, meanwhile, C. Max Wetzel, who had been Papa John's executive vice president and chief operating

officer, said he was leaving the company for another post. Mr. Wetzel last week joined

Carl's Jr. and Hardee's parent CKE Restaurants Holdings Inc. as chief executive.

Papa John's in February reported revenue was down less than 1% to \$526.2 million for the quarter ended Dec. 25 compared with the prior-year period.

The company, which generally beat Wall Street's expectations with its fourth-quarter results, booked net income of \$23.5 million for the period, compared with roughly \$24.6 million a year earlier.

ADVERIISEMENT						
The Marketplace						
To advertise: 800-366-3975 or WSJ.com/classifieds						

ADVERTISEMENT

#### NOTICE OF SALE

	NOTICE OF PUBLIC SALE • Property to be Sold									
	Public Sale No. 1: Tuesday, March 28, 2023, 10:00 a.m. EDT									
Lot #	CUSIP	Issue	Asset Type	<b>Registration Type</b>	Original Face					
1	52204PAY5	LIFT 1 C2	Aircraft	DTC	4,500,000.00					
2	70556MAC6	PALS 2000-1 B1	Aircraft	DTC	5,000,000.00					
3	06606TAK7	BAMH 1998-2B1	MH	DTC	4,009,000.00					
4	04541GAU6	ABSLB 2000-LB1 M2F	Subprime	DTC	2,500,000.00					
5	20846QKN7	CNFHE 2002-C MV2	Subprime	DTC	1,000,000.00					
6	23321PG69	DLJMA 1997-CF2 B3TB	Zero Factor - CMBS	Physical	1,800,000.00					
7	45171@AC0	Physical	1,516,610.46							
8	30245AAG4	FEP RECEIVABLES TR 0.0 18JUL08 DFLT	Zero Factor - Equipment Zero Factor - Receivables	Physical	5,000,000.00					
9	30245AAC3	FEPR 2000-2A A3	Zero Factor - Receivables	Physical	8,000,000.00					
10	62827FAA5	MUTUAL FD FEETR XIII RESTR DFLT	Zero Factor - Receivables	Physical	10,000,000.00					
11	62827CAB0	MUTUAL FD FEETR XIV 8.061 DFLT	Zero Factor - Receivables	Physical	376,836.86					
12	04541GAV4	ABSLB 2000-LB1 BF	Zero Factor - RMBS	ÓTC	5,000,000.00					
13	208460CS5 CNF 2000-2 M1		Zero Factor - RMBS DTC		3,625,000.00					
14	20846QCT3	CNF 2000-2 M2	Zero Factor - RMBS	DTC	3,500,000.00					
15	20846QDX3	CNF 2000-4 M2	Zero Factor - RMBS	DTC	6,000,000.00					
16	542514CL6	LBMLT 2002-2 M3	Zero Factor - RMBS	DTC	2,000,000.00					
apacit as def	Dock Street Capital Management LLC, on behalf of The Bank of New York Mellon Trust Company, National Association, in its apacity as trustee (the " <u>Trustee</u> "), will be conducting one or more sales of certain collateral pledged to the Trustee. The Collateral as defined herein) will be offered and sold by the Trustee without recourse, representations or covenants, express or implied,									
		rustee with respect to the Collateral (ex								
		he Trustee's possession, including withou								
.ccation of Sale. The sales will be held at 575-B Riverside Avenue, Westport, CT 06880. <u>Additional Information</u> . Please be idvised that the sale of each of the securities listed above may be made only to the best bidder who is also a qualified bidder of may be subject to a reserve level. For additional information, including with respect to qualified bidder status, and to										
	btain copies of an Investor Representation and Confidentiality Agreement, contact David Crowle or Jeffrey Holtman by email									
at dcro	t dcrowle@dockstreetcap.com or jholtman@dockstreetcap.com, respectively, by phone at (212) 457-8258, by facsimile at									

(212) 457-8269 or by mail addressed to 575-B Riverside Avenue, Westport, CT 06880. **Disclaimer.** The Trustee is authorized at (212) 457-2620 of Up mail addressed us 57-56 inverside Avenue, Westport, CL 06800. <u>Discantiner</u>, the insiste a studnized at submitted at submitted

#### **BUSINESS OPPORTUNITIES**

#### **CHAIN FOR SALE** 3 restaurants, plus franchise sales,

Scottsdale-Phoenix Regional and National growth opportunity an Fusion | Sushi | Music| Bar | Branded Night 5 years and growing, boom during Covid brandedrestaurant4sale@gmail.com

#### NOTICE OF SALE

Top Jet Enterprises, Ltd. vs. Sino Jet Holding Ltd. Skyblueocean Ltd. and Jet Midwest Group, LLC, USDC Western District of Missouri Western Division

Case No. 4:20-cv-00532-FJG

#### NOTICE OF SALE OF ASSETS

The assets of Skyblueocean Ltd. are hereby offered for Red Sector Skylotecean Carl and Record of the Record of th additional information, please contact Deborah Burger at dburger@stapletoninc.com

### **BUSINESS NEWS**

# **Freight-Rebound Hopes Are Fading** As Retailers Show Caution on Growth

Logistics companies are paring back their expectations for a surge in demand

#### BY LIZ YOUNG AND PAUL BERGER

Freight companies are dialing back expectations that demand will recover strongly in the second half of the year amid growing economic uncertainty and signs retailers are growing more guarded about placing big orders in 2023.

'There was more optimism a few months ago than there is now," said Paul Svindland, chief executive of Bensenville, Ill., logistics provider STG Logistics Inc.

Logistics executives say the volume of goods moving through supply chains has tailed off more than anticipated to start the year, while broader indicators such as retail sales figures are raising concerns about the direction of the economy.

"As we've progressed through the quarter, I'm slightly less optimistic than our customers," Shelley Simpson, president of U.S. freight bellwether J.B. Hunt Transport Services Inc., told a March 14 investor meeting.

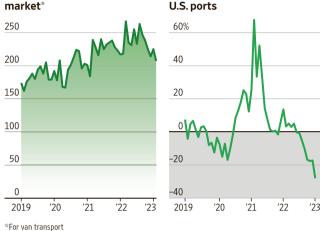
Freight demand started slowing midway through 2022 as consumer spending pivoted from goods to services and big retailers found themselves overstuffed with inventories following a pandemic-driven rush to fill store shelves. Transport companies from truckers to container shipping lines have pointed to an anticipated rebound in the second half of this year, saying they expected companies to return to more typical, prepandemic ordering patterns after working through excess inventories.

That prospect has looked more questionable as retail sales have declined and more retailers and their suppliers display caution as they remain



Container imports at the ports of Los Angeles and Long Beach sank 38% year over year in February. A ship docks in Long Beach.

Index for demand in the truckload sector's spot market\*



Sources: DAT Solutions (index); The McCown Report (imports)

#### focused on keeping inventories in check.

Nike Inc. said on Tuesday it would continue its reduced purchasing from suppliers after the sports apparel maker reported that it had cut inventory growth to 16% in its most recent quarter from 40% in each of the previous two quarters. The company slashed its

0.4% pullback in February was Annual change in container imports into the top 10 the third decline in four months, adding to uncertainty for retailers and their suppliers.

"It's better to understand what the customer wants and go after it than to buy it all upfront and hope it sells," Thomas Kingsbury, chief executive of Kohl's Corp., said on a March 1 earnings call. Kohl's said it is planning to hold less merchandise this year after the retailer's inventories were up 48% in the second quarter of 2022 year-over-year.

working through big stockpiles while they navigate shifting demand as people return to the office and turn away from the leisurewear that they favored while working from home during the pandemic.

Boston-based apparel maker Ministry of Supply Inc. found itself whipsawed by the shift in demand last year after ordering big numbers of dress pants with elastic waistbands only to find customers switching to more formal clothing.

Ministry of Supply went

from selling about 2,500 to 3,000 pairs of the comfortable pants during the pandemic to about 250 a month now, even as sales jumped for a zippered version of the pants more appropriate for the office, said Aman Advani, the company's co-founder and chief executive.

What was three months of demand is now 30 months of demand," Mr. Advani said.

Shipping figures are showing signs of weakening demand as companies hold back new orders and global trade volumes falter.

Container imports at the ports of Los Angeles and Long Beach, the nation's busiest port complex, plummeted 38% ear over year in February.

U.S. freight rail volumes were down 5.2% in the first 11 weeks of 2023 compared with last year, according to the Association of American Railroads. The intermodal truckrail business that includes a large share of retail traffic was off 9.6% in that time, including a 15.2% year-over-year slide in the week ended March 18.

### Virgin Orbit Resumes Work on Launch

#### BY WILL FEUER

Virgin Orbit Holdings Inc. said it is beginning to bring back staff and resume work on preparing for its next satellite launch, after halting operations last week to conserve cash as it searches for more funding.

The satellite company, backed by billionaire Richard Branson, said it doesn't intend to provide updates on its discussions to raise more funding unless and until its board approves a specific deal.

Virgin Orbit said it would begin an incremental resumption of operations on Thursday.

The operational pausewhich began March 16—for the rest of its workforce is expected to continue through

**Shares of Virgin** Orbit jumped 33% on Wednesday, to 59 cents.

March 26, and Virgin Orbit is planning a further resumption of operations March 27.

Shares of Virgin Orbit jumped 33% on Wednesday, to 59 cents each on the Nasdaq stock exchange

In the past 12 months, the company's shares have plunged by more than 90%.

The Wall Street Journal previously reported that Virgin Orbit was in talks with financial institutions to secure a bailout as it investigates what went wrong with its high-profile launch from Cornwall, England.

# Carvana Debt Swap Lacks Support From Bondholders

By Alexander Gladstone

also involves a debt swap at different terms, and would request for comment on

Carvana didn't respond to a

merchandise inventory level

the previous fiscal quarter.

by about \$400 million from

Matthew Friend said on an

earnings conference call that

strategically managing excess

inventory was a "top priority"

volatile in recent months, and a

U.S. retail sales have been

this year.

Nike Chief Financial Officer



Smaller companies are also

**Carvana** Co.'s debt swap proposal launched on Wednesday doesn't have support from the group of investors who own a majority of the company's nearly \$6 billion in unsecured bonds, people familiar with the matter said.

The used-car retailer is asking bondholders to swap some of their holdings at a discount into an up to \$1 billion new secured bond, which would have a second-priority claim on collateral including certain assets and property owned by the Tempe, Ariz., company, such as some of its vehicles.

Even if fully subscribed, the deal would only result in reducing Carvana's debt by at most a few hundred million dollars, the people familiar with the matter said.

The bondholder group, which includes Apollo Global Management Inc., Pacific Investment Management Co. and Ares Management Corp., owns at least 70% of the outstanding bonds, the Journal previously reported.

The bondholder group has recently submitted its own proposal to the company that also include the group putting in more money, though Carvana has been unresponsive, one of the people said.

The company could succeed in winning support for the transaction from some of the bondholders who aren't part of the group.

The transaction requires that holders of at least \$500 million of bonds participate,

#### **Transaction requires** that holders of at least \$500 million of bonds participate.

the company said.

Carvana also said Wednesday that it has designated AD-ESA U.S., the used-car auction business it acquired last year for \$2.2 billion, as an unrestricted subsidiary.

The company is expected to use ADESA U.S. as collateral for a separate debt issuance, the people familiar with the matter said.

Wednesday.

The company continues to lose money, though it is expecting a narrower loss for the first quarter of 2023 compared with the same period last year.

Carvana said its adjusted loss before interest, taxes, depreciation and amortization is expected to be between \$50 million and \$100 million for the quarter ending March 31, compared with \$348 million a year earlier.

The company said the earnings improvement is due to lower costs and higher profit per car sold.

Revenue is expected to be between \$2.4 billion and \$2.6 billion for the quarter, down from \$3.5 billion a year earlier, the company said. Analysts surveyed by FactSet were expecting \$2.83 billion.

Carvana's stock finished up 6.3% on Wednesday at \$8.43, driven by the preliminary earnings results showing a narrowing loss. In the past 12 months, the shares have fallen by more than 90%.

–Will Feuer and Ben Foldy contributed to this article.



The company continues to lose money, though it is expecting a narrower loss for the first quarter.





#### PET SAFETY HARNESS

Does your furry friend try to climb into the front seat with you on car ride adventures? The adjustable, heavy-duty Pet Barrier keeps pups comfy and secure in the rear of your vehicle. For added safety, buckle them up with Pet Safety Harness. It exceeds human seat belt safety standards - and it can be used on walks with a leash! Protect your pet with WeatherTech.





### WeatherTech.com

Auto. Home. Pet. Find Your Fit. 1-800-441-6287



© 2023 MacNeil IP LLC

### **TECHNOLOGY**

#### WSJ.com/Tech

# **TikTok Stars Descend Upon** Washington

In lobbying blitz, firm enlists influencers to show up ahead of CEO testimony Thursday

#### BY RYAN TRACY

WASHINGTON-TikTok launched a battalion of influencers in the nation's capital Wednesday to send a message to Congress: Banning the app would be met with widespread popular opposition.

'TikTok is not a children's dancing app," said Aidan Kohn-Murphy, a college freshman with close to 300,000 TikTok followers and founder of the advocacy group Gen-Z for Change. "It is one of the most powerful tools that young people have to engage each other and to get civically involved.'

Mr. Kohn-Murphy was one of more than 20 TikTok personalities with wide followings who traveled to the capital this week at the company's invitation to lobby lawmakers and others in advance of TikTok Chief Executive Shou Zi Chew's appearance before a House committee on Thursday.

The influencers' blitz is part of TikTok's response to persistent concerns among U.S. officials that the app, owned by Beijing-based Byte-Dance Ltd., could be used by the Chinese government to spy on Americans or promote divisive or manipulative content.

The Biden administration recently demanded that Tik-Tok's Chinese owners sell their stakes in the company or face a possible U.S. ban of the app, and members of the House Energy and Commerce Committee are expected to question Mr. Chew about the security concerns and other issues.

TikTok maintains that it isn't beholden to any government and is a vital platform for 150 million American users—a theme the influencers worked to underscore in a meeting with journalists near the Capitol on Wednesday.

"It would be difficult to be able to support a candidate that would take away something that is so integral to the



People gather for a press conference on Capitol Hill Wednesday about their opposition to a ban.

direction we're going as a society," said Baedri Nichole, a bakery owner from Columbus, Ohio, whose "hot cocoa bomb" confection is a hit on TikTok.

Kenny Jary, an 81-year-old retiree known on TikTok as Patriotic Kenny, said he uses the app to raise money to buy mobility scooters for fellow veterans.

Others said the app provided a platform to launch small businesses or discuss topics such as eldercare and mental health.

TikTok covered the group's travel and accommodation expenses. The company bused the influencers on Wednesday to the Capitol grounds, where

they gathered on a scenic seen. rooftop to shoot their own videos and stand for journalists' interviews.

After threats of banning the app started during the Trump administration, the company has spent recent years building a U.S.-based security apparatus to wall off U.S. user data and give officials the ability to inspect the computer code that recommends a steady feed of videos to users.

TikTok stars were a crucial factor in the company's successful effort to fight off a proposed ban during the Trump years. Whether they will have the same influence this time around remains to be

"I'm aware of the popularity of the platform. I'm not oblivious," said Rep. Yvette Clarke (D., N.Y.), a senior member of the House Energy and Commerce Committee who hasn't yet taken a position on a potential ban. "However, it's important to weigh our equities here. National security has to be addressed."

Ahead of Mr. Chew's appearance, TikTok has ramped up lobbying efforts with the help of Oracle Corp., its U.S. data-security partner. Advertisements at the capital's Metro subway stops tout the company's commitment to

worked for venture-capital firm DST Global.

His high-school-level Mandarin qualified him to be its China-focused partner.

In 2012, he visited the Chinese equivalent of a Silicon Valley garage: an apartment in Beijing's university district. Thirty people, including a chef. crammed in to develop an app that suggested news articles to people based on factors such as how much time they spent on previous stories.

The company was Byte-Dance, which would go on to create TikTok. Its founder, Zhang Yiming, won over Mr. Chew. He and his partners invested in the company.

"The idea is so simple but so powerful: that you should be looking at content not based on who you know, but really based on your own behavior," Mr. Chew said.

Another investment Mr. Chew led was in Xiaomi Corp., a Chinese smartphone giant with global ambitions. Xiaomi brought him over first as chief financial officer and then had him run its business outside China.

### DirecTV Agrees to Carry Newsmax BY JOE FLINT

DirecTV and Newsmax have reached a new distribution deal that will return the conservative news channel to the satellite broadcaster's lineup Thursday, the companies said.

The agreement comes nearly two months after DirecTV stopped carrying Newsmax when the two companies had failed to come to terms on a carriage pact.

Terms of the deal weren't disclosed. DirecTV said the return of Newsmax would come at no extra cost to its customers.

In addition to resuming carriage on DirecTV's satellite service, Newsmax will be carried on the company's streaming service and U-verse video service. Together, those services have between 13.5 million and 14 million subscribers.

As a result of the agreement, Newsmax will reach more than 60 million U.S. homes.

**DirecTV Chief Executive Bill** Morrow called the deal a "reflection of the free market at work."

Newsmax founder and Chief Executive Chris Ruddy said, "Newsmax recognizes and appreciates that DirecTV clearly supports diverse voices, including conservative ones."

When DirecTV stopped carrying Newsmax in January, Mr. Ruddy called it a "blatant act of political discrimination and censorship against Newsmax.'

DirecTV countered that Newsmax was seeking a significant increase in the carriage fees it charges even though the channel has a small audience, averaging around 111,000 viewers in prime time and just over 90,000 viewers for the total day, according to Nielsen data.

Despite its relatively low ratings, the channel is popular in some conservative circles. After DirecTV stopped carrying it, several prominent Republican lawmakers criticized the move. Sen. Ted Cruz of Texas called it a "manifestation of political bias" in an appearance on Newsmax in Februarv.

Newsmax had a surge in viewership soon after the 2020 presidential election, when its coverage continued to question the outcome even after rivals such as Fox News had declared Joe Biden the



Continued from page B1 Bethesda, Md., at Harvard.

Relatively unknown for the boss of one of the world's most popular apps, Mr. Chew will be asked to defend the company in front of some of its more skeptical critics on the House Energy and Commerce Committee.

Aides to the Republicans who control the committee sav there is essentially nothing Mr. Chew can say that would change their minds as they threaten a nationwide ban.

In an interview from the company's WeWork offices in Washington, he said he views Thursday's hearing as a chance to explain what TikTok is trying to do and to get feedback



TikTok Chief Executive Shou Zi Chew, left, in 2018, with Xiaomi founder Lei Jun, in Hong Kong.

for a nationwide ban of the video app, citing national-security threats. The Biden administration is demanding Tik-Tok divest itself from its Chinese parent, **ByteDance** Ltd., or face such a ban.

Critics say China could

ministration pursued an earlier effort to force a sale of TikTok to U.S. investors.

He is a native English speaker who, like most Singaporeans, is of Chinese ancestry. His father worked in construction and his mother in

The hardest physical experience of his life, he said, was the military's five-day survival course in Brunei's jungles. He built a hut, cooked wild yams and trekked 55 miles. At one point during such courses, trainees are given a live quail

user safety. and business school, Mr. Chew

from Congress members—not a last-gasp effort to save Tik-Tok's American business.

"I look at it as an opportunity to do that. not a do-ordie" moment, he said.

The corporate stakes for Mr. Chew are as high as they get for a CEO facing such an appearance in Washington. Some Congress members from both major parties are pushing

force TikTok to hand over American user data or influence what American viewers see on the app. TikTok has said it has never received such a request and would refuse to comply with one.

Mr. Chew took over the top job after Kevin Mayer, a highprofile Walt Disney Co. alum. left his post after three months, while the Trump adbookkeeping.

He said he was uprooted from a modest upbringing at age 12, when high marks on a national exam sent him to an elite high school.

Mr. Chew was put on an officer track during his mandatory 2<sup>1</sup>/<sub>2</sub> years of military service. That added 10 years to his eligibility for reserve duty, which ends when he is 50.

that thev can kill with their hands before skinning and cooking it. In the interview, Mr. Chew didn't want to discuss what he did with his bird.

After the military, Mr. Chew attended University College London and remained in the British capital to work as a banker for Goldman Sachs.

Following an internship at Meta Platforms Inc.'s Facebook



Fox News hosts and executives were concerned that Newsmax was appealing to supporters of Donald Trump and becoming a serious threat, court documents from a continuing defamation lawsuit against Fox News show. Newsmax's ratings growth eventually tapered off.

winner.

# POWERHOUSE TWELVE **CIGAR COMBO** MSRP \$145 ONLY \$2999 SAVE 81% Order Now! Limited Supply Call 1-800-237-2559 Mention code TCSA735

thompsoncigar.com/TCSA735

Promo Code TCSA735 OFFER VALID UNTIL 4/30/23. \*Add \$5.99 for shipping.

purchasers only. One per customer. No sales to anyone under the age of 21. We do not ship to Utah. Only good in the USA.

ase may be subject to state, local or excise taxes where applicable.

# Huawei Launches 4G Phone at Home

#### BY DAN STRUMPF

#### 25% HONG KONG-Would you buy a premium-priced smart-

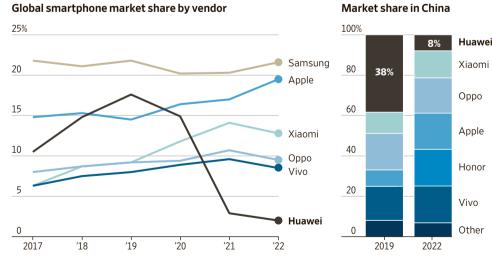
phone that doesn't have 5G? Huawei Technologies Co. thinks its customers will, at least in China.

More than two years after U.S. sanctions wrecked the Chinese tech company's oncedominant global smartphone business, Huawei has stuck with a regular schedule of new flagship phone launches and is gearing up to debut its latest on Thursday.

Reflecting its reduced ambitions, Huawei will unveil the device at a Chinese-language event in Shanghai rather than with a splashy launch overseas. It will likely feature a top-end camera—a Huawei trademark-but won't have access to 5G networks, Google's Android operating system or a host of Western apps.

That means the new phone, the P60, which Huawei will launch alongside a new foldable phone and other gadgets. isn't likely to find many users outside Huawei's home market. In China, where a separate ecosystem of apps and other software have made the absence of Western apps on Huawei devices less of a liability, the company continues to attract sales from longtime fans.

Huawei was for a few months the world's largest seller of smartphones globally, surpassing Apple Inc. and



Source: Canalys

Samsung Electronics Co. Its global market share peaked at 18% in 2019, according to market tracker Canalys.

Then, the Trump administration imposed a series of export controls that choked the company's access to foreign technologies. Sales crashed as the company carved off part of the business and its devices' appeal withered in markets around the world.

Huawei's market share stood at 2% last year, according to Canalys. Most remaining sales are in China. There the company clung to 8% of the market last year and was the country's sixth-largest smartphone seller, behind the likes of Vivo Mobile Communication Co., the formerly Hua-

wei-owned brand Honor Device Co. and Apple.

Executives have said the company has since replaced thousands of foreign parts. In pitching its smartphones, they have said the 4G connectivity is still powerful.

In China's high-end phone sector, where Huawei's rivals have struggled to gain traction, the company is the only serious rival to Apple. Huawei still held 10% of that market last year, according to Canalys. The company has touted highend photography and easy connectivity to other internetconnected Huawei gadgets.

Earlier this month, Richard Yu, the head of Huawei's consumer business, posted on Chinese social media a zoomed-in photo taken at night of the top of a lit-up building which he said was taken on the "P60 Pro." It showcased the device's telephoto lens and nighttime photography capabilities. In a speech launching a predecessor to the P60, Mr. Yu said Huawei's 4G connectivity was still powerful when coupled with artificial intelligence and other technology.

Ren Zhengfei, Huawei's founder, said last month that the company has substituted more than 13,000 components with domestic replacements in the last three years.

Still, the new smartphone underlines Huawei's continued reliance on American technology for key parts.

### **TECHNOLOGY**

# Gates Calls AI Most Revolutionary Tech in Decades

#### BY ALYSSA LUKPAT

Bill Gates said he believes artificial intelligence is the most revolutionary technology he has seen in decades, on par with computers, cellphones and the internet.

"The development of AI is as fundamental as the creation of the microprocessor, the personal computer, the Internet, and the mobile phone," he wrote in a blog post on Tuesday. "Entire industries will reorient around it. Businesses will distinguish themselves by how well they use it."

Mr. Gates, a 67-year-old pioneer of personal computers, said he was excited about how AI could improve lives. He and other technologists have theorized about AI's different applications for years, a debate that has intensified since the startup OpenAI launched Chat-GPT in November. Essentially, artificial intelligence refers to a computer's ability to learn from large amounts of data and subsequently mimic hu-man responses. "The rise of AI will free people up to do things that software never will-teaching, caring for patients, and supporting the elderly, for example," he wrote.

He said he believed AI could help scientists develop vaccines, teach students math and replace jobs in task-oriented fields like sales and accounting. He suggested that one day AI could go through a person's email inbox and schedule their meetings.

Representatives for Mr. Gates and OpenAI didn't return requests to comment.

Mr. Gates has said for years that he believes AI will change lives. He helped transform industries after he co-founded Microsoft Corp., a software giant and personal-computing pioneer, in 1975. He is a major shareholder in Microsoft, according to FactSet data.

Engineers have been working on AI technology for decades, but ChatGPT is among the most sophisticated versions of it to be released to the public. The chatbot drew attention for its humanlike responses to almost any question. However, some of its answers have been wrong or unhinged, highlighting Chat-GPT's substantial limitations. Certain schools and companies restricted people from using the chatbot while others have

encouraged people to try it. OpenAI set off a race among tech giants to release similar technologies, including Microsoft's AI-enabled Bing search engine and Bard, a conversational computer program by Alphabet Inc.'s Google.

Microsoft said this year it was making a multiyear, multibillion-dollar investment in OpenAI, the startup behind the viral ChatGPT chatbot. Mr. Gates said he had been meeting with people at OpenAI since 2016 and has been impressed by their steady progress. He said he watched in awe in September as the company's AI model correctly answered 59 out of 60 questions on an AP Biology exam.

Still, Mr. Gates on Tuesday acknowledged AI's shortcomings. "We should keep in mind that we're only at the beginning of what AI can accomplish," he wrote. "Whatever limitations it has today will be gone before we know it." He said he believed AI

should be properly regulated. Mr. Gates acknowledged con-

cerns about AI in his blog post, saying, "We should try to balance fears about the downsides of AI-which are understandable and valid—with its ability to improve people's lives."

Still, he added, "I'm lucky to have been involved with the PC revolution and the Internet revolution. I'm just as excited about this moment."

# **Meta Tool Presses Fusion of Machine Learning, Sciences**

Predictive model helps explore the structure of a little-understood class of proteins

#### By STEVEN ROSENBUSH

Meta Platforms Inc.'s new tool predicting the structure of hundreds of millions of proteins is the latest example of a breakthrough in computational biology that began several years ago at an Alphabet Inc. subsidiary.

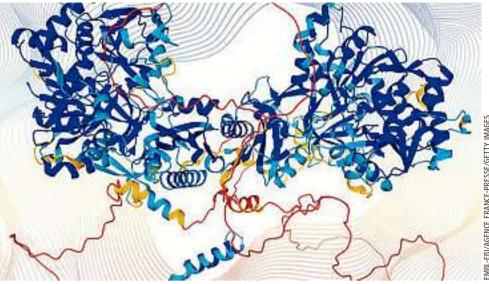
Some scientists expect the new class of artificial-intelligence systems to accelerate work in the life sciences, particularly drug development.

DeepMind Technologies, the London-based subsidiary of Google parent Alphabet, first solved a problem that had been vexing scientists for 50 years using artificial intelligence as an alternative to much slower and more expensive laboratory techniques for determining the three-dimensional structure of proteins. Those structures are crucial to drug and vaccine development, climate change research and more.

DeepMind said in July that



DeepMind CEO Demis Hassabis



A human protein modeled by AlphaFold2 AI. A Meta AI system reveals other proteins' structures.

its AlphaFold2 AI system, Alexander Rives. Employing a first released in July 2021, had been used to predict the structure of nearly all proteins known to science. Meta said on March 16 that its ESMFold system had been used to reveal the structures of an even larger group of proteins, including the least understood ones: those found in microbes in the soil, deep in the ocean, and some inside human bodies.

Facebook parent Meta's ESMFold employs a large language model that can predict text from a few letters or words, based on the same technology underlying Open-AI's ChatGPT. DeepMind devised a different approach employing a pair of neural networks. Meta said its approach is 60 times faster than DeepMind's, but is less accurate.

'These proteins are incredibly diverse and very little is known about them. To reach this scale and go beyond it to potentially billions more sequences, it was critical to make a breakthrough in the speed of prediction," said

large language model, Meta was able to make predictions for more than 600 million proteins in two weeks, he said.

"With AI it is now becoming possible to see deep into the structures of proteins and the incredible complexity of the natural world at the molecular scale," he said.

Since DeepMind's breakthrough, there has been an explosion of interest in the application of AI to biology.

"AlphaFold was a huge advance in protein structure prediction. We were inspired by the advances they made, which led to a whole new wave of using deep learning," said Professor David Baker, a biochemist and computational biologist at the University of Washington.

'The advantage of ESMFold is that it is very fast, and so can be used to predict the structures of a larger set of proteins than AlphaFold, albeit with slightly lower accuracy, similar to that of RoseTTAFold," Dr. Baker said, referring to a tool that Meta AI Research Scientist emerged from his lab in 2021.

DeepMind open-sourced the code for AlphaFold2, making it freely available to the community. Nearly all proteins known to science-about 214 million—can be looked up in the public AlphaFold Protein Structure Database. Meta's ESM Metagenomic Atlas includes 617 million proteins.

In the past, researchers spent months or years getting to the point where they were confident that they understood the structure of a protein, said Jennifer Lum, cofounder of Biospring Partners, a growth-equity firm that invests in life sciences technology. "That process has been cut short by AlphaFold, and allowed these teams to shift their time to research and product development further downstream, into other valueadded areas," she said.

DeepMind's turning point occurred in 2018, when cofounder and Chief Executive Demis Hassabis asked at an AlphaFold meeting if the team could solve the problem of finding better ways to predict the structure of a protein, said John Jumper, lead scientist on DeepMind's AlphaFold team.

# **Publishers** Seek Pay For AI



# **'TIS A LIGHT FOR SORE EYES**

#### The Keep It Simple Lamp

"My Father not only reads newspapers and magazines but The first light source designed for lamps This advanced LED technology will

deliver up to 10 times more light

than the single bulb you are now

Its patented LED bulb array may

appear to be "upside down"-

but the 4 bulb spread of light is

using - for only 32 watts!

Continued from page B1 Microsoft about the use of its content in AI training, people familiar with the discussions said. A Reddit spokesman declined to comment.

Robert Thomson, chief executive of The Wall Street Journal parent News Corp, said at a recent investor conference that he has "started discussions with a certain party who shall remain nameless.

"Clearly, they are using proprietary content—there should be, obviously, some compensation for that," Mr. Thomson said.

At the heart of the debate is the question of whether AI companies have the legal right to scrape content off the internet and feed it into their training models. A legal provision called "fair use" allows for copyright material to be used without permission in certain circumstances.

In an interview, OpenAI CEO Sam Altman said, "We've done a lot with fair use," when it comes to ChatGPT. The tool was trained on two-year-old data. He also said OpenAI has struck deals for content, when warranted.

"We're willing to pay a lot for very high-quality data in certain domains," such as science, Mr. Altman said.

One concern for publishers is that AI tools could drain traffic and advertising dollars away from their sites. Microsoft's version of the technology includes links in the answers to users' questionsshowing the articles it drew upon to provide a recipe for chicken soup or suggest an itinerary for a trip to Greece, for example.

"On Bing Chat, I don't think people recognize this, but everything is clickable," Microsoft CEO Satya Nadella said in an interview, referring to the inherent value exchange in such links. Publishing executives say it is an open question how many users will actually click on those links and travel

Journalists shown Google's artificial intelligence products.

to their sites.

Microsoft has been making direct payments to publishers for many years in the form of content-licensing deals for its MSN platform. Some publishing executives say those deals don't cover AI products. Microsoft declined to comment.

In early tests on Tuesday. Google's Bard often served up answers to queries without providing links to the underlying news sources.

Asked to provide a summary of the biggest news in the New York Times, Bard responded with a list of items, including news of the Biden

Some litigation has begun to test the limits of webscraping.

administration's decision to send military aid to Ukraine and a new round of sanctions against Russia. It ended the response, "For more on these and other stories, please visit the NYT website," without providing links or citations for the answer.

Sissie Hsiao, a vice president in charge of Google Assistant, said the company "is deeply committed in supporting a healthy and vibrant content ecosystem" and "will be welcoming conversations with stakeholders."

She said when AI tools are integrated into search the company will give priority to sending valuable traffic to content creators.

Google already has struck

deals to pay some publishers, including News Corp, for using their content in a product called Google News Showcase, which has vet to launch in the U.S.

The emerging tensions over AI tools add another dimension to the already-fraught relations between big tech companies and the publishing world. Publishers have relied on tech companies such as Google and Meta Platforms Inc.'s Facebook to help their content reach a wide audience. but also have increasingly pushed those companies to pay for using it.

Legislation that would let U.S. publishers negotiate collectively, without running afoul of antitrust regulations, circulated in the last session of Congress and is expected to be reintroduced soon, according to people familiar with the situation. That legislation is intended to cover commercial arrangements including for AI tools, one of the people said.

Some litigation has begun to test the limits of web-scraping to train AI when it comes to images and code, but so far there hasn't been a major case involving text. Tech companies generally argue that their actions are covered by fair use. In February, Getty Images sued the AI art company Stability AI in Delaware, alleging that it had infringed on Getty's copyrights. Stability AI said it doesn't comment on pending litigation.

Last week, the U.S. Copyright Office said it launched an initiative to study issues raised by AI, including "the use of copyrighted materials in AI training."

also what he calls litrature (books 'ya can hold in yer hand). The KIS lamp helped him to reduce eyestrain. Every day he enjoys reading the ENTIRE newspaper just as he did years ago."

– George Mc. Lake George, New York

MyLight has combined classic lamp design with a revolutionary light source. The combination delivers exponentially more light for reading or any

KIS<sup>™</sup>Lamp Underlighting and LampLight is overrated light source

In your lamps, the new "retrofit" CFL and LED bulbs do not produce the same amount of task light as ordinary bulbs. Just as we've gotten **US PATENTS** older and our eyesight has declined, OUR LIGHT HAS FAILED US.

YOU NEED:

other task.

• A quantity and quality of light geared to

better contrast Also includes handheld LED dimmer and switch for brightness control – perfect for adjusting ambient and clarity for older eyes. light

 Less glare in your field of vision

#### Only 32 WATTS

Compare to any lamp at any price.

SPECIAL OFFER includes KIS lamp, (5) bulbs,

lampshade and LED Dimmer. Easy assembly.

Lamp column simply screws into the base.

The Lamplight light

The

10,378,698

10,422,488

Table lamp height

adjusts from

27" to 32"

in Satin Brass or

Brushed Silver

Table lamps available

source focuses light exactly where it's needed

actually down and out, perfect Swing arm for task light. extends 6'

Floor Lamps available in Satin Brass (SHOWN), Gun Meta Bronze and **Bushed Silver** 

15" Lamplight

#### Seeing is Believing

The patented KIS lamp and Lamplight projects a massive amount of illumination on your reading material. Reader bulbs and all components are <u>unconditionally guaranteed</u> for 3 years.

Take advantage of our 30 day risk free trial and see what you've been missing.



# Floor Lamps \$425 Now Only \$375

Table Lamps \$375 Now Only \$325

**OFFER EXPIRES** MARCH 31, 2023

#### **FREE SHIPPING**

Use coupon code TF29

#### Visit us online at morelamplight.com or call 1-888-211-6305





# THE BRAVEST HEARTS DESERVE THE HELP OF THE BRIGHTEST MINDS.



The Quality of Life Plus Program brings together America's brightest students at leading universities to create life-transforming, assistive technology for our country's wounded heroes.

Please help support us so we can continue to help them. **www.qlplus.org** 



#### THE WALL STREET JOURNAL.

### **MARKETS DIGEST**

#### EQUITIES

65-day moving average

\_\_\_\_\_\_

Feb.

Jan.

#### **Dow Jones Industrial Average**

**32030.11 \$**530.49, or 1.63% High, low, open and close for each trading day of the past three months.

Current divisor 0.15172752595384 34400 33800 33200 32600 Session high DOWN UP Session open Close 32000 Close Open 65-day moving average Session low 31400

Bars measure the point change from session's open

\_\_\_\_\_\_

Mar. Feb. Dec. Jan.

\*Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.; †Based on Nasdag-100 Index

#### Major U.S. Stock-Market Indexes

			1				50 M/		0/	also a
-	High	Low	Latest Close	Net chg	% chg	High	52-Week — Low	% chg		chg 3-yr.ann
Dow Jones										
Industrial Average	32761.89	32020.46	32030.11	-530.49	-1.63	35294.19	28725.51	-6.8	-3.4	18.7
Transportation Avg	14079.98	13706.16	13709.71	-284.26	-2.03	16718.54	11999.40	-15.4	2.4	26.1
Utility Average	912.14	890.58	890.74	-18.36	-2.02	1071.75	838.99	-10.2	-7.9	11.3
Total Stock Market	40432.79	39376.76	39381.56	-719.16	-1.79	46941.20	36056.21	-12.7	2.2	19.5
Barron's 400	928.39	903.33	903.36	-21.69	-2.34	1051.05	825.73	-11.4	-1.9	24.4
Nasdaq Stock Marke	et									
Nasdaq Composite	12013.99	11666.85	11669.96	-190.15	-1.60	14619.64	10213.29	-16.2	11.5	19.3
Nasdaq-100	12943.62	12563.78	12567.15	-174.29	-1.37	15239.32	10679.34	-13.0	14.9	21.6
S&P										
500 Index	4039.49	3936.17	3936.97	-65.90	-1.65	4631.60	3577.03	-11.7	2.5	19.5
MidCap 400	2465.55	2396.39	2397.20	-60.92	-2.48	2773.72	2200.75	-10.0	-1.4	24.0
SmallCap 600	1171.94	1137.65	1137.89	-30.21	-2.59	1357.33	1064.45	-13.3	-1.7	23.5
Other Indexes										
Russell 2000	1779.72	1726.61	1727.36	-50.38	-2.83	2133.10	1649.84	-15.8	-1.9	19.4
NYSE Composite	15076.13	14740.19	14741.08	-244.86	-1.63	17014.76	13472.18	-11.0	-2.9	17.3
Value Line	547.94	533.57	533.70	-11.91	-2.18	653.15	491.56	-15.4	-0.5	19.4
NYSE Arca Biotech	5186.47	5076.15	5076.25	-110.16	-2.12	5644.50	4208.43	1.3	-3.9	8.5
NYSE Arca Pharma	816.10	804.80	804.86	-9.20	-1.13	887.27	737.84	-2.2	-7.3	16.0
KBW Bank	83.25	79.40	79.43	-3.92	-4.70	131.34	78.80	-38.2	-21.2	9.5
PHLX <sup>§</sup> Gold/Silver	125.56	121.48	123.26	1.76	1.44	167.76	91.40	-23.2	2.0	20.7
PHLX <sup>§</sup> Oil Service	77.43	74.82	74.85	-2.29	-2.96	93.94	56.08	-4.8	-10.7	48.5
PHLX <sup>§</sup> Semiconductor	3201.60	3089.86	3091.71	-25.18	-0.81	3625.58	2162.32	-8.0	22.1	33.5
Cboe Volatility	22.38	19.94	22.26	0.88	4.12	34.75	17.87	-5.6	2.7	-30.4

§<sub>Nasdaq</sub> PHLX

#### International Stock Indexes

Region/Country	y Index	Close	Net chg	— Latest — % chg	YTD % chg
World	MSCIACWI	622.97	-4.66	-0.74	2.9
	MSCI ACWI ex-USA	290.30	2.09	0.72	3.2
	MSCI World	2686.13	-25.71	-0.95	3.2
	MSCI Emerging Markets		9.03	0.95	0.5
Americas	MSCI AC Americas	1493.49	-24.64	-1.62	2.5
Canada	S&P/TSX Comp	19532.78	-122.14	-0.62	0.8
Latin Amer.	<b>MSCI EM Latin America</b>	2088.97	-10.88	-0.52	-1.8
Brazil	BOVESPA	100220.63	-777.50	-0.77	-8.7
Chile	S&P IPSA	3138.72	-16.66	-0.53	-1.1
Mexico	S&P/BMV IPC	52550.40	-102.25	-0.19	8.4
EMEA	STOXX Europe 600	447.16	0.69	0.15	5.2
Eurozone	Euro STOXX	446.11	0.32	0.07	8.8
Belgium	Bel-20	3666.07	-19.17	-0.52	-0.9
Denmark	OMX Copenhagen 20	1933.59	15.99	0.83	5.4
France	CAC 40	7131.12	18.21	0.26	10.2
Germany	DAX	15216.19	20.85	0.14	9.3
Israel	Tel Aviv	1748.55	3.88	0.22	-2.7
Italy	FTSE MIB	26523.33	-31.00	-0.12	11.9
Netherlands	AEX	741.80	5.62	0.76	7.7
Norway	Oslo Bors All-Share	1335.18	1.90	0.14	-2.0
South Africa	FTSE/JSE All-Share	75243.44	972.38	1.31	3.0
Spain	IBEX 35	9009.30	-40.10	-0.44	9.5
Sweden	OMX Stockholm	812.25	-3.55	-0.44	3.9
	Swiss Market	10782.28	-10.30	-0.10	0.5
Turkey	BIST 100	5001.06	94.43	1.92	-9.2
U.K.	FTSE 100	<b>7566.</b> 84	30.62	0.41	1.5
U.K.	FTSE 250	18757.79	-21.31	-0.11	-0.5
Asia-Pacific	<b>MSCI AC Asia Pacific</b>	158.25	2.07	1.33	1.6
Australia	S&P/ASX 200	7015.60	60.21	0.87	-0.3
China	Shanghai Composite	3265.75	10.10	0.31	5.7
Hong Kong	Hang Seng	19591.43	332.67	1.73	-1.0
India	S&P BSE Sensex	58214.59	139.91	0.24	-4.3
Japan	NIKKEI 225	27466.61	520.94	1.93	
Singapore	Straits Times	3220.98	47.05	1.48	-0.9
South Korea	KOSPI	2416.96	28.61	1.20	8.1
Taiwan	TAIEX	15760.46	247.01	1.59	11.5
Thailand	SET	1585.08	7.90	0.50	-5.0

### S&P 500 Index

Last Year ago

17.04

2.19

19.08

18.00

2.05

30800

Dec.

Trailing P/E ratio 21.27

All-time high 36799.65, 01/04/22

P/E estimate \*

Dividend vield

High, low, open and close for each trading day of the past three months.

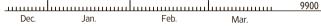
**3936.97 •**65.90, or 1.65%

Last Year ago Trailing P/E ratio \* 17.62 24.53 P/E estimate \* 17.93 16.52 1.42 Dividend vield \* 1.73 All-time high 4796.56, 01/03/22

#### Nasdaq Composite Index

Last Year ago **11669.96 V** 190.15, or 1.60% Trailing P/E ratio \*† 25.37 32.75 P/E estimate \*† 24.72 24.97 High, low, open and close for each Dividend yield \*\* 0.89 0.71 trading day of the past three months. All-time high: 16057.44, 11/19/21





#### Late Trading

and Nasdaq issues from 4 p.m. to 6 p.m. ET as reported by electronic trading services, securities dealers and regional exchanges. Minimum share price of \$2 and minimum after-hours volume of 50,000 shares.

		Volume					
Company	Symbol	(000)	Last	Net chg	After Hour: % chg	s High	Low
SPDR S&P 500 ETF Trust	SPY	10,115.8	392.44	0.33	0.08	392.99	391.87
ProSh UltraPro Shrt QQC	SQQQ	7,905.0	33.83	-0.03	-0.09	34.05	33.72
Apple	AAPL	7,311.5	158.00	0.17	0.11	158.27	157.57
Invesco QQQ Trust I	QQQ	3,897.0	306.23	0.11	0.04	313.09	292.80
Ford Motor	F	3,031.5	11.49	0.01	0.09	11.89	11.45
Fisker	FSR	2,932.3	5.79	0.04	0.70	5.86	5.74
First Republic Bank	FRC	2,917.8	13.54	0.21	1.58	13.86	13.20
ProShares UltraPro QQC	TQQQ	2,799.2	24.71	0.03	0.12	24.78	24.54

Steelcase	SCS	168.9	7.80	0.62	8.64	8.32	7.01
Old Natl Bancorp	ONB	57.7	15.19	0.73	5.05	15.19	14.40
Mirati Therapeutics	MRTX	118.7	41.51	1.97	4 <b>.9</b> 8	41.51	39.00
<b>Hudson Pacific Properties</b>	HPP	73.0	6.33	0.30	4 <b>.9</b> 8	6.34	6.03
Vir Biotechnology	VIR	82.9	23.45	1.11	4.97	23.45	22.00
And losers							
Coinbase Global	COIN	1,007.8	70.34	-6.80	-8.82	77.85	68.70
SeaWorld Entertainment	SEAS	67.4	55.33	-2.15	-3.74	59.70	55.33
Oscar Health	OSCR	70.8	3.41	-0.11	-3.13	3.52	3.41
Tripadvisor	TRIP	50.4	18.30	-0.59	-3.12	19.00	18.30
Crown Holdings	CCK	115.0	75.74	-2.17	-2.79	77.91	75.74

#### **Trading Diary**

Volume, Advancers, Decliners NYSE NYSE Amer. **Total volume**\* 999,211,770 9,851,666 Adv. volume\* 101.874.758 3.001.135 Decl. volume\* 889,165,952 6,612,918 **Issues traded** 3,131 309 Advances 768 131 Declines 2,249 160 114 18 Unchanged New highs 28 1 New lows 102 18 Closing Arms 2.06 1.33 Block trades 4,730 126 Nasdaq NYSE Arca Total volume\*4,981,596,179 400,595,733 Adv. volume\* 976,225,490 158,035,126 Decl. volume\*3,983,755,897 242,283,739 **Issues traded** 4,697 1,746 1,282 552 Advances Declines 3,229 1,184 Unchanged 186 10 49 7 New highs New lows 189 20 Closing Arms<sup>†</sup> 1.62 0.69 Block trades\* 33,727 1,590 \* Primary market NYSE, NYSE American NYSE Arca only.

'(TRIN) A comparison of the number of advancing and declining issues with the volume of shares rising and falling. An Arms of less than 1 indicates buying demand; above 1 indicates selling pressure.

#### Percentage Gainers...

Sources: FactSet; Dow Jones Market Data

		— La		52-Week			
Company	Symbol	Close	Net chg	% chg	High	Low	% chg
Zura Bio	ZURA	30.00	22.76	314.36	37.00	6.85	203.3
Maxpro Cap Acqn Cl A	JMAC	13.88	5.03	<b>56.</b> 84	18.00	7.50	38.9
GameStop CI A	GME	23.87	6.22	35.24	49.85	15.41	-32.3
89bio	ETNB	13.68	2.75	25.16	15.79	2.00	247.2
Cardio Diagnostics Hldgs	CDIO	4.89	0.76	18.40	10.25	0.80	-50.5
Pharvaris	PHVS	7.94	1.23	18.33	27.50	1.77	-57.1
Starbox Group Holdings	STBX	2.92	0.45	18.22	46.21	1.37	
Immuneering	IMRX	10.24	1.48	16.89	16.17	3.70	34.0
Semler Scientific	SMLR	25.37	3.46	15.79	54.07	19.12	-49.9
Travelzoo	TZ00	5.27	0.69	15.07	8.30	4.10	-14.2
Sol-Gel Technologies	SLGL	3.99	0.51	14.69	7.95	3.24	-44.5
Aptorum Group	APM	2.68	0.33	14.04	17.80	2.31	-80.4
Molson Coors A	TAP.A	73.54	8.54	13.14	97.70	52.30	29.0
Green Giant	GGE	2.47	0.28	12.79	3.77	0.66	-17.7
Intellicheck	IDN	2.30	0.25	12.20	3.37	1.33	-10.9

#### **Percentage Losers**

		— La	itest Sess	sion —	52-Week			
Company	Symbol	Close	Net chg	% chg	High	Low	% chg	
Color Star Technology	ADD	1.55	-0.89	<b>-36.</b> 48	10.28	0.65	-84.2	
Meihua Intl Medical Techs	MHUA	8.20	-4.15	-33.60	45.49	2.60	4.5	
Edible Garden	EDBL	2.79	-1.30	-31.78	90.00	2.56		
Luokung Technology	LKCO	2.01	-0.93	-31.70	18.60	2.00	-89.1	
PaxMedica	PXMD	1.76	-0.77	-30.43	10.48	1.36		
Mangoceuticals	MGRX	3.05	-0.95	-23.75	4.37	2.96		
Via Renewables	VIA	21.03	-5.52	-20.79	45.45	20.76	-46.8	
Cipher Mining	CIFR	2.05	-0.45	-18.00	3.94	0.38	-44.0	
Petco Health Wellness	WOOF	8.39	-1.78	-17.50	22.75	8.37	-56.9	
PacWest Bancorp	PACW	10.12	-2.09	-17.12	46.50	5.00	-77.1	
iBio	IBIO	2.05	-0.41	-16.67	16.51	0.36	-81.8	
Direxion Rg Banks BI 3X	DPST	7.61	-1.52	-16.65	50.12	6.96	-82.9	
Biomerica	BMRA	1.86	-0.37	-16.59	5.25	1.84	-52.3	
Nutriband	NTRB	2.90	-0.57	-16.31	6.98	2.41	-10.5	
First Republic Bank	FRC	13.33	-2.44	-15.47	173.99	11.52	-91.9	

Mar.

 ${\sf Most-active} \ {\sf and} \ {\sf biggest} \ {\sf movers} \ {\sf among} \ {\sf NYSE}, {\sf NYSE} \ {\sf Arca}, {\sf NYSE} \ {\sf Amer}.$ 

Most-active issues in late trading

Percentage gainers...

#### **Most Active Stocks**

Company	Symbol	Volume (000)	% chg from <del>-</del> 65-day avg	Latest S Close	ession % chg	52-W High	eek Low
Mullen Automotive	MULN	406,468	82.8	0.12	-16.81	3.49	0.12
ProShares UltraPro QQQ	TQQQ	236,059	25.4	24.68	-4.08	62.96	16.10
ProSh UltraPro Shrt QQQ	SQQQ	177,712	32.6	33.86	4.07	69.55	30.98
Tesla	TSLA	149,282	-17.0	191.15	-3.25	384.29	101.81
First Republic Bank	FRC	132,501	579.9	13.33	-15.47	173.99	11.52
SPDR S&P 500 ETF Trust	SPY	110,682	22.7	392.11	-1.70	462.07	348.11
Advanced Micro Devices	AMD	110,542	85.5	97.58	1.72	125.67	54.57
Exela Technologies	XELA	108,988	-28.7	0.04	-7.83	9.90	0.04
Credit Suisse Group ADR	CS	99,951	139.4	0.92	-5.48	8.29	0.90
Direxion Dly SCOND 3 BL	SOXL	93,825	3.4	16.24	-2.58	46.00	6.21
* Volumes of 100,000 shares or n	nore are ro	ounded to t	he nearest t	housand			

#### **NOTICE TO READERS**

Effective Thursday, March 23, 2023, the WSJ U.S. Prime rate will be 8.00%, the Federal Funds Discount Rate will be 5.00% and the Federal Funds Target Rate will be 4.75% to 5.00%.

Sources: FactSet; Dow Jones Market Data

#### **CREDIT MARKETS**

7.00%

3.73%

4.50%

5.00%

5.63%

**5.63**%

3-yr chg

1

888-264-6116

800-718-2265

302-226-9800

800-445-5725

573-778-1800

#### **Consumer Rates and Returns to Investor**

Selected rates

Bankrate.com avg<sup>†</sup>:

Chambersburg, PA

St. Petersburg, FL

Rehoboth Beach. DE

Hills Bank and Trust Company

**County Bank** 

Southern Bank

Jonesboro, AR

Hills, IA

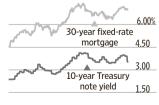
**Raymond James Bank** 

30-year mortgage, Rate

**Farmers and Merchants Trust** 

#### **U.S. consumer rates**

A consumer rate against its benchmark over the past year



AMJJASONDJFM

2022	2023	Jones	DOLO, AR					275-	/
		-Yield/Rate(%)-	<u> </u>	Nee	k Ra	ange	(%)		
Interest rate		Last ( )Week ago	Low 0	2	4	6	8	High	1

Interest rate	Last 🌘	) Week ago	Low 0	2	4 6	`8´ Hi	gh	(pct pts)
Federal-funds rate target	4.50-4.75	4.50-4.75	0.25	:		4.	75	4.50
Prime rate*	7.75	7.75	3.50			<b>•</b> 7.	75	4.50
Libor, 3-month	5.08	4.91	0.96	÷		5.	15	3.88
Money market, annual yield	0.48	0.48	0.07			0.	48	0.12
Five-year CD, annual yield	2.78	2.78	0.49			2.	79	1.76
30-year mortgage, fixed <sup>†</sup>	7.00	7.01	4.56			7.	41	3.07
15-year mortgage, fixed <sup>†</sup>	6.21	6.29	3.81			6.	53	2.83
Jumbo mortgages, \$726,200-plus	7.10	7.05	4.59			7.	44	3.10
Five-year adj mortgage (ARM) <sup>†</sup>	5.70	5.73	3.16		i i	5.	82	2.14
New-car loan, 48-month	6.76	6.75	3.82			6.	77	2.36
Bankrate.com rates based on survey of ov	rer 4,800 on	line banks. *	Base rate p	poste	d by 70% (	of the na	ntior	n's largest
banks.† Excludes closing costs.		Sources: F	actSet: Dov	w Jon	es Marke	t Data;	Banl	krate.com

Sources: FactSet; Dow Jones Market Data; Bankrate.com

**Treasury yield curve** Yield to maturity of current bills, notes and bonds

#### Forex Race

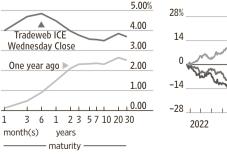
Yen, euro vs. dollar; dollar vs. major U.S. trading partners

WSJ Dollar Index

Euro

2023

Yen



Sources: Tradeweb ICE U.S. Treasury Close; Tullett Prebon; Dow Jones Market Data

#### **Corporate Borrowing Rates and Yields**

Bond total return index	Close	– Yield Last	l (%) — Week ago	— 52-W High	/eek — Low	Total Re 52-wk	turn (%) 3-yr
U.S. Treasury, Bloomberg	2156.400	3.770	3.780	4.560	2.320	-4.048	-3.615
U.S. Treasury Long, Bloomber	rg <b>3355.650</b>	3.760	3.760	4.570	2.540	-14.046	-9.951
Aggregate, Bloomberg	2012.190	4.400	4.410	5.210	2.850	-4.240	-1.724
Fixed-Rate MBS, Bloomber	g 2000.580	4.590	4.470	5.380	2.910	-4.163	-2.473
High Yield 100, ICE BofA	3192.682	8 <b>.0</b> 47	8.304	8.753	5.329	-3.195	7.528
Muni Master, ICE BofA	566.815	3.094	3.127	3.936	2.181	-0.567	2.716
EMBI Global, J.P. Morgan	778.127	7.797	7.823	9.159	5.919	-5.768	1.495
S	ources: J.P. N	/lorgan; Bl	loomberg f	Fixed Inco	me Indio	es; ICE Dat	a Services

#### Volume Movers Ranked by change from 65-day average\*

Company	Symbol	Volume (000)	% chg from 65-day avg	Latest S Close	Session % chg	52-W High	eek Low
GS Future Consumer Eq	GBUY	1,351	14885	25.80	-0.83	32.49	21.49
Zura Bio	ZURA	4,204	14588	30.00	314.36	37.00	6.85
AdvisorShares Q Dyn Grw	QPX	736	14551	24.07	-1.01	28.51	20.24
ClearBridge All Cap Grw	CACG	1,671	5723	36.10	-1.45	46.58	32.28
FT Nasdaq Semiconductor	FTXL	957	4655	61.80	-1.17	74.04	44.95
Martin Currie Sust Intl	MCSE	2,049	4625	13.84	-0.18	14.70	11.25
Colombier Acqn Cl A	CLBR	3,200	4250	10.14	0.15	10.20	9.63
Maxpro Cap Acqn Cl A	JMAC	1,009	3802	13.88	56.84	18.00	7.50
10X Cap Venture II CI A	VCXA	557	3559	10.14		10.14	8.91
89bio	ETNB	30,713	2436	13.68	25.16	15.79	2.00

\* Common stocks priced at \$2 a share or more with an average volume over 65 trading days of at least 5,000 shares thas traded fewer than 65 days

#### **CURRENCIES & COMMODITIES**

#### Currencies

U.S.-dollar foreign-exchange rates in late New York trading

	-	-			-		
			US\$ vs,				US\$ vs,
		Ved —	YTD chg			Ved —	YTD chg
Country/currency	in US\$	per US\$	(%)	Country/currency	in US\$	per US\$	(%)
Americas				Vietnam dong	.00004251	23525	-0.4
Argentina peso	.00492	205.3729	16.2	Europe			
Brazil real	.1909	5.2385	-0.9	Czech Rep. koruna	.04579	21.837	-3.2
Canada dollar	.7283	1.3732	1.3	Denmark krone	.1458	6.8592	-1.3
Chile peso	.001233	810.75	-4.4	Euro area euro	1.0857	.9211	-1.4
<b>Colombia</b> peso	.000210	4769.60	-1.63	Hungary forint	.002804	356.68	-4.5
Ecuador US dollar	1	1	unch	Iceland krona	.007242	138.08	-2.5
Mexico peso	.0537	18.6110	-4.5	Norway krone	.0956	10.4638	6.7
Uruguay peso	.02566	38.9650	-2.5	Poland zloty	.2316	4.3180	-1.4
Asia-Pacific				Russia ruble	.01298	77.045	4.5
Australiadollar	.6686	1.4957	1.9	Sweden krona	.0969	10.3150	-1.2
China vuan	.1453	6.8807	-0.3	Switzerland franc	1.0899	.9175	-0.8
Hong Kong dollar	.1274	7.8492	0.5	Turkey lira	.0525	19.0434	1.9
India rupee	.01212	82.515	-0.3	<b>Ukraine</b> hryvnia		36.9500	0.3
Indonesia rupiah	.0000656	15253		<b>UK</b> pound	1.2270	.8150	-1.4
Japan yen	.007608	131.44	0.2	Middle East/Afri	ca		
Kazakhstan tenge	.002152	464.67	0.4	Bahrain dinar	2.6515	.3772	0.03
Macau pataca	.1236	8.0890	0.5	Eavpt pound	.0324	30.9007	24.8
Malaysia ringgit	.2245	4.4550	1.1	Israel shekel	.2759	3.6248	2.8
New Zealand dollar	.6223	1.6069	2.0	Kuwait dinar	3.2651	.3063	0.1
Pakistan rupee	.00353	283.020	24.8	Oman sul rial	2.5974	.3850	
Philippines peso	.0184	54.357	-2.4	Qatar rial	.2735	3.656	-0.3
Singapore dollar	.7514	1.3308	-0.8	Saudi Arabia riyal	.2662	3.7563	-0.05
South Korea won	.0007700	1298.70	2.9	South Africa rand	.0547	18.2776	7.3
Sri Lanka rupee	.0031006	322.52	-12.2				
Taiwan dollar	.03291	30.386	-0.8		Close Net C	Thg % Chg \	/TD%Chg
Thailand baht	.02920	34.250	-1.1	WSJ Dollar Index	96.26 -0.	47-0.49 ·	-0.31
			_				

Sources: Tullett Prebon, Dow Jones Market Data

#### Commodities

	Close	Wedn Net chg		High	52-Week Low	% Chg	YTD % chg
DJ Commodity	974.81	0.08	0.01	1251.61	967.84	-20.47	-7.05
Refinitiv/CC CRB Index	258.65	0.97	0.38	329.59	254.03	-15.56	-6.88
Crude oil, \$ per barrel	70.90	1.23	1.77	122.11	66.74	-38.31	-11.66
Natural gas, \$/MMBtu	2.171	-0.177	-7.54	9.680	2.073	-58.51	-51.49
Gold, \$ per troy oz.	1946.80	8.80	0.45	1982.90	1623.30	0.53	6.98

#### **B8** | Thursday, March 23, 2023

#### THE WALL STREET JOURNAL.

wsj.com/market-data/commodities

### **COMMODITIES**

Open

interest

1,802

1,932

8,198

5.226 31.0 1,229,828

990

.34 357,626

.28 242,206

.43 92,486

.44 47,108

1.95 .15

10.0

#### Wednesday, March 22, 2023

**Cash Prices** 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.

	Wednesday	\	Vednesday		Wednesda
Energy		Iron Ore, 62% Fe CFR China-s	121.4	Wheat,Spring14%-pro Mnpls-u	10.2375
Lileigy		Shredded Scrap, US Midwest-s,m	n.a.	Wheat,No.2 soft red,St.Louis-u	6.6100
Coal,C.Aplc.,12500Btu,1.2SO2-r,w	88.800	Steel, HRC USA, FOB Midwest Mill-s	1160	Wheat - Hard - KC (USDA) \$ per bu-u	8.6125
Coal,PwdrRvrBsn,8800Btu,0.8SO2-r,v	v 14.950	Battery/EV metals		Wheat,No.1soft white,Portld,OR-u	7.5750
Metals		BMI Lithium Carbonate, EXW China, =99.2%-v,w BMI Lithium Hydroxide. EXW China, =56.5% -v.w	46975 57700	Food	
Gold, per troy oz		BMI Cobalt sulphate, EXW China, >20.5% -v,m	5760	Beef,carcass equiv. index	
Engelhard industrial	1941.00	BMI Nickel Sulphate, EXW China, >22%-v,m	5616	choice 1-3,600-900 lbsu	258.02
Handy & Harman base	1949.35	BMI Flake Graphite, FOB China, -100 Mesh, 94-95% -v,m	768	select 1-3,600-900 lbsu	245.14
Handy & Harman fabricated	2163.78	Fibers and Textiles		Broilers, National comp wtd. avgu,w	1.3014
LBMA Gold Price AM	*1965.95	Fibers and Textiles		Butter,AA Chicago-d Cheddar cheese.bbl.Chicago-d	2.3825 194.00
LBMA Gold Price PM	*1952.50	Burlap,10-oz,40-inch NY yd-n,w	0.7175	Cheddar cheese,bbi,Chicago-d Cheddar cheese,blk,Chicago-d	201.50
Krugerrand, wholesale-e	2034.77	Cotton,11/16 std lw-mdMphs-u	0.7728	Milk,Nonfat dry,Chicago lbd	115.00
Maple Leaf-e	2083.45	Cotlook 'A' Index-t	*91.80	Coffee.Brazilian.Comp-v	1.9426
American Eagle-e	2083.45	Hides, hvy native steers piece fob-u	n.a.	Coffee,Colombian, NY-y	2.3485
Mexican peso-e	2512.02	Wool,64s,staple,Terr del-u,w	n.a.	Eggs, large white, Chicago-u	3.2850
Austria crown-e	1911.60	Grains and Feeds		Flour.hard winter KC-p	21.80
Austria phil-e	2044.51	Grains and Feeds		Hams.17-20 lbs.Mid-US fob-u	0.82
Silver, troy oz.		Barley,top-quality Mnpls-u	n.a.	Hogs, Iowa-So. Minnesota-u	77.45
Engelhard industrial	22.4000	Bran,wheat middlings, KC-u,w	165	Pork bellies,12-14 lb MidUS-u	1.2995
Handy & Harman base	22.6330	Corn,No. 2 yellow,Cent IL-bp,u	6.3200	Pork loins,13-19 lb MidUS-u	1.0786
Handy & Harman fabricated	28.2910	Corn gluten feed,Midwest-u,w	204.9	Steers, TexOkla. Choice-u	n.a.
LBMA spot price	*£18.3400	Corn gluten meal,Midwest-u,w	644.4	Steers,feeder,Okla. City-u,w	218.50
(U.S.\$ equivalent)	*22.4650	Cottonseed meal-u,w	393	Fats and Oils	
Coins,wholesale \$1,000 face-a	20491	Hominy feed,Cent IL-u,w	215		
Other metals		Meat-bonemeal,50% pro Mnpls-u,w	430	Degummed corn oil, crude wtd. avgu,w	
LBMA Platinum Price PM	*983.0	Oats,No.2 milling,Mnpls-u	4.0750	Grease, choice white, Chicago-h	0.5250
Platinum,Engelhard industrial	1010.0	Rice, Long Grain Milled, No. 2 AR-u,w	37.00	Lard,Chicago-u	n.a.
Palladium,Engelhard industrial	1445.0	Sorghum, (Milo) No.2 Gulf-u	n.a.	Soybean oil,crude;Centl IL-u,w	0.5971
Aluminum, LME, \$ per metric ton	*2235.0	SoybeanMeal,Cent IL,rail,ton48%-u,w	478.00	Tallow,bleach;Chicago-h	0.5475
Copper,Comex spot	4.0685	Soybeans,No.1 yllw IL-bp,u	14.3400	Tallow,edible,Chicago-u	n.a.

KEY TO CODES: A=ask; B=bid; BP=country elevator bids to producers; C=corrected; D=CME; E=Manfra,Tordella & Brookes; H=American Commodities Brokerage Co; K=bi-weekly; M=monthly; N=nominal; n.a.=not quoted or not available; P=Sosland Publishing; R=SNL Energy; S=Platts-TSI; T=Cotlook Limited; U=USDA; V=Benchmark Mineral Intelligence; W=weekly; Y=International Coffee Organization; Z=not quoted. \*Data as of 3/21

Source: Dow Jones Market Data

Bonds | wsj.com/market-data/bonds/benchmarks

#### **Tracking Bond Benchmarks**

Return on investment and spreads over Treasurys and/or yields paid to investors compared with 52-week highs and lows for different types of bonds Total Total

l otal return close	YTD total return (%)	Index	— Yield (% Latest Low		l otal return close	YTD total return (%)	Index	— Yi Latest		
Broad M	arket Bloombe	rg Fixed Income Indices	s		Mortgag	<b>ge-Backed</b> Blo	omberg Fixed Income In	dices		
2012.19	3.1	U.S. Aggregate	<b>4.400</b> 2.850	5.210	2000.58	3.2	Mortgage-Backed	4.590	2.910	5.380
U.S. Corp	orate Indexes	Bloomberg Fixed Incor	me Indices		1971.84	3.4	Ginnie Mae (GNMA)	4.610	2.890	5.370
2960.38	3.1	U.S. Corporate	<b>5.190</b> 3.600	6.130	1177.66	3.2	Fannie mae (FNMA)	4.580	2.920	5.390
2849.11	2.3	Intermediate	<b>5.110</b> 3.310	6.050	1800.08	3.0	Freddie Mac (FHLMC)	4.600	2.910	5.370
3974.14	4.7	Long term	<b>5.340</b> 4.020	6.370	566.82	1.9	Muni Master	3.094	2.181	3.936
577.65	3.5	Double-A-rated	<b>4.510</b> 3.110	5.320	406.22	2.0	7-12 year	2.737	2.211	3.794
785.31	3.1	Triple-B-rated	<b>5.480</b> 3.870	6.440	453.18	2.3	12-22 year	3.603	2.480	4.428
High Yie	ld Bonds ICE Bo	ofA			423.45	2.7	22-plus year	4.344	2.972	5.131
473.75	2.2	High Yield Constrained	8.831 5.940	9.623	Global G	overnment J.	P. Morgan†			
436.82	3.9	Triple-C-rated	<b>15.233</b> 9.837	16.916	535.98	2.8	Global Government	2.830	1.600	3.250
3192.68	2.6	High Yield 100	<b>8.047</b> 5.329	8.753	794.60	4.0	Canada	2.880	2.330	3.780
413.78	2.0	Global High Yield Constrained	8.918 6.201	9.945	340.16	2.1	EMU§	3.112	1.103	3.490
315.37	2.1	Europe High Yield Constrained	<b>7.600</b> 4.313	8.508	630.52	1.7	France	2.970	0.980	3.310
U.S Ager	ncy Bloomberg I	Fixed Income Indices			451.35	1.8	Germany	2.360	0.400	2.760
1726.85	2.1	U.S Agency	<b>4.270</b> 2.370	5.080	283.63	2.1	Japan	0.800	0.520	1.060
1526.02	1.9	10-20 years	<b>4.250</b> 2.310	5.100	487.57	1.7	Netherlands	2.660	0.640	3.000
3352.82	5.0	20-plus years	<b>4.480</b> 3.000	5.240	798.22	2.0	U.K.	3.710	1.610	4.690
2601.96	2.7	Yankee	<b>4.930</b> 3.290	5.840	778.13	1.3	Emerging Markets **	7.797	5.919	9.159
*Constrain ** EMBI Glo		dividual issuer concentrati	ons to 2%; the	e High Yie		-	nds <sup>†</sup> In local curren vices; Bloomberg Fixed Incor	,		

#### **Global Government Bonds: Mapping Yields**

Yields and spreads over or under U.S. Treasurys on benchmark two-year and 10-year government bonds in selected other countries; arrows indicate whether the yield rose(▲) or fell (▼) in the latest session

	Country/			Yield	(%) —			Spread Under/Over U.S. Tre	asurys, in basis	points
Coupon (%)	Maturity, in years	s Latest(●)-	10	1234	5 Previous	Month ago	Year ago	Latest	Prev	Year ago
4.625	<b>U.S.</b> 2	3.977 🔻		٠	4.175	4.697	2.152			
3.500	10	3.497 🔻		٠	3.603	3.922	2.375			
3.250	Australia 2	3.010 🔺		•	2.850	3.630	1.570	-97.5	-131.6	-60.4
1.750	10	3.376 🔺		•	3.204	3.888	2.718	-12.1	-40.5	33.3
0.000	France 2	2.841 🔺		•	2.713	3.035	-0.194	-114.4	-145.3	-236.8
2.000	10	2.846 🔺		•	2.808	2.997	0.969	-65.1	-80.2	-141.7
2.500	Germany 2	2.710 🔺		•	2.615	2.918	-0.218	-127.5	-155.2	-239.3
2.300	10	2.329 🔺		•	2.296	2.524	0.506	-116.8	-131.3	-188.0
2.500	Italy 2	3.114 🔺		٠	3.003	3.496	0.180	-87.1	-116.4	-199.4
4.400	10	4.179 🔺		٠	4.104	4.463	2.039	68.2	49.4	-34.6
0.005	Japan 2	-0.048 🔺	٠		-0.072	-0.026	-0.018	-403.3	-423.8	-219.3
0.500	10	0.334 🔺	•		0.247	0.503	0.219	-316.3	-336.3	-216.6
0.000	Spain 2	2.953 🔺		٠	2.837	3.201	0.095	-103.2	-133.0	-208.0
3.150	10	3.378 🔺		•	3.314	3.506	1.426	-11.9	-29.5	-96.0
0.625	<b>U.K.</b> 2	3.489 🔺		•	3.275	3.890	1.401	-49.6	-89.1	-77.3
4.250	10	3.451 🔺		•	3.369	3.604	1.712	-4.6	-24.0	-67.3

#### **Futures Contracts**

Corner	N		etroleum	Future	S	^
Conner	Open	Cor High I	ntract ni lo Low	Settle	Chg	Open interest
-ohhei	-High (c	<b>MX)</b> -25,00	0 lbs.; \$ per lb.		-	
March	4.0215	4.0810	4.0050	4.0685	0.0500	1,583
May Gold (C	4.0015	4.1075 roy oz.; \$ pe	3.9715	4.0445	0.0505	114,227
March	1948.00	1974.00	1948.00	1946.80	8.80	224
April	1943.50	1982.30	1936.50	1949.60	8.50	149,209
May	1954.20	1990.00	1945.30	1957.80	8.30	517
June	1959.70	1999.40	1953.70	1966.60	8.30	269,717
Aug	1978.50	2015.90	1971.30	1983.80	8.40	21,758
Oct Dolladi	1997.10	2031.40	1989.60 pz.; \$ per troy oz	2000.40	8.70	8,012
March	1360.00	1362.50	1360.00	<sup>2.</sup> 1433.30	64.00	1
June	1393.50	1461.50	1360.50	1445.70	62.60	11,400
			; \$ per troy oz.			,
March				985.10	10.30	ź
July	981.60	1006.10	980.90	988.10	6.70	40,784
			\$ per troy oz.	22 475	0.251	7/
March May	22.680 22.510	23.065 23.240	22.650 22.410	22.675 22.786	0.351 0.361	74 95,803
			NYM)-1,000 bł			90,001
May	69.48	71.31	68.89	<b>70.90</b>	1.23	375,559
June	69.57	71.43	69.03	71.02	1.25	238,484
July	69.52	71.37	69.00	70.97	1.25	190,844
Sept	69.08	70.85	68.60	70.42	1.16	126,881
Dec	68.23	69.79	67.74	69.36	1.02	216,650
Dec'24	65.77 bor I II S	66.67	65.37	66.30	0.52	80,576
	2.6903	D (NYM)-4 2.7769	42,000 gal.; \$ po 2.6601	er gal. <b>2.7403</b>	.0501	42,234
April May	2.6903	2.7769 2.6374	2.6601 2.5438	2.7403	.0501	42,234
			2.5458 ()-42,000 gal.;		.0554	12,900
April	2.5243	2.6018	2.5115	2.5932	.0543	43,607
May	2.4942	2.5685	2.4822	2.5600	.0537	86,912
Natura	Gas (NY	<b>M)</b> -10,000	) MMBtu.; \$ per	r MMBtu.		
April	2.322	2.327	2.152	2.171	177	66,043
May	2.456	2.462	2.287	2.307	178	348,924
July	2.929	2.937	2.782	2.801	156	108,087
Sept	2.920 3.004	2.944 3.029	2.787 2.878	2.805 2.898	147 139	97,901
Oct Jan'24	3.004	5.029 4.012	2.878	2.898	139	98,363 76,911
	2					,, .
		Agric	ulture Fut	ures		
Corn (C	PT)-5000	bu.; cents p	orbu			
May	631.25	636.00	623.25	633.50	3.50	490,922
July	612.50	614.50	604.00	611.75	.50	358,250
Oats (C		bu.; cents p				
May	356.50	367.00	355.50	362.50	3.50	2,883
July	352.00	361.00	352.00	357.25	3.00	786
			cents per bu.			
May	1467.75	1472.00	▼ 1443.25	1448.50	-18.50	292,694
July Sovbor	1448.50	1452.50	▼ 1422.50	1425.00	-23.50	172,952
May	460.70	462.30	one Cnorton			
	453.90		tons; \$ per ton. 451.00		-9.00	185 381
July		455.70	tons; \$ per ton. 451.00 445.60	451.60 446.90	-9.00 -7.40	
		455.70	451.00	451.60 446.90		
Soybea		455.70	451.00 445.60	451.60 446.90		115,234
May July	an Oil (CB 56.35 56.50	455.70 <b>T)</b> -60,000 56.44 56.53	451.00 445.60 Ibs.; cents per I ▼ 54.45 ▼ 54.56	<b>451.60</b> <b>446.90</b> b.	-7.40	115,234 159,706
Soybea May July Rough	an Oil (CB 56.35 56.50 Rice (CB1	455.70 ( <b>T)</b> -60,000 56.44 56.53 ( <b>T)</b> -2,000 cv	451.00 445.60 Ibs.; cents per l ▼ 54.45 ▼ 54.56 vt.; \$ per cwt.	<b>451.60</b> <b>446.90</b> b. <b>54.64</b> <b>54.75</b>	-7.40 -1.60 -1.60	115,234 159,706 115,326
Soybea May July Rough May	an Oil (CB 56.35 56.50 Rice (CBT 17.29	455.70 <b>T)</b> -60,000 56.44 56.53 <b>T)</b> -2,000 cv 17.34	451.00 445.60 Ibs.; cents per I ▼ 54.45 ▼ 54.56 vt.; \$ per cwt. 17.12	451.60 446.90 b. 54.64 54.75 17.26	-7.40 -1.60 -1.60 01	115,234 159,700 115,320 4,928
Soybea May July Rough May Sept	an Oil (CB 56.35 56.50 Rice (CB1 17.29 15.43	455.70 <b>T)</b> -60,000 56.44 56.53 <b>T)</b> -2,000 cv 17.34 15.49	451.00 445.60 Ibs; cents per I ▼ 54.45 ▼ 54.56 vt.; \$ per cwt. 17.12 15.24	<b>451.60</b> <b>446.90</b> b. <b>54.64</b> <b>54.75</b>	-7.40 -1.60 -1.60	115,234 159,700 115,320 4,928
Soybea May July Rough May Sept Wheat	an Oil (CB 56.35 56.50 Rice (CB1 17.29 15.43 (CBT)-5,0	455.70 <b>T)</b> -60,000 56.44 56.53 <b>T)</b> -2,000 cv 17.34 15.49 00 bu; cent	451.00 445.60 Ibs; cents per I ▼ 54.45 ▼ 54.56 vt.; \$ per cwt. 17.12 15.24 ts per bu.	451.60 446.90 b. 54.64 54.75 17.26 15.44	-7.40 -1.60 -1.60 01 .01	115,234 159,700 115,320 4,928 2,327
Soybea May July Rough May Sept Wheat May	an Oil (CB 56.35 56.50 Rice (CB 17.29 15.43 (CBT)-5,0 682.50	455.70 <b>T)</b> -60,000 56.44 56.53 <b>T)</b> -2,000 cv 17.34 15.49 00 bu; cent 684.00	451.00 445.60 Ibs; cents per I ▼ 54.45 ▼ 54.56 ▼ 54.56 vt.; \$ per cwt. 17.12 15.24 ts per bu. ▼ 654.00	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50	-7.40 -1.60 -1.60 01	115,234 159,700 115,320 4,928 2,327 185,730
Soybea May July Rough May Sept Wheat May July	an Oil (CB 56.35 56.50 Rice (CB 17.29 15.43 (CBT)-5,0 682.50 692.75	455.70 <b>T)</b> -60,000 56.44 56.53 <b>T)</b> -2,000 cv 17.34 15.49 00 bu; cent 684.00 693.50	451.00 445.60 Ibs; cents perl ▼ 54.45 ▼ 54.56 vt; \$per cwt. 17.12 15.24 ts per bu. ▼ 654.00 ▼ 655.00	451.60 446.90 b. 54.64 54.75 17.26 15.44	-7.40 -1.60 -1.60 01 .01 -19.75	115,234 159,700 115,320 4,928 2,327 185,730
Soybea May July Rough May Sept Wheat May July Wheat	an Oil (CB 56.35 56.50 Rice (CB 17.29 15.43 (CBT)-5,0 682.50 692.75	455.70 <b>T)</b> -60,000 56.44 56.53 <b>T)</b> -2,000 cv 17.34 15.49 00 bu; cent 684.00	451.00 445.60 lbs; cents perl ▼ 54.45 ▼ 54.55 ▼ 54.56 vt; \$per cwt. 17.12 15.24 ts per bu. ▼ 654.00 ▼ 665.00 per bu. 791.25	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50	-7.40 -1.60 -1.60 01 .01 -19.75	115,234 159,700 115,320 4,928 2,327 185,730 102,383
Soybea May July Rough May Sept Wheat May July Wheat May July	an Oil (CB 56.35 56.50 Rice (CB 17.29 15.43 (CBT)-5,00 682.50 692.75 (KC)-5,00 818.50 804.50	455.70 <b>(T)</b> -60,000 56.44 56.53 <b>(T)</b> -2,000 cw 17.34 15.49 00 bu; cent 684.00 693.50 0 bu; cents 822.75 808.25	451.00 445.60 Ibs; cents perl ▼ 54.45 ▼ 54.56 vt; \$per cwt. 17.12 15.24 cs per bu. ▼ 654.00 ▼ 654.00 ▼ 665.00 per bu. 791.25 780.75	451.60 446.90 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25	-7.40 -1.60 -1.60 01 .01 -19.75 -17.75	115,234 159,700 115,320 4,920 2,327 185,730 102,383 77,777
Soybea May July Rough May Sept Wheat May July Wheat May July Cattle-	an Oil (CB 56.35 56.50 Rice (CB 17.29 15.43 (CBT)-5,00 692.75 (KC)-5,000 818.50 804.50 Feeder (C	455.70 <b>(T)</b> -60,000 56.44 <b>(5)</b> -2,000 cw 17.34 <b>(5)</b> -2,000 cw <b>(5)</b> -2,000	451.00 445.60 lbs; cents perl ▼ 54.45 ▼ 54.55 ▼ 54.56 vt; \$ per cwt. 17.12 15.24 ts per bu. ▼ 654.00 ▼ 665.00 per bu. 791.25 780.75	451.60 446.90 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 per Ib.	-7.40 -1.60 -1.60 -0.01 .01 -19.75 -17.75 -9.00 -7.50	115,234 159,700 115,320 4,928 2,327 185,730 102,383 77,777 51,868
Soybea May July Rough May Sept Wheat May July Wheat May July Cattle- March	an Oil (CB 56.35 56.50 Rice (CB1 17.29 15.43 (CB1)-5,00 682.50 692.75 (KC)-5,00 818.50 804.50 Feeder ( 188.800	455.70 <b>(T)</b> -60,000 56.44 56.53 <b>()</b> -2,000 cv 17.34 15.49 00 bu; cent 684.00 693.50 0 bu; cents 822.75 822.75 <b>(ME)</b> -50,0 189.025	451.00 445.60 lbs; cents perl ▼ 54.45 ▼ 54.56 vt; \$ per cwt. 17.12 15.24 ts per bu. ▼ 654.00 ▼ 655.00 per bu. 791.25 780.75 000 lbs; cents p 188.000	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 ver lb. 188.250	-7.40 -1.60 -1.60 -0.01 .01 -19.75 -17.75 -9.00 -7.50 525	115,234 159,700 115,320 4,926 2,327 185,730 102,383 77,777 51,868 3,279
Soybea May July Rough May Sept Wheat May July Wheat May Cattle- March May	an Oil (CB 56.35 56.50 <b>Rice (CB</b> 17.29 15.43 ( <b>CBT)</b> -5.00 682.50 692.75 ( <b>KC)</b> -5.00 818.50 804.50 <b>Feeder (</b> 188.800 199.825	455.70 56.44 56.53 <b>()</b> -2,000 cw 17.34 15.49 00 bu; cent 683.00 0 bu; cents 822.75 808.25 <b>CME</b> )-50.00 189.025 199.825	451.00 445.60 lbs; cents per I ▼ 54.45 ▼ 54.56 ▼ 54.57 ▼ 54.50 ▼ 654.00 ▼ 665.00 ▼ 665.00 ▼ 665.00 ▼ 791.25 780.75 900 lbs; cents p 188.000 197.725	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 ver lb. 188.250 198.775	-7.40 -1.60 -1.60 -0.01 .01 -19.75 -17.75 -9.00 -7.50	115,234 159,700 115,320 4,926 2,327 185,730 102,383 77,777 51,868 3,279
Soybea May July Rough May Sept Wheat May July Wheat May Cattle- March May Cattle-	an Oil (CB 56.35 56.50 Rice (CBT) 17.29 15.43 (CBT)-5,0 692.75 (KC)-5,00 818.50 804.50 Feeder ( 188.800 199.825 Live (CMI	455.70 56.44 56.53 <b>()</b> -2,000 cw 17.34 15.49 00 bu; cent 693.50 0 bu; cents 822.75 808.25 <b>CME</b> )-50,0 189.025 199.825 <b>E)</b> -40,000	451.00 445.60 lbs; cents per l ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 654.00 ▼ 665.00 per bu. 791.25 780.75 100 lbs; cents per lt 88.000 197.725	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 ver lb. 188.250 198.775 b.	-7.40 -1.60 -1.60 -01 .01 -19.75 -17.75 -9.00 -7.50 525 775	115,234 159,700 115,320 4,928 2,327 185,730 102,383 777,777 51,868 3,279 21,768
Soybea May July Rough May Sept Wheat May July Wheat May Cattle- May Cattle- April	an Oil (CB 56.35 56.50 Rice (CB1 17.29 15.43 (CBT)-5,0 682.50 692.75 (KC)-5,00 818.50 804.50 Feeder ( 188.800 199.825 Live (CM	455.70 <b>(T)</b> -60,000 56.44 56.53 <b>(T)</b> -2,000 cv 17.34 15.49 00 bu; cents 684.00 693.50 0 bu; cents 808.25 <b>CME</b> )-50,0 189.025 199.825 <b>E)</b> -40,000	451.00 445.60 1bs; cents perl ▼ 54.45 ▼ 54.55 ▼ 54.56 vt; \$ per cwt. 17.12 15.24 ts per bu. ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 80.75 780.75 780.75 000 lbs; cents perl 188.000 197.725 bls; cents per l 160.625	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 ver lb. 188.250 198.275 b.	-7.40 -1.60 -1.60 01 .01 -19.75 -17.75 -9.00 -7.50 525 775 125	115,234 159,700 115,320 4,928 2,327 185,730 102,383 777,777 51,868 3,279 21,768
Soybea May July Rough May Sept Wheat May July Wheat May Cattle- May Cattle- April June	an Oil (CB 56.35 56.50 <b>Rice (CB</b> 17.29 15.43 ( <b>CBT)</b> -5.00 692.75 ( <b>CC)</b> -5.00 818.50 804.50 <b>Feeder</b> ( 188.800 199.825 <b>Live (CM</b> 162.450 156.150	455.70 <b>TJ</b> -60,000 56.44 55.53 <b>JJ</b> -2,000 cv 17.34 15.49 00 bu; cents 822.75 808.25 <b>CME</b> )-50,00 189.025 <b>E)</b> -40,0000 162.650	451.00 445.60 lbs; cents per l ▼ 54.45 ▼ 54.56 ▼ 54.57 ▼ 54.56 ▼ 654.00 ▼ 655.00 ▼ 655.00 971.25 780.75 900 lbs; cents per l 188.000 197.725 lbs; cents per l 160.625 ▼ 154.375	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 ver lb. 188.250 198.775 b. 162.300	-7.40 -1.60 -1.60 -01 .01 -19.75 -17.75 -9.00 -7.50 525 775	115,234 159,700 115,320 4,928 2,327 185,730 102,383 777,777 51,868 3,279 21,768
Soybea May July Rough May Sept Wheat May July Wheat May July Cattle- March May Cattle- April June Hogs-L	an Oil (CB 56.35 56.50 <b>Rice (CB</b> 17.29 15.43 ( <b>CBT)</b> -5.00 692.75 ( <b>CC)</b> -5.00 818.50 804.50 <b>Feeder</b> ( 188.800 199.825 <b>Live (CM</b> 162.450 156.150	455.70 <b>TJ</b> -60,000 56.44 55.53 <b>JJ</b> -2,000 cv 17.34 15.49 00 bu; cents 822.75 808.25 <b>CME</b> )-50,00 189.025 <b>E)</b> -40,0000 162.650	451.00 445.60 1bs; cents perl ▼ 54.45 ▼ 54.55 ▼ 54.56 vt; \$ per cwt. 17.12 15.24 ts per bu. ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 80.75 780.75 780.75 000 lbs; cents perl 188.000 197.725 bls; cents per l 160.625	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 ver lb. 188.250 198.775 b. 162.300	-7.40 -1.60 -1.60 01 .01 -19.75 -17.75 -9.00 -7.50 525 775 125	115,234 159,700 115,320 4,920 2,327 185,730 102,383 77,777 51,866 3,279 21,768 50,349 125,189
Soybea May July Rough May Sept Wheat May July Cattle- May Cattle- April June Hogs-L April June	an Oil (CB 56.35 56.50 Rice (CB1 17.29 17.43 (CBT)-5.0 682.50 692.75 (KC)-5.00 804.50 Feeder (1 188.800 199.825 Live (CM 188.800 199.825 Live (CM 156.150 156.150 .e.an (CM 77.100 91.150	455.70 56.44 56.53 7)-2,000 cv 17.34 15.49 00 bu; cent 684.00 693.50 0 bu; cent 684.00 693.50 0 bu; cent 688.25 <b>CME</b> )-50,0 189.025 <b>E)</b> -40,0001 162.650 <b>E)</b> -40,0001 77.500	451.00 445.60 lbs; cents per l 54.45 ▼ 54.56 ▼ 54.56 ▼ 54.00 ▼ 654.00 ▼ 655.00 Per bu. 791.25 780.75 900 lbs; cents per lb 160.625 ▼ 154.375 bs; cents per lb ▼ 75.950 ▼ 89.050	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 b. 188.250 198.775 b. 162.300 155.900	-7.40 -1.60 -1.60 01 .01 -19.75 -17.75 -9.00 -7.50 525 775 250	115,234 159,700 115,320 4,928 2,327 185,730 102,383 77,777 51,868 3,279 21,768 50,349 125,189 36,528
Soybea May July Rough May Sept Wheat May July Cattle- May Cattle- April June Hogs-L April June	an Oil (CB 56.35 56.50 Rice (CB1 17.29 17.43 (CBT)-5.0 682.50 692.75 (KC)-5.00 804.50 Feeder (1 188.800 199.825 Live (CM 188.800 199.825 Live (CM 156.150 156.150 .e.an (CM 77.100 91.150	455.70 56.44 56.53 7)-2,000 cv 17.34 15.49 00 bu; cent 684.00 693.50 0 bu; cent 684.00 693.50 0 bu; cent 688.25 <b>CME</b> )-50,0 189.025 <b>E)</b> -40,0001 162.650 <b>E)</b> -40,0001 77.500	451.00 445.60 lbs; cents perl ▼ 54.45 ▼ 54.56 vt; \$ per cwt. 17.12 15.24 ts per bu. ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 655.00 per bu. 791.25 780.75 000 lbs; cents perl 188.000 197.725 lbs; cents perl 160.625 ▼ 154.375 bs; cents perl ₩ 75.950	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 b. 188.250 198.775 b. 162.300 155.900	-7.40 -1.60 -1.60 01 .01 -19.75 -17.75 -9.00 -7.50 525 775 125 250 975	115,234 159,700 115,320 4,928 2,327 185,730 102,383 77,777 51,868 3,279 21,768 50,349 125,189 36,528
Soybea May July Rough May Sept Wheat May July Wheat May Cattle- May Cattle- May Cattle- May Lupe Hogs-L April June Lumbe May	an Oil (CB 56.35 56.50 <b>Rice (CB</b> 17.29 15.43 ( <b>CBT)</b> -5,00 692.75 ( <b>KC)</b> -5,00 804.50 <b>Feeder</b> ( 188.800 199.825 <b>Live (CM</b> 162.450 156.150 156.150 91.150 <b>r</b> ( <b>CM</b> )-111 441.40	455.70 <b>T)</b> -60,000 56.44 56.53 <b>D</b> -2.000 cw 17.34 15.49 00 bu; cents 693.50 0 bu; cents 822.75 808.25 <b>CME</b> )-50,0 189.025 <b>I)</b> 98.25 <b>E)</b> -40,0001 156.250 <b>E)</b> -40,0001 157.500 91.575 <b>I0</b> ,0000 bd. f 441.40	451.00 445.60 Ibs; cents per I ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 654.00 ▼ 655.00 ↓ \$ per bu. 791.25 780.75 100 Ibs; cents per Il 160.625 ▼ 154.375 bs; cents per Il ▼ 154.375 bs; cents per Il ▼ 59.50 ▼ 89.050 ▼ 89.050	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 b. 188.250 198.775 b. 162.300 155.900	-7.40 -1.60 -1.60 01 .01 -19.75 -17.75 -9.00 -7.50 525 775 125 250 975	115,234 159,700 115,320 4,928 2,321 185,730 102,383 77,777 51,868 3,279 21,768 50,349 125,189 36,528 88,132
Soybea May July Rough May Sept Wheat May July Cattle- May Cattle- April June April June Lumbe May May May	an Oil (CB 56.35 56.50 Rice (CB1 17.29 15.43 (CB7)-5.00 682.50 682.50 682.50 804.50 Feeder (C 188.800 199.825 Live (CMI 162.450 156.150 Live (CMI 162.450 156.150 156.150 r7.100 91.150 r (CME)-11 441.40 ME)-200,0	455.70 <b>T)</b> -60,000 56.44 56.53 <b>D</b> -2,000 cw 17.34 15.49 00 bu; cent 684.00 693.50 0 bu; cent 684.00 693.50 0 bu; cent 682.75 808.25 <b>CME</b> )-50,00 189.025 199.825 <b>E)</b> -40,0001 156.250 <b>E)</b> -40,0001 77.500 91.575 10,000 bd, f 441.40 00 lbs, cen	451.00 445.60 lbs; cents perl ▼ 54.45 ▼ 54.55 ▼ 54.56 vt; \$ per cwt. 17.12 15.24 ts per bu. ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 655.00 197.725 lbs; cents perl 160.625 ▼ 154.375 bs; cents perl 160.625 ▼ 154.375 vs; cents perl 154.375 vs; cents perl 154.355 vs; cents perl 154.375 vs; cents perl 154.355 vs; cents perl 154.3555 vs; cents perl 154.3555 v	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 per lb. 188.250 198.275 b. 162.300 155.900 0. 76.075 89.350 od. ft. 431.50	-7.40 -1.60 -1.60 -01 01 -19.75 -17.75 -9.00 -7.50 255 255 255 250 975 2000	115,234 159,700 115,326 4,922 2,322 185,730 102,383 77,777 51,866 3,279 21,766 50,344 125,189 36,526 88,132 1,426
Soybea May July Rough May Sept Wheat May July Cattle- May Cattle- May Cattle- May Cattle- May Lune Hogs-L April June Hogs-L Mag March Milk (Cl March	an Oil (CB 56.35 56.50 Rice (CB1 17.29 15.43 (CCT)-5.00 682.50 692.75 7(KC)-5.00 818.50 804.50 Feeder ( 188.800 199.825 Live (CM1 162.450 156.150 <b>.e.an (CM1</b> 77.100 91.150 <b>r (CM2)-11</b> 41.40 <b>ME</b> )-200.0 18.05	455.70 56.44 56.53 7)-2,000 cv 17.34 15.49 00 bu; cent 684.00 693.50 0 bu; cent 684.00 693.50 0 bu; cent 688.02 CME)-50,0 189.025 E)-40,0001 77.500 91.575 10,000 bd.f 441.40 00 lbs, cent 18.07	451.00 445.60 lbs; cents per I ▼ 54.45 ▼ 54.56 ▼ 54.52 ▼ 54.50 ▼ 654.00 ▼ 665.00 ▼ 665.00 ▼ 665.00 ▼ 791.25 780.75 780.75 780.75 900 lbs; cents per II 100.625 ▼ 154.375 bs; cents per II ▼ 75.950 ▼ 89.050 °t, \$ per 1,000 t 425.70 ts per Ib. 18.03	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 b. 188.250 198.775 b. 162.300 155.900 c. 76.075 89.350 cd.ft. 431.50 18.04	-7.40 -1.60 -1.60 -0.1 .01 -19.75 -17.75 -9.00 -7.50 -7.50 -7.50 -7.50 -7.55 -12.55 -2.000 -9.20 -9.20 -0.1	115,234 159,700( 115,324 4,928 2,327 185,733 102,388 102,388 102,388 3,279 21,768 50,344 125,186 88,132 1,426 5,081 1,426 1,4
Soybea May May Rough May Sept Wheat Wheat May July Wheat May Cattle- May Cattle- May Cattle- May Cattle- May Cattle- May May May May May May May May May May	an Oil (CB 56.35 56.50 Rice (CB 17.29 15.43 (CBT)-5.00 692.75 (KC)-5.00 804.50 804.50 Feeder (188.800 199.825 Live (CM 188.800 199.825 Live (CM 198.825 CM 162.450 156.150 r(CME)-11 441.40 ME)-200,0 18.050 19.00	455.70 <b>T)</b> -60,000 56.44 56.53 <b>D</b> -2.000 cv 17.34 15.49 00 bu; cents 684.00 693.50 0 bu; cents 822.75 808.25 <b>CME</b> )-50,0 189.025 <b>I</b> 99.825 <b>E</b> )-40,0001 156.250 156.250 91.575 <b>I</b> ,0000 bd, f 441.40 00 lbs, cen 18.7 19.87	451.00 445.60 1bs; cents per l ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 654.00 ▼ 665.00 • 665.00 • 791.25 780.75 000 lbs; cents per ll 188.000 197.725 ■ 154.375 ♥ 154.375 ♥ 55.50 ♥ 75.950 ♥ 75.950 ♥ 89.050 • 425.70 ts per lb. 18.03 ▲ 18.80	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 per lb. 188.250 198.275 b. 162.300 155.900 0. 76.075 89.350 od. ft. 431.50	-7.40 -1.60 -1.60 -01 01 -19.75 -17.75 -9.00 -7.50 255 255 255 250 975 2000	115,234 159,700( 115,324 4,928 2,327 185,733 102,388 102,388 102,388 3,279 21,768 50,344 125,186 88,132 1,426 5,081 1,426 1,4
Soybea May May Rough May Sept May May May May May May May May May May	an Oil (CB 56.35 56.50 Rice (CB1 17.29 15.43 (CB7)-5.00 818.50 818.50 818.50 818.50 818.50 818.50 818.50 162.450 156.150 162.450 156.150 Live (CME)-11 441.40 ME)-200,0 18.05 19.00 (ICE-US)-1(	455.70 <b>T)</b> -60,000 56.44 56.53 <b>D</b> -2.000 cw 17.34 15.49 00 bu; cent 684.00 693.50 0 bu; cents 822.75 808.25 <b>CME</b> )-50.00 189.025 <b>199.825</b> <b>E)</b> -40,0000 <b>156.250</b> <b>E)</b> -40,0000 <b>156.250</b> <b>E)</b> -40,0000 <b>157.5</b> <b>100.000 bd.1</b> 441.40 00 lbs, cen 18.07 19.48 0 metric tob	451.00 445.60 1bs; cents perl ▼ 54.45 ▼ 54.45 ▼ 54.56 vt; \$ per cwt. 17.12 15.24 ts per bu. ▼ 654.00 ▼ 654.00 ▼ 654.00 ▼ 655.00 per bu. 780.75 75.75 71.	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 eer lb. 188.250 198.775 b. 162.300 155.900 0. 76.075 89.350 od. ft. 431.50 18.04 19.36	-7.40 -1.60 -0.1 .01 -1.9.75 -17.75 -17.75 -9.00 -7.50 755 255 255 250 975 250 975 250 975 250 975 250 9.20 9.20 01 .37	115,234 159,700 115,322 4,924 2,327 102,383 77,777 51,866 3,277 21,766 50,344 125,186 36,524 88,132 1,426 5,088 5,126
Soybea May May Rough May Sept May July Wheat May Cattle- March March April June Lumbe May Maik (ci Maich March May May Maik Cocoa ( May	an Oil (CB 56.35 56.50 Rice (CB1 17.29 17.43 (CBT)-5.0 682.50 692.75 (KC)-5.00 804.50 Feeder (1 188.800 199.825 Live (CMI 162.450 156.150 .e.an (CME)-11 411.40 ME)-200.0 18.05 19.00 (ICE-US)-14 2,816	455.70 <b>T)</b> -60,000 56.44 56.53 <b>D</b> -2,000 cw 17.34 15.49 00 bu; cent 684.00 693.50 0 bu; cent 684.00 693.50 0 bu; cent 688.25 <b>CME</b> )-50,00 189.025 <b>I</b> 99.825 <b>E)</b> -40,0001 77.500 91.575 10,000 bd, f 441.40 00 lbs, cent 18.07 19.48 00 lbs, cent 18.07 19.48 00 lbs, cent 18.07 19.48 00 lbs, cent 18.07 19.48 00 lbs, cent 18.07 19.48 00 lbs, cent 18.07 19.48 00 lbs, cent 19.48 00 lbs, cent 18.07 19.48 00 lbs, cent 18.07 19.48 00 lbs, cent 18.07 19.48 00 lbs, cent 19.48 00 lbs, cent 19.48 00 lbs, cent 19.48 00 lbs, cent 10.00 lb	451.00 445.60 1bs; cents per I ▼ 54.45 ▼ 54.56 ▼ 54.52 ▼ 54.50 ▼ 654.00 ▼ 665.00 ▼ 665.00 ▼ 791.25 780.75 900 lbs; cents per I 188.000 197.725 106.625 ▼ 154.375 bs; cents per I ▼ 75.950 ▼ 89.050 ft, \$ per 1,000 t 425.70 ▼ 89.050 ft, \$ per to ■ 18.03 ▲ 18.03	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 b. 188.250 198.775 b. 162.300 155.900 c. 76.075 89.350 d. ft. 431.50 18.04 19.36	-7.40 -1.60 -1.60 -01 .01 -19.75 -17.75 -9.00 -7.50 -7.50 -7.55 -7.75 -125 -2.000 -9.20 -9.20 -01 .37 57	115,234 159,700 115,326 4,926 2,327 102,383 77,777 51,866 3,279 21,768 50,344 125,189 36,522 88,132 1,426 5,083 5,126 123,127 123,127
Soybea May May Rough May Sept May July Wheat May Cattle- May Cattle- May Cattle- May Cattle- May Cattle- May May Hogs-L April Cocoa ( May July	an Oil (CB 56.35 56.50 Rice (CB 17.29 15.43 (CBT)-5.00 682.50 692.75 (KC)-5.00 804.50 Feeder ( 188.800 199.825 Live (CM 198.825 Live (CM 198.825 162.450 156.150 r(CME)-11 441.40 ME)-200,0 18.05 19.00 (CE-US)-11 2,816 2,782	455.70 <b>T)</b> -60,000 56.44 56.53 <b>D</b> -2.000 cv 17.34 15.49 00 bu; cents 684.00 693.50 0 bu; cents 822.75 808.25 <b>CME</b> )-50,0 189.025 <b>I)</b> 99.825 <b>E)</b> -40,0001 156.250 <b>E)</b> -40,0001 156.250 <b>E)</b> -40,0001 <b>C)</b> 156.250 <b>E)</b> -40,0001 <b>C)</b> <b>C)</b> <b>E)</b> -40,0001 <b>C)</b> <b>C)</b> <b>E)</b> -40,0001 <b>C)</b> <b>E)</b> -40,0001 <b>E)</b> -50,000 <b>E)</b> -50,000	451.00 445.60 lbs; cents per l ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 54.45 ▼ 654.00 ▼ 665.00 per bu. 791.25 780.75 000 lbs; cents per lb 188.000 197.725 V 154.375 ♥ 154.375 ♥ 55.00 t, \$ per 1,000 b 425.70 ts per lb. 18.03 ↓ 18.03 ↑ 18.03 ↓ 18.04 ↑ 25.950 ♥ 25.9500 ♥ 25.9500 ♥ 25.9500 ♥ 25.9500 ♥ 25.9500 ♥ 25.9500 ♥ 25.9500 ♥ 25.95000 ♥ 25.95000 ♥ 25.95000 ♥ 25.95000 ♥ 25.950000 ♥ 25.950000 ♥ 25.9500000000000000000000000000000000000	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 eer lb. 188.250 198.775 b. 162.300 155.900 0. 76.075 89.350 od. ft. 431.50 18.04 19.36	-7.40 -1.60 -0.1 .01 -1.9.75 -17.75 -17.75 -9.00 -7.50 755 255 255 255 250 975 250 975 250 975 250 9.75 250 9.75 250 250 2,	115,234 159,70¢ 115,32¢ 4,92¢ 2,327 102,383 77,777 51,866 3,27% 21,76¢ 50,34¢ 125,18% 36,52¢ 88,132 1,42¢ 5,087% 5,12¢
Soybea May May Rough May Sept May July Wheat May Cattle- May Cattle- May Cattle- May Cattle- May Cattle- May May Hogs-L April Cocoa ( May July	an Oil (CB 56.35 56.50 Rice (CB 17.29 15.43 (CBT)-5.00 682.50 692.75 (KC)-5.00 804.50 Feeder ( 188.800 199.825 Live (CM 198.825 Live (CM 198.825 CCB)-10 162.15 (CC)-11 441.40 ME)-200,0 18.05 19.00 (CC)-11 441.40 ME)-200,0 18.05 19.00 (CC)-11 28.16 2,782 2,782 19.00 (CC)-11 2,816 2,782 2,782 1,729 1,129 1,120	455.70 <b>T)</b> -60,000 56.44 56.53 <b>D</b> -2.000 cv 17.34 15.49 00 bu; cents 684.00 693.50 0 bu; cents 822.75 808.25 <b>CME</b> )-50,0 189.025 <b>I</b> 99.825 <b>E</b> )-40,0001 156.250 <b>E</b> )-40,0001 77.500 91.575 <b>I</b> 0,000 bd, f 441.40 00 lbs, cen 18.77 19.48 0 metric ton 2,878 2,825	451.00 445.60 1bs; cents per I ▼ 54.45 ▼ 54.56 ▼ 54.52 ▼ 54.56 ▼ 54.00 ▼ 655.00 ▼ 655.00 ▼ 655.00 197.725 100 lbs; cents per Il 188.000 197.725 ■ 154.375 bs; cents per Il ▼ 75.950 ▼ 154.375 bs; cents per Il ▼ 75.950 ▼ 89.050 ft, \$ per 1,000 t 425.70 ▼ 89.050 ft, \$ per to ■ 18.03 ■ 18.03	451.60 446.90 b. 54.64 54.75 17.26 15.44 663.50 674.75 811.25 799.25 b. 188.250 198.775 b. 162.300 155.900 c. 76.075 89.350 d. ft. 431.50 18.04 19.36	-7.40 -1.60 -1.60 -01 .01 -19.75 -17.75 -9.00 -7.50 -7.50 -7.55 -7.75 -125 -2.000 -9.20 -9.20 -01 .37 57	185,38185,38185,381 115,232 115,326 4,926 2,327 102,383 77,777 51,866 3,279 21,766 50,344 125,185 36,522 88,132 1,426 5,087 5,126 123,172 87,865 76,825 76,825

			0,000; pts 32			
March	113-245	113-255	113-135	113-230	2.5	341
June	114-040	115-195	113-260	115-030	31.0	4,155,294
<b>5 Yr. T</b> i	reasury l		<b>r)</b> -\$100,000;			
March		109-137	108-145	109-107	22.5	420
June	108-285	110-017	108-212	109-230	26.0	4,349,881
2 Yr. Ti	reasurv	Notes (CB)	<b>r)</b> -\$200,000	pts 32nds	of 100%	
March	103-000	103-093	102-252	103-070	9.5	535
June	103-036	103-196	102-297	103-160		2,314,095
						2,014,077
			BT)-\$5,000,0		ally avg.	104 401
March	95.3625	95.3675	95.3500	95.3525	0125	186,631
April	95.2150	95.2350	95.1800	95.1850	0350	573,929
		late Swaj	<b>DS (CBT)</b> -\$10		32nds of	
June	97-005	98-205	96-270	97-315	26.5	10,539
Three-	Month S	OFR (CME	<b>)</b> -\$1,000,000	);100 - dail	y avg.	
March	95.1250	95.1650	95.1050	95.1200	0150	1,042,565
June	95.1750	95.4350	95.0850	95.2400	.0650	1,591,212
			)0; pts of 100			_,,,,
April	94.8300	94.8550	94,7800	94.8275	0150	117,363
June	94.8200	95.0300	94.7100	94.8600	.0450	617,281
	95.1500	95.4300	95.0250	95.2450	.1050	613,252
Sept						015,252
Dec	95.3950	95.6950	95.2750	95.5700	.1800	577,548
		Curre	ency Futu	ires		
lanan	neo Von /		00,000; \$ pei	1007		
					00/4	1 050
April	.7583	.7662	.7548	.7639	.0064	1,059
June	.7647	.7733	.7617	.7709	.0065	160,914
			.D 100,000; \$			
April	.7299	.7325	.7279	.7308	.0015	513
June	.7302	.7333	.7286	.7316	.0015	173,975
British	Pound (	CME)-£62,5	00;\$per£			
April	1.2245	1.2342	1.2217	1.2311	.0087	1,725
June	1.2246	1.2358	1.2233	1.2325	.0084	179,641
Swiss	Franc (CM	AE)-CHF 125	5,000; \$ per C	HF		
June	1.0951	1.1042	1.0922	1.1013	.0068	35,436
Sept	1.1050	1.1130	1.1029	1.1115	.0068	362
			UD 100,000;			
April	.6679	.6765	.6669	.6736	.0064	528
lune	.6692	.6782	.6684	.6751	.0064	150,494
		CMEN-MAYNI	500,000; \$ p		.0004	170,474
	.05376	.05404	.05339	.05383	.00046	22
April						
June	.05281	.05349	.05268	.05321	.00045	221,458
		000;\$per€				
April	1.0779	1.0928	1.0776	1.0898	.0117	2,109
lune	1.0826	1.0968	1.0814	1.0935	.0114	725,471
		Ina	ex Future	es		
Mini D	J Industr	ial Avera	<b>ge (CBT)</b> -\$5	xindex		
June	32789	32994	32231	32258	-516	81,620
Sept	33005	33203	32476	32483	-518	123
Minic		CME)-\$50 x		22403	210	123
				2070 50	45.25	2 1 2 0 2 4 7
une	4038.75	4073.75	3966.25	3970.50		2,138,247
ept	4070.75	4107.25	3999.50	4003.25	-66.00	5,751
			<b>VE)</b> -\$100 x ir			
June	2478.90	2486.20	2411.20	2414.20	-62.70	41,042
Sept				2434.90	-58.40	n.a.
Mini N	asdag 10	O (CME)-\$	20 x index			
June		13082.00		12707.00	-160.25	213,423
Sept		13212.25		12839.25		1,138
		00 (CME)-		LEODVIED	101.90	1/100
June	1798.60	1799.20	1739.20	1741.00	-52.30	480,390
Sept	1798.00	1812.80	1755.00	1756.20	-50.30	99
Dec	1819.60	1822.90	1773.40	1774.90	-48.30	n.a.
		00 (CME)-	\$50 x index			
June	2219.50	2232.20	2175.00	2176.20	-35.50	6,783
J.S. Do	ollar Inde	X (ICE-US)	\$1,000 x inde			
June	102.84	102.91	101.67	101.97	93	33,312
Sept	102.50	102.76	101.34	101.74	88	502
sept						
sept						
Sept					Source	e FactSet
зерс					Sourc	e: FactSet

Contract

Low

20.78

20.25

78.37

230.35

**Interest Rate Futures** Ultra Treasury Bonds (CBT) - \$100,000; pts 32nds of 100% 
 March
 141-000
 139-280
 141-140
 1

 June
 140-020
 142-150
 139-080
 141-090
 1

 Treasury Bonds (CBT)-\$100,000; pts 32nds of 100%
 100%
 100%
 100%
 100%

Settle

21.14

20.56

37.90

78.28

78.89

231.35

139-280 **141-140** 1-01.0 431 139-080 **141-090** 1-01.0 1,426,951

Chg

High hilo

21.38 A 20.79 A

Sugar-Domestic (ICE-US)-112,000 lbs;; cents per lb. May 38.00

79.80 80.25

 July
 78.52
 80.25
 76.21

 Orange Juice (ICE-US)-15,000 lbs.; cents per lb.
 Max
 239.80
 243.85
 237.05
 240.45

 March
 128-300
 129-000
 128-050
 129-010

 June
 129-280
 131-270
 129-080
 130-310

 Treasury Notes
 (CBT)-\$100,000; pts 32nds of 100%

Sugar-World (ICE-US)-112,000 lbs.; cents per lb.

 July

 Cotton (ICE-US)-50,000 lbs.; cents per lb.

 May
 78.01
 79.80
 77.78

232.75 234.65

Open

20.85 20.32

78.01 78.52

May

July

May July

July

July

#### Macro & Market Economics

#### Watching the Gauges: U.S. Supply and Demand

Inventories, imports and demand for the week ended March 17. Current figures are in thousands of barrels or thousands of gallons per day, except natural-gas figures, which are in billions of cubic feet. Natural-gas import and demand data are available monthly only.

l.	nvento	ories, O	00s barr		į I	mport	<b>s,</b> 000s b	arrels	per day	/		
	Current	Expected change	Previous week	Year ago	4-week avg	5-year avg	Current	Expected change	Previous week	Year ago	4-week avg	5-year avg
Crude oil and												
petroleum prod	1,247,987		1,258	1,137	1,256	1,223	8,249		7,685	8,608	8,094	8,922
Crude oil												
excluding SPR	481,180	-1,500	480	413	480	451			6,216	6,486	6,217	6,622
Gasoline	229,598		236	238	236	238	471		450	721	510	704
Finished gasoline	14,237	-1,400	16	18	16	21	95		79	65	80	67
Reformulated	24		0	0	0 0		0		0	0	0	0
Conventional	14,213		16	18	16	21	95		79	65	80	67
Blend. components	215,360		220	220	220	217	376		371	655	430	637
Natural gas (bcf)	1,972		2	1	2	2						
Kerosene-type												
jet fuel	36,840		37	36	37	39	157		158	139	184	167
Distillates	116,402	-1,300	120	112	120	128	222		155	172	179	193
Heating oil	7,202		7	7	7	9	1		1	0	1	9
Diesel	109,201		113	105	113	59	221		154	172	178	184
Residual fuel oil	30,729		31	27	31	32	70		26	206	105	186
Other oils	268,348		268	251	267	269	1,042		514	738	765	905
Net crude, petroleum							:					
products, incl. SPR	1,619,566		1,630	1,708	1,628	1,854	-3,695		-3,545	-921	-2,825	1,124

Weekly Demand, 000s barrels per day

#### Natural gas storage

	-						
	Current	Expected change	Previous week	Year ago	4-week avg	5-year avg	Billions of cubic feet; weekly totals
Total petroleum product	20,026		19,113	21,124	19,650	19,854	4250
Finished					_		Five-year average for each week 3250
motor gasoline	8,960		8,594	8,637	8,807	8,477	2250
Kerosene-type iet fuel	1,604		1,640	1,737	1,602	1,555	
Distillates	1,004 3,974		3,736	4,516	3,765	3,973	Natural gas, 1250 lower 48 states
Residual fuel oil	45		199	339	177	234	
Propane/propylene	1,034		713	1,340	1,081		A M J J A S O N D J F
Other oils	4,410		4,231	4,555	4,219		2022 2023

#### Exchange-Traded Portfolios | wSJ.com/ETFresearch

	Larg	jest 100	excha	ange-tra	aded funds, latest ses	sion				ETF	Symbo	Closin Price	g Chg (%)	
Wednesda	av, March	22, 202	3				Closing			SPDR S&PMdCpTr SPDR S&P Div	MDY SDY	436.88 118.51	-2.54 -2.14	
		Closing	Cha	VTD	ETF	Symbol	Price	(%)	(%)	TechSelectSector	XLK	143.25	-1.00	
TF	Symbol		(%)	(%)	iSh1-5YIGCorpBd	IGSB	50.49	0.56	1.3	UtilitiesSelSector	XLU	64.36	-1.96	
nsmrDiscSelSector	XLY	142.19	-2.23	10.1	iSh1-3YTreaBd	SHY	82.24	0.46	1.3	VangdInfoTech	VGT	366.84	-1.21	14
nsStapleSelSector	XLP		-0.92	-3.4	iShPfd&Incm	PFF	30.26	-0.36	-0.9	VangdSC Val	VBR	152.35	-2.74	
imenUSCoreEa2	DFAC		-1.92	-5.4	iShRussMC	IWR	66.74	-2.38	-1.1	VangdExtMkt	VXF	134.03	-2.67	
nSelSectorSPDR	XLE		-2.13		iShRuss1000	IWB	216.37	-1.72	2.8	VangdDivApp	VIG	148.76	-1.59	-
inSelSectorSPDR	XLE		-2.32	-10.0	iShRuss1000Grw	IWF	234.52	-1.47	9.5	VangdFTSEAWxUS	VEU	51.70	-0.15	
lealthCareSelSect			-1.51	-7.4	iShRuss1000Val	IWD	146.55	-1.99	-3.4	VangdFTSEDevMk	VEA	43.59	-0.39	
ndSelSectorSPDR	XLI		-1.92	-1.4	iShRussell2000	IWM	171.64	-2.84	-1.6	VangdFTSE EM	vwo	39.31	0.31	
ivsc000l			-1.36	15.0	iShS&P500Grw	IVW	61.62	-1.39	5.3	VangdFTSE Europe	VGK	58.75	-0.58	
vscS&P500EW			-2.25	-2.4	iShS&P500Value	IVE	145.46	-2.00	0.3	VangdGrowth	VUG	238.45	-1.52	1
ShCoreDivGrowth	DGRO		-2.25	-2.4	iShSelectDiv		112.77	-2.49	-6.5	VangdHlthCr	VHT	232.20	-1.61	-
ShCoreMSCIEAFE	IEFA	40.50 64.56	-0.40	-5.4	iSh7-10YTreaBd	IEF	99.29	1.32	3.7	VangdHiDiv		101.32	-1.92	
ShCoreMSCIEM	IEMG	47.36	0.36	1.4	iShShortTreaBd		110.37	0.04	0.4	VangdIntermBd	BIV	76.53	1.00	
ShCoreMSCITotInt	IXUS	59.87	-0.25	3.4	iShTIPSBondETF		109.98	1.37	3.3	VangdIntrCorpBd	VCIT	79.76	0.71	
ShCoreS&P500			-1.68	2.9	iSh20+YTreaBd		106.40	1.33	6.9	VangdLC	vv	179.74	-1.67	
ShCoreS&P MC			-2.55	-1.1	iShUSTreasuryBd	GOVT	23.38	0.91	2.9	VangdMC	vo	201.57	-2.42	
ShCoreS&P SC	IJR		-2.68	-1.3	JPMEquityPrem	JEPI	52.76	-1.20	-3.2	VangdMC Val	VOE	128.35	-2.50	
ShCoreS&PTotUS	ITOT		-1.83	2.6	JPM UltShIncm	JPST	50.31	0.04	0.4	VangdMBS	VMBS	46.87	1.32	
ShCoreTotalUSDBd	IUSB	46.10	0.85	2.6	SPDRBbg1-3MTB	BIL	91.75	0.02	0.3	VangdRealEst	VNQ	78.08	-3.74	
ShCoreUSAgaBd	AGG	99.75	0.85	2.0	SPDR DJIA Tr		320.18	-1.67	-3.4	VangdS&P500ETF	V00	361.78	-1.66	
hESGAwareUSA	ESGU		-1.73	2.0	SPDR Gold		183.44	1.70	8.1	VangdST Bond	BSV	76.45	0.57	
ShEdaeMSCIMinUSA			-1.37	-3.0	SPDRPtfDevxUS	SPDW	30.96	-0.48	4.3	VangdSTCpBd	VCSH	76.08	0.53	
hEdgeMSCIUSAQua		119.33	-1.66	4.7	SPDRS&P500Value	SPYV	38.84	-1.99	-0.1	VangdShtTmInfltn	VTIP	47.64	0.65	
hGoldTr	IAU	37.42	1.68	8.2	SPDRPtfS&P500	SPLG	46.12 53.23	-1.62	2.5	VangdShortTrea	VGSH	58.57	0.45	
hiBoxx\$InvGrCpBd		108.82	0.58	3.2	SPDRS&P500Growth SPDR S&P 500		53.23 392.11	-1.39	5.1 2.5	VangdSC	VB VTEB	181.00 50.30	-2.72 0.48	
hJPMUSDEmBd	EMB	85.55	0.87	1.1		SCHF	392.11	-0.33	2.5 4.4	VangdTaxExemptBd	BND	50.30 73.85	0.48	
hMBS	MBB	95.38	1.34	2.8	SchwabIntEquity SchwabUS BrdMkt	SCHF	33.64 45.80	-0.33	4.4 2.2	VangdTotalBd VangdTotIntlBd	BNDX	73.85 48.94	0.89	
hMSCIACWI	ACWI		-1.07	3.2	SchwabUS Div	SCHB	45.80 70.34	-1.87	-6.9	VangdTotIntIBd	VXUS	48.94 53.34	-0.26	
ShMSCIEAFE	EFA		-0.35	5.1	SchwabUS LC	SCHD	70.34 46.31	-1.94	-6.9	VangdTotalStk	VXUS	55.54 196.13	-0.26	
Sh MSCI EM	EEM	38.24	0.39	0.9	SchwabUS LC Grw	SCHX	46.31	-1.08	2.0	VangdTotalStk	VT	88.47	-1.19	
ShMSCIEAFEValue	EFV	46.95	-0.61	2.3	SchwabUS SC	SCHG	40.02	-2.80	-1.2	VangdValue	VTV	133.56	-1.86	
ShNatlMuniBd		107.09	0.57	1.5	Schwab US TIPs	SCHA	40.02 53.45	1.23	-1.2	WisdTrFRTrea	USFR	50.39	0.02	

Source: Tullett Prebon, Tradeweb ICE U.S. Treasury Close

#### **Corporate Debt**

Prices of firms' bonds reflect factors including investors' economic, sectoral and company-specific expectations

#### Investment-grade spreads that tightened the most...

investment-grade sprea	us that ti	gnteneu	themos	51			
lssuer	Symbol	Coupon (%)	Yield (%)	Maturity	Current	ad*, in basis poi One-day change	nts – Last week
	3)111001					, ,	
KeyCorp	KEY	3.300	6.89	June 1, '25	270	-33	254
Deutsche Bank	DB	5.371	5.82	Sept. 9, '27	209	-28	203
First Citizens BancShares	FCNCA	6.125	7.74	March 9, '28	395	-26	373
Bank of Nova Scotia	BNS	4.750	5.08	Feb. 2, '26	115	-24	133
Credit Suisse	CS	7.125	5.76	July 15, '32	223	-23	630
Nomura Holdings	NOMURA	5.709	5.51	Jan. 9, '26	174	-20	158
Bank of America	BAC	3.950	5.65	April 21, ′25	142	-16	134
Commonwealth Bank of Australia	CBAAU	5.316	4.83	March 13, '26	85	-15	95
And spreads that wide	ned the m	nost					

#### ...And spreads that widened the mo 38 620 Credit Suisse CS 2.950 6.95 April 9, '25 292 HSBC Holdings HSBC 4.300 5.96 March 8, '26 221 33 185 April 15, '26 24 UBS 4.125 211 UBS 5.87 n.a. 17 134 Morgan Stanley 3.950 April 23, ′27 MS 5.19 161 15 95 New York Life Global Funding NYLIFE 4.850 4.39 Jan. 9, ′28 88 1.953 Nov. 20, '28 112 10 Westpac Banking WSTP 4.61 n.a. Citigroup С 4.450 5.36 Sept. 29, '27 183 9 202 Cisco Systems csco 5.900 Feb. 15, '39 100 9 110 4.81

#### High-yield issues with the biggest price increases...

		-		_	Bond Price	e as % of face v	alue —
Issuer	Symbol	Coupon (%)	Yield (%)	Maturity	Current	One-day change	Last week
Credit Suisse	cs	6.500	23.85	Aug. 8, '23	94.000	3.75	53.000
Goldman Sachs Capital I		6.345	6.00	Feb. 15, '34	102.762	1.68	n.a.
Telecom Italia Capital	TITIM	6.000	8.09	Sept. 30, '34	84.500	1.25	84.030
CSC Holdings	CSCHLD	5.250	9.10	June 1, '24	95.750	1.24	95.200
Ford Motor	F	4.750	7.24	Jan. 15, ′43	74.000	1.16	71.000
Navient	NAVI	6.750	7.49	June 25, '25	98.480	0.98	n.a.
Sprint Capital		6.875	5.52	Nov. 15, '28	106.500	0.83	104.933
Bath & Body Works	BBWI	6.694	6.77	Jan. 15, '27	99.750	0.75	n.a.
And with the bigge	st prico docro	2505					

And with the biggest	price decre	lases					
Commerzbank	CMZB	8.125	12.16	Sept. 19, '23	98.140	-2.29	100.416
Lumen Technologies	LUMN	6.875	19.72	Jan. 15, ′28	61.200	-1.55	56.000
Dish DBS		5.875	17.28	Nov. 15, '24	84.250	-1.50	88.000
Howmet Aerospace	HWM	5.950	6.22	Feb. 1, '37	97.475	-1.48	97.319
ХРО	XPO	6.700	7.91	May 1, '34	91.160	-0.63	n.a.
Sensata Technologies	ST	5.000	5.92	Oct. 1, '25	97.875	-0.63	97.438
Regal Rexnord	RRX	6.050	6.06	Feb. 15, '26	99.950	-0.34	99.709
Deutsche Bank	DB	4.500	8.29	April 1, ′25	93.078	-0.33	96.739

\*Estimated spread over 2-year, 3-year, 5-year, 10-year or 30-year hot-run Treasury; 100 basis points=one percentage pt; change in spread shown is for Z-spread.

Note: Data are for the most active issue of bonds with maturities of two years or more

L

#### THE WALL STREET JOURNAL.

### BIGGEST 1,000 STOCKS

\*

Stock         Sym Close Chy           A         B         C           BancSanBrasil BSB ADT         ADT         BancSanBrasil BSB BcoSantChile         BancSanBrasil BSB BcoSantChile           ABB         ABB         33.12         -0.15         BankofAmerica         BAC           ADT         ADT         ADT         7.03         -0.14         BankofAmerica         BAC           AES         AES         2.23         -0.74         BanklYMellon BK         BanklYMellon BK           AES         AES         2.23         -0.74         BanklYMellon BK         BarrickGold GOL           AFIac         AFL         6.313         -1.57         BarrickGold GOL         BarrickGold GOL           Ansys         ANS 309.13         -5.29         BartkBodyWks BBW         BathRogWks BBW         BathRofSmerics         BathRofSmerics           AST         AST         AST         0.60         BathColl GOL         BathRofSmerics         BathRofSmerics           AST         AST         AST         -0.69         BattRofSmerics         BathRofSmerics           AST         AST         AST         -0.69         BattRofSmerics         BathRofSmerics         BathRofSmerics           AST         T         18.36	standards  IF-Late filing  -Temporary exemption from Nasdaq requirements.  -t-NYSE bankruptcy -Trading halted on primary marketyi-In bankruptcy receivership or being reorganized under the Bankruptcy Code, or securities assumed by such companies.	Stock         Sym Close         Chg           EssentialUtil         WTR6         40.96         -0.80           'EssexProp         ESS         199.22         -6.92           EsteeLauder         EL         237.30         -1.20           Etsy         ETSY         110.96         -1.75           EverestRe         RE         345.87         -7.88           Evergy         EVR6         57.55         -1.40           Exeton         EXC         37.52         -1.40           ExetoncesEXAS         64.17         -2.28           Exelon         EXC         37.68         -1.00           Expedia         EXPE         93.64         -3.11           Expediat         EXPE         93.64         -1.01           ExtarSpaceSt         EXR         149.54         -2.28           ExtraSpaceSt         EXR         149.54         -2.45           F5         FIFU         10.67         -1.21           ExtraSpaceSt         FNC         11.806         -3.47           F1C consulting FCN         T93.40         -0.45         FactSet           FDS         FIFU         11.206         -7.77         Ferguson         FERE	DR Horton         DH         95.71         -1.13           HostHotels         HST         15.08         -0.77           HoulihanLokey HLI         91.85         -2.28           HowmeArespace         HWW         40.51         -0.04           Hubbell         HUBB 236.26         5.76           HubSpot         HUB 498.33         -2.54           JBHunt         JBHT 15.70         -3.38           HuntingtonBcshs HBAN         10.66         -0.58           HuntingtonBcsh HBAN         10.64         -0.70           ICIC Bank         IBN         20.63         -0.14           ICL Group         ICL         6.67         -0.02           IdextLab         IDXX         475.03         -0.37           ING Groep ING         II.77         -0.18         Invesco         -0.20           Ichtrinterprises         IEP         5.06         -0.22         -0.66	Stock         Sym Close         Net Chg           LibertyFormOne C FWONK         65.93         -0.40           LibertyFormOne C FWONK         72.53         -0.61           LibertySirus C BATRK 32.80         -0.30         -0.61           LibertySirus C CSXMK         26.22         -1.10           LibertySirus C LSXMK         26.28         -1.18           LincoinFletcrit LECO 16.06         -4.02         -1.19           Elittlilly         LIY         330.97         -0.11           LincoinFletcrit LECO 16.06         -2.28         -0.04           LodyBanking         LVG         2.28         -0.04           LocheedMartin LIMT         46.90         5.86         Lowes           LocheedMartin LIMT         46.90         5.86         Lowes         LOW         91.57           Lowe's         LOW         191.57         5.22         Lucid         LOI         7.33         4.92           Lowe's         LOW         191.57         5.22         Lucid         LOI         7.31         <	Novartis         NVS         81.96         -1.71         PackagingCpAm PM           I NovoNordisk         NVC         146.69         -0.60         PalantirTech         PL           NuvoNordisk         NVC         166.69         -0.60         PalantirTech         PL           NuvoNordisk         NVC         16.69         -0.60         PalantirTech         PL           Nuvon         NVE         5.44         -2.30         ParamountA         PA           Nutrien         NVT         14.37         -0.51         ParamountA         PA           Nutrien         NTR         7.37         -0.58         ParamountA         PA           NVIDIA         NVDA 264.68         2.69         Paychex         PA           OEE         PQ         OGE         53.14         -0.89         Paylocity         PC           OKEG         OKE         06.22         -1.65         PenskeAuto         PA         Packation PA           Oktorethatilo SH         35.14         -0.39         Pertial         Pho         Packation PA           Oktorethatilo SH         35.14         -0.39         Pertial         Pa         Packation PA           Oktotinta         0X12         20.32 <td>KI         125.09         -0.46         RaiphLauren         RL         111.89         -2.44           BR         9.91         -0.09         RaymondJames RJF         91.74         -3.39           RA         8.00         -0.04         RaymondJames RJF         91.74         -3.39           RE         4.001         -0.65         Realtyincome         0         59.40         -1.87           W         7.374         -2.06         RegaRexnord RRX         18.35         -4.66           NW         7.374         -2.06         RegaRexnord RRX         17.82         -1.16           NNS         2.47         -0.05         Reginschin         RF         17.82         -1.64           NIS         2.47         -0.05         Reginschin         RF         17.82         -1.16           NIS         3.47         -0.05         ReinacSteel         RS         247.51         -3.03           AQ1         10.39         -0.25         ReinacSteel         RS         -0.27         -3.03           LOB         12.56         -0.20         Replicange         ReinacSteel         RS         -0.27         -0.21           LUG         12.22         -0.36         Replicange</td>	KI         125.09         -0.46         RaiphLauren         RL         111.89         -2.44           BR         9.91         -0.09         RaymondJames RJF         91.74         -3.39           RA         8.00         -0.04         RaymondJames RJF         91.74         -3.39           RE         4.001         -0.65         Realtyincome         0         59.40         -1.87           W         7.374         -2.06         RegaRexnord RRX         18.35         -4.66           NW         7.374         -2.06         RegaRexnord RRX         17.82         -1.16           NNS         2.47         -0.05         Reginschin         RF         17.82         -1.64           NIS         2.47         -0.05         Reginschin         RF         17.82         -1.16           NIS         3.47         -0.05         ReinacSteel         RS         247.51         -3.03           AQ1         10.39         -0.25         ReinacSteel         RS         -0.27         -3.03           LOB         12.56         -0.20         Replicange         ReinacSteel         RS         -0.27         -0.21           LUG         12.22         -0.36         Replicange
Accenture         ACN         25.3.27         -4.35         BerryGlobal         BER           ActivisionBliz         ATV         78.64         -1.11         BestBuy         BestBuy         BBY           Adobe         ADBE 30.71         -12.51         Bilbilli         Bill         Bilbilli         Bill           AdvbranceAuto         AAP         113.60         -6.19         Bio-Techne         TECL           Advbrancegeys         VMS         78.66         -0.36         BioMainPharm BMR           Advbrancegeys         VMS         78.6         -0.36         BioMarnPharm BMR           AerCap         AER         51.60         -1.45         BioMainPharm BMR           AerCap         AER         51.60         -1.45         BioXcKnight         BKI           aglion health         AGL         2.26         -0.12         BlackKnoe         SU           Airbroducts         APD 27.53         -3.45         Block         Block         SQ           Airbroducts         APD 27.53         -3.45         Block         SQ         Airbroductors         AV           Airbroducts         APD 27.53         -3.45         Block         SQ         BookingHidgs         BioK	22.78         -0.38         ConEd         ED         92.10         -1.09           472.45         -1.40         ConstBrands A STZ         214.14         -2.03           466.21         -1.40         ConstBrands A STZ         214.14         -2.03           90.08         -2.00         Coper         COO         344.53         -6.30           133.68         0.35         CorrebridgeFin CRB6         15.63         -1.06           133.68         0.35         CorrebridgeFin CRB6         15.63         -1.06           72.65         -4.81         Costar         CSCP         65.99         -1.87           70.90         -1.23         CorremaEnergy CFR         13.26         -2.07           90.18         -1.23         Crane         CR         11.01         -4.34           46.63         -5.66	Fortis         FTS         40.38         0.45           FortuneBrands         FIV         65.08         0.36           FortuneBrands         FBIN         57.02         -1.60           FoxA         FOXA         33.22         -0.41           FoxB         FOX         30.57         -0.46           FranklinRscs         BEN         26.30         -0.64           FreeportMcM         FCX         37.84         -0.42           FreeseniusMed FMS         20.10         0.04         FullTruck           FullTruck         YMM         FOX         -0.42           GE         H         I         I         I           GE         H         I         I         I         I           GE         H         I         I         I         I         I         I         I         I         I         I         I         I         I         I         I	InterContinenti IHG 66.08 -0.75 IBM IBM 12405 -2.52 IntiFlavors IFF 83.03 -1.63 IntiPaper IP 34.40 -0.81 Interpublic IPG 34.44 -0.91 Intuiti INTU 414.21 -7.82 Intuitie Singla ISG 240.81 -5.87 InvitatHomes INVH 28.79 -1.40 IQYI IQ 6.52 -0.03 IridiumCom IRDM 59.39 -1.53 IronMountain IRM 50.17 -1.04 ItauUnibanco ITUB 4.48 -0.01 JD.com JD 38.50 -1.04 JPMorganChase JPM 127.18 -3.37 Jabil JBL 82.33 -0.21 JackHenry JKHY 147.56 -4.61 JackHenry JKHY 147.56 -4.61 JackHenry JKHY 20.56 -4.61 JackHenry JKHY 20.57 -2.44 JohnsonControls JCI 58.88 -0.79 Joingenteworks JNR 31.41 -0.73 KB Financial KB 37.23 -0.08 KBR KBR 50.36 -0.62 KKR KKR 50.36 -0.52 KKA KKR 50.36 -0.52 KKA KKR 50.36 -0.52 KLA KLAC 38.186 -3.20 Karabun BZ 17.07 -1.25 Kellodings K 64.9 -0.66 KeurigDrPepper KDP 34.67 -0.48	Masimo         MASI 174.14         -2.49           Mastercard         MA         \$31.03         -3.54           MatchGroup         MTC         \$32.20         0.83           MatchGroup         MTCH         39.22         0.83           McCornickVg MKU         72.37         0.21         McCornickVg MKU         72.37           McCornickVg MKU         72.37         0.21         McCornickVg MKU         72.37           McCornickVg MKU         72.47         McCornick         MKC         72.47           McCornickVg MKU         72.47         McCornickVg MKU         74.47           Mercadolbre         MEL 1186.63         33.79           Merck         MKH         104.40         -1.14           MetaPlatform META 199.81         2.35         Mettle         McGoral 47.50           MicrochipTech MCHP         145.26         47.96         Microsoft           Microsoft MST 172.29         1.49         Microsoft         35.37           MitabibIUFJ MUFG         6.34         0.05         Microsoft           MitabibIUFJ MUFG         6.34         0.05         1.12           Molarena         MRN 148.18         3.92         1.93           MohakKHA         44.84	IPO Scorecard Performance of IPOs, most-recent lis % Chg From Offer 1st-day IPO date/Offer price close (5) price close Mangoceuticals 3.05 -23.8 -23.8 MGRX March 21/\$4.00 Ohmyhome 4.14 3.5 3.5 OMH March 21/\$4.00 Four Leaf Acquisition 10.21 2.1 0.1 FORLU March 17/\$10.00 Intchains Grp 8.25 3.1 3.1 ICG March 16/\$8.00 ICZOOM Grp 3.49 -12.8 5.4 IZM March 15/\$4.00 Borrowing Benchmark wsj.com	Company SYMBOL         Wed's offer 1st-day           IPO date/Offer price close (s)
AmericalMovil AMX 24.61 0.03 AmericalMovil AMX 24.61 0.03 AmericalMovil AMX 24.61 0.03 AmericalMovil AMX 24.61 0.05 AEP AEP 86.5 -2.05 CBRE Group CBR AmericalMovil AMX 24.61 0.25 AmericalMetalVovin AMX 24.62 AmericalMetalVovin AMX 24.62 AmericalMetalVovin AMX 24.62 AmericalMetalVovin AMX 24.62 AmericalMetalVovin AMX 24.62 AmericalMetalVovin AMX 24.63 AmericalMetalVovin AMX 24.63 AmericalMetalVovin AMX 24.63 AmericalMetalVovin AMX 24.64 AmericalMetalVovin AMX 24.64 AmatericalMetalVovin AMX 24.64 AmatericalMetalMetalMetalMetalMetalMetalMetalMet	2 205.80         -6.44         Deere         DE         394.97         -7.62           2 207.57         -490         Delftakir         Deltakir         Deltakir	HartfordFinl         HIG         67.16         2.40           Hasbro         HAS         48.93         -0.80           HealthcareRealty HR         18.11         -0.65           HeidhtpeakProp PEAK         20.23         -0.67           Heico         HEI         132.14         -0.76           Heiro A         HELA         132.14         -0.76           HenrySchein         HSIC         78.45         -1.79           Hershey         HSY         242.74         -0.45           Hess         HES         123.66         -2.43           HessHidstream HESM         26.90         -0.48           HewlettPackard HPE         14.43         -0.32	Keycorp         KEY         12.05         -0.71           KeysightTech         KEYS         154.83         2.42           Kimber/yClark         KMB         12.741         -0.61           YimcoRealty         KIM         17.57         -0.65           KinderMorgank         KO.62         -0.20           Kinsahcapatki         KSLS         27.29         -8.66           Knight-Swift         KNX         55.96         -0.74           Philips         PHG         16.37         -0.23           KoraElecPwr         KEP         6.77         -0.03           KraftHeinz         KHC         3.757         -0.47           Kroger         KR         48.04         0.22           Karatisenica         H.216.97         -0.67         -0.74           Labcorg/America         H.2L         9.75         -0.67           Labcorg/America         H.2L         9.42         Labcorg/America         -42.49           Labcorg/America         H.2L         12.07         -2.64         -0.72           Labcorg/America         H.2L         12.07         -2.64         -0.72           Labcorg/America         H.2L         2.02         -2.64         -2.72<	Morningstar         MORN 181.22         -6.66           Mosaic         MOS 43.97         -1.40           MotorolaSol         MS         267.54         -4.12           NICE         NICE 207.28         -3.13           NIO         NIO         9.09         -0.13           NIO         NIO         9.09         -0.13           NIO         NIO         9.00         -0.13           NIO         NIO         9.09         -0.13           NIO         NIO         9.09         -0.13           NRG         Energy         NRG         16.96         -1.23           I NVR         NVR         5426.07         -56.17         NXP           Nasdag         NDAQ 52.24         -1.07         Natrea         NRA         55.68         -0.57           NationalGrid         NGG 63.72         -0.21         Natilhastruments NATT         50.66         -0.37           NatiRetailProp NNT         NUW         0.22         -0.15         NetApp         NTE         25.2         -0.15           NatWest         NWW         NUW         NUW         1.83         -0.33           NetApp         NTE         85.7         -0.41         NVT <td>Key annual interest rates paid to bor international markets. Rates below don't always represent actual transition reb.index           Infiation Feb.index           Chg From (%) level           Jan. '23           Jan. '23           U.S. consumer price index           All items         300.840         0.56         6.0           Core         304.011         0.68         5.5           International rates           Latest         Veek ago         - 52-Week- High         Low           Prime rates           Latest         1.475         1.475         1.475         1.475         1.475         1.475         1.475         0.00           Situation all rates           Euro zone         3.50         3.00         3.50         0.00           Situation all rates           Euro zone         3.50         3.00         3.50         0.00           Bitract all all all alliso         1.50         </td>	Key annual interest rates paid to bor international markets. Rates below don't always represent actual transition reb.index           Infiation Feb.index           Chg From (%) level           Jan. '23           Jan. '23           U.S. consumer price index           All items         300.840         0.56         6.0           Core         304.011         0.68         5.5           International rates           Latest         Veek ago         - 52-Week- High         Low           Prime rates           Latest         1.475         1.475         1.475         1.475         1.475         1.475         1.475         0.00           Situation all rates           Euro zone         3.50         3.00         3.50         0.00           Situation all rates           Euro zone         3.50         3.00         3.50         0.00           Bitract all all all alliso         1.50	

New Highs and Lows	Stock S	52-Wk % ym Hi/Lo Chg	Stock	52-Wk Sym Hi/Lo			52-Wk % Hi/Lo Chg	Stock Sy	52-Wk % /m Hi/Lo Ch		52-Wk Sym Hi/Lo (		52-Wk % Sym Hi/Lo Ch		52-Wk % ym Hi/Lo Chg
The following explanations apply to the New York Stock Exchange, NYSE Arca, NYSE American and Nasdaq Stock Market stocks that hit a new 52-week intraday high or low in the latest session. <b>% CHG</b> -Daily percentage change from the previous trading session.	Agrify A AirIndustries A AirspanNetworks M	GIL 3.33 -4.0 GFY 0.19 -9.1 IRI 3.50 -5.3 IIMO 0.90 -3.9 LEC 5.82 -4.9	L BigLots Biomerica Bionomics	BIG 10.51 BMRA 1.84 BNOX 2.33		CXAI CYXT	1.58 -7.1 0.95 -28.4 10.60 -1.2	HalozymeTherap HA HanoverBancorp HN HawaiianHoldings HA HealthcareRealty HR HealthpeakProp PE	IVR 18.26 0 7.73 -4 18.10 -3	.0 LeeEnterprises .5 Lightng eMotor: .2 LionGroup .5 LordstownMotor: .2 LumiraDx	s ZEV 0.27 - LGHL 0.24 s RIDE 0.70 - LMDX 0.71 -:		OGEN 2.76 -2. OUT 14.93 -4. PMVP 4.92 -8.	0 SecooHolding SE 1 Senseonics SE 8 Shapeways SH 7 ShiftPixy PL	CO 0.54 3.6 NS 0.75 -10.2 IPW 0.40 -4.3 XY 3.81 -7.7
Wednesday, March 22, 2023 52-Wk % 52-Wk % 52-Wk % Stock Sym Hi/Lo Chg Stock Sym Hi/Lo Chg Stock Sym Hi/Lo Chg	AllogeneTherap A	TER 0.14 -10.0	) Braskem ) BridgelineDigita	BAK 6.67 al BLIN 0.93	-6.8 Dave -3.8 DermataThera -3.1 DigitalMediaW -2.8 Dominari		1.32 -11.8 0.02 12.6	Hempacco HP HeronTherap HR HershaHospitality HT HomeStreet HN	TX 1.96 -9 5.89 -5	9 MaidenNts46	MHLA 13.57	7.8 ParamountGrou 0.8 PartnersBancor 0.1 PearTherapWt	P PGRE 4.20 -5. P PTRS 7.52 -6. PEARW 0.03 -26.	1 SingingMachine MI 5 SmartforLife SN	MA 2.22 -4.7 ICS 2.01 -5.2 MFL 0.13 -12.3
Highs         FourLeafAcqn         FORLU         10.23         SAP         SAP         124.47         -1.           GenesisUnicorn         GENQU         11.00         3.6         Sanfilippo         JBSS         98.69         -0.           AAR         Air         56.86         5.0         GoldenbridgeWt         GBRGW         17.41.9         ShoulderUpTechA         SUAL         10.43         1.4         7.41.9         ShoulderUpTechA         SUAL         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.4         10.43         1.6         1.4         7.41.9         ShoulderUpTechA         SuAL         1.4         1.2         1.4         2.08         2.08         2.08         2.08         2.08         2.08         2.08         2.08         2.08         2.08 <td< td=""><td>AlphaTeknova TI AlpineSummit A AlticeUSA A AltoIngred A</td><td>LPS 0.84 -3.4 TUS 3.23 -5.8 LTO 1.44 -7.9 MED 72.58 -2.1</td><td>BurgerFilntl CEA Inds Wt</td><td>DRUG 0.41 VTOL 20.83 BFI 1.07 CEADW 0.04</td><td></td><td>EPRpC DEA EGIO EDBL</td><td>16.79 -3.2 12.82 -3.5 0.75 -7.0 2.56 -31.8</td><td>Honest HN HormelFoods HR HostHotels HS HuadiIntl HU HudsonPacProp HP ITTechPkg ITT</td><td>RL         38.17         -0           ST         15.07         -4           JDI         3.08         -3           P         6.01         -7</td><td>4 MariaDB 9 MarkerTherap 9 Marqeta 4 MarsAcqnRt 9 MedicalProp 6 MeiraGTx</td><td>MRDB         1.38 -:           MRKR         1.11 -:           MQ         3.84           MARXR         0.18           MPW         7.38           MGTX         5.13</td><td>1.8 PetMedExpres 4.7 PlanetLabs 5.3 PlanetLabsWt</td><td>PETS         16.32         -5.           PL         3.29         -5.           PL.WS         0.61         -3.           PSTV         0.27         3.           PSNV         3.44         -3</td><td>5 Soligenix SM 4 Sono SE 8 SunstoneHotel SH 1 SuperiorGroup SG 5 Swyl SV</td><td><b>0</b> 9.01 -5.5</td></td<>	AlphaTeknova TI AlpineSummit A AlticeUSA A AltoIngred A	LPS 0.84 -3.4 TUS 3.23 -5.8 LTO 1.44 -7.9 MED 72.58 -2.1	BurgerFilntl CEA Inds Wt	DRUG 0.41 VTOL 20.83 BFI 1.07 CEADW 0.04		EPRpC DEA EGIO EDBL	16.79 -3.2 12.82 -3.5 0.75 -7.0 2.56 -31.8	Honest HN HormelFoods HR HostHotels HS HuadiIntl HU HudsonPacProp HP ITTechPkg ITT	RL         38.17         -0           ST         15.07         -4           JDI         3.08         -3           P         6.01         -7	4 MariaDB 9 MarkerTherap 9 Marqeta 4 MarsAcqnRt 9 MedicalProp 6 MeiraGTx	MRDB         1.38 -:           MRKR         1.11 -:           MQ         3.84           MARXR         0.18           MPW         7.38           MGTX         5.13	1.8 PetMedExpres 4.7 PlanetLabs 5.3 PlanetLabsWt	PETS         16.32         -5.           PL         3.29         -5.           PL.WS         0.61         -3.           PSTV         0.27         3.           PSNV         3.44         -3	5 Soligenix SM 4 Sono SE 8 SunstoneHotel SH 1 SuperiorGroup SG 5 Swyl SV	<b>0</b> 9.01 -5.5
ASE Tech         ASX         7.83         0.9         Intapp         INTA         42.47         0.5         Squarespace         SQS 9.9         1.           AchrTestSys         AEHR         35.0         -1.1         IntegralAcgn1         INTA         42.47         0.5         Squarespace         SGS 9.9         1.           AchrTestSys         AEHR         35.0         -1.1         IntegralAcgn1         INTA         42.47         0.5         Squarespace         SGS 9.9         1.           AfricanGoldAcgn         AGLU         10.71         -0.2         IntegratedRail         INRX         10.96         2.1         SuperMicroComp         SMC         116.27         4.         aglion health         AGL         28.46         -04         IntegratedRail         IRRX         10.90         -0.4         TakedBharm         TAK         16.58         0.         AldeyraTherap         ALDX         5.22         8.5         IntegratedWeil/W Weilkweilkw         0.71         13.1         TargetGBb1         TGAA         10.43         0.43         0.43         0.43         0.43         0.44         0.43         0.43         0.44         0.43         0.44         0.43         0.43         0.44         0.43         0.43         0.43	AmHomes4Rent A AmerSoftware Al AmerStratInvt N AmerStratInvt A Ampco-Pitt A AptIncmREIT A	MH         28.88         -3.2           MSWA         12.42         -2.7           YC         7.61         -6.4           P         2.15         -7.6           IRC         33.28         -3.2	2 CNOFinDeb206 7 CadrenalThera 4 CamdenPropert 5 CampingWorld	0 CNOpA 15.66 p CVKD 1.20 y CPT 99.28 CWH 19.87 CARA 5.17	<ul> <li>-4.0 EffectorTheraj</li> <li>-3.2 EigerBioPharm</li> <li>-2.5 ElectraVehicle</li> <li>-5.0 EmergentBios</li> <li>-5.6 EnsysceBioWt</li> </ul>	p EFTR na EIGR s SOLO ol EBS	0.35 -2.7 0.95 -8.0 0.52 -8.4 7.77 -4.7	iHeartMedia iMediaBrands IM Incannex IXI IndepRealty IR1 IndepBankMI IBC	RT 4.15 -7 IBI 0.42 -13 HL 1.77 -3 T 14.93 -3	MicroVision MidAmApt MidatechPharma MidlandStBncpPf/ MidWestOneFir Mind CTI	MVIS 2.04 MAA 140.67 a MTP 0.32 A MSBIP 19.85	2.8 PolyPid 2.9 PowerREIT Pfd/ 2.8 ProvisProcision	PYPD         0.48         -1.           PWpA         8.25         -2.           PRAX         0.96         -8.           DTIL         0.78         -7.           ACDC         11.50         -3.	5 Synaptogenix SM 1 TCBioPharm TC 6 TaroPharm TA 0 Tellurian TE	BP         2.80         -4.9           IRO         24.98         -4.3           ILL         1.05         -7.0           IRO         1.47         -6.0
Arogocapa         Aogo         10.60         12         Intervariums         IPAR         14.5.2         1-1.5         IOXCapVentureII A VCXA         10.14         .           AtlCoastal II A         ACAB         10.37         JacksonAcon         RIACU         10.29         0.3         TexasRoadhouse TXRI         10.84.0         0.03.40         0.03.40         0.03.40         0.03.40         0.03.40         0.03         JacksonAcon         RIACU         10.29         0.3         TexasRoadhouse TXRI         10.84.0         0.03.40	ArcadiaBiosci R ArenaGroup A ArisWater A AshfordHosp A	KDA 6.69 1.3 REN 4.43 -6.9 RIS 8.01 -7.8 HT 2.77 -8.2	CasaSystems Centerspace	CRBU 4.33 CARM 2.77 CASA 1.05 CSR 51.26	-8.6 EssexProp -1.4 FathomDigitalV	ERAS ESS Vt FATH.WS	55.81 -2.6 2.91 -7.0 199.02 -3.4 0.02 -12.7	Investar IST	R         75.15         -4           O         0.95         -8           SM         16.25         -3           IR         15.15         -1	4 Morningstar 4 MotorcarParts 2 Movella	MORN 180.99	2.8 QUALIGENTHERAL 3.4 QualigenTheral 0.8 Quantum-SiWi 7.4 Qutoutiao	QLGN 0.93 -11. QSIAW 0.18 -3. QTT 0.15 -38.	9 U-Haul N UH 3 UnitedNatFoods UN 8 VarexImaging VR 2 VerdeCleanFuelsA VG 4 VerticalAeroWt FU	AL/B 50.04 -2.1 JFI 23.00 -4.5 REX 17.32 -4.5 JAS 6.20 -5.1
Broadcom         AVG6         64.50         -0.9         II-CapAcqnila         IAA         0.47         0.27         VitaCoco         COC           CONX         CONX         10.31         0.1         LatticeSemi         LSCC         95.17         -1.0         VitaCoco         COC         10.23         1.           ChurchillCapVII         VIII         0.1         0.1         LitticeSemi         LSCC         95.17         -1.0         WINA         30.30         -1.           ChurchillCapVII         VIII         0.1         0.1         Limbach         LMB         17.10         -1.0         WINA         37.00         314           CimbGibil         CLMB         51.35         -0.9         MaxproCapA         JMAC         -18.00         56.8         Lows	AssdBancPfdF A AtlisMotor A AultAllPfdD A AvaloTherap A	ULTpD 11.70 VTX 2.01 -7.4	<ol> <li>CentraisElBras</li> <li>CharahSolution</li> <li>ChathamLodgin</li> <li>Check-Cap</li> </ol>	EBR 5.84 s CHRA 3.65 g CLDT 9.55 CHEK 1.27	-12.2 FirstRepBkPfd -0.8 FirstRepBkPfd -4.9 FirstRepBkPfd -3.5 FirstRepBkPfd -25.7 FirstRepBkPfd	II FRCpI I FRCpJ IK FRCpK IL FRCpL	6.06 -28.1 5.65 -29.2 5.78 -28.5	IsraelAcqnsWt ISF iSun ISU iTeosTherap ITC JE Cleantech JC	RLW 0.06 -0 UN 0.83 -5 DS 12.99 -6 SE 0.50 -3	<ul> <li><sup>.6</sup> NanoXImaging</li> <li><sup>.1</sup> NatlEnerSvs</li> <li><sup>.2</sup> NatlHealthInv</li> <li><sup>.6</sup> NektarTherap</li> <li><sup>.4</sup> Netcapital</li> </ul>	NNOX         5.98           NESR         4.85           NHI         48.98           NKTR         0.78           NCPL         1.01	<ul> <li>B.9 RLJ Lodging</li> <li>A.3 RaMedicalSys</li> <li>A.0 RedRiverBcshs</li> <li>B.7 Renren</li> <li>B.8 ReWalkRobotic</li> </ul>	RENN 1.13 -12. s RWLK 0.63 -2.	5         Veru         VE           8         ViaRenewables         VI.           7         VintageWineEstates         VV           9         VornadoPfdL         VM           3         VornadoPfdM         VM	RU         1.36 -11.6           A         20.76 -20.8           VE         1.03 -8.0           IOpL         12.79 -0.6           IOpM         12.45 0.3
Operation         Darkt         10:4         0:1         10:0	AziyoBiologics A BRC B	VB 155.61 -3.3 ZYO 1.10 -2.5 RCC 4.96 -3.1 ANC 12.79 -4.7	3 Chimerix 5 ChinaPharma	CMRX 1.22 CPHI 0.33 RAAS 1.46 CODX 1.58	-3.8 FirstRepBkPfd -6.9 FirstRepubBkPfc -2.7 FlotekIndustrie -0.7 FlushingFin -14.7 FranklinStProp -5.6 FrequencyThera	IN FRCpN es FTK FFIC FSP	0.77 -6.5 14.72 -4.1 1.69 -7.7	Joann JO. KKR RealEstFin KR KwesstMicroSys KW KezarLifeSci KZ KimcoRealty KII KnotOffshore KN	REF         10.78         -4           VE         2.12         9           R         3.52         -3           M         17.56         -3	<ul> <li>9 NewtekNts2024</li> <li>6 NextNav</li> <li>6 NicholasFin</li> </ul>	NMRK         6.49           4 NEWTL         24.09           NN         1.84           NICK         5.06	5.5 RichmondMutBnc RingCentral RiteAid RubiconTech SLGreenRealty STYSECTION	RNG         27.55         -6.           RAD         2.37         -6.           RBT         0.70         -15.           SLG         21.72         -9.	1 Westwood W 7 WheelsUp UP 1 Wipro W 1 WiSA Tech W	HG 9.45 1.4 0.70 -8.4 IT 4.37 -2.0 ISA 1.91 -7.2
Duolingo         Duol         137,47         3.0         PhoenixBiotech         PBAX         10.71         0.1         Aceragen         AcGn         2.66-11           89bio         ETNB         15.79         25.2         RF Acqn A         RFAC         10.71         0.4         ActelisNtwiss         ASNS         0.36-4         Embrare         ERJ         15.65         -0.8         RedwoodsAcqn         MWD0         11.23          Adicetilio         ACET         5.91         -9	6 Beachbody B 8 BensonHill B 9 BetterChoice B	ODY 0.47 -8.4 HIL 1.19 -9.1 TTR 0.36 -9.2	1 ConsldComm	CNSL 2.30 CSAN 10.45 CMCT 4.06	-3.7 GH Research -0.2 G1Therapeutic -3.4 GSI Tech -5.9 HMN Fin	GHRS	5.70 -4.4 2.83 -9.5 1.45 2.1	KronosBio KR LINKBANCORP LN	KON 1.33 -9 KB 6.40 -7 VIM 2.70 -10	.6 NicoletBankshare .2 Nkarta .9 NorfolkSouther .6 Novocure .5 Novonix	NKTX 3.37 NSC 200.32 NVCR 56.35	4.3 SabraHealthcar 2.3 SangamoThera 3.9 SatixFyCommsW 4.8 SaveFoods	e SBRA 10.34 -4. p SGMO 1.73 -7. t SATX.WSA 0.00 13.	3 XeniaHotels XH 4 Y-mAbsTherap XN 4 YSBiopharma XS	AAB 2.81 -5.4

Mutua	l Fund	s	ſ	Data provided by	.IPPER	0	Fund	NAV	Net Chg %			Net NAV Chg S		Fund	Ne NAV Chy	t YT g%Re		NAV	Net Chg %	YTD Ret Fund	Net Y NAV Chg %		NA	Net YTD AV Chg %Ret
Ten 250 mil	tual funda liati	ngs for Nasdag-published	ahara daga				GrowthCompanyK6					12.79 +0.02		Lord Abbett I			R2020			2.3 PrmcpAdml r				.52 -0.23 NA
		•					InflPrBdIndInsPr				SrsGroCoRetail	15.13 -0.19		BdDebentr	6.93 +0.		0 R2025		-0.06 -0.14	2.4 RealEstatAdm		-5.3 Wndsr	II 37 IARD INDEX	.57 -0.65 0.8
		s day's quotation. <b>g</b> -Footno					IntlldxInstPrem				SrsIntlGrw SrsIntlVal	15.25 -0.04 10.27 -0.02		ShtDurInc p Metropolitan V	3.86 +0.	02 1.	8 R2030 R2040			2.4 SmCapAdml 2.4 SmGthAdml	86.47 -2.67	2.5 Extndl		.94 -6.78 0.8
		oper, using updated data.					LgCpGwld InstPre MidCpInxInstPrem				TotalBond	9.54 +0.08		TotRetBdl	9.31 +0.1	11 N	A Putnam Funds			2.4 SmGthAdmi STBondAdmi	72.26 -2.03 10.02 +0.07	2.0 IdxIntl		.14 3.1
		pply. <b>s</b> -Stock split or divide				LC3	SAIUSLaCpIndxFd				Fidelity SAI	9.94 +0.06	5.2	TRBdPlan	8.73 +0.		A PutLargCap p			-2.3 STIGradeAdm		1.8 MdCpG		
		d. <b>z</b> -Footnote x, e and s ap data. <b>NE</b> -Not released by							+0.09		TotalBd	9.03 +0.08	3.2	MFS Funds	0.75 .0.	10 10	Schwab Funds	27110	0110	STIPSIxAdm	23.90 +0.17	2.0 MdCpV		.15 -2.05 -5.6
		st at start of period.	Lipper; data	a under review. <b>N</b>	IN-FUND NOU		SeriesOverseas				U.S.TreBdIdx	8.90 +0.08			29.95 +0.0	02 6		NA		NA TotBdAdml		3.2 SmVal		.14 -2.14 -4.6
uackeu. NS-		st at start of period.					SerLTTreBdldx				First Eagle Fur		2.2	MFS Funds Cla		02 0.	S&P Sel	NA		NA TotIntBdldxAdn		3 4 TotBd2		.61 +0.09 3.2
L							SmCpldxInstPrem				GlbA	59.65 -0.19	2.9		140.91 -1.0	66 6.	3 TSM Sel r	NA		NA TotintiAdmidx		3.1 TotIntll	nstldx r 114	.65 3.1
		Wednesday, March	22, 2023				TMktldxInstPrem 3				Franklin A1			Valuel	45.36 -0.8		1 TIAA/CREF Fu	nds		TotStAdml	95.10 -2.11	2.1 Totitiin	stPIId r 114	
	Net	YTD	Net YT	D	Net		TotalMarketIndex				IncomeA1	2.27	1.4	Neuberger Ber			EqldxInst		-0.50	2.6 TxMCanAdm	202.93 -4.24	2.6 TotSt		.09 -2.09 2.1
Fund	NAV Chg %		Chg % Re		NAV Chg		TtllntldxInstPr				FrankTemp/Fra	nk Adv		LCVal Inst	41.19 -0.0	60 -4.	3 IntlEqIdxInst	20.05		5.0 TxMIn r	14.01 -0.01		IARD INSTL	
American Cent	tury Inv	CorBdInst 10.12	2 +0 10 3	.0 IntlCoreEa	14.04 -0.03	3 3 9	USBdldxInstPrem	10.44	+0.10	3.2	IncomeAdv	2.24 -0.01	1.0	Northern Fund	ls		VANGUARD A		_	USGroAdml	111.80 -1.92	10.3 Ballnst		.44 -0.64 NA
Ultra	61.34 -0.84		0.10 ).	IntSmCo	17.95 -0.05		Fidelity Freedor	n			FrankTemp/Fra	nklin A		Stkldx	42.02 -0.1	70 2.	9 500Adml		-6.08	2.9 ValAdml	51.79 -1.30			.03 -0.01 4.1
American Fund			+0.02 2.	.2 IntSmVa	19.43 -0.05		FF2020	13.19				106.58 -1.73		Old Westbury			BalAdml		-0.64	NA WdsrllAdml	66.65 -1.16			.93 -0.01 4.1 .68 -2.75 0.8
AmcpA	31.75 -0.49	5.6 BlackRock Funds A		LgCo	26.92 -0.45		FF2025	12.12	-0.01		RisDv A	82.10 -1.15	-0.6	LrgCpStr	14.89 -0.3	18 2.	1 CAITAdml CapOpAdml r		+0.01	<sup>1.0</sup> <sub>2.2</sub> WellsIAdml		-0.2 Extndli		.08 -2.75 0.8
AMutIA		-3.2 GlbIAlloc 16.76	5 -0.03 2.	.0 US CoreEq1	30.18 -0.56				-0.03	3.4	Guggenheim F			Parnassus Fds			Distantial Adve			-2.0 WelltnAdml	66.51 -0.40	NA InDrSo		.74 +0.13 3.3
BalA	28.78 -0.19	0.4 BlackRock Funds III		US CoreEq2	27.38 -0.52				-0.06	3.4	TotRtnBdFdClInst	23.85 +0.15	3.8	ParnEqFd	48.55 -0.0	62 3.	5 EMAdmr		+0.04	0 7 WndsrAdml	67.45 -1.42	-1.2 Instldx		.12 -5.52 3.0
BondA	11.62 +0.11	2.8 iShS&P500ldxK 463.24	-7.72 3.	.0 US Small	38.42 -0.97	7 -0.7	FF2040		-0.06		Harbor Funds			PGIM Funds C			EalacAdml			5.7 VANGUARD F		InctDlu		.12 -5.52 3.0
CapIBA	62.19 -0.33	-0.6 BlackRock Funds Inst		US SmCpVal	37.90 -0.98		Freedom2030 K			3.5	CapApInst	70.82 -0.86	NA	TotalReturnBond		10 3.	<sup>0</sup> ExplrAdml		-2.20	2.1 DivdGro	34.01 -0.48	-3.5 InstTS		.36 -1.64 2.0
CapWGrA	52.66 -0.38			.2 US TgdVal	26.61 -0.69		Idx2030InsPre			3.4	Harding Loevn			PIMCO Fds Ins			. ExtndAdml		-2.75	0.8 IntlVal	37.42 +0.02	4.7 MidCpl		.95 -1.56 -1.5
EupacA	51.72 -0.03	5.5 StratIncOpptyIns 9.23	3 +0.02 1.	.1 USLgVa	40.00 -0.79		Idx2035InsPre				IntlEq	24.43 +0.04	NA	AllAsset	10.55 +0.0		A GNMAAdml	9.42	+0.11	3.2 LifeCon	19.68	NA MidCpl		.99 -7.71 -1.5
FdInvA	61.22 -0.84	1.9 Bridge Builder Trust		Dodge & Cox			Idx2040InsPre	19.58	-0.14	3.3	Invesco Funds	A 9.61 -0.12	2.1	TotRt	8.65 +0.0	09 N	A GrwthAdml	122.55	-2.08	11.9 LifeGro	37.06 -0.27	NA RealEs	talnstl 17	.13 -0.66 -5.3
GwthA	52.65 -0.83			.1 Balanced	93.15 -0.78		Fidelity Invest				EqIncA Invesco Funds		-2.1	PIMCO Funds IncomeFd	A 10.44 +0.0	07 N	HIthCareAdml r	86.50	-0.94	-3.7 LITEIVIOD	28.26 -0.11	NA SmCap	olnst 86	.46 -2.68 NA
HI TrA			2 +0.09 3.		12.69 -0.17					-1.7		37.79 +0.09	01	PIMCO Funds		U7 IN	A HYCorAdml r		+0.01	1.7 PrmcpCor		-0.1 SmCap		.56 -7.74 NA
ICAA	41.90 -0.67		3 -0.02 5.	.7 Income	12.55 +0.11					14.2	DevMktY JHF III DispVal		0.1	Income	10.44 +0.0	07 N	InfProAd			3.2 STAR	25.06 -0.12	NA STIGra		.07 +0.06 1.8
IncoA		-1.8 LargeCapGrowth 17.99		.3 Intl Stk	43.81 -0.17						DispValMCI		-20	PIMCO Funds		07 14	IIIUGIAUIII		-0.44	6.9 TgtRe2020	26.12 -0.01	NA STIPSI		.91 +0.16 2.0
N PerA	50.07 -0.40 46.19 -0.58	5.8 LargeCapValue 14.65		.4 Stock	210.58 -4.42		CpInc GroCo	9.11	+0.02	2.1	John Hancock	23.71 -0.94	-2.7	IncomeFd	10.44 +0.0	07 N	ITBondAdml			3.5 TgtRe2025	17.18 -0.05 32.31 -0.14	NA TotBdl		.72 +0.09 3.2
NEcoA NwWrldA	40.19 -0.58 68.36 -0.26	6.2 MunicipalBond 9.80 2.9 Calamos Funds	) +0.01 1.	.6 DoubleLine Fu TotRetBdl	9.04 +0.08				+0.29	2.4	BondR6	13.63 +0.12	3.2	Price Funds	10.44 .0.	07 10	IndiaueAum			3.6 TgtRe2030 3.2 TgtRe2035	19.93 -0.11	NA TotBdl		.61 +0.09 3.2
SmCpA	57.67 -0.20		3 -0.02 2.	.1 Edgewood Gro					-0.59	-1 7	JPMorgan I Cla		2.2		115.52 -1.4	44 11	6 LTGradeAdml		-1.89 +0.08	3.2 TgtRe2035 4.9 TgtRe2040		NA TotBdl		.72 +0.09 3.2
TxExA		1.8 Columbia Class I	-0.02 Z.	Edgewood Grinst					-0.39	-1./	CoreBond	10.40 +0.09	NA	DivGro			LIGIGGEAGIN			-1.5 TgtRe2040	23.48 -0.20	NA TotIntB NA TotStIr		.33 +0.03 3.5
WshA			L -0.45 -4.		54.05 -0.55				-2.41			21.17 -0.38	NA	Growth	68.64 -0.3	70 11	<sup>4</sup> MuHYAdml			2.3 TgtRe2049	38.89 -0.35	NA Valuelr		.11 -2.12 2.1 .79 -1.30 -4.8
Artisan Funds		Dimensional Fds	. 0.72 -4.	500ldxInstPrem	137.06 -2.28		OTC	14 14	-0.17	10.2	LgCpGwth	46.66 -0.77	NA	HelSci	85.34 -1.3	21 -5.	<sup>0</sup> MulntAdml			1.7 TatRe2060		NA Valuel		
IntlVal Inst			5 -0.01 1.	.3 Contrafund K6										LgCapGow I	50.33 -0.0	61 9.	<sup>6</sup> MuLTAdml			2.0 TgtRet2055				.78 -0.11 5.7
Baird Funds				.4 ExtMktldxInstPre					-0.24	4.6	CoreBond	10.42 +0.10	NA		91.06 -1.0		6 MuLtdAdml			1.2 TatRetInc		NA Wester		./0 0.11 )./
AggBdInst	9.86 +0.10			.6 FidSerToMarket					+0.05	2.0	CorePlusBd	7.33 +0.07		NHoriz	47.83 -1.0		2 MuShtAdml				24.20 -0.04			NA NA
55		1		1		1	S. SE givinc	22.74	0.02	2.0	I			I			1				2.120 0.04	0.51 20101 1		

### **BANKING & FINANCE**

# **Insurer Chubb Requires Cuts In Emissions for Coverage**

By Leslie Scism And Rhiannon Hoyle

Global insurer **Chubb** Ltd. is tightening its requirements on insurance policies for oil-andgas producers, demanding that they reduce emissions of methane, a potent greenhouse gas.

Chubb, which is a top-10 insurer in the worldwide oil-andgas market by premium volume, will also stop underwriting projects in areas designated as protected by state, provincial or national governments, effective immediately.

The company has been under pressure from climate activists, who have targeted banks and insurers to cut off funding and insurance coverage for fossil-fuel companies. Chubb's actions fall short of their demands to quit sales to oil and gas producers.

Chubb Chief Executive Evan Greenberg said in an interview that the carrier's move wasn't motivated by activists' pressure. The insurer's plan is a "science-based and technical way" to help with carbon reduction, he said. As an underwriter, Chubb will be able to verify that clients are taking the required steps. "If not, then we won't underwrite them," he said.



CEO Evan Greenberg was derided by protesters at tennis's U.S. Open.

A wholesale quitting of sales to producers, he said, puts at risk the nation's energy security, because renewable energy isn't ready to pick up the slack. "We're trying to balance between society's two competing interests," he said.

He said many of the company's oil-and-gas clients have technology in place for reducing methane emissions, "and those that don't, we're giving them a grace period to put a plan in place." Methane is about 85 times more potent than carbon dioxide at trapping heat over two decades. Consequently, it accounts for about 30% of the rise in global temperatures observed since industrialization began, according to the International Energy Agency.

Some insurers have halted coverage for new oil- and gasfields projects or in sensitive locations, environment groups say. Chubb's action is different in that it aims to reduce emis-

sions by developing best practices for existing operations of its clients, not to mandate blanket underwriting exclusions on most or all new fossil-fuel activity.

Chubb will require clients to provide "evidence-based plans" for managing their methane emissions, including at a minimum programs for leak detection and elimination of nonemergency venting.

Clients must also adopt one or more technologies that have been demonstrated to reduce emissions from flaring, which turns methane gas into carbon dioxide and water vapor. Chubb will help clients to identify the technologies.

Chubb is one of the world's largest publicly traded property-casualty insurers, so activists have long had it in their sights. In 2021, protesters hauled an inflatable of Mr. Greenberg's likeness outside the U.S. Open tennis tournament, where Chubb is a sponsor.

Elana Sulakshana, senior energy finance campaigner for environment group Rainforest Action Network, said the changes "represent a major step forward." Still, she said Chubb "must stop underwriting the expansion of fossil fuels everywhere."

### SVB Effort Ran Out Of Time

*Continued from page B1* only to run into the U.S.'s bankfunding system, which wasn't built for speed. First it turned to the San Francisco Federal Home Loan Bank, asking for a \$20 billion loan. The FHLB system is a nearly 100-year-old network of privately capitalized, government-sponsored banks meant to support mortgage lending.

The FHLBs play another role. Banks leave collateral such as mortgages with FHLBs in exchange for credit lines. To advance the money, the FHLBs have to issue debt, which means they can generally only lend when the market is open. It was midday in California, and SVB's unusually large request came too late for the San Francisco FHLB to process that day, people familiar with the matter said. It offered SVB a smaller loan but the bank turned that down, the people said.

SVB turned to plan B, asking the San Francisco FHLB to move \$20 billion of collateral to the Federal Reserve Bank's discount window, where it could get emergency funding, the people said. The bank hit another roadblock. SVB had outstanding loans at the San Francisco FHLB, which had to determine how much collateral it needed to hold, the people familiar with the matter said.

SVB also tried to get \$20 billion in assets to the Fed through Bank of New York Mellon Corp., one of its custodial banks. SVB missed BNY Mellon's daily cutoff for Fed transfers. SVB's then-chief executive, Greg Becker, called Robin Vince, CEO of BNY Mellon, to ask for an extension. BNY Mellon agreed to try. Over the next few hours, BNY Mellon worked with SVB and Fed officials who are responsible for the securities wire. Time ran out and SVB couldn't get the money that day.

Customers withdrew \$42 billion from SVB on March 9. The bank had a negative cash balance of about \$1 billion as of

#### It asked the San Francisco Federal Home Loan Bank for a \$20 billion loan.

the close of business that day. The next day, the BNY trans-

fer went through, potentially allowing SVB to borrow from the central bank. According to people familiar with the matter, the San Francisco FHLB was still working on its transfer when executives saw an announcement from the Federal Deposit Insurance Corp.: The regulator had taken over SVB.

— Ben Foldy and Rachel Louise Ensign contributed to this article.

Biggest 1,000	STOCKS   WSJ.com	stocks	Net Stock Sym Close Chg					Net Stock Sym Close Cha	
Continued From Page B9	Ne	t Not						Stock Sym Close Chg	
Net	Stock Sym Close Ch		Stryker <b>SYK</b> 272.34 -5.78			UPS B UPS 185.54 -1.25		Whirlpool WHR 127.16 -3.83	
Stock Sym Close Chg			SumitomoMits SMFG 7.89 -0.09 SunComms SUI 129.45 -4.12	TeledyneTech <b>TDY</b> 421.05 -3.51 Teleflex <b>TFX</b> 240.80 -4.07		UnitedRentals URI 389.21 -9.08 US Bancorp USB 34.79 -2.73		Williams WMB 28.64 -0.54 Williams-Sonoma WSM 119.01 -4.21	
	Samsara IUI 16.20 -0.5		SunLifeFinancial SLF 45.17 -0.30			UnitedTherap <b>UTHR</b> 212.99 -9.34		WillisTowers <b>WTW</b> 225.91 -3.87	
RobertHalf RHI 74.63 -2.63	Sanofi SNY 48.79 0.2		SuncorEnergy SU 30.01 -0.42			UnitedHealth UNH 475.52 -4.58	WEC Energy WEC 90.63 -1.28	WillScotMobile WSC 45.99 -1.41	
Robinhood HOOD 8.93 -0.41		6 Smith&Nephew SNN 28.53 -0.13	Suzano <b>SUZ</b> 8.12 -0.04	Telefonica TEF 4.09 -0.01		UnitySoftware U 28.36 -1.44	WEX WEX 1/0./9 -6.54	Wipro WIT 4.38 -0.09	
Roblox <b>RBLX</b> 42.85 -1.89	Sasol <b>SSL</b> 12.80 0.0 Schlumberger <b>SLB</b> 47.40 -0.8		Support Fin EVE 29.04 0.06	TelekmIndonesia TLK 26.59 -0.08		UnivDisplay OLED 144.89 -1.56	W.P.Carey WPC 75.40 -2.37	Wolfspeed WOLF 61.19 -2.61	
RocketCos. <b>RKT</b> 8.36 -0.19	Schumberger SLB 47.40 -0.8 SchwabC SCHW 56.26 -3.2	8 Snap SNAP 11.05 -0.33 1 Snap-On SNA 233.66 -5.42	Synopsys SNPS 371.35 -3.01			UniversalHealthB UHS 122.24 -3.64	WPP WPP 57.70 -0.52	WoodsideEnergy WDS 21.74 0.37	
Rockwell ROK 277.63 -5.53			Sysco SYY 74.06 -1.14	Tenaris <b>TS</b> 28.86 -0.77			Wabtec WAB 95.56 -2.38	WooriFin WF 25.71 -0.41	
RogersComm B RCI 45.24 -0.22 Roku ROKU 62.94 -2.97	Seagate STX 60.52 -1.5			TencentMusic TME 7.18 0.04			WalgreensBoots <b>WBA</b> 32.50 -1.04 Walmart <b>WMT</b> 139.52 -0.90	Workday WDAY 184.29 -6.41	
Roku ROKU 62.94 -2.97 Rollins ROL 36.38 -0.39		4 SolarEdgeTech SEDG 289.52 -6.99		Teradyne <b>TER</b> 104.37 -1.99			WarnerBrosA WBD 14.51 -0.58	WW Ent WWE 84.18 -1.94	
RoperTech <b>ROP</b> 428.58 -1.86				Tesla <b>TSLA</b> 191.15 -6.43			WarnerMusic WMG 30.87 0.30	WynnResorts WYNN 105.75 -2.44 XP XP 11.38 -0.40	
RossStores <b>ROST</b> 102.61 -1.53	Sempra SRE 142.00 -3.5						WasteConnections WCN 132.19 -1.14		
RoyalBkCanada RY 93.26 -1.41		3 SoCopper <b>SCCO</b> 70.96 -0.39		TevaPharm <b>TEVA</b> 8.73 -0.07 TexasInstruments <b>TXN</b> 176.32 -2.09	UBS Group UBS 20.40 -0.65 UDR UDR 38.18 -1.05	ValeroEnergy VLO 131.77 -0.42 ValmontInds VMI 304.61 -7.16	WasteMgt <b>WM</b> 152.09 -2.42		
RoyalCaribbean RCL 60.75 -2.64		5 SouthwestAir LUV 30.08 -0.96		TexasPacLand TPL 1646.07 -60.43	UGI UGI 34.27 -1.15				
RoyalGold RGLD 122.04 0.15				TexasRoadhouse <b>TXRH</b> 106.26 -0.14	U-Haul <b>UHAL</b> 55.45 -1.73		144.1		
RoyaltyPharma RPRX 34.86 -0.33		5 Spotify SPOT 128.20 -0.61	TFI Intl TFII 116.43 -2.27	Textron <b>TXT</b> 67.47 -1.23		VeriSian VRSN 197.16 -3.44		Yum!Brands YUM 127.64 -0.91	
RyanSpecialty RYAN 38.02 -0.79	Shell SHEL 56.85 -0.2	7 StanleyBlackDck SWK 76.55 -3.12		ThermoFisher TMO 554.32 -2.38				YumChina <b>YUMC</b> 62.52 1.35	
Ryanair RYAAY 92.00 -0.38	SherwinWilliams SHW 211.34 -9.4		T-MobileUS TMUS 143.46 -1.21	ThomsonReuters TRI 125.68 -0.10	UWM UWMC 4.60 -0.08	Verizon <b>VZ</b> 37.31 -0.43		ZTO Express <b>ZTO</b> 28.27 0.04	
I SAP SAP 122.24 -1.24	ShinhanFin SHG 26.90 -0.1	0 Starbucks SBUX 99.12 -1.42	TPG <b>TPG</b> 28.06 -0.70	3M MMM 101.54 -2.75			Wescolntl WCC 144.11 -3.45	ZebraTech ZBRA 288.11 -6.32	
S&P Global SPGI 335.72 -5.88	ShockwaveMed SWAV 210.15 -4.8		T.RowePrice <b>TROW</b> 108.13 -2.35		Ubiquiti UI 265.46 -5.59	Viatris VTRS 9.40 -0.25	WestPharmSvcs WST 328.94 -6.09	Zillow C Z 41.95 -0.68	
SBA Comm SBAC 246.21 -8.63		8 SteelDynamics STLD 107.27 -3.78		Toll Bros TOL 57.80 -0.46	UiPath PATH 16.22 -1.18	Vipshop VIPS 14.91 0.35	WesternDigital WDC 34.70 -0.77	Zillow A ZG 41.27 -0.67	
SEI Investments SEIC 55.62 -1.10	SignifyHealth SGFY 29.04 -0.1					Visa V 220.04 -1.91		ZimmerBiomet <b>ZBH</b> 125.39 -2.40	
SK Telecom SKM 20.81 -0.13			TakedaPharm TAK 16.43 0.03		Unilever UL 50.96 0.40			Zoetis <b>ZTS</b> 161.38 -4.86	
SS&C Tech SSNC 54.26 -1.40		2 Stevanato STVN 23.03 -0.37		TorontoDomBk TD 56.79 -0.42				ZoomVideo <b>ZM</b> 68.75 -3.10	
Saia SAIA 274.30 -7.21	SkechersUSA SKX 44.34 -0.9			TotalEnergies TTE 58.16 -0.70				ZoomInfoTech ZI 23.49 -0.58	
Salesforce CRM 186.51 -2.17	Skyworks SWKS 114.32 -2.4	5 STMicroelec STM 49.31 -0.40	Target <b>TGT</b> 157.47 -5.24	ToyotaMotor TM 135.57 -0.21	UnitedMicro UMC 8.68 -0.05	VoyaFinancial VOYA 66.34 -1.53	WheatonPrecMet WPM 45.92 0.87	Zscaler <b>ZS</b> 108.86 -4.16	

# Monitor the Market

Build a custom watchlist to track companies and indexes you care about.

**EXPLORE** WSJ.com/buildwatchlist







© 2023 Dow Jones & Co., Inc. All rights reserved. 6DJ8682

### **MARKETS**

# SEC Says Celebrities Illegally Touted Crypto

Actress Lohan, boxer Paul, others to pay combined \$400,000 to settle investigation

#### BY DAVE MICHAELS

WASHINGTON-U.S. regulators clawed back money that actress Lindsay Lohan and boxer Jake Paul earned by promoting cryptocurrencies, continuing a campaign of making examples of celebrities who tout digital assets in violation of investor-protection laws.

Ms. Lohan, Mr. Paul and

four other celebrities agreed to pay a combined \$400,000 to settle the Securities and Exchange Commission's investigation of their role in the promotion of crypto assets TRX and BTT.

The SEC also alleged that Justin Sun, whose companies sold those digital assets, artificially boosted TRX's trading volume in 2018 and 2019 by having his own employees buy and sell the token.

Mr. Sun is a crypto entrepreneur and investor who paid \$4.6 million to have dinner with Warren Buffett. Ms. Lohan and Mr. Paul agreed to

settle the SEC's claims without admitting or denying wrongdoing.

Attorneys for Ms. Lohan and Mr. Paul didn't respond to a request for comment.

The SEC has previously brought enforcement actions against celebrity influencers such as Kim Kardashian, DJ Khaled, Steven Seagal and athletes Paul Pierce and Flovd Mayweather over their role in promoting cryptocurrencies. The SEC maintains that the digital coins touted by these celebrities are securities and thus regulated by the SEC.

Under U.S. law, people who

promote securities to potential investors are required to disclose they are being paid for doing so.

The provision was originally intended to protect investors from newspaper articles that touted stocks but didn't disclose that the writer's opinion was bought and paid for.

Recently, the SEC has used the law to crack down on crypto promotions that permeate social media.

According to a settlement order. Ms. Lohan. who has 8.4 million Twitter followers, was paid \$10,000 to post a tweet

that said: "Exploring #DeFi and already liking \$JST, \$SUN on \$TRX. Super fast and 0 fee. Good job @justinsuntron."

She must pay the \$10,000 to the SEC and pay a civil monetary penalty of \$30,000.

Mr. Paul, 26 years old, gained fame from YouTube videos before becoming a star as a boxer, although he lost his most recent fight to boxer Tommy Fury.

Mr. Paul earned \$25,019 for promoting TRX in a tweet sent in February 2021, the SEC said.

Mr. Sun's company, Tron Foundation Ltd. paid Mr. Paul

in cryptocurrency, the SEC said in a settlement order. Under his settlement with the SEC, Mr. Paul must give up the money he earned and pay a fine of \$75,057.

The SEC also accused rappers DeAndre Cortez Way (known as Soulja Boy), Miles Parks McCollum (Lil Yachty) and singers Shaffer Smith (Ne-Yo) and Aliaune Thiam (Akon) of taking undisclosed payments for promoting TRX. Mr. Way didn't settle the SEC's investigation and was named as a defendant in a lawsuit the SEC filed in Manhattan federal court.

# **Canada's EV Sector Lures Investment From Abroad**

#### BY VIPAL MONGA

**TORONTO**-Multinational companies are pumping billions of dollars into Canada's electric-vehicle manufacturing sector, lured by government incentives, access to raw materials and cheap renewable energy.

In the latest sign of interest in the country, German auto maker Volkswagen Group last week said it had chosen a site in the prov-

**COMMODITIES** ince of On-

tario to build its first battery-cell plant outside Europe. A company spokesman declined to provide specifics about the investment, but Canada's industry minister said the investment, in the town of St. Thomas. 120 miles northeast of Detroit, could rank as the largest ever made in Canada's auto sector.

"This is a big moment for Canada," said François-Philippe Champagne, Canada's minister of innovation, science and industry, about the many investments.

Volkswagen cited Canada's

natural resources as one of the reasons for choosing Ontario. "Canada offers ideal condi-

tions, including the local supply of raw materials and wide access to clean electricity," the company said.

Volkswagen's planned factory follows recent electric-vehicle and battery-making project investments by General Motors Co., Stellantis NV, French tire maker Michelin NV. Brazilian miner Vale, its U.K.-based rival **Rio Tinto** PLC, and German chemicals company **BASF** SE, among others.

Canada is benefiting from a push by the U.S. and its allies to reduce their dependence on China for the critical minerals used in electric-vehicle batteries and military equipment. Companies announced more than \$11 billion in investments in electric-vehicle-related projects in Canada last year, according to a tally of company announcements. The U.S., which has an economy that is 12 times as large as Canada's, recorded \$38.9 billion of similar investments in 2022, according to the Center for Automotive Research, Michigan-based nonprofit.

In one example, Stellantis and South Korea's LG Energy Solution are building a \$4.1 billion battery plant in Windsor, Ontario, just across the river from Detroit. The joint venture, named NextStar Energy Inc., broke ground on the factory late last year and could employ 2,500 workers when it becomes operational in 2024, Stellantis said.

Canada has had to pay up to win the investments, scrambling to keep up with the U.S.. which has unveiled a raft of subsidies and tax breaks meant to draw capital investment in the EV industry.

In the case of the NextStar project, Canada's federal government and the province of Ontario gave more than one billion Canadian dollars, equivalent to \$732 million, to the joint venture, said people with knowledge of the transaction. The Canadian government has also contributed money to investments by Rio Tinto, Honda

Canada Inc., GM and others. The new investments, many of which are still in the early stages, come amid a decadeslong decline in the Canadian auto industry. Canada is among the most expensive countries in the world to build cars and the highest-cost market for car assembly in the North American free-trade zone. To save money, auto makers in recent decades moved thousands of manufacturing jobs and motor-vehicle assembly capacity to Mexico. At its peak in 1999, Canadian

auto production surpassed

three million vehicles and employed more than 175,000 people, according to the Trillium Network for Advanced Manufacturing, a nonprofit. Last year, the local industry produced 1.2 million vehicles and employed 110,000 people.

It is unclear whether the new investments will reverse the declining trend, said Greig Mordue, an associate processor at the University of Mc-Master's W. Booth School of Engineering Practice and Technology. Making batteries and electric vehicles needs fewer people than assembling internal-combustion-engine cars, he said, and the amount of money invested using taxpayer funds could limit the economic benefit.

"Until we know how much we paid for this, I'll reserve my judgment on how good a deal this is," said Mr. Mordue, in reference to the Volkswagen deal.

Mr. Champagne declined to disclose the value of subsidies and incentives that the government offered Volkswagen. He said the long-term benefits to the Canadian economy from the new projects justify the government's investments.

### **UBS** Likely To Shrink Shipping Portfolio

BY COSTAS PARIS

### Abu Dhabi Fund, Ares Form Credit Venture groups without direct-lending

#### By ROD JAMES

Ares Management Corp. and Mubadala Investment Co. have formed a joint venture to buy secondhand stakes in private-credit funds.

The partnership, anchored by Mubadala, the Abu Dhabibased sovereign-wealth fund will initially invest around \$1 billion in deals involving portfolios acquired from investors in private funds and deals instigated by fund managers, according to a statement seen by The Wall Street Journal. The amount of capital made available for investment will increase as the credit secondary market expands, the statement said.

ondary strategy will be led by ten driven by a broader focus Dave Schwartz, who most recently served as co-head of the alternative-asset manager's U.S. direct-lending business, according to the statement.

The joint venture will primarily target acquisitions of on portfolio diversification and liquidity, rather than a view on the private-credit asset class," Mr. Schwartz said, adding that sellers often are motivated enough to accept a discount to a fund's holding value to get a deal done.

businesses. This makes them less likely to have detailed knowledge of the underlying assets in credit funds, a strength of Ares' offering, according to Mr. Schwartz.

Many competitors invest out of pools of capital raised to invest in private equity, which have higher return expectations, he added. The senior leadership team for Ares' credit secondary strategy also includes Head of Private Equity Secondaries Nathan Walton as well as Partners Sebastien Burdel and Luca Salvato, according to the statement viewed by the Journal.

through Ares' acquisition of Spring Bridge Partners, a secondary investment firm they co-founded.

In 2021 Ares acquired Landmark Partners, one of the longest-standing investors in the secondary market, in a \$1.08 billion deal. At the time of the acquisition, Ares said it saw growth potential in Landmark's business, including expanding beyond its existing private-equity, real-estate and infrastructure secondary businesses into credit.

# The country touts its access to raw materials and cheap renewable energy. An industrial site in Quebec.

**UBS Group** AG likely will shrink the \$10 billion shipping portfolio it inherited from Credit Suisse Group AG after its emergency takeover on Sunday, according to people familiar with the matter.

Credit Suisse is the world's 10th largest shipping lender. About half its portfolio involves Greek shipowners that use their deposits in the bank's wealthmanagement unit as collateral to finance new ships.

Credit Suisse's top shipping bankers haven't been notified of any changes yet, but many expect UBS will move to cut ship financing and let the portfolio shrink. The people familiar with the matter said UBS prefers not to get into assetbased financing deals.

UBS also could try to sell the portfolio, but there are concerns that a fast sale could scare away rich depositors, the people said. Either way, the bank is unlikely to keep the business intact, they said.

A UBS spokesman said it was too early to say whether UBS would keep or sell the shipping portfolio. "We are at the beginning of a comprehensive integration planning process to help finalize the specifics of the future organization," he said.

People involved in the takeover process said selling the shipping portfolio could prompt owners to move their accounts elsewhere. They said dismantling the shipping loans from the wealth-management deposits would take time. Greek shipowners are estimated to have more than a \$1 billion in private Swiss bank accounts, according to people familiar with the matter.

Some analysts said the owners would have no problem finding other banks to finance their ships. "Credit Suisse's shipping clientele consists of quality and financially strong owners who could easily refinance their loans with other willing lenders," said Ted Petropoulos, head of Athensbased Petrofin Research.

Ares' private-credit sec-

Continued from page B1

government debt.

MARKETS

cuses on the shortest-term

WEDNESDAY'S ing series of

the last 12 months has pum-

meled stock valuations. But on

Wednesday the Fed's indica-

tion that rates could be near-

A blister-

Fed rate in-

creases over

"senior. secured. dollar-one" first-lien loans, holders of which get paid first in the event of default, Mr. Schwartz said. The venture will give priority to portfolios of credit-fund stakes unloaded by institutional investors, many of which are looking to sell private assets to make up for liquidity shortfalls elsewhere in their portfolios, said Mr. Schwartz.

"The decision to sell is of-

Ares estimates there is around \$10 billion of privatecredit secondary deal volume annually, equivalent to around 1% of the total capital raised for private-credit funds. Mr. Schwartz added that the addressable market could be "meaningfully higher" than is reported.

There are few pools of capital dedicated to credit secondary deals and much of the cap-

ital that exists is held by

Messrs. Burdel and Salvato joined Ares in January 2022

Ares is the latest of several high-profile entrants into the secondary market in recent years. Others include Apollo Global Management, which launched its offering in 2021 with \$1 billion to deploy.

Composite has rallied 1.9% this month, extending its 12% gain for the year, while the S&P 500 is down 0.8% in March and has given up almost all of its early year advance.

Lori Van Dusen, founder and chief executive of LVW Advisors in Rochester, N.Y., cautions investors to actively pick stocks instead of just buying funds tied to an index, noting that the hefty weighting of tech companies during the dot-com bubble led to big market declines.

"The index is more concentrated than it's been. You're just making a bet that these are going to be the places to be going forward and that's usually a bad bet," she said. "That is not the way to make money in the coming years."

Microsoft, Apple Rule Markets out there."

More broadly, investors have piled into tech stocks to hide out from the banking crisis amid hopes that the Fed is nearing the end of its campaign of raising interest rates. The tech-focused Nasdaq

economy by curbing lending. Rising interest rates have strained some banks, pressuring them to raise their deposit rates while devaluing their assets.

GameStop, a favorite of day traders, surged \$6.22, or 35%, to \$23.87. The videogame retailer on Tuesday reported an unexpected profit.

In commodity markets, Brent crude, the international oil benchmark, rose \$1.37 a barrel, or 1.8%, to \$76.69. Oil prices have still fallen more than 10% in 2023.

The WSJ Dollar Index fell 0.49% to 96.26.

The pan-continental Stoxx Europe 600 edged up 0.2%.

Early Thursday, Japan's Nikkei 225 was down 0.2%, Hong Kong's Hang Seng Index was up 0.5% and the Shanghai Composite and South Korea's Kospi were flat. S&P 500 futures rose 0.5%.

#### **AUCTION RESULTS**

Here are the results of Wednesday's Treasury auction. All bids are awarded at a single price at the market-clearing yield. Rates are determined by the difference between that price and the face value.

17-WEEK BILLS						
	Applications	\$94,694,183,600				
	Accepted bids	\$36,717,382,600				
	" noncompetitively	\$673,619,800				
	" foreign noncompetitively	\$0				
	Auction price (rate)	98.411681				
		(4.805%)				
	Coupon equivalent	4.964%				
	Bids at clearing yield accepted	57.03%				
	Cusip number	912797FZ5				
	The bills, dated March 28, 2023, matu	re on July 25,				

#### ing their peak brought little re-Indexes lief to sectors that have faced pressure lately. S&P 500 finan-Fall After Rate Hike

cial stocks lost 2.4% and realestate shares were off 3.6%. Banking upheaval on both sides of the Atlantic has mud-

died investor sentiment and made the Fed's job more challenging.

The collapses of Silicon Valley Bank in the U.S. and Credit Suisse in Europe have forced central bankers to weigh their commitment to inflation-fighting rate hikes against the possibility that more such moves could exacerbate difficulties for big and small banks.

The S&P is still in positive territory this year. But with an already cloudy economic outlook further darkened by bank distress, buying into the stock market's optimism could prove shortsighted, said Rich Weiss, chief investment officer of multiasset strategies at American Century Investments.

"The banking issues are just confirming evidence to us that things are likely to get worse before they get better," Mr. Weiss said. Similar to Mr. Pride's, the funds he oversees have been shunning stocks in favor of cash and safer bonds.

Adding complexity to the Fed's challenge are many investors' and economists' concerns that distress in the banking sector will itself slow the

Continued from page B1 tal," Mr. Sohn said. "There's just more comfort with the way Apple and Microsoft are viewed as opposed to going out and buying any tech name

Microsoft shares have risen 14% this year. A company booth at an electronics show in January.

# HEARD ON STREET

FINANCIAL ANALYSIS & COMMENTARY

# Fed Tightened in Shadow of SVB

Central bank erred on the side of inflation caution, noting bank turmoil will tighten conditions

Federal Reserve policy makers raised rates on Wednesday, but they tried to do so in a kind way. Maybe that is the most important takeaway.

The quarter-point increase in the Fed's target range was largely, but not entirely, expected. With all the recent trouble in the banking sector, some economists had forecast the central bank would hit the pause button.

Similarly, although interest-rate futures put higher chances on a rate increase than not, they didn't rule out a pause.

In the statement that followed the meeting, the Fed sought to both reassure and to acknowledge the greater risks. "The U.S. banking system is sound and resilient," it

read. "Recent developments are likely to result in tighter credit conditions for households and businesses and to weigh on economic activity, hiring, and inflation."

Policy makers also softened their language on further rate increases: After January's meeting, the statement said the rate-setting committee anticipated "ongoing increases" in rates would be appropriate. Wednesday's statement said "some additional policy firming may be appropriate.'

Meanwhile, projections the Fed released following the meeting showed that the median policy maker still expects the midpoint of the target range on rates will be a quarter point higher than now by year-end, and on balance some

policy makers expected rates would need to rise by even more than in December.

But ahead of the rate decision, there was some concern that, with inflation not falling as fast as hoped and the job market still going strong, the median rate projection would be raised despite recent banking concerns.

In his postmeeting press conference, Fed Chairman Jerome Powell underscored the view that the central bank won't need to raise rates as much as it might have prior the collapse of Silicon Valley Bank. noting the effect of tighter credit conditions that will ensue can be thought of "as being the equivalent of a rate hike or perhaps more than that."

The message that investors can take away from this is that policy makers are at least attuned to the possibility that they might not need to raise any more. As a result, they might adopt a bit of a wait-and-see attitude, leaving rates unchanged at their next meeting in early May while they assess what sort of effects the banking troubles have had on the economy.

This doesn't mean that inflation has been solved, or that still-brisk demand for workers might more than counteract any reduction of credit on the economy. But in the weeks ahead, at least, investors might wish all they had to worry about was the Fed tightening. Justin Lahart

# Lilly Priced for Perfection in Obesity Market

Eli Lilly isn't your typical bigdrug company.

While the industry stares down a scary patent cliff, Lilly has bucked the trend with a pipeline of promising products that are expected to double its revenue by the end of the decade. However, with a market value now firmly above \$300 billion, caution has begun to creep in. It appears warranted as data from two key late-stage studies are set to be released in coming months.

Results from an 1,800-patient late-stage trial of donanemab, Lilly's anti-amyloid medication for Alzheimer's, are expected in the second quarter. Positive findings could position Lilly as the only competitor to Biogen's Leqembi. Lilly stock soared in September when Biogen surprised investors with data showing Legembi reduced cognitive and functional decline by 27% compared with a placebo. While investors are optimistic about the Lilly study, there are risks. A key concern will be how the drug's safety profile compares with Leqembi. Both drugs cause brain swelling, but if donanemab's safety data are significantly worse than expected, its commercial prospects could be dimmed.

A bigger opportunity for Lilly lies in the obesity-diabetes market.



Sales of diabetes-obesity drug Mounjaro could play a big role at Lilly.

Investors are optimistic newer GLP-1 medicines for diabetes and obesity could create one of the largest drug categories in the industry's history. Pfizer recently forecast the total peak market opportunity for this drug class at \$100 billion annually. Lilly and Novo Nordisk are the main players in this market, though companies such as Pfizer and Amgen have earlier-stage products under development. At current levels. though, Lilly's share price is baking in success way above analyst consensus forecasts, writes Akash

Tewari, an analyst at Jefferies. He added, while he is bullish on Lilly's diabetes-obesity drug Mounjaro, predicting \$40 billion in peak sales, the company would need to get to \$65 billion in combined GLP-1 sales for its shares to rise as high as \$400. The stock closed down slightly at \$331.03 on Wednesday. In the near term, a key study

from Novo Nordisk could have a big impact on how insurers, including Medicare, decide to provide coverage for this new class of drugs. The late-stage study aims to determine

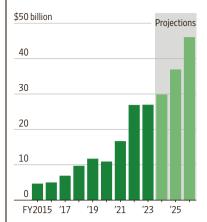
whether Novo Nordisk's semaglutide can cut cardiovascular risks in overweight patients. Proving that obesity drugs not only help people trim waistlines, but also reduce mortality, will be key to getting broader buy-in from insurers.

Analysts are divided on the likelihood of positive results. Morgan Stanley analysts recently wrote that, while they expect the trial to be positive, "if the trial fails or the effect size is at the low-end of expectations," Lilly shares could "trade down given questions about obesity market creation and hence implications for outer year sales of Lilly's Mounjaro."

Lilly shares are up 170% over the past three years, making it the bestperforming big-drug stock in the U.S. That compares with a 58% gain for the NYSE Arca Pharmaceutical Index over the same period. The stock is down 10% this year, reflecting concerns that the valuation has become stretched. Even after recent weakness, the shares are trading at 28.7 times 2024 earnings compared with a 13.6 multiple for the industry.

To go much higher from here, everything needs to go right this year. Investors seeking to get in on the GLP-1 opportunity should be cautious. -David Wainer

#### Nvidia's annual revenue



Note: Most recent fiscal year ended Jan. 29 Source: FactSet

### Nvidia **Takes Lead** In AI Race

#### Stock near record value as it extends lead

Perhaps no tech company, not even Microsoft or Alphabet's Google, is better poised than Nvidia to reap significant nearterm benefits from the race to build up generative artificial-intelligence capabilities. Here is the problem: Everyone knows it.

Nvidia's share price has more than doubled over the past six months. That makes it the best performing stock in the entire S&P 500 in that time. The chip maker's market value has surpassed that of Tesla and Meta Platforms and is close to eclipsing Berkshire Hathaway.

The bulk of Nvidia's gains have come in the past three months, as the public launch of the AI-powered chatbot called ChatGPT in November sparked new enthusiasm for socalled generative AI, and how it could revolutionize services like internet search. The technology requires intense computing power in data centers, where Nvidia built up a large and growing business for its graphics processors and software for AI applications. The company made a slew of announcements Tuesday as part of its annual GTC developers conference that focused mostly on the generative AI opportunities.

Matt Ramsay of TD Cowen characterized the event as showing "the runaway leader in AI broadening aperture further," while Mark Lipacis of Jefferies said the developments further Nvidia's position as 'the de-facto standard for AI and generative AI applications," in a note to clients. Nvidia held an analyst meeting after Tuesday's closing bell, where Chief Financial Officer Colette Kress said the company is seeing "more and more demand" from its major cloud customers. That helped push the stock up 1% Wednesday on a weak day for stocks. Nvidia's shares fetch just under 60 times forward earningsa level the volatile stock has seen only once before in the past decade. That has created a quandary for analysts who are enthusiastic about Nvidia's prospects but know all too well the cyclical nature of the semiconductor market—and Nvidia. According to FactSet data, Nvidia's stock price jumped above 50 times forward earnings three times since late 2017, only to come crashing down on periods of gaming weakness, shifts in data-center spending and swings in demand from cryptocurrency miners. Will this time be any different? Nvidia's business related to generative AI depends almost entirely on capital expenditures by the largest tech giants-Microsoft and Google, in particular. Both rolled out aggressive plans over the past month to incorporate generative AI into services like search and office software; Google's Bard chatbot launched to the public on Tuesday. Tim Arcuri of UBS projected in a note last week that generative AI could add demand generally for \$10 billion to \$15 billion of graphics chips, or GPUs, over the next year or two. Analysts expect Nvidia's annual revenue to top \$46 billion in three years, which implies an annual growth rate averaging 20%. But Nvidia may face competition from Advanced Micro Devices, which is rolling out GPU chips for data centers. Still, Nvidia is seen as too good to pass up. Joseph Moore of Morgan Stanley upgraded the stock to a buy last week, even while noting the valuation "has moved to the stratosphere." Mr. Moore noted "the development of generational AI is too much of a megatrend to get distracted by tactical concerns." Nvidia's stock may be hard to bet on at these levels, but betting against it seems unwise as well. -Dan Gallagher



European politicians worry generous U.S. subsidies for green-energy technologies will lure investment to America.

### Europe Is Hobbled in Green-Hydrogen Competition

Excitement about green hydrogen is high in energy circles. Europe had an early lead, but the

U.S. is doing the better job of powering up the new industry. Officials in Brussels announced

plans last week to set up a European Hydrogen Bank as part of its re-

- sponse to the \$369 billion of cleanenergy funding in the U.S. Inflation Reduction Act. The bank, due to
- launch by the end of the year, should boost renewable-hydrogen supply by
- using an auction process that links buyers and sellers, and by subsidizing the higher cost of producing the carbon-free gas compared with fossil-fuel alternatives. So-called green hydrogen is made by using an electrolyzer to split water into hydrogen and oxygen using renewable electricity. Most hydrogen is derived from natural gas and considered "gray."

European politicians worry Washington's generous subsidies for green-energy technologies will lure investment to America. Governments in both regions hope low-carbon hydrogen can help to decarbonize industries such as steel and shipping. Increasing domestic production would help Europe to lower its reliance on imported fossil fuels.

But companies find it harder to figure out what help is available in Europe. "The real charm of the IRA is its simplicity," says Leif Christian Kröger, business-development manager at electrolyzer maker Thyssenkrupp Nucera.

There are subsidies but the cash is spread all over the place. Funding of up to €5.2 billion, equivalent to \$5.6 billion, for hydrogen projects was approved in September and close to €270 billion of unused EU Covid-19 recovery funds can be redirected to clean-energy projects. Grants worth €1.5 billion are available for companies building infrastructure such as hydrogenfueling stations. That's not to mention support that is available from the European Union's 27 national governments.

One important job for the new hydrogen bank will be to gather information about funding across the EU in a single place. If it can become a one-stop shop, companies would have less complexity to wade through.

Understanding U.S. subsidies is simpler. The IRA offers a production tax credit of up to \$3 a kilo of clean hydrogen, depending on the carbon intensity. This means green hydrogen could be competitive with gray hydrogen by around 2025, according to Bank of America estimates. Without subsidies, this would happen five years later in the EU. If the IRA helps the U.S. to attract more investment, it would be doubleedged for Europe. The EU would benefit from a strong clean-hydrogen export market in the U.S., as it plans to import around half its future needs. But Brussels also needs to unlock a flood of private investment if it is to hit a target to produce 10 million metric tons of green hydrogen domestically by 2030.

The new hydrogen bank is funded with  $\in 800$  million for now. If it offers a €3-a-kilo subsidy, roughly matching the IRA tax credit, the

bank will have capacity to subsidize a very modest 26,000 tons of production, according to Matthew Hodgkinson, hydrogen analyst at S&P Global Commodity Insights.

The region's higher energy costs are a disadvantage. At a recent industry conference in Germany, producers said the EU might need to subsidize higher operating costs to be on a truly equal footing with the U.S., according to Bank of America analysts who attended.

This may make it harder for domestic makers of equipment used in green-hydrogen production to know how soon they need to increase output to meet demand. These include independent electro lyzer makers such as ITM Power and **Nel**, whose stocks soared in 2020 and have struggled to make headway since. Until policies are clearer, their customers will take longer to commit to projects in Europe than in the U.S.—and the roller coaster for investors may continue.

—Carol Ryan