**Last week: DJIA** 34861.24 ▲ 106.31 0.3%

**NASDAQ** 14169.30 ▲ 2.0%

**STOXX 600** 453.55 ▼ 0.2%

**10-YR.TREASURY** ▼ 2 31/32, yield 2.491%

OIL \$113.90 **\( \)**\$10.81

**YEN** 122.05 **EURO** \$1.0982

# What's News

### Business & Finance

any traders have turned this year to exotic exchange-traded products designed to turbocharge investment bets, hoping to exploit market swings driven in part by the war in Ukraine, the global outbreak in inflation and questions about the pace of global growth. A1

♦ The effects of the de facto buyers' strike on Russian crude that began a month ago, propelling prices to their highest levels in years, are starting to create a second wave of impact on oil markets. B1 ◆ Russia's invasion of

Ukraine is driving up the price of renewable-energy projects, which were facing supply-chain strains and raw-materials increases before the war. B1

♦ Socially conscious investors and global-health activists are turning to shareholders to press Pfizer, Moderna and J&J to make more of their Covid-19 vaccine shots available to people in poorer countries. **B1** 

◆ Volkswagen is changing its approaches to manufacturing as war, health scares and trade disputes roll back decades of globalization. B1

**♦** Aluminum makers are on a nationwide hunt for more old cans, shredded cars and factory waste to keep up with demand. B3

**♦ The turmoil in** Chinese tech shares is damping the financial firepower Japan's SoftBank has for new investments, and prompting debate about whether it might sell some of its stake in Alibaba. **B3** 

# World-Wide

♦ Ukrainian forces are seeking to roll back Russian gains as Moscow shifts its focus to controlling a swath of the south and east of Ukraine. Western officials saw signs Russia is consolidating its position and Zelensky urged the West to provide his army with the heavier weapons it needs to fight the better-armed Russian military. A1, A6-9 Biden's remark that Rus-

sia's Putin "cannot remain in power" came under fire for muddying U.S. policy and threatening to undermine diplomatic efforts to end the war in Ukraine. A1

◆ Shanghai imposed stringent pandemic restrictions it has long tried to avoid on its 25 million residents that are likely to disrupt commercial activity well beyond the city limits. A1

♦ Biden will propose a new minimum tax on households worth more than \$100 million as part of his annual budget in a bid to ensure the very wealthiest Americans pay at least 20% in tax on their income and rising asset values each year. A4

◆ Republican Rep. Jeff Fortenberry of Nebraska said he plans to resign from the House, after a federal jury convicted him of lying to investigators in a campaign-finance case. A4

◆ The FAA said it selected its safety chief, Billy Nolen, to lead the agency on an acting basis after the current administrator, Steve Dickson, steps down at the end of March. A3

CONTENTS Arts in Review.... A13 Business News.... B3 Heard on Street.... B9

Outlook Personal Journal A11-12 Sports.. Technology... U.S. News. .... A15-17 World News.... A6-10





AFTERMATH: A woman cleared debris from a school that was damaged by shelling in Kharkiv on Sunday as Russia's attack on Ukraine continued. Western officials saw signs that Russia is consolidating its position to regain the offensive, and President Volodymyr Zelensky of Ukraine urged the West to provide his army with heavier weapons.

# Biden's Remark on Putin Stirs **Anxiety Among Western Allies**

By Sabrina Siddiqui AND TARINI PARTI

WASHINGTON—President Biden's remark that President Vladimir Putin of Russia "cannot remain in power" came under fire for muddying U.S. policy and threatening to undermine diplomatic efforts to end the war in Ukraine.

Administration officials and Democratic lawmakers said Sunday the off-the-cuff remark was an emotional response to the president's interactions in Warsaw with refugees—some of whom had fled violence in Mariupol, a Ukrainian southern port city under weekslong Russian bombardment and attacks on civilians.

Julianne Smith, the U.S. ambassador to the North Atlantic Treaty Organization, said on CNN that Mr. Biden's comments were "a principled human reaction to the stories that he had heard that day."

President Emmanuel Macron of France and European diplomats, meanwhile, warned the comments could undercut any diplomatic solution.

Speaking in the Polish capital of Warsaw on Saturday, Mr. Biden appeared to issue his strongest condemnation of Mr. Putin to date. "For God's sake, this man cannot remain in power," Mr. Biden said at the conclusion of his speech.

On Sunday, in response to a reporter's question, Mr. Biden denied he was seeking regime change in Russia.

Still, his remark—which Moscow dismissed-marked an escalation in Mr. Biden's verbal attacks on the Russian president, after previously calling him a butcher and a war criminal. It is also the latest example of his penchant for going off script, overshadowing his intended message and prompting White House aides to clarify his words.

Mr. Biden's aides scrambled to play down the words' meaning and impact. White House officials said they believed Mr. Biden's trip and speech were a success, even as some lawmakers and analysts said the remarks could complicate matters.

"It reminds us that message Please turn to page A8

# Ukraine **Forces** Advance As Russia Regroups

Western officials see Moscow consolidating its position as Kyiv seeks to reverse gains

KYIV, Ukraine-Ukrainian forces are seeking to roll back Russian gains as Moscow shifts its focus to controlling a swath of the country's south and east.

> By Isabel Coles, Max Colchester and Yuliya Chernova

Ukrainian forces said on Sunday they drove Russian troops out of Trostyanets, in the northeast near the Russian border, potentially opening a road to the provincial capital of Sumy, which is encircled by the Russians.

Western officials saw signs that Russia is consolidating its position to regain the offensive, and President Volodymyr Zelensky of Ukraine urged the West to provide his army with the heavier weapons it needs to fight the better-armed Russian military.

The retaking of Trostyanets comes after Moscow, having faced stiff resistance from the Ukrainians in its initial, multifront offensive, said on Friday that it would refocus its campaign on the eastern Donbas region, where Russian forces Please turn to page A6

### The Ukraine Crisis

♦ Putin's warnings raise nuclear fears. **◆ Conflict upends Arctic** 

research. ♦ Hospital is front line..

# Shanghai **Imposes** Covid-19 Lockdowns

By YANG JIE AND LIZA LIN

Shanghai imposed stringent pandemic restrictions it has long tried to avoid on its 25 million residents that are likely to disrupt commercial activity well beyond the city limits.

Local authorities said on Sunday they plan to lock down the city in two phases over the next week and a half to try to control an outbreak of the highly infectious Omicron variant of the Covid-19 virus.

All over Shanghai, the government's announcement sparked frenzied scrambles to food markets and grumbling about the disruption to urban life in a city that until recently appeared relatively unaffected by Covid.

China has sought to wean itself off disruptive and costly allout lockdowns, but faces an immense challenge as the Omicron variant puts stress on the country's healthcare and governance systems.

Any suspension of commercial activity in Shanghai will likely have global ripple effects as the city is one of China's primary centers for finance, manufacturing and goods trade. The city hosts the regional headquarters of hundreds of multinational companies, and manufacturers like car makers Tesla Inc. and General Motors Co. run factories there

Shanghai reported 2,676 confirmed coronavirus cases for Saturday, all but 45 of them asymptomatic, according to a social media post by the Shanghai government. The total caseload represented more than half of the 5,700 new Covid-19 infections reported nationwide on Saturday. Early Monday, China reported 3,500 new cases in **'CODA' Wins Best Picture Oscar** 



The drama 'CODA' on Sunday became the first streamed film to earn best picture at the Academy Awards. The movie's Troy Kotsur is the first deaf man to win best supporting actor. A12

# Saying 'Sandwiches' Correctly Can Prompt an Oscar Nomination

Dialect coach to the stars made Kristen Stewart royal; DIANA GIGGLE.MP3

By SARAH BALL

He is British, highly trained and might very well ask you to say, "The rain in Spain stays mainly in the plain.

Or a variation, if he's teaching northern England's Geordie accent: "Jean Paul Gaultier's broken the photocopier." where the last word sounds like FOH-OH-cop-ee-ah. Dialect coach William Con-

acher, 53, shares some similarities with the "Pygmalion" and "My Fair Lady" phonetics legend Henry Higgins—but they differ in at least one way.

"I don't have tuning forks!" Mr. Conacher says, sliding in his socks from one room of his north London home to another to fetch an essential tool of his trade. "What I have is this." Please turn to page A10

He opens a laptop with hundreds of audio files, arranged in folders labeled with arcane subdialects, famous voices (Elvis!), regions of the world and entirely invented places. As one of Hollywood's most in-demand accent whisperers, Mr. Conacher is hired to extract from film and television actors the kind of transformative voice performance that results in major awards. Take Kristen Stewart, who

was nominated for her first Academy Award this year, for Best Actress. Ms. Stewart, 31, trained with Mr. Conacher for four months to master the voice of Princess Diana in the biopic "Spencer." Previous Conacher-coached roles that won Oscars, in part for how

Please turn to page A10

# A Mother Risks All to Get Her Son

Olena Sirotiuk, in Poland when war broke out, returned to Ukraine for her 12-year-old

By Matthew Luxmoore And Natalia Ojewska

USTRONIE MORSKIE, Poland—Olena Sirotiuk was on the night train moving east toward the front lines in Ukraine when she got a call from her 12-year-old son. "Don't come Mummy." he

said. "They're shooting." Ms. Sirotiuk, a cleaner living in western Poland, was one of the few women on a train packed with men headed back to fight the Russians. She wanted to retrieve her son, Nazariy, from behind what had suddenly become enemy territory.

'You go because your child is there," said Ms. Sirotiuk, 50. "In that moment,

there is no fear." The lights on the train

were turned off to avoid alerting Russian army patrols. Ms. Sirotiuk later recalled. Instead, the corridors were illuminated by the glow of cellphone screens detailing news about the war and messages from relatives stuck in bomb shelters or negotiating their way to safety abroad. The train trundled along at about 30 miles an hour, and slowed more when artillery fire or shelling could be heard.

It was the start of what would be a five-day, 2,100mile journey for Ms. Sirotiuk to the industrial city of Zaporizhzhia and back, by

Please turn to page A9

# Risky Stock Bets Surge in Popularity

By Gunjan Banerji

When technology stocks declined for a fourth straight day in January, Evan Fetter, a 25year-old in the U.S. military, saw an opportunity to swing for the fences.

He poured \$15,000 into the ProShares UltraPro QQQ, an exchange-traded product that is designed to triple the daily return of the Nasdaq-100 index, bidding for what he called a "once-in-a-lifetime gain."

The trade has been underwater at times, but Mr. Fetter said he hopes to hold the shares until his investment is worth \$50,000, at which point he plans to put the money toward a down payment on a real-estate property.

"Stuff like this is a buying opportunity," Mr. Fetter said of the 2022 declines in U.S. major indexes. He said he has been stashing away money in stocks for years from his earnings at Chick-fil-A and other eateries and wanted something with the prospect of higher returns.

Mr. Fetter is one of many traders who have turned this vear to exotic exchange-traded products that are designed to turbocharge bets on everything from stocks to commodities to esoteric financial derivatives. Market swings driven in part by the war in Ukraine, inflation and questions about

Please turn to page A2

THE OUTLOOK | By David Harrison

# Economy Gets Tech-Spending Boost



businesses are ramping up technology investment and other capital

spending as they emerge from the pandemic. If sustained, that investment boom could boost productivity and living standards and counteract inflation pres-

Private nonresidential business investment grew 7.4% in 2021 from the previous year after adjusting for inflation, the fastest pace since 2012 and a strong bounceback from the 5.3% decline in 2020.

Spending for software and information-processing equipment such as computers rose 14% in 2021 from the previous year. Since the first quarter of 2020, when Covid-19 began spreading rapidly in the U.S., those categories have grown vastly more than others such as buildings, for which there is less need as work is increasingly done remotely.

Business spending will likely stay strong this year. Manufacturing firms surveved by the Institute for Supply Management plan to raise capital expenditures by 7.7% in nominal terms in 2022. Service firms expect a 10.3% increase.

The new investment has contributed to an uptick in productivity by making workers more efficient. Productivity, which measures workers' output per hour worked, grew an average 2.2% a year in 2020 and 2021, up from a 0.9% average

between 2011 and 2019, before the pandemic.

A more productive economy can produce more goods and services with the same number of hours worked. Over time that could raise workers' wages without pushing up inflation.

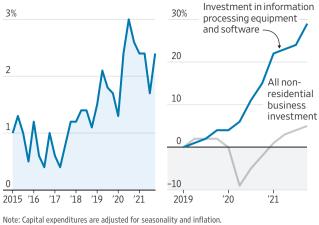
Robert Rosener, a senior economist at Morgan Stanley, said the uptick in capital spending "is one area that stands out as a significant bright spot for economic growth in the longer term."

In particular, new technology spending could occur in nontech sectors, such as retail trade, spreading productivity gains more widely, he said. About three-quarters of retail executives surveyed by Morgan Stanley last year said they intend to increase spending on information technology, up from 21% in

ne driver of the push toward technology is a labor shortage that has executives struggling to recruit and retain employees. In December 2021, the U.S. labor force was about 1.4% smaller than in February 2020, before the pandemic became widespread in the U.S. Economic output, on the other hand, was 4.5% higher in the fourth quarter of last year than in the first quarter of 2020, after adjusting for

Brian Niccol, chief executive at burrito chain Chipotle Mexican Grill Inc., told investors in a February earnings call that the company has been struggling to recruit and is looking at automating

Productivity growth, eight-quarter moving average



Sources: Labor Department (productivity); Commerce Department (expenditures)

some more tedious tasks. "How do we get rid of the jobs people frankly don't love doing?" he said. "If there was a way to cut and core the avocados so that all our team member has to do is mash and add the salt, add the lime, add the onions. that would make their job so much better."

Walmart Inc., the country's largest employer, announced last year it would bring robots to 25 of its 42 regional distribution centers at a time when retailers nationwide have had trouble staffing warehouses. The company separately said last year it was looking to hire 20,000 permanent workers for its supply-chain operations and has boosted pay and bonuses.

Another driver is the move to remote work for legions of white-collar workers whose offices were shut down at the height of the

pandemic. Firms have invested in online tools and software to allow their em-

Capital expenditures,

change since Q1 2019

ployees to work from home. DocuSign Inc., which makes e-signature software. saw a "dramatic acceleration of purchases" early in the pandemic, said CEO Daniel Springer in a March 10 earnings call. The company's revenue grew 45% in its latest fiscal year, he said. "As the pandemic subsides and people begin to return to the office, they are not returning to paper," he said. "E-signature is here to stay.

Research by Jose Maria Barrero of the Instituto Tecnologico Autonomo de Mexico, Nicholas Bloom of Stanford University and Steven Davis of the University of Chicago has found that many workers will continue working from home once the pandemic is over. About 20% of workdays will be at home post-pandemic versus 5% before the pandemic, they estimate.

That will boost productivity by about 1% using the Labor Department's measure, they estimate. At-home workers are more productive, they found, in part because they are spared office distractions.

ill, it is hard to predict how the rise in capital expenditures and remote work will affect productivity in the long run. Even in normal times, productivity is difficult to capture accurately. Pandemic-related disruptions, such as mass layoffs and rapid hiring in a relatively short amount of time, might have muddied the statistics further.

"My best guess is it's probably a small positive," said Mr. Bloom.

Robert Gordon, a Northwestern University economist, sees reasons to be both optimistic and pessimistic about future productivity growth. On the one hand, the increase in business spending suggests "more automation and productivity-enhancing replacement of workers by machines," he said in an email. On the other, Mr. Gordon's research suggests that much of the recent rise in productivity comes from industries such as finance or professional services, where a significant number of employees have been working remotely.

"To the extent that this shift from office to at-home work is temporary, so is the productivity growth revival," he said.

# **ECONOMIC CALENDAR**

Thursday: Economists are watching China's official surveys of purchasing managers in the manufacturing and service sectors to see if a resurgence of the Covid-19 pandemic affected output and further hampered logistics. With global supply chains already strained, a setback in production or delays in shipping could add to already high inflationary pressures outside the country.

U.S. consumers are still spending, though household outlays appear to be growing at a slower pace than at the start of the year as rising prices and Russia's invasion of Ukraine sap confidence. Economists surveyed by The Wall Street Journal forecast consumer spending on goods and services rose for the second consecutive month in February, fueled in part by higher prices.

The Federal Reserve's preferred measure of inflation is expected to have reached a new multidecade high in February, underscoring challenges for the central bank as it seeks to tamp down rising prices without causing a recession. The Commerce Department's personal-consumption expenditures price index excluding food and energy has been pushed higher as strong consumer demand runs up against pandemic-related supply constraints.

Friday: U.S. employers have been adding jobs at a rock-solid pace in recent months as the labor market pivots toward a post-pandemic world. Economists are forecasting another strong month of employment gains in the March jobs report but will be watching closely to see if a tight labor market marked by more job openings than available workers—is pushing up wages and fueling infla-

### U.S. WATCH



Firefighters walked along a hose line during a wildfire Sunday in the Boulder, Colo., area.

**COLORADO** 

### **Most Evacuation Orders Lifted in Fire**

A wildfire south of Boulder that forced nearly 20,000 people to flee was listed at 21% contained and most evacuation orders had been lifted Sunday, officials with Boulder Fire-Rescue

The fire, which ignited Saturday, burned to within 1,000 yards of homes on the west end of Boulder, said Mike Smith, incident commander.

A quick initial attack "combined with all of the fuels mitigation treatments that we've done in this area is one of the reasons that we've had such great success," he said Sunday.

Work on Sunday was focused on reinforcing the fire line and making sure the fire didn't burn

toward the city of Boulder or down toward Eldorado Canyon, Mr. Smith said. —Associated Press

MISSISSIPPI

### **Legislature Passes Income-Tax Cut**

Mississippi's Republican-controlled House and Senate voted by wide margins Sunday to pass a bill that would reduce the state income tax over four vears, beginning in 2023.

The bill goes to Republican Gov. Tate Reeves, who has indicated he would sign it into law.

Supporters say a significant tax cut could spur economic growth and attract new residents to Mississippi, which was one of three states that lost population during the decade before the 2020 Census

Opponents say reducing the income tax would mean less money for schools, healthcare, roads and other services, especially hurting Mississippi's poor and working-class residents. –Associated Press

**CALIFORNIA** 

### **Prison Inmate Dies After Attack in Yard**

An inmate died after being attacked in the recreation yard of a Northern California prison.

authorities said Sunday. Staff used chemical agents to quell the incident after the attack Saturday at California State Prison, Sacramento, the Department of Corrections and Rehabilitation said. Despite lifesaving measures, Nathan Marcus died,

its statement said. -Associated Press

# Risky Stock Bets Soar in **Popularity**

Continued from Page One the pace of global growth have triggered a stampede into these risky investments.

The ProShares UltraPro QQQ has become the most actively traded exchange-traded product this year, according to FactSet data. More than 119 million shares have changed hands on an average day this vear, up 65% from last vear and one of the highest levels of the past decade. Assets in the fund, known as TQQQ, have surged by 58% over the past year to about \$18 billion as of Thursday. The fund has fallen 32% in 2022, compared with the Nasdaq-100 index's 9.6% decline.

After driving the market's gains for a decade, tech stocks have lost some of their allure as the Federal Reserve raises interest rates. Higher rates place a premium on corporate earnings now, which tends to make shares of firms whose profits might lie in the future less attractive.

Three of the other 10 most actively traded exchangetraded products also offer leverage or inverse exposure to the market, allowing investors to magnify their investments or bet on a fall. Assets under management in funds that provide such inverse exposure to stocks have jumped to \$11.5

billion this year, up 42% from last year and the highest level since 2011, according to Morningstar Direct data as of the end of February. Assets in leveraged stock funds overall have ticked down from last vear but remain near the highest levels of the past de-

One such inverse product is the **ProShares UltraPro Short OOO ETF.** or SOQQ, which profits from a decline in the Nasdaq-100 index. The tech stocks in the benchmark have declined this year, spurring a rush into bets against the index and helping the fund jump

Both Nasdaq funds have been among the top ETFs purchased by individual investors this year, behind only a fund tied to the S&P 500 index and the Invesco QQQ Trust, according to data provider Vanda Research.

Options activity tied to TQQQ hit a record Jan. 24, when the Nasdaq Composite fell as much as 4.9% before staging a furious rebound and notching a 0.6% gain for the day, one of the wildest trading sessions of the past decade. Retail purchases of leveraged ETFs hit the highest level in at least two years that day, according to data provider Vanda Research.

These products can be some of the most dangerous. Many are designed to be used as short-term trading tools rather than a place to park cash for long periods. In some cases, holding them for weeks or even days can eat away at

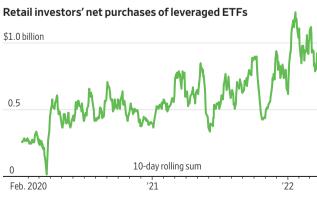
Trading activity in some Sources: Vanda Research (net purchases); FactSet (ETFs)

products tied to the Cboe Volatility Index, or VIX, has hit highs as well. The ProShares Ultra VIX Short-Term Futures ETF, known as UVXY, has been the third most actively traded exchange-traded product this vear. It is a leveraged product intended to profit from rising volatility, a trade that can quickly backfire.

In Europe, an exchangetraded product known as the GraniteShares 3X Short Nvidia Daily ETP, is the second-most traded ETP on the London Stock Exchange, FactSet data show. It is designed to rise when Nvidia Corp. shares decline and has recently fallen precipitously.

The history of riskier exchange-traded products is dotted with blowups that have left traders with big losses. A product that bet against the VIX, the VelocityShares Daily Inverse VIX Short Term exchange-traded note, abruptly shut down in 2018 after a bout of volatility, spurring havoc in the derivatives market.

Just last week, domTree Commodity Securi-



Most a	ictively traded ETFs in 2022		
TICKER	FUND	CONTRACTS	
TQQQ	ProShares UltraPro QQQ	120 million	
SPY	SPDR S&P 500 ETF Trust	117	
UVXY	ProShares Ultra VIX Short-Term Futures ETF	84	
SQQQ	ProShares UltraPro Short QQQ	82	
QQQ	Invesco QQQ Trust	82	
XLF	Financial Select Sector SPDR Fund	74	
VXX	iPath Series B S&P 500 VIX Short-Term Futures ETN	65	
SOXS	Direxion Daily Semiconductor Bear 3x Shares	63	
EEM	iShares MSCI Emerging Markets ETF	56	
FXI	iShares China Large-Cap ETF	45	

ties Ltd. said it would close a product tied to nickel that provided triple the exposure to the commodity, after the war in Ukraine triggered wild swings in prices and trading went havwire. Earlier in the month, the firm said it would shut down trading in one of its inverse nickel bets. Both products were worth "zero" or "less than zero," the firm said in a notice to investors. adding "investors should not expect to get paid for the securities they hold."

A spokesperson for WisdomTree said the recommended holding period for short and leveraged products is one day and investors need to understand the products and their risks before investing.

Despite the turbulence, several individual investors said they continue to buy the dips in tech stocks, expecting the rebound of recent weeks to continue

Joe Basile, a 23-year-old investor who works at an Apple store on Staten Island in New York City, said he initially suffered losses trading options tied to TQQQ when he was first learning about the fund. The fund's huge swings meant that some contracts he bought quickly turned worthless.

But he has had wins too. Mr. Basile said he was trading bearish options to profit from a decline in the fund on March 16, when the Fed moved to raise interest rates for the first time since 2018. The contracts jumped by more than 60% within hours as the rate increase stoked intraday volatility in the stock market.

# CORRECTIONS ど AMPLIFICATIONS

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

THE WALL STREET JOURNAL (USPS 664-880) (Eastern Edition ISSN 0099-9660) (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

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

paid at New York, N.Y., and other mailing

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: wsj.ltrs@wsj.com

Need assistance with your subscription? By web: customercenter.wsi.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

Our newspapers are 100% sourced from sustainably certified mills.

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

# FAA Taps Nolen as Its Acting Leader

By Andrew Tangel AND MICAH MAIDENBERG

The Federal Aviation Administration said Saturday it selected its safety chief to lead the agency on an acting basis after the current administrator, Steve Dickson, steps down at the end of March.

Billy Nolen has served as the FAA's associate administrator for aviation safety since January after a career as an American Airlines pilot and industry executive focused on regulatory and safety matters. In his current role as the agency's safety chief, Mr. Nolen oversees more than 7,600 FAA employees who focus on a range of flightsafety issues, including manufacturing and airline operations, the agency has said.

As acting FAA chief, Mr. Nolen will confront a host of aviachallenges, including maintaining airline safety as carriers increase operations to meet surging demand, approving deliveries of Boeing Co.'s 787 Dreamliner amid various production lapses and assisting Chinese authorities' investigation of a recent crash of a U.S. made plane in that country.

The FAA's announcement that Mr. Nolen will take on the administrator job on an interim basis confirmed earlier reporting by The Wall Street Journal.

The Biden administration is conducting a search for a nominee who would lead the agency on a permanent basis, a position that carries a five-year term and must be confirmed by the Senate, the FAA said on Saturday.

The current administrator, Mr. Dickson, was appointed to the role by then-President Donald Trump and confirmed by the Senate in 2019.

"Billy Nolen has extensive expertise in aviation," Transportation Secretary Pete Buttigieg said.

### The safety chief will lead the agency until a nominee is named to a five-year term.

The FAA said that the agency's deputy administrator, Bradley Mims, will take on an expanded role during the interim period, focusing on workforce issues and airports.

Mr. Nolen, or whoever eventually wins Senate confirmation as FAA administrator, would take the controls of an air-safety agency trying to emerge from the aftermath of two Boeing 737 MAX crashes in 2018 and 2019. The accidents, in Indonesia and Ethiopia, took 346 lives and prompted regulatory, congressional and criminal investigations.

The MAX crashes exposed breakdowns in how the FAA approved a flight-control system later blamed for sending the jets into fatal nosedives. The FAA has been working to implement a new law governing how regulators approve new aircraft as safe for passen-

The agency also has initiatives under way related to electric vertical-takeoff-and-landing aircraft, drones and space launches.

Mr. Nolen served tours of duty in the U.S. Army as an airplane and helicopter pilot and safety officer, in addition to his professional aviation experience, according to the FAA.

Mr. Dickson, the current administrator of the air-safety agency, is a pilot and former Delta Air Lines Inc. executive. In February, he said he would step down March 31, citing personal reasons for the planned departure.





A gas station in Bird Creek, Alaska, as seen last week. About half the state's general fund comes from taxes and royalties on oil and gas production.

# High Oil Prices Fill Alaska Coffers

Energy-rich state sees big budget surplus and begins a debate over what to do with it

By JIM CARLTON

Soaring oil prices have brought Alaska its biggest budget surplus in nearly 20 years, along with a debate in Juneau over whether to spend the money on education and infrastructure or save it for the next downturn.

Over the past year, the price for a barrel of Alaska North Slope crude has nearly doubled, to \$114.93 as of last week. Taxes and royalties from oil and gas production in Alaska generate about half the state's general fund.

The bonanza will boost state revenue for the two-year period ending in June 2023 to \$15.3 billion, according to an estimate from the Alaska Department of Revenue. Last year, officials estimated that number for the period that began July 1, 2021, would be \$11.7 billion. In a state where the govern-

ment spends about \$6 billion a year and tax and royalty revenue can swing widely depending on oil prices, officials agree the projected surplus is a rare opportunity. "There's no doubt this allows for a lot less uncertainty in our budget," said Neal Fried, an economist for the state Department of Labor.

Gov. Mike Dunleavy and some fellow Republicans want to bank most of it for a rainy day. Many Democrats, who share control of the lower house of the legislature with the GOP, want to lock in education spending a year in advance, so school budgets can't be cut if future revenue falls short.

A number of states are enjoying surpluses thanks to the improving economy and federal aid tied to the pandemic, but oil-rich states are in a particularly strong position after the price of oil jumped more than \$20 a barrel following the Russian invasion of Ukraine a month ago. While that has meant pain at the pump for motorists, New Mexico, North Dakota, Oklahoma and Wyoming all expect to exceed their previously estimated revenue from oil production proceeds, according to the National Conference of State Legislatures.

Alaska's dependence on oil revenue began in the 1970s, when construction of the

Trans-Alaska Pipeline unleashed a torrent of riches. That began to change a decade ago, when oil prices started falling at the same time that production in North Slope fields was declining.

Since 2013, lawmakers in this state of 730,000 people have covered deficits by drawing on rainy day accounts that previously totaled \$19 billion. Last year, about \$1 billion was left in them.

Gov. Mike Dunleavy wants to bank most of the surplus for a rainy day.

Bill Popp, chief executive of the Anchorage Economic Development Corp., a nonprofit economic development organization, said the turnaround in oil prices gives lawmakers time to address the structural problems of the budget that recent deficits have revealed. These include unstable revenue, and the high costs of importing goods and recruiting staff for schools and other government services in remote areas.

Along with tax revenue. Alaska draws more than \$3 billion annually off a portfolio called the Permanent Fund, where it has invested a portion of its revenue off oil production for decades.

The state also sends residents a check from the fund's revenue. Last year, they were \$1,114 each. Mr. Dunleavy has proposed more than doubling that, in part to help residents cope with inflation, which was 7.4% in Alaska in February compared with one year ago.

The more money you put in the hands of people, the better they would spend it than the state would," he said in an interview.

Under a separate bipartisan proposal, the state would send Alaskans inflation relief checks of about \$1,300 each from the tax revenue surplus. Other states including California and Maine are considering similar

More controversial is a plan in the state House to spend \$1.2 billion now for K-12 education in the fiscal year starting July 2023. State Rep. Neal Foster, a Democrat, said that would allow schools in farflung cities such as his hometown of Nome to better cope with rising costs for everything from heating fuel to teacher pay.

Schools previously have seen their budgets cut when state revenue dropped, resulting in teacher layoffs. Mr. Foster said prefunding them would make it easier for officials to plan with certainty.

"That would give the schools the ability to determine how many teachers they can hire," Mr. Foster said.

Mr. Dunleavy said he doesn't like the idea of prefunding state programs. "If you start going down that road, you could future fund everything," he said.

State Senate President Peter Micciche, a Republican, said some money could go toward upgrading outdated infrastructure, such as the Alaska state ferry system, which provides transportation service to many communities that aren't reachable by road.

Mr. Dunleavy said he supports some increased infrastructure spending, but he would like to see as much of the windfall as possible put into savings to help ward off future deficits. The revenue windfall "gives you breathing room only if you take advantage of the breathing room," he

# Debt Encumbers Aspirants to Religious Orders

By Francis X. Rocca

MacLean Andrews has raised more than \$20,000 \frac{5}{2} from friends, family members and strangers in an effort to nay off his student debt and

join a Catholic religious order. He converted to Catholicism while teaching at a Jesuit-run high school in Spokane, Wash., and now wants to become a Jesuit himself. But ≸ to take the group's vow of 뿔 poverty, Mr. Andrews needs to § be free of financial obligations, including the student loan debt he accumulated in ₹ college, which still amounts to more than \$60,000.

Initially, freeing himself strom debt seemed like an impossible task. "I was like, 'I can't think of a way to overcome this," the 32-year-old said. "There was no path forward I could see."

Mr. Andrews is raising money to try to pay off his student debt via letters, phone conversations. Zoom calls and face-to-face meetings with the help of a nonprofit called the Labouré Society. It is one of at least three in the U.S. dedicated to helping people who aspire to serve in Catholic religious orders but first need to find a way to pay off the loans

they accumulated in college. A study released in January by the Center for Applied Research in the Apostolate at Georgetown University found that 6% of men and women who made a permanent commitment to a religious order in the U.S. last year had delayed their application because of educational debt. The average delay was four years and the average amount of debt was \$41,000, up from two years and \$19,500 in 2012, according



### **Loans Curb Number Joining Groups**

There were 55,466 men and women in religious orders in the U.S. in 2020, down from 194,474 in 1970, according to the Center for Applied Research in the Apostolate.

Church leaders cite a variety of factors for the decline, includ-

Groups such as Labouré say

the problem is actually much

bigger, because the survey

doesn't count people who give

up during the yearslong pro-

cess of reflection, called dis-

cernment, that precedes join-

ing a religious order, or are

deterred from even starting

such as the Benedictines, Jesu-

its. Franciscans or Dominicans,

require their members-nuns,

brothers or priests-to take

vows of poverty, chastity and

Catholic religious orders,

that process.

ing the growing secularization of Western society. People who work with the orders say the fact that many aspiring members are among the 43 million Americans who owe a total of \$1.6 trillion in student loans, according to the U.S. Department of Education, is a growing factor.

Sister Colleen Mattingly, of the Apostles of the Sacred Heart of Jesus in Hamden, Conn., said in her two years of service

obedience. Their missions and

ways of life differ widely,

ranging from cloistered monks

who observe long periods of

silence to activist nuns assist-

ing immigrants on the border

priests who serve most Catholic

parishes don't take a vow of

poverty and receive a salary. A

CARA survey found that 27% of

U.S. diocesan priests ordained

in 2021 had educational debt

when they entered seminary,

with an average load of \$24,781.

In contrast, the diocesan

with Mexico.

as the order's vocations director, she has turned away two aspirants whose educational debt was too large to pay off before they reached 35, the maximum age allowed for new members. "A woman came to me, and

MacLean Andrews, left, a

in El Paso, Texas, are both trying to clear their financial

teacher in Spokane, Wash., and

Rebecca Goldberger, a dietitian

obligations so they can realize

their goal of joining Catholic

religious orders.

she was ready to move forward with a life commitment, but she had this debt. Even as she talked about it, she broke down, she just broke down in tears." Sister Mattingly said

The Virginia-based Fund for Vocations and Chicago-headquartered National Fund for Catholic Religious Vocations both give grants to pay off the debt of aspiring members of Catholic orders. Mary Radford. executive director of the Fund for Vocations, said her group has paid off more than \$5 million of student loans for 251 men and women since its founding in 2007.

"Our goal is to allow them to enter as quickly as possible, while they're still hearing the

call, not to be distracted by

other things," she said. Executive director Phil Loftus said the NFCRV has awarded nearly \$1 million to assist 49 people since its founding in 2014. Both groups raise their money from individual donors and charitable

foundations.

Sister Mary Gemma Harris, who is now a Franciscan nun in Toronto, Ohio, said a grant from the Fund for Vocations to pay off about \$10,000 in student loans allowed her to guit her job as a journalist, which had been testing her determination to pursue religious life. "I was really struggling to stay faithful...allowing the world to creep in," Sister Harris said.

The Labouré Society, based in Minnesota, groups aspirants in teams of 20 to 25 who work for six months to raise a common fund of \$500,000 to \$700,000, according to John Flanagan, the group's executive director. Each member of the team is guaranteed at least 80% of what they raise. Labouré has awarded almost \$9.5 million to about 350 people since its founding in 2003.

An aspirant starts by making a list of 100 potential donors from their own family and social network, whom they ask for money along with introductions to other potential donors. An aspirant also asks donors for their prayers and keeps them up-to-date on the progress of their vocation.

"It's not transactional, it's really relational. It is inviting people into your story," said Rebecca Goldberger, a dietitian in El Paso, Texas, and an aspiring member of the Apostles of the Sacred Heart of Jesus in Hamden, Conn.

-Ian Lovett contributed to this article.



# Biden to Pitch New Tax on the Wealthiest

Planned 20% minimum The levy would apply to households worth more than \$100 million

By RICHARD RUBIN AND ANDREW DUEHREN

WASHINGTON—President Biden will propose a new minimum tax on households worth more than \$100 million as part of his annual budget, the White House said Saturday, in a bid to ensure the very wealthiest Americans pay at least 20% in tax on their income and rising asset values each year.

The proposal would affect fewer than 20,000 households, and it would apply only to those who don't pay at least 20% in tax on a combination of income as typically defined and their unrealized gains on unsold assets such as stocks and closely held businesses.

plan would generate roughly \$360 billion in revenue over 10 years, according to a White House fact sheet. That is about twice as much money as raising the top individual income-tax rate to 39.6% from 37%, and it would affect a much smaller group of people.

The biggest chunk of money in the new Biden plan would come from taxes on unrealized gains built up over many years, which could include much of the wealth of founders of large technology companies such as Amazon.com Inc. and Facebook parent Meta Platforms Inc. Those people could spread their initial payments over nine years; subsequent annual minimum taxes could be spread over five years.

There would be no exemptions for particular asset classes, but there would be special rules for illiquid taxpayers. People wouldn't have to make annual valuations of illiquid assets, and they could defer some taxes-with interest charges-until death or as-

The proposal is the latest Biden administration effort to capture more revenue from the capital gains of wealthy Americans. Like other Democratic ideas, it would mark a significant change in how income is defined for tax purposes, creating a whole new separate tax structure that would capture rising asset values for the government even before those assets are sold.

The Biden plan contains several features that are different from previous attempts to tax the wealthiest sliver of Americans, such as annual wealth taxes or taxing assets as if they were sold each year.

"While there are differences between the president's proposal and the Billionaires Income Tax, we're rowing in the same direction," said Senate Finance Committee Chairman Ron Wyden (D., Ore.), referring to his own plan.

Under the Biden plan, if assets declined in value, the future stream of payments would be adjusted downward. Value increases would lead to a new, larger stream of tax payments. Asset sales could also lead to adjustments in the required minimum-tax payments. The policy aim is effectively partial prepayment of taxes that would ultimately be owed at sale, death or gift, with a minimum average 20% tax rate over the long term.

Previous White House plans to tax unrealized capital gains at death and raise the capitalgains rate faced stiff Democratic opposition on Capitol Hill, though the administration still backs those ideas.

Wyden's proposal, which would have been more focused on billionaires' unrealized capital gains, drew support from Mr. Biden but failed to gain traction with top congressional Democrats last fall. Mr. Biden's version, designed as a minimum tax, could face the same political constraints and even more trouble next vear if the House or Senate ips to Republican control.

If enacted, the measure would likely face legal challenges to its constitutionality under the 16th Amendment. Even with the additional funding sought by Mr. Biden, the Internal Revenue Service could struggle to administer the proposal and would find itself in protracted disputes with tax-

Under current law, capital gains are taxed only when they are realized—when the asset is sold-and they are taxed at lower rates than ordinary income. When people die, those unrealized gains aren't taxed as income. Instead, heirs pay capital-gains taxes only on the

gains since the prior owner's death, and only when the heirs sell. They do often owe estate taxes on their net worth at

That system creates an incentive for people to hold appreciated assets until death. Many very wealthy people do just that, reporting taxable incomes each year that are far less than the gains in their wealth. The Biden plan would sharply reduce, but not eliminate, that incentive.

Crafting proposals to raise more tax revenue from wealthy and high-income households, as well as corporations, has been a central challenge for Democrats. Lawmakers and Biden administration officials are hopeful that talks on that agenda can restart in the coming weeks, with the goal of passing a bill that raises taxes before the end of the summer after months of stalled at-

# Employers Wait Months for Promised U.S. Aid

By RICHARD RUBIN AND RUTH SIMON

Employers are waiting as much as six to 10 months for the Internal Revenue Service to process claims for a popular wage subsidy that was designed to keep workers on payrolls during the Covid-19 pan-

IRS delays and federal policy changes are causing the waits, forcing employers trying to claim the employee-retention tax credit to dig deeper into reserves and slowing their recovery, according to business owners, accountants and payroll providers.

"It is taking an extraordinarily long time to get the refunds, much longer than we would have anticipated," said Jeff Martin, a tax partner at accounting firm Grant Thornton LLP. "If you are looking at cashstrapped employers," he added, "it can be pretty detrimental."

**Employee-retention** credits were among a series of policies Congress passed in 2020 and 2021 to help businesses and workers weather the impacts of the virus on the economy.

Congress aimed the credit at employers that faced mandatory closures or suffered steep revenue losses. But its structure is causing problems for companies. Because those wages subsidized with credits aren't deductible from income taxes as a normal business expense, some companies are temporarily paying higher income-tax bills while they wait for refunds, Mr. Martin said.

The processing delays are an example of how the IRS paperwork backlog creates challenges for taxpayers. The agency's struggles have also left millions of individuals waiting for 2020 refunds and slowed their ability to get answers from the government.

The delays cost the government, too. The IRS paid \$55.5 million in interest on slow refunds from amended employment-tax returns from August 2020 to August 2021, according to an inspector general's report that projected more such costs ahead.

IRS officials have said they are working through filings as quickly as possible, and they announced a burst of hiring and other changes to accelerate that work and bring backlogs to normal levels by year-end. At a recent House hearing, IRS Commissioner Charles Rettig



Thomas Bemiller, above, CEO of Aureus Group, says business dropped as much as 50% during the pandemic. Below, a mechanic at Aureus's Brookhaven, Pa., location. The company received a partial refund of \$180,000 from the employee-retention tax credit but is waiting for more.



said the agency was unable to automate systems to expedite these refund requests. These problems—and other customerservice issues-stem from a lack of resources for the agency, said Senate Finance Chairman Ron Wyden (D.,

Aureus Group, owner of three auto repair shops in the Philadelphia area, filed its first request for an employee-retention credit last May. The 25person business received a partial \$180,000 refund this month but is still waiting for more for both 2020 and 2021.

Aureus plans to pay off credit-card bills and other debt it incurred to keep operations afloat in the pandemic, when business dropped as much as 50%, said Chief Executive Thomas Bemiller. One location closed for eight months after being flooded by rains related to Hurricane Isaias in 2020.

"When the money showed up, it was a little bit of a sur-

prise," Mr. Bemiller said. "Because it took so long, I wasn't

waiting on it every day." Congress created the emplovee-retention tax credit in 2020 as a companion to the Paycheck Protection Program, which provided forgivable loans to employers meeting certain requirements. The idea of the credit: reward employers who keep workers attached to their jobs.

Smaller employers could get the credit—worth up to half of

wages in 2020 and 70% in 2021—for paying active workers, while larger firms generally got it only for paying people who didn't work. Chipotle Mexican Grill Inc. received \$11.4 million during 2021 and Spirit Airlines Inc. qualified for more than \$37 million last year, according to securities fil-

Congress expanded the program for 2021. Employers could get up to \$7,000 per emplovee per quarter, instead of a \$5,000 annual maximum in 2020. To qualify in 2021, employers generally had to show revenue in a given quarter was at least 20% below 2019 levels, instead of a 50% drop in 2020. Originally, employers who received PPP loans couldn't get the credit; ultimately, they could, but just not for the same expenses.

As of March 23, the IRS had 1.9 million quarterly employment tax returns to process, plus 324,000 amended returns. Not all claim the credit, but many do.

"For some taxpayers, it's been a real bear," said Jim Donovan, a Minneapolis-based partner at accounting firm Eide Bailly LLP. "I have taxpayers that are like: 'Gosh, Jim, I needed the money five months ago. I need it right now.'

lot more than you should for

nearly every item is not some-

for the Democratic Senatorial

Campaign Committee, the cam-

paign arm of Senate Demo-

Nora Keefe, a spokeswoman

thing that's going away."

# Convicted Member of Congress To Resign

By Eliza Collins AND DEANNA PAUL

WASHINGTON-Rep. Jeff Fortenberry (R., Neb.) said Saturday he plans to resign from the House, after he was convicted by a federal jury of lying to investigators in a campaign-finance case.

"Due to the difficulties of my current circumstances, I can no longer effectively serve," he said. He said he would resign effective March 31.

On Thursday, a federal jury in Los Angeles found him guilty of lying to investigators in an attempt to conceal illegal campaign contributions he received during a 2016 California fundraiser. Mr. Fortenberry said he would appeal.

Following his conviction. House Minority Leader Rep. Kevin McCarthy (R., Calif.) and Speaker Nancy Pelosi (D., Calif.) said Mr. Fortenberry should resign. He has served

in Congress since 2005. In the case, prosecutors alleged that Mr. Fortenberry learned that Lebanese-Nigerian billionaire Gilbert Chagoury illegally funneled \$30,000 in contributions to his 2016 re-election campaign through straw donors at a Los Angeles fundraiser. But during interviews with federal agents, Mr. Fortenberry repeatedly denied knowledge of Mr. Chagoury's involve-

ment, prosecutors alleged. Foreign nationals barred from donating to candidates in U.S. elections, and it is illegal to disguise a donor's identity through third-party contributions.

Mr. Fortenberry's defense team argued that the case was driven by overzealous prosecutors who sought a big takedown after making little headway in a broad probe of suspect contributions to U.S. political candidates.

Mr. Fortenberry was a member of the House Appropriations Committee and the top Republican on the agriculture subcommittee, but stepped down from those positions in October after his indictment.

Nebraska's First Congressional District was ranked as solid Republican by the nonpartisan Cook Political Report.

# Republican Candidates' Ads Go After Democrats for High Inflation

By John McCormick AND CHAD DAY

If Americans aren't feeling the pain of inflation enough on their own, Republicans running for Congress are working hard to remind them of the biggest price increases in four decades.

Sen. Ron Johnson of Wisconsin, seeking re-election in a state that had the third-narrowest outcome in the 2020 presidential election, last week became the latest GOP candidate to air a TV ad heavily focused on inflation.

His ad, running in five of the state's television markets. calls inflation "the Democrats' tax on the middle class" and argues that the party now

controlling Washington is responsible for rising prices because it has "declared war on fossil fuels" and engaged in "printing trillions of dollars to pay for their massive deficit

Democrats nationally have countered that there is more at work when it comes to inflation than government policies, pointing to a collision of strong consumer demand, snarled supply chains and Russia's invasion of Ukraine. Some also point to their efforts to lower prices on such things as insulin and child care and their willingness to take on

what they see as price gouging by oil companies. Overall, about one in eight television ads in congressional races aired between Jan. 1 and March 20 has featured inflation as a topic, according to a Wall Street Journal analysis of broadcast and national cable data from the ad-tracking firm AdImpact. About 69% of those more than 15,800 airings were sponsored by Republicans or

conservative-leaning groups. As Democrats try to defend their narrow Washington majority, this year's election will be the first national contest in which inflation will be a major issue since Republican Ronald

Reagan defeated Democratic President Jimmy Carter in 1980. The most recently available data from the Bureau of Labor

Statistics showed that the an-

nual inflation rate had risen to

7.9%. President Biden initially presented the situation as transitory, although it has worsened and the potential exists for a cumulative effect on voters.

Dan Conston, president of the Congressional Leadership Fund, the super political-action committee associated with House Republicans, said he expects inflation will be a theme in GOP advertising until the election.

"Inflation is the one issue that personally affects every single voter on a daily basis,'

advertisers in midterm elec-

tions. "Lots of issues come and

go with the moment. The pain

and anger of having to pay a

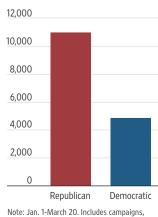
crats, responded to inflationsaid Mr. Conston, whose group is typically one of the biggest

related criticism by arguing that her party is trying to lower taxes and other costs for many Americans. "The GOP is pushing the interests of the ultrawealthy and big corporations that get rich by keeping prices high, while working famlies pay the price," she said.

A Journal poll conducted March 2-7 showed that 58% said inflation is causing them financial strain, while 65% said the economy is headed in the

wrong direction.

Political ad airings on broadcast and cable TV that mention inflation or that theme



parties and aligned groups such as super PACs Source: WSJ analysis of AdImpact data.

# Debate Brews Over Breeding Pigs' Stalls

By Patrick Thomas And Heather Haddon

In West Liberty, Iowa, Mike Deahr houses his 3,000 breeding pigs in small enclosures that keep them from turning around and interacting with others for the first 28 days of their 115-day pregnancy.

Whether those enclosures represent the best way to safe-guard hogs' health or the mistreatment of vulnerable animals is at the center of a debate over how pigs in the \$43 billion U.S. pork industry are housed.

The state of California, animal-welfare groups like the Humane Society of the United States and billionaire investor Carl Icahn are pressing fastfood giants like McDonald's Corp., meatpacking companies and hog farmers like Mr. Deahr to provide pregnant hogs more space.

Animal-welfare proponents say the crates confine sows to the degree that they can barely turn around or walk.

"All they can do is stand on a hard, bare floor, eat, and lay down in place," said Maisie Ganzler, chief strategy and brand officer for Bon Appétit Management Co. Ms. Ganzler, one of Mr. Icahn's two nominees to McDonald's board in his proxy contest, said switching to pork raised outside of crates recently increased costs for her institutional catering company, but the move aligned with what her customers wanted.

Pork producers and suppliers are resisting, saying such moves would raise meat prices by causing farmers to spend millions of dollars changing their operations, create supplychain chaos and risk their pigs' health.

Sows are aggressive, said Mike Paustian, a farmer in Walcott, Iowa. The stalls prevent them from fighting each other and stop larger sows from stealing food from smaller ones.

"Farmers have tried different ways of housing them over the years. Individual gestation stalls allow you to do a better

Pork producers and suppliers resist calls to give pregnant hogs more space.

job of monitoring individual sows," said Mr. Paustian, who sells his pigs to Tyson Foods Inc. and Smithfield Foods Inc.

Mr. Deahr sells his pigs to Tyson, but another large meatpacker approached him recently with an offer to pay him an \$8-a-pig premium to not use gestation crates, he said. While it is a good offer, Mr. Deahr said he can't accept it because of his own animal-welfare concerns. The stalls are needed to protect the sows for at least the six days when they are at their most aggressive, he said.

"It's my oath to take care of these animals," he said.

A California law backed by the Humane Society is prompting change. Proposition 12 requires breeding pigs to be able to lie down and turn around in spaces in which they are housed, essentially outlawing pork produced using small gestation stalls in most circumstances. Under the measure, Mr. Paustian's pigs couldn't go to market in the nation's most populous state.

Supermarkets and restaurants found in violation could be punished with fines of up to \$1,000 or as many as 180 days in jail. A recent order by a California state judge delayed the application of the law on California retailers until six months after state officials draft regulations, which aren't currently in place. California's law has been met with opposition from the meat industry, groceries and other food retailers since it

was passed by voters in 2018. The National Pork Producers Council, a Washington lobbying group, filed suit in 2020 in federal appeals court in San Francisco saying California can't regulate how pigs in other states are bred. The Supreme Court is weighing whether to bear the case

hear the case.
As advocates and investors ratchet up attention on the issue, hog farmers said they face

a choice of whether to spend millions of dollars changing their operations. Only about 7% of U.S. sow housing meets California's Proposition 12 standards, according to lender Rabobank.

Getting rid of gestation stalls can make hog farmers less efficient, said Stewart Leeth, chief sustainability officer for Smithfield Foods. Farmers would have to house fewer hogs in their barns to comply with larger square-footage requirements, he said. Niman Ranch, a pork supplier that doesn't use gestation stalls, said it can be done without hurting productivity. Chris Oliviero, general manager at Niman, a unit of Perdue Farms Inc., said there has been ample time since companies began pledging to phase out pork raised in stalls a decade ago and the Proposition 12 vote to comply with new breeding rules.

"I think the industry needs to get behind it," Mr. Oliviero said.



Mike Paustian, an lowa hog farmer, pictured here in 2020, says individual gestation stalls 'allow you to do a better job of monitoring individual sows.'



66



**FACTORIES** 

5



100% RECYCLED PAPER MILLS



Sincerely,

ADOPH

Anthony Pratt
Executive Chairman
Pratt Industries

Pratt Industries is one of the largest corrugated box manufacturers in the United States.

Our boxes save money and save the environment.

www.prattindustries.com

\*This ranking is derived from Forbes 2021 list of America's Largest Private Companies

# THE UKRAINE CRISIS

# Putin's Warnings Amplify Nuclear Fears

U.S., allies worry Kremlin could turn to atomic weapon in Ukraine war

By Thomas Grove

When Russia unveiled previously secret details of its nuclear-weapons doctrine for the first time in 2020, it confirmed something U.S. war planners had long suspected: Moscow would be willing to use atomic arms to keep from losing a conventional war.

Since Russian President Vladimir Putin invaded Ukraine in February, he has repeatedly raised the specter of nuclear war, invoking his country's atomic arsenal in an effort to deter the U.S. and the North Atlantic Treaty Organization from getting involved in the conflict.

But as Mr. Putin's army has faced fierce resistance from Ukrainian forces strengthened by large infusions of Western weaponry, concerns have grown in Washington and allied capitals that Russia could consider using a so-called tactical nuclear weapon to gain the upper hand on the battlefield.

Such weapons, which generally have a less-powerful warhead than a strategic nuclear weapon carried on an intercontinental ballistic missile, were



Russian Yars ICBM launchers took part in a military parade in Moscow's Red Square last year.

part of Cold War military thinking, though they never into arms-control agreements between the U.S. and Russia or the Soviet Union.

The move would be aimed at crushing Ukraine's will to fight, turning the tide of the war or signaling that current levels of Western support-including transfers of antitank and air-defense systems—are intolerable, Russian and Western analysts say.

The first use of an atomic

weapon since the U.S. bombing of Hiroshima and Nagasaki would likely cause major damage and radioactive contamination to any Ukrainian city hit—and perhaps beyond, depending on wind and other factors. It would also confront Washington and Europe with a

"We don't know exactly where it is, the red line where the Russian leadership considers using tactical nuclear weapons," said Petr Topychkanov, a researcher at the Stockholm International Peace Research Institute. "The Russian leadership knows the value of ambiguity."

Further complicating efforts to predict Mr. Putin's ac-

sion. Mr. Putin led an exercise of Russia's strategic forces, launching some of the country's most cutting-edge missiles, like the hypersonic Kinzhal. At the start of the invasion, he warned of consequences "the likes of which you have never seen in history" if the West intervened.

Days later, he stirred concern, ordering his military to ensure the "special combat readiness" of his nuclear forces.

While those threats were an overt nod to nuclear warfare. they failed to define where exactly Russia's red lines are, observers of Russia's nuclear policy say, giving Mr. Putin more latitude to escalate threats if he feels the need or even strike.

The point of a tactical nulear strike to end a conventional conflict, based on doctrine known as "escalate to deescalate," is to change the rules on the battlefield while shifting the burden of escalation onto your opponent, said Elbridge Colby, co-founder of The Marathon Initiative, a policy initiative focused on greatpower competition.

"Putin could use a smaller warhead to protect what his conventional forces are doing," he said. "The Ukrainians may be the target, but the real target politically would be the U.S. and the West."

Despite active signaling, Russia has demurred at the

mark on CNN, Ukraine's am-

bassador to the U.S., Oksana

Markarova, said, "It is clear to

us that Russia is a terrorist

Warsaw, Russian missiles

struck a site about 210 miles

away, near the western Ukrai-

nian city of Lviv, which has be-

come a hub both for people

displaced by the fighting and

for arms and other materiel

the West is sending to support

damaged a plant used to re-

pair and modernize Tor mis-

sile systems, radar systems

and other equipment for the Ukrainian army, according to a

Sunday briefing by Defense

Ministry spokesman Maj. Gen.

The mayor of Lviv, Andriy

Sadovyi, said the strikes had

hit a fuel-storage facility and

other infrastructure, and that

military infrastructure had

been removed from the city

around the time the war began.

visibly irritated Mr. Zelensky

renewed his plea for tanks,

planes and missile-defense

systems. "This is what our

partners have. This is what is

covered with dust at their

everyone on the Continent if

the Baltic states, Poland, Slo-

vakia and the whole of Eastern

Europe are at risk of a clash

with the Russian invaders," he

"It cannot be acceptable for

storage facilities," he said.

In a speech late Saturday, a

Igor Konashenkov of Russia.

The Russian strikes on Lviv

Ukrainian forces.

While Mr. Biden was in

state, led by a war criminal."

idea of using nuclear weapons. Mr. Putin's spokesman said on CNN that Moscow would use them only under existential threat, and Russian Deputy Foreign Minister Sergei Ryabkov said on state television: "We have a very responsible approach to that issue. We never escalate anything.'

While the U.S. on one hand has made it clear it has no plans to cross any nuclear red lines in Ukraine, Washington has signaled the presence of its nuclear-capable forces in Europe this month. Weeks before the invasion, the U.S. sent B-52 strategic bombers to exercise with British and European air forces.

"There's already some kind of signaling going on in Europe," said Hans Kristensen, director of the Nuclear Information Project at the Federation of American Scientists.

NATO Secretary-General Jens Stoltenberg warned against letting the war in Ukraine slip into a nuclear conflict and told Russia to stop its nuclear rhetoric.

"Russia must stop its nuclear saber-rattling," Mr. Stoltenberg said last week ahead of a summit of the Western military alliance's leaders in Brussels. "Any use of nuclear weapons will fundamentally change the nature of the conflict, and Russia must understand that a nuclear war should never be fought and they can never win a nuclear war.'

# Kyiv Gains As Moscow Regroups

Continued from Page One hold a position of strength.

Russian forces have dug into defensive positions in the north and around the capital, Kyiv, which it has failed to

Russia's firepower is currently concentrated on Mariupol, a strategically important city linking Russian-controlled parts of the Donbas with territory Moscow has captured in

Retaking Trostyanets "demonstrates that the Ukrainians are able to counterattack, which means Russia can't assume that once they hold ground they have secured it," said Jack Watling, an expert on land warfare at the Royal United Services Institute, a British think tank. "That limits the amount of resource they can apply to the place they are trying to take at any one time."

However, Western officials believe Russia is now reinforcing in the Donbas region with fresh troops from the Wagner Group, a Russian mercenary organization, with the goal of major security test.

tions, Mr. Topychkanov said, is that it is difficult to gauge the nature of Kremlin decisionmaking. "The biggest question is how rational the Russian leadership is right now," he said. "I don't know what kind of information he is getting."

In the days before the inva-

A Ukrainian serviceman on Sunday stood atop a captured Russian tank in Lukianivka, near Kyiv, where Russian forces have been thwarted in their bid to take the capital.

encircling Ukrainian forces.

It isn't clear how welltrained these new Russian troops will be and whether they will have access to enough high-grade weaponry to make quick gains against battle-hardened Ukrainian troops there.

The new battalion tactical groups come from Russia's eastern military district, which experts said is the least battletrained and well-equipped.

However, refocusing the attack on a narrower front could solve some of the logistics problems that have dogged Russian forces and allow their dominant air power to assert

Western officials estimated that as much as a fifth of the Russian force is no longer combat-effective and that mo-

But they warn that the war is far from won for Ukraine.

"What we are not seeing is turning the tide, what we are seeing is some individual success," one official said. The creation of new Russian battalion tactical groups indicates that President Vladimir Putin of Russia is still going "all in," the official said.

Kyrylo Budanov, Ukraine's head of military intelligence, said on Sunday that Russia sought to partition the country by merging territories in the east and south under its control into a single statelet.

"This is an attempt to create North and South Korea in Ukraine," Mr. Budanov said.

In territories under its control, Russia is seeking to establish parallel authorities and forcing people to reject the currency, Ukrainian hryvnia, Mr. Budanov said.

Russian and Ukrainian negotiators will hold their next face-to-face meeting in Istanbul this week, Turkey said on Sunday. The office of President Recep Tayyip Erdogan of Tukrey said he urged Mr. Putin in a

phone call on Sunday to accept

a cease-fire with Ukraine.

Western officials said they saw little sign that Russia is willing to see a peaceful resolution to the conflict.

"No one thinks there is the chance of a diplomatic solution in the next few days or even few weeks," a senior European Union official said. Mr. Putin is "going to keep on pushing and trying to overhaul" the Ukrainian government.

U.K. Prime Minister Boris Johnson said last week that even if a cease-fire is agreed to, the West must further arm Ukraine to strengthen "the quills of the Ukrainian porcupine as to make it in future in-

Western officials believe Russia is now reinforcing with fresh troops.

digestible to the Russian invaders." "This is just the beginning,"

he said. "We must support a free and democratic Ukraine in the long term." During a visit to Warsaw on

Saturday, President Biden said Mr. Putin's invasion of Ukraine had ignited a "new battle for freedom" between democracies and autocracies.

Mr. Biden also called Mr. Putin "a butcher" and appeared to call for his ouster. A

White House official later walked back Mr. Biden's remark, which was dismissed by the Kremlin. Mr. Biden's remark drew criticism, with some saying it

undermined diplomatic efforts. Ukrainian officials, though, praised Mr. Biden.

Asked about Mr. Biden's re-

more. And we have already been waiting for 31 days.'

said. "At risk only because they left only one percent of all NATO aircraft and one percent of all NATO tanks somewhere in their hangars. One percent. We did not ask for more. And we do not ask for

NATO members have sent

Kyiv large quantities of mili-

tary, nonlethal and humanitarian assistance, but it still

falls short of what Mr. Zel-

ensky has publicly requested. The U.S. and NATO allies have sent portable antitank and antiaircraft weapons, as

well as lethal drones. Mr. Zelensky has requested fighter planes, tanks and antiaircraft systems capable of hitting Russian warplanes at high altitude, but said Ukraine hasn't received what

A NATO spokeswoman cited on Sunday comments by alliance Secretary-General Jens Stoltenberg on the same issue following a summit on Thursday.

it needs.

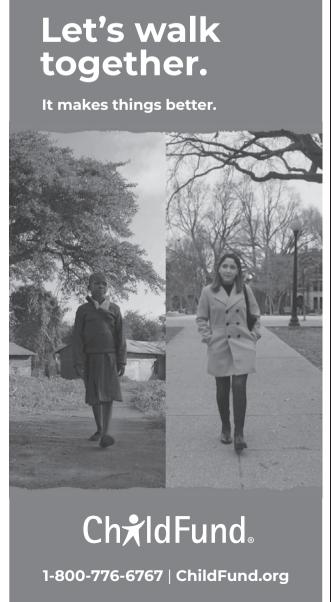
"We all listened very carefully to President Zelensky," Mr. Stoltenberg said, declining to give details of systems being supplied. "But what I can say is that allies do what they can to support Ukraine with weapons so Ukraine can defend" itself.

Meanwhile, in a video, Taras Savchenko, the deputy head of the Sumy regional administration, showed the destroyed Russian tanks left behind in Trostyanets.

On Sunday, the brigade involved in retaking the town said Russian forces had left behind weapons, equipment and ammunition that they would use to recapture other Ukrainian cities under Russian control.

Many facilities in the town, including a hospital, remain studded with mines, said Dmytro Zhyvytskyi, head of the Sumy regional administration. Deliveries of medical supplies, food and other aid are being arranged, he said. —Daniel Michaels.

> Warren P. Strobel and Laurence Norman contributed to this article.



# Biden's Shift on Fossil Fuel Lifts Gas Sector

President Biden's pledge to boost U.S. liquefied naturalgas exports to Europe marks a further retreat from his hardline stance against fossil fuels. sending share prices surging for natural-gas companies.

> By Timothy Puko in Washington and Collin Eaton in Houston

The president, who campaigned on a platform to transition the U.S. to cleaner energy, on Friday said the U.S. is working to ship 50 billion cubic meters of LNG to Europe annually through at least 2030 to help the continent wean itself from dependence on Russian supplies.

The announcement came a day after Democrats on the Federal Energy Regulatory Commission backtracked on new environmental policies, suspending implementation of heightened requirements on reviews that industry officials and Republicans said would impede gas-pipeline development

Shares of large U.S. naturalgas companies rose 9% on average Friday as major stock indexes were mixed. Shares of EQT Corp. and Southwestern Energy Co., two large producers, shot up to close about 12% and 16% higher.

Cheniere Energy Inc., the top U.S. exporter, was up about 5.5%. Tellurian Inc., which is seeking financing for an LNG project, soared 21%.

The gas industry's prospects have been a concern among the sector's executives because of Mr. Biden's stance against fossil fuels. But the president has softened some of his positions in the wake of rising energy costs, which have been driven in part by the economic rebound from Covid-19, and more recently by Russia's invasion of Ukraine.

The White House pivot has also put the U.S. and its vast oil and gas reserves in shale rock back at the center of a global scramble for energy resources as a bulwark against petrostates and authoritarian regimes. The U.S. is the world's largest oil and gas producer.

Daniel Yergin, the vice chairman of S&P Global and a noted oil-industry historian called recent developments "a huge turn."

"There's a recognition now that shale—and particularly LNG—is a real geopolitical asset," he said.

Mr. Biden and his advisers have said they are still committed to ending the world's reliance on fossil fuels, including gas, and will continue to fund renewable energy as part of their work with European allies. But they also acknowledged the need to deal with the reliance that exists today.

"While gas is still a substantial part of the energy mix, we want to make sure that the Europeans do not have to source that gas from Russia," nationalsecurity adviser Jake Sullivan told reporters on Friday.

Toby Rice, chief executive of top U.S. natural-gas producer EQT, said the Biden administration's shift is an extremely encouraging political signal that natural gas will play a key role in the world's future energy mix.

◆ Oil prices remain high amid

# Crowdsourcing Finances Supplies

By James Marson AND IAN LOVETT

Serhiy Prytula recently posted a video requesting help for Ukraine's military. Beside him was a man in a balaclava and another holding a piece of shrapnel.

The shrapnel, he said, came from a Russian warplane shot down by a Ukrainian fighter who is part of a unit hunting enemy vehicles and aircraft in pickup trucks.

"Our guys are working, burning enemy vehicles," said Mr. Prytula in the March 8 Facebook post. "If you have an off-road pickup truck, please give it to us or let us buy it off you."

Mr. Prytula said his initiative, dubbed "Hell Rides," has since provided more than 50 vehicles to Ukraine's military.

The 40-year-old comedian and TV host is a leading figure in the grass-roots effort to equip Ukraine's armed forces to fight Russia.

The U.S. and its allies are providing Ukraine with weapons such as missiles to target tanks and aircraft. The likes of Mr. Prytula, who said his organization has raised the equivalent of around \$8.5 million in the month since the conflict started, are trying to quickly fill gaps in nonlethal equipment, from body armor to drones with thermal imaging.

The effort has helped Ukraine halt the advance of Russia's better-equipped invading force in many parts of the country. In Ukraine's war of skirmishes and ambushes, where small, nimble teams are inflicting costly damage on Russian troops, basic gear can make a big difference.

The Ukrainian resistance, ranging from the thousands of volunteers who joined the military to those staffing the ad hoc supply network, suggests the defensive effort is



Volunteers sort donated medical supplies at comedian and TV host Serhiy Prytula's crowdsourcing initiative.

Mr. Prytula started his fund in 2014, when Russia seized the Crimean Peninsula and invaded eastern Ukraine. He trucked body armor, drones and other equipment to the front lines, posting videos on social media and winning the trust of soldiers and donors.

With an online following of more than one million, donations poured in when the war started in February. On the second day of the war, Mr. Prytula posted a photo of 100 drones bought for the equivalent of \$250,000.

From a new headquarters in central Kyiv, Mr. Prytula has put out a call for supplies from medications to tourniquets and winter boots.

At first, they were buying

whatever they could as fast as possible. "We need radios," he posted on Feb. 27. "At any price!

Mr. Prytula's connections with the military soon helped him focus his efforts. Artillery units need drones with thermal imaging so they can target enemy supply trucks at night. He has sent dozens of pickup trucks to mobile groups that ambush enemy vehicles. Special-forces snipers have received thermal-imaging scopes.

Mr. Prytula has received funds from more than 30 foreign countries, including the U.S. and Europe, but also China and Africa. He recently added a PayPal account. Orders are often delivered to towns in Poland on the border with Ukraine, where they are trucked to a logistics center in the western Ukrainian city of Lviv. On Saturday, Russian strikes targeted the city.

Lida Koval, a Ukrainian Railways staff member, has become a vital cog in the informal system moving supplies into Ukraine.

Ms. Koval, 36, has spent all but four days of the war aboard a passenger train packed with materiel for the war effort—some boxes destined for Kyiv, others for Lviv-that has shuttled constantly between Ukraine and Poland.

The trip takes a full day in each direction. On the way out of Ukraine, the train is

filled to double its capacity, packed with women and children, Ms. Koval said. She keeps snacks for the children, who sometimes ask her for food. Once, she slept in the outdoor smoking area between train cars, so that six children could stay in the cabin that is usually hers.

At the end of the line, she has an hour to rest. She showers using a bucket in the bathroom at the end of the train car. Then she heads back to Ukraine, her carriage full of medical and military supplies. "The only difference is we're going with people one way and we're going with the help the other way," she said. "We're helping people in both

# War Upends Arctic Climate-Change Research

By Nidhi Subbaraman

Russia's invasion of Ukraine has delayed or derailed international collaborations studying climate change in the Arctic, with many Western scientists and scientific organizations cutting ties with Russian research institutions and canceling planned meetings or expeditions in Russia or Rus-

International tensions over the conflict could cripple research focused on a region that—along with the Antarctic-helps regulate climate across the globe, scientists say. Russia is one of eight countries that control land and ocean territories in the region north of the Arctic Circle.

"The Russian territorial waters and Russian coastline comprise a huge part of the region. We really need to know the full Arctic," said Matthew Shupe, a University of Colorado Boulder atmospheric scientist. "If we're limiting access to those regions, we're going to miss out on some key knowledge to better understand how and why the Arctic system is changing."

The U.S. National Oceanic and Atmospheric Administration, which conducts ecological and weather monitoring in the Arctic, says war-related tensions haven't affected its activities there. "All NOAA projects and observations are proceeding in the Arctic," an agency spokesperson said.

That isn't the case with other reduced Russian exports..... B1 | key players in Arctic research.



A research vessel navigates sea ice in the Arctic, a region that helps regulate the Earth's climate.

Dr. Shupe is a co-leader of an international Arctic research initiative to study climate change known as MO-SAiC, for the Multidisciplinary Drifting Observatory for the Study of Arctic Climate. As part of the project, scientists aboard the German research ship Polarstern recently spent a vear collecting data in the region. Fieldwork for the expedition, which ended in October 2020, involved hundreds of crew, support staff and scien-

tists, including up to 10 researchers from Russia, Dr. Shupe said.

But now Russian scientists aren't expected at an April meeting when MOSAiC researchers will discuss the expedition's data, said Markus Rex, MOSAiC expedition leader and head of atmospheric physics at the Alfred Wegener Institute, the German organization that led the project.

"We're looking at this big pile of data, and they bring a

lot of expertise to the table," Dr. Shupe said of his Russian collaborators.

The Russian Embassy in Washington didn't respond to requests for comment about the exclusion of Russian scientists and interruptions to other scientific collaborations.

Local organizers barred Russian scientists this month from the Arctic Science Summit Week, an Arctic-research meeting taking place in Tromsø, Norway, hosted by the International Arctic Science Committee, or IASC. The group is a coordinator of international research in the Arctic and includes scientists from 23 countries.

"In Arctic research, our ability to understand these rapid changes that are unfolding is like putting parts of the puzzle together-and without Russia you're missing a big part of that picture," said Matthew Druckenmiller, the U.S. delegate to the IASC council and a geophysicist at the National Snow and Ice Data Center at the University of Colorado Boulder.

The organizers acknowledged that barring researchers from Russian institutions and organizations would complicate research efforts. Monitoring in Russian territories and working with Russian experts are essential to fully understanding Arctic climate and the global consequences of changes in the region, Jørgen Berge and Geir Gotaas, chair and vice-chair, respectively, of the local organizing committee for the conference, said in an email. But the conflict required

them to take action, they said. "We are—as ever—strong supporters of scientific collaboration, but in the current situation the scientific benefits of maintaining official links with Russian institutions are outweighed by the need to take a clear stand against the actions of the Russian government." Drs. Berge and Gotaas said. Russian scientists from non-Russian organizations could still attend, they said.

# CFOs Wrestle With What to Do With Profits Made in Russia

By Nina Trentmann

Finance chiefs at Western companies that continue to operate and sell products in Russia have to decide what to do with the profits generated from those businesses.

A month into the war, several companies have said they will donate profits derived from Russia to aid humanitarian-relief efforts in Ukraine, while others continue to book those profits as part of their global earnings.

Such considerations are likely to become pressing questions ahead of the quarterly

close at the end of this month as these measures could face scrutiny from shareholders. The war also has exposed how many global companies—both large and small—have business ties to Russia.

"This is something that each company needs to decide," said Amit Khandelwal, a professor for global business at Columbia Business School, referring to the question around Russian profits. "A company has obligations to its employees—both Russian and non-Russian—shareholders and

customers," he said. A roster of international companies, including Bayer AG, Nestlé SA, Danone SA, Kimberly-Clark Corp., Unilever PLC and PepsiCo Inc. say they keep selling in Russia to provide essential supplies, including cancer drugs, baby food and diapers. Among those products are potato chips, laundry detergent and air fresheners.

Nestlé said it is limiting products sold in Russia to baby food, specialist veterinary meals and other nutrition products, adding it would donate any profit to humanitarian organizations. The company said it doesn't know how it will report the donations to investors.

Consumer-goods giant Procter & Gamble Co., which continues to sell products in Russia, said it is donating money and products to aid Ukrainians.

Pharmaceutical giant Pfizer Inc. will continue to supply medication to Russia but will donate all profit to support Ukraine's relief efforts, Chief Financial Officer Frank D'Amelio said. "Maintaining the supply of medicines to Russia does not mean we will continue doing business as usual in Rus-

sia," the company said. Unilever, PepsiCo and Kim-

berly-Clark didn't respond to requests for comment, while Danone and Bayer pointed to existing statements that don't mention their profits from Russia. AstraZeneca PLC declined to comment on what it plans to do with profits from its medication sales in Russia.

Other companies may find it harder to give up revenue and profits generated in Russia, especially if they have large business interests in the country.

Metro AG, a German wholesaler that generated about €2.4 billion in sales—equivalent to \$2.64 billion-or 10% of its total revenue from its Russian business during the latest fiscal year, said it will continue its operations there. The company declined to comment on whether it would consider donating the profits generated in Russia.

The depreciation of the ruble-which has declined more than 20% against the dollar since Feb. 24-and other currencies has made the decision easier for some companies that say it isn't worth the effort or the reputational risk to keep booking profits from Russia.

-Saabira Chaudhury and Sharon Terlep contributed to this article.

# THE UKRAINE CRISIS

# Remark by Biden Stirs Anxiety

Continued from Page One discipline has its virtues," former CIA director and retired four-star general David Petraeus said Sunday on ABC News, while adding that Mr. Biden's words would likely rattle Mr. Putin. "It was reportedly very clearly an unscripted moment...And, you know, it will cause some challenges down the road.'

Sen. Jim Risch of Idaho, the top Republican on the Senate Foreign Relations Committee, said Mr. Biden's comments were a "horrendous gaffe" that undermined an otherwise wellcrafted speech.

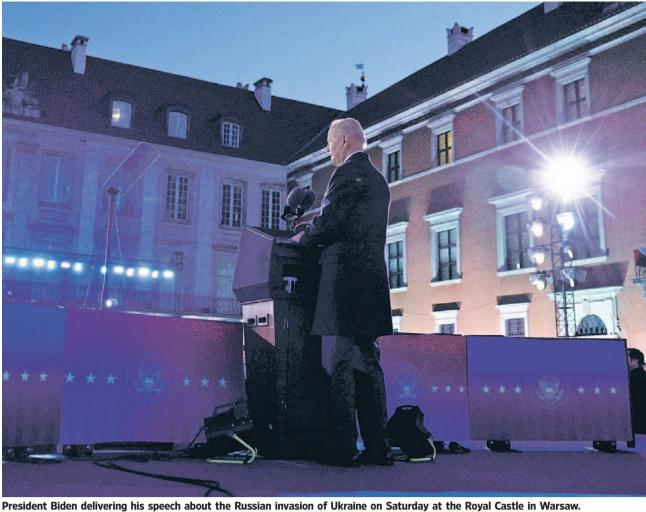
"I think most people who don't deal in the lane of foreign relations don't realize that those nine words that he uttered...would cause the kind of eruption that they did," Mr. Risch told CNN on Sunday.

"This administration has done everything they can to stop escalating. There's not a whole lot more you can do to escalate than to call for regime change," Mr. Risch added. "That is not the policy of the United States of America. Please, Mr. President, stay on script."

Meanwhile, Mr. Macron, a close U.S. ally, worried that Mr. Biden's comment Saturday and his calling Mr. Putin "a butcher" could also complicate diplomatic efforts to end the war.

"I wouldn't use this type of wording because I continue to hold discussions with President Putin," Mr. Macron said in an interview with France 3 TV. "We want to stop the war that Russia has launched in Ukraine without escalation—that's the objective."

European diplomats warned, too, that Mr. Biden's comments could threaten Western efforts to keep lines of communications with Moscow open. Still, they said Mr. Biden's remarks don't endanger any current peace talks, as Russia has shown little inclination to engage seriously in such negotiations.



A senior European official said: "No one thinks there's the chance of a diplomatic solution in the next few days or even a few weeks." Mr. Putin is "going to keep on pushing and trying to overhaul" the Ukrainian government, the official said.

Top Biden administration officials hadn't vet heard directly from allies expressing concern about the comment following the president's speech, a person familiar with the matter said Sunday afternoon.

Ukraine's deputy prime minister, Olga Stefanishyna, praised Mr. Biden's speech. "It was really important to have the sense of an international leadership and an understanding of the tragedy which is happening there for us," Ms. Stefanishyna said on ABC.

For his part, Mr. Putin has long believed the U.S. and its allies are bent on overthrowing him, U.S. officials have said, and is convinced that Washington was behind 2011 mass protests in Russian cities. In a speech on Friday, he accused the West of attempting to "cancel" Russia.

Some analysts warned that the U.S. president's remark could strengthen Mr. Putin's hand at home, causing Russians to rally around him and an invasion they might not otherwise support.

"It's not the aim of Western policy to get rid of a president of a nuclear-armed nation," said Olga Oliker, program director. Europe and Central Asia, at International Crisis Group. "That is why the White House walked it back. No, they don't like Vladimir Putin and Vladimir Putin doesn't like them. But the goal is to get Russia to leave Ukraine and to put an end to the war."

It wasn't clear if Mr. Biden's statement was designed to send a message to Mr. Putin and the international community, simply a verbal misstep.

Earlier this year, the White House had to respond to Mr. Biden's comments when he suggested the response from Western allies might be more muted if Russia were to carry out a "minor incursion" into Ukrainian territory. The remarks were criticized by some as potentially playing down Russian aggression, and President Volodymyr Zelensky of Ukraine responded at the time that "there are no minor incursions."

The administration also was forced to reiterate that there was no change in official policy of "strategic ambiguity" toward Taiwan when Mr. Biden said in October that the U.S. would come to the island's aid if it were attacked by China.

In the wake of Mr. Biden's speech Saturday in Poland, his administration has gone to great lengths to underscore that the U.S. isn't seeking regime change in Russia despite its efforts to isolate Mr. Putin on the global stage. One person familiar with his speech said the comment in question wasn't in the prepared remarks.

"The president's point was that Putin cannot be allowed to exercise power over his neighbors or the region," an official said. "He was not discussing Putin's power in Russia, or regime change."

Mr. Biden's top diplomat, Secretary of State Antony Blinken, amplified the same point Sunday while in Jerusa-

"We do not have a strategy of regime change in Russia, or anywhere else, for that matter. In this case, as in any case, it's up to the people of the country in question, it's up to the Russian people," he said.

Mr. Biden's political allies came to his defense.

Sen. Mark Warner, a Democrat from Virginia and chairman of the Senate's Intelligence Committee, said it was

the Russian president who was trying to overturn a country's leadership.

"There is one individual that's trying to make regime change in Europe. And that's Vladimir Putin trying to change the regime in Ukraine," he told CNN.

Council on Foreign Relations President Richard Haass, who worked in senior roles for Presidents George H.W. Bush and George W. Bush, tweeted that Mr. Biden's comment about the Russian president "made a difficult situation more difficult and a dangerous situation more dangerous."

He later tweeted: "Good to see @POTUS walking back comments & making clear regime change not US policy."

Warsaw—where Mr. Biden was speaking-has become the epicenter of Europe's largest refugee crisis since World War II. More than 300,000 people from Ukraine have arrived in the capital since Russia's invasion, a population that would amount to every sixth resident in the city if they stayed. Overall, more than 3.7 million people have fled Ukraine, the United Nations said, with over 2.2 million arriving in Poland.

The U.S. president also stayed across the street from the central train station that has become packed with refugees arriving from the war, with many sleeping on blankets on its floor.

The comment came at the end of Mr. Biden's trip to Europe that was intended to demonstrate the West's united support for Ukraine and against its

In meetings last week of NATO, the Group of Seven major economies and the European Union, Mr. Biden and other leaders together backed more military, financial and humanitarian assistance Ukraine.

But the unity among the Western leaders also began to show its limits, with differences emerging over how far to press their campaign of economic

—Courtney McBride in Jerusalem, Warren P. Strobel in Washington, Laurence Norman in Berlin and Yuliya Chernova in London

contributed to this article.

# $\overline{ ext{WSJ.}} imes ext{Indagare}^{\circ}$

Time is running out to join WSJ. Magazine and luxury travel company Indagare for an unforgettable trip to Stockholm. Renowned for its design, fashion, art and architecture, the Swedish capital balances past and present with a laid-back vibe that is effortlessly approachable. Enjoy private tours of the National Gallery of Sweden and Drottningholm Palace, visit the world-famous design shop Svenskt Tenn, explore the Fjäderholmarna artisan islands and so much more.



# DISCOVER SWEDISH STYLE WITH WSJ. MAGAZINE

WSJ. MAGAZINE X INDAGARE STOCKHOLM STYLE & DESIGN JUNE 7-12, 2022

LEARN MORE: 646.780.8383 INDAGARE.COM/STOCKHOLM



# A Kyiv Hospital Becomes Front Line for the Wounded

KYIV. Ukraine—The thud of a Russian missile shook the glass of the hospital windows shortly after dawn last week. An hour later, the ragged clump of elderly civilians with bloody faces tottered into an emergency entrance, looking top-heavy with piles of bandages on their heads.

When nurses helped them shed their padded jackets, shards of glass from the folds of their clothing sprinkled to the floor like confetti. Nurses wheeled them to operating rooms on steel gurneys, where doctors spent more than an hour using tweezers to pull more shards out of their faces, hands and the buttocks of one man who lay on his stomach clenching his

Then doctors stitched their wounds shut.

Kyiv's Clinical Hospital #8 was a center of excellence for scheduled surgeries on problems like hernias and heart valves. Then Russia's invasion swept up to the edge of Kyiv, turning it into a front-line medical facility.

Dermatologists and cardiologists now help triage pa-



A man hurt in a Russian rocket attack is treated at Hospital #8.

tients. Staff no longer duck for cover when there are air raid warnings. "Of course we are not what we used to be, but neither is the rest of the country," said Igor Khomenko, director of the hospital.

Along with millions of Ukrainian men aged 18 to 60 who are mobilized for service, Dr. Khomenko has abridged his hopes for normalcy. For 30 years, he worked as a military surgeon, and earlier this year quit the military to try civilian life as head of Hospi-

Like many Ukrainians, Dr.

Khomenko was aware of threats from Russia but didn't expect a full-scale war.

Two weeks after he quit the military, the invasion began. Since then he has been sleeping on a couch in his office, while his wife has taken refuge far in western Ukraine. As patients arrive, he paces the hallways of the emergency wing of the hospital, barking orders to move patients along.

"I tried civilian life and it didn't last long," he said.

He canceled scheduled surgeries and dismissed half of

200 of the hospital's beds are ready for occupancy. Whole floors of the hospital stand empty and dark, conforming to a citywide blackout at night to make Kyiv a harder target for Russian bombing.

The types of wounds that the hospital encounters have evolved, Dr. Khomenko said. In the first week, the hospital received a tide of gunshot wounds. Soon more patients arrived with shrapnel wounds and concussions.

The hospital's easy proximity to the fighting saved some lives, Dr. Khomenko said. Normally, battlefield wounded are treated on the field and then at mobile field hospitals before they are moved to larger facilities. But Hospital #8 is so close to the fighting that some wounded move directly from battle to the operating

Dr. Khomenko operated on one man early in the invasion who was shot through the heart. The hospital was able to save him because staff had time to crack open his chest and sew the hole shut before he bled to death.

Like front-line hospitals in any war, controlling bleeding

tion of its emergency room, and massive blood transfusions are common, surgeons at the hospital said. Dr. Khomenko said that has made the hospital's leading vascular surgeon, Makhmud Akmad, a leader in trauma treatment.

Born in Gaza, Dr. Akmad came to Ukraine to study medicine and decided to stay after meeting a fellow student who became his wife. Until last month he mostly performed scheduled heart surgeries. After Russia's invasion, he and his wife moved into one of the hospital's rooms with their daughter and son, who is studying to be a vascular surgeon like him.

Together, he and his son are on 24-hour call, running to the emergency room whenever several wounded patients appear there.

While Kyiv has suffered few civilian casualties compared with other Ukrainian cities, the human carnage is becoming more common.

The missile strike that sent patients to the hospital last week with glass cuts landed near an apartment block in the early morning. Anatoly Grytsan, 64, was watching a while his mother, 92, sat next to the television.

Mr. Grytsan said he doesn't remember hearing an explosion—only a flash outside and the windows to the apartment blew inside. One shard of glass ripped his hand and another across his forehead. The blood coming down his face made it impossible to see what happened next. "We didn't know what to think,"

He said he fumbled across the room to his mother, who wasn't cut by flying glass because she was shielded by the television. He guided her to their front door, but it wouldn't budge because the blast had bent the door frame. Some rescue workers arrived and broke down the door.

He spoke to his mother by phone and learned she wasn't seriously hurt. Doctors cleaned and stitched his own wounds and wound a bandage around his head and gave him a set of secondhand clothes.

Sitting in his hospital room, he said he doesn't know yet where he and his mother will live after doctors release them. "But maybe I will be here for a while," he said.

# Mother Risks All For Son

Continued from Page One light rail and bus from Gryfino, on Poland's border with

Germany, to Lviv, in Ukraine's west, and then by train deep into areas pummeled by advancing Russian forces.

Since Russian President Vladimir Putin launched his invasion on Feb. 24, around 3.8 million people have fled, prompting what the United Nations has called the fastest and largest displacement in Europe since World War II. A significant number are going the other way. Among them are mothers trying to save their children.

The government of President Volodymyr Zelensky has banned men aged 18 to 60 from leaving Ukraine to help fend off Russia's full-scale assault. Ukraine's State Border Guard Service said more than 317,000 Ukrainians have returned to the country since Russia invaded, mostly men going to fight.

Her own mother, who had been caring for her son while she worked in Poland, said the trip, four days into the war, was too risky, and warned her it wouldn't work out. Wait in Poland until things calm down. she said: "Nazariy is relatively safe with us."

# 'Crazy statements'

In one of the train's middle carriages, Ms. Sirotiuk sat in the darkness by the window with her hands folded over the backpack placed on her knees. and thought about Nazariy, a boy who never sat still. Like the majority of Ukrainians, Ms. Sirotiuk dismissed warnings in Western media that Mr. Putin was preparing to attack. "We had gotten used to Putin's statements about Ukraine," she said. "But until the last moment, no one believed this could happen."

As she traveled closer, Nazariy got busy packing his things. He said he found a large bag and placed his documents, clothes and toys in it, including his beloved computer, ending up with something weighing around 45 pounds.

"I felt happy, because she was coming," he said later. "But I also felt scared for my mum.

Ms. Sirotiuk moved to Poland in October 2019 after the death of her second husband, Nazariy's father. She was part of a wave of Ukrainians who immigrated to the EU member state after the 2014 conflict with Russian-backed forces in eastern Ukraine. Now she lives in Ustronie Morskie, in northwestern Poland, and cleans guesthouses there and in the neighboring town of Gryfino and across the border in Germany. During time off she

trains to be a nurse. Her son, her third and youngest child, lived with her



Olena Sirotiuk, shown in Gryfino, Poland, one of the towns where she works as a cleaner, said of her journey, 'there is no fear.'

temporarily moved back to Ukraine to live with his grandparents, but had been wanting to return to Poland to be with his mother. Ms. Sirotiuk has two adult children who have Ms. Sirotiuk had no plan. remained in Ukraine, her son to fight and her daughter to

be with her husband. Ms. Sirotiuk was on the phone with Nazariy after the war started when he witnessed Russian tanks, she said. Her worries about her son's safety quickly mounted. Ms. Sirotiuk's parents live around 12 miles from Enerhodar, home to a vast nuclear power station that Russian forces would begin shelling seven days into the war. An administrative building directly beside the reactor complex would be hit, prompting urgent calls for a cease-fire from the International Atomic Energy Agency. "It was a close call," the agency director Mariano Grossi would later say.

Russia ultimately took control of Enerhodar, ending the fighting but prompting rallies by residents shouting "Go home!" at the troops. In towns taken over in Ukraine's south, soldiers who had been led to believe they would be met with cheers instead faced angry crowds.

# Hard bunk

Ms. Sirotiuk reached Zaporizhzhia on the morning of March 1, having slept for several hours on a hard bunk in the train using her backpack as a makeshift pillow.

"Everything will be fine," she told her son in a text mes-

sage. "I love you." "I also love you very very very very much," he replied.

A few hours later—"Mum they blew up a bridge yesterday in Ivanivka," a town 5 miles from his home.

Zaporizhzhia is a two-hour drive from her parents' village near the nuclear power plant. The road she would have to use-there and back-skirts the Dnipro River and passes through towns under heavy

assault from Russian forces. She spent the day frantiin Poland for half a year. He cally calling taxi companies

# Olena Sirotiuk's journey

 Sirotiuk departs Gryfino to Szczecin via local train. Takes an overnight bus from Szczecin to Lviv.

Makes an overnight journey east by train to Zaporizhzhia, a city about 60 miles from her son.



Source: Staff reports

and searching for bus and cabdrivers who might go get her son or bring her to him, but none were willing to make the iournev.

One man ultimately agreed and asked about \$100 in payment. She gave him the money, the lion's share of the cash she had with her, and never saw him again. He switched off his phone and stopped responding to her calls. "I sat at the train station

and waited for him the entire day," she said.

Her mother would check in with her constantly, trying to persuade her to leave. On a phone call toward the evening, she heard the sound of air-raid sirens in Zaporizhzhia and screamed at her daughter.

"Leave, Olena! God forbid

they fire on Zaporizhzhia and kill you too," Ms. Sirotiuk recalled.

At the train station, she overheard two Ukrainian soldiers who had just bid farewell to their wives and children. They were talking about intense fighting around Vasvlivka, a town she would need to pass through to collect her son.

It was in that moment that she decided to leave.

She traveled back toward Poland on a carriage full of fleeing mothers and children. "All I remember from the train trip was the never-ending sound of a crying infant," she

said. When Nazariv found out his mother had turned around, he

cursed Mr. Putin and wept for

hours until he fell asleep. "Your mother can't just fly over like a bird," his grandmother told him, in an effort to calm him down.

Ms. Sirotiuk arrived back in Lviv early the following morning and stayed in the city for 24 hours, sleeping at a friend's house. The following day, as she was en route to the train station, she met a Polish man who had been traveling between Poland and Lviv, bringing humanitarian aid. He offered her and a Ukrainian mother with two children a ride to the border, where she

crossed on foot into Poland. On March 3, at the Medvka border crossing in southeastern Poland, five days after the start of her trek, an exhausted

Ms. Sirotiuk sat on a plastic

chair in a concrete parking lot filled with Ukrainian women and children who were rifling through cardboard boxes containing food and clothing brought by Polish volunteers.

She was paralyzed with grief. "I had no other choice," she said at the time.

Her regret was pounded by happy news from another Ukrainian mother who had succeeded. Olena Opilat, who had befriended Ms. Sirotiuk on the train going to Zaporizhzhia over a 3 a.m. cigarette break, was able to re-trieve her children, who lived in the city.

Back in Ustronie Morskie, Ms. Sirotiuk is struggling to cope with her son's absence. She has taken leave from work, is taking anti-anxiety medication and has deep feelings of guilt. Without Nazariy, she said, "there's just empti-

Nazariy, under Russian occupation, spends his days playing computer games and helping his grandparents plant onions and other vegetables in their sprawling garden. He visits his uncle and his 19-yearold cousin, who live nearby. In the evenings, he watches the Ukrainian TV news with his grandmother. School has been suspended indefinitely.

He sometimes sees Russian military trucks emblazoned with a white Z, which has become a pro-war symbol in Russia. He echoes his mother's advice about the soldiers. "If we don't touch them, they won't touch us.'

# **Cease-fire**

A brief cease-fire and humanitarian corridor were announced on social media on March 9 for people to leave the area that day for Zaporizhzhia, but with their internet connection down, Ms. Sirotiuk's family never knew about it.

Nazariy has taken to telling his mother about ingenious escape plans. Maybe he can hide inside a box and strap wheels to it? Or hitch a ride? Recently, he asked: "Could you send me over as a parcel?"

He told his mother he plans to attempt the journey out of Ukraine on his own.

"I'm terrified that he may do this," Ms. Sirotiuk said. She has been pressing her mother to keep better watch over him.

The area around her parents' village is calmer, with Russian forces in control. But Zaporizhzhia has become more treacherous. It is a major destination for thousands of Ukrainians fleeing the bombardment of Mariupol, a port city to the southeast. On March 16, officials in Zaporizhzhia said it had been struck by Russian shelling for the first time, with the railway station and the area around the botanical garden hit.

Ms. Sirotiuk said she has exhausted her contacts in Ukraine in a futile effort to arrange safe passage for her son. She is considering another trip to try to retrieve him as early as this week. She's been told prices to go into the hot zone start at \$1.000.

"How can you go on? What for?" she said. "I just don't know where I can find joy when I am without my child."

# WORLD NEWS

# Mideast Talks Seek Greater Unity on Containing Iran

Summit of Arab, Israeli, U.S. foreign ministers is held to rethink response to Tehran

New diplomatic and security ties are reshaping the Middle East as former enemies seek unity in containing Iran, the U.S. rethinks its security role in the region, and Russia and China seek to exploit openings left by Washington.

By David S. Cloud in Dubai, Dov Lieber in Sde Boker, Israel, and Stephen Kalin in Riyadh, Saudi Arabia

A historic summit that started on Sunday in Sde Boker, Israel, illustrates the changing alignments, bringing Arab, Israeli and U.S. officials together for the first time on Israeli soil for talks on expanding their budding partnership.

Israeli and Arab diplomats said they were discussing unprecedented, formal defense partnerships, as well as new military and economic ties and a joint strategy for Iran.

Driving much of the realignment are new fissures between the U.S. and its allies over still-unfinished negotiations on a nuclear pact with Iran and now the war in Ukraine, as the Biden administration struggles to persuade Israel and Saudi Arabia to embrace its positions on engaging with Tehran and isolating Russia.

The summit drew together U.S. Secretary of State Antony Blinken with the top diplomats of Israel as well as Bahrain, Morocco and the United Arab Emirates—the three Arab countries that normalized relations with Israel in 2020 in the so-called Abraham Accords—in Sde Boker in the Negev Desert,



U.S. and Israeli officials met on Sunday in Jerusalem ahead of the broader regional summit.

where Israeli founding father David Ben-Gurion retired. Egypt's top diplomat is also joining the summit in a lastminute addition, the latest signal that the country that first signed a peace deal with Israel in 1979 is ready for warmer relations.

"A more stable, integrated region gives us a stronger foundation for addressing shared threats like these," Mr. Blinken said on Sunday, calling the summit a gathering that would have been "unthinkable just a few years ago."

But the talks aren't expected to answer whether the Abraham Accords could expand into a formal defense alliance and the role the U.S. would have in any new military relationship. The Israeli-Palestinian conflict, the issue that has long divided Israel from its Arab neighbors, was planned to be discussed, but isn't the overarching goal of the gathering.

"The most important issue is sitting together," said Amir Hayek, the Israeli ambassador to the U.A.E. "It's telling the world that the region is united."

Israel and its new Arab partners are accelerating talks centered on missiles and air-defense systems aimed at countering Iran's large arsenal of midrange missiles and armed drones.

Saudi Arabia, which has held back on normalizing relations with Israel, has held quiet talks with Israel on closer military cooperation, according to a senior U.S. official. Saudi Arabia and the U.A.E. have watched their cities and oil facilities targeted in recent years by Iranian-supplied missiles and drones—sometimes with only a token U.S. response.

The summit is taking place as Israel is on edge following the worst terrorist attack in years in the Negev desert city of Beersheba last week, which left four Israelis dead.

On Sunday night, while the diplomats were waiting to start their dinner, two people were killed and three police officers

injured when a gunmen opened fire in the town of Hadera in central Israel. The assailants were fatally shot by undercover policemen who were near the incident when it occurred.

The Arab diplomats in attendance condemned the attack, via the Israeli foreign affairs department.

Last week, Israeli Prime Minister Naftali Bennett traveled to the Egyptian resort city of Sharm El Sheikh to meet Egyptian President Abdel Fattah Al Sisi and de facto Emirati ruler, Sheikh Mohammed bin Zayed al Nahyan, the Abu Dhabi crown prince. The leaders discussed deepening security and economic ties and countering Iran as a nuclear deal approaches, according to people familiar with the talks.

Rejoining the nuclear pact was President Biden's most important foreign-policy campaign promise, but it is divisive in the Middle East, where Israel and most Arab governments oppose it.

# WORLD WATCH

**EL SALVADOR** 

### Gang Killings Spur State of Emergency

El Salvador's congress approved emergency powers that suspend constitutional guarantees and loosen arrest rules for 30 days to combat a record wave of gang-related killings that forced the closing of businesses and the suspension of public events over the weekend.

The measures, requested by President Nayib Bukele on Saturday and passed by legislators early Sunday, impose restrictions on free assembly, loosen arrest rules to extend detentions and allow the interception of communications.

The measures aim to fight a wave of homicides the government attributes to criminal gangs. More than 62 people were killed Saturday, a record for one day, authorities said.

El Salvador is home to violent gangs such as MS-13 and 18th Street Gang, which have terrorized cities and extorted business owners in the Central American nation. The organizations also have an extensive presence in U.S. communities, according to the U.S. government, as rampant violence and endemic poverty have led to mass migration to the U.S.

Although Mr. Bukele has been credited with a reduction in violent crime and homicides, El Salvador remains one of the world's most violent countries, ranking seventh in the global Homicide Monitor of the Igarapé Institute, a Brazil-based public security think tank.

—Santiago Pérez

CHINA

# **Industrial Profit Rose 5% on Year**

China's industrial profit increased 5% in the January-February period from a year earlier, accelerating from a 4.2% pace in December, the National Bureau of Statistics said Sunday.

The faster growth was fueled by profit increases from raw ma-

terial and energy producers amid soaring crude-oil and coal prices, said the statistics bureau.

Profits from oil and natural-gas mining as well as coal mining both surged more than 150% year-over-year in the first two months of

the year, said the bureau.

China combined most economic indicators in the first two months to iron out effects resulting from different timings of the Lunar New Year, when workers normally take longer vacations and some businesses have to suspend operations.

The statistics bureau said profits of consumer-goods producers picked up in the first two months, thanks to consumption during Lunar New Year holidays.

However, it also said small and downstream manufacturers still faced difficulties in their operations and reported slower profit growth.

—Grace Zhu

UNITED KINGDOM

### British Museum to Pull Sackler Name

The British Museum said it would remove the Sackler name from its galleries, rooms and endowments following global outrage over the role the family played in the opioid crisis.

The museum is the latest institution to cut ties with the Sacklers. The name has been removed from wings and galleries at institutions including the Louvre in Paris and the Serpentine Gallery in London. The British Museum said it had mutually agreed on the move with trustees of the Raymond and Beverly Sackler Foundation, which has supported the museum for more than 30 years.

The Sackler name has become synonymous with Purdue Pharma, the company that developed OxyContin, a widely prescribed and widely abused painkiller. Purdue has faced a barrage of lawsuits alleging that it helped spark an addiction and overdose crisis linked to more than 500,000 deaths in the U.S. over the past two decades.

—Associated Press

# Shanghai Imposes Lockdowns

Continued from Page One
Shanghai found on Sunday, of
which all but 50 were asymptomatic. Shanghai residents living east of the Huangpu River,
which bisects the city, were ordered to stay inside their residential compounds, with public
transportation halted and strict
limits on traffic in and out of the
area for five days starting Monday, the local government said in
a notice posted on its social media account late Sunday.

The same measures will then be imposed west of the river for five days starting April 1, according to the notice, which didn't explain why authorities decided to do the lockdown in phases.

Lockdowns have roiled some neighborhoods in Shanghai in recent weeks, with residents shut in buildings for 48-hour periods and barriers erected at some streets to keep outsiders away. A week ago, Shanghai Disney Resort said its properties in the city would close until further

notice to prevent the spread of Covid-19.

But as recently as Saturday, Shanghai government officials denied plans for a full lockdown. City police also previously said they had punished two offenders who were spreading false information online about a potential lockdown.

"It wouldn't work," Wu Fan, a local medical official, said at a news briefing Saturday in response to suggestions the city should contemplate a lockdown. "Our city plays an important role in the national economic and social development, and even has an impact on the global economy."

A policy to seek to tamp down any new Covid outbreaks as quickly as possible has helped keep China largely virus-free since the early days of the pandemic. But after an all-out lockdown of the city of Xi'an imposed late last year, which left residents scrambling for food and medical services, economists have been more outspoken about the human and economic costs of such measures.

In a speech on March 17, President Xi Jinping vowed to reduce the impact of Covid-control measures on the economy and people's lives, though he said the central government would still hold local officials



A cyclist rides near a wall of a Shanghai neighborhood that was placed under a lockdown due to Covid-19 on Saturday.

accountable if they fail to respond to outbreaks promptly.

Earlier this month, the manufacturing hub of Shenzhen suspended public transportation and factory production for a week, including at Foxconn Technology Group, a major assembler of Apple Inc.'s iPhones. However, the city kept open essential services, such as grocery stores, restaurant deliveries and pharmacies. On March 21, Shenzhen lifted its control measures.

In Shanghai, according to the municipal government statement, essential workers and service providers such as medical staff, police and food delivery workers will still be allowed to move about provided they show

a work pass.

Companies and factories will be allowed to maintain operations under so-called "closed-loop production," a term that has been used by local governments in the past to refer to businesses operating in a bubblelike environment similar to a system used during the Beijing Winter Olympic Games in February, with staff working, living and staying within the factory campus, without leaving the site.

The two sides of Shanghai are connected by numerous bridges, tunnels, subways and ferries that cross the Huangpu, allowing people to live on one side and work on the other. Three bridges each carry more than 100,000 vehicles daily. At the mouth of the Yangtze

River, Shanghai anchors a region of more than 160 million people spread between two dozen cities and the powerhouse Zhejiang and Jiangsu provincial economies that account for a fifth of national gross domestic product and much of the country's foreign investment intake. Shanghai itself generated about 3.7% of China's \$18 trillion GDP last year, some 2.5 times the output of the ë citv of Wuhan that with its 72day lockdown in 2020 came to define how the government has applied strict measures to slow the virus spread despite the hu-

man and commercial costs. The city's east side, Pudong, is home not only to global financial firms that occupy its modern skyline but also the city's major international airport and Shanghai Disney. Factories there are run by several multinationals, and China's largest chip maker Semiconductor Manufacturing International Corp. also has a large manufacturing presence in Pudong. It couldn't be determined if those companies would need to halt production under the tightened restrictions. Tesla, GM and SMIC didn't reply to requests for comment sent

The older and more populous Puxi on the western side of the river likewise has a mix of residential compounds, office skyscrapers and pockets of industry, as well as its own airport and the city's primary high-speed railway stations.

While the rest of the world is emerging from pandemic restrictions, China has held on to strict, if recently modified, restrictions. Epidemiologists said China's Covid-19 vaccines aren't as effective as those developed in the West, and political analysts said a packed schedule of political events this year make it difficult for the country to drop its Covid controls.

A health specialist at the Council on Foreign Relations in New York, Huang Yanzhong, said last week that China's striving for balance in its Covid strategy is a "mission impossible" because, despite Mr. Xi's call, it remains the No. 1 job for local government leaders to eliminate

Covid in their jurisdictions.

A strategy of hospitalizing and isolating Covid patients and their close contacts has also come at a cost. As of Friday, 41 of Shanghai's main hospitals had suspended some outpatient and emergency services because of anti-Covid-19 measures.

—James T. Areddy contributed to this article.

# FROM PAGE ONE

# Dialect Coach to The Stars

Continued from Page One
convincing they sounded, include the likes of Rami Malek's
Freddie Mercury in "Bohemian
Rhapsody" and Kate Winslet's
German-accented Hanna
Schmitz of "The Reader."

Linguistic mastery seems as essential to today's awards lottery as losing or gaining weight once was. Of the 10 lead-acting performances nominated this year, six feature accents.

Diana alone has become something of a cottage industry for Mr. Conacher. His Princess Diana audio folder brims with shades of her speech, including one file simply titled DIANA GIGGLE.MP3. As the lead coach for Netflix's royal drama "The Crown," he was responsible for the young Di of Emma Corrin, as well as for Gillian Anderson's rasping Margaret Thatcher and the clipped "received pronunciation" of Claire Foy's Queen Elizabeth. All three won Golden Globes for their roles. Mr. Conacher, who has

Mr. Conacher, who has worked for the show since its launch, now has two deputies to help him coach the whole cast. In one 90-second span, he speaks all of the four principals of "The Crown" aloud, illustrating the imperceptible tricks to nailing Prince Philip (mouth fractionally open); the Queen (tufts of laughter bent back from the waist); Charles (vowels oozed out of the mouth's left side); and Diana (a chin-bobbing undulation).

The first trick to nailing a historical figure's voice is an unlikely one: watching You-Tube clips on mute. Mr. Con-



William Conacher has a sound library two decades in the making.

acher's clients are often instantly able to spot the things speakers do with their mouths, faces and even posture that directly affect their voice. Stand with a royal's ramrod deportment, he says, and you'll notice you're speaking with formal reserve.

ing with formal reserve.
An actor by training, Mr.

Conacher taught dialect at London's Royal Academy of Dramatic Art for eight years before going out on his own in 2006.

His sound library is two decades in the making. Playing one of his MP3s in his kitchen, the room fills with a hauntingly disembodied voice—a woman mourning a drowned son in the overtones of the outer Hebrides, off the coast of Scotland, where the accents retain tinges from Viking times. It's an original file he captured in the field, back when movie studios would send him out in a car with a giant tape recorder, and he'd call up villagers asking if he could record them over a cup

Since the sonic explosion of the internet, Mr. Conacher has deepened his collection with voices from YouTube, podcasts and remote digital radio stations. Keen listeners and tweeters will trounce anything less than authentic, he says. That has spawned coaching sub-specialists—say, for western American accents—especially in the U.S.

Most actors arrive terrified

Most actors arrive terrified to try a new voice, Mr. Conacher says. To ease them in, actor and coach put accents on "shuffle" and sift through the dossier of clips to sonically design a character's voice.

For "No Time to Die," last fall's James Bond film in which Mr. Malek plays the dioxin-poisoned villain Safin, the pair mixed clips from the Caucasus and blended Azerbaijani- and Georgian-tinged English to create something beyond the expected Bond-cliché Russian. The most important ingredient to the voice of Safin, given his veiny, poison-survivor deformities, Mr. Conacher says, was the sound of living in account.

living in agony.

"Vee talked about," he says,
doing a skin-crawling voice
barely above a whisper,

"speak-ink as eef you are constantly een pain." Next comes a personalized

Rosetta Stone. For Ms. Stewart, it was a four-page cheat sheet called "Spencer Senusing tences" made-up phrases written to use different Diana-specific vowels. For a shorter "a," lines included: "As a matter of fact, I need to thank you; I used to get rattled when I cantered." Beneath each sentence, in green, are real Di words from the script that use that same sound (land mines, compassion, sandwiches, majesty), so Ms. Stewart knew instinctively

The sheet is Mr. Conacher's way of getting the actor into the voice without over-rehearsing the actual script, he says, to keep the lines and performance fresh.

how to say them when they

came up in the script.

"Will has an uncanny, gorgeous way of empowering you," says Mr. Malek.



# Being Wired Has Its Comforts

Some remote workers, sick of dropped calls and spotty Wi-Fi, revert to old-school technology



rmed with a slim laptop and a Wi-Fi hot spot, Bobbie Carlton used to work everywhere-coffee shops, clients' offices. The 56-year-old, who runs an online speakers' platform, felt like the archetype of the modern worker. "Cords are for old people," she explained.

Now 50 feet of ethernet cable snakes through her 100-year-old house in Lexington, Mass., climbing over doorways, running up the staircase, taped to the floor of the upstairs hall. It's seriously ugly, she acknowledges.

"Good God, this is, like, me in the '80s," she says.

And yet, she loves it. "I'm sitting down, and I'm plug-

ging in," she says.

hardy old-school technology, untangling wired headphones, unearthing cords from that box in the back of the closet and rediscovering the delight of a ringing phone that's tethered to the wall. Like Ms. Carlton, they're sick of video feeds that sputter and freeze as family members suck down bandwidth, or calls that drop into the ether with no notice.

ers are embracing the joys of

They'd also like to safeguard themselves from, well, themselves. For all of technology's failings, we're the ones insisting on dialins with 11-digit passcodes for what could have been an email. We spend hours scrolling Instagram when we should be finishing that PowerPoint. It's hard to do that while holding a landline phone to your ear. Maybe reverting to the stripped-down tech of yore can help.

"It's the equivalent of comfort food," says Maya May, the on-air host of a streaming show who is based in Los Angeles. "Anything

analog to me is the equivalent of when things were safe and calm."

That's why she recently began paying \$12.99 a month to service a cordless Panasonic phone she can cradle on her shoulder like old times. It rarely rings. But the fact that her colleagues have the num-

With a landline, you can still be reachable even if you put that distracting cellphone in a drawer.

ber has freed her to pop her cellphone-with all its inherent distractions—into a drawer in her home office for hours at a time without panicking about being unreachable.

Going backwards can come with some hiccups. Adam Ozimek, an economist, thought getting a landline would solve the spotty cell service in his Lancaster, Pa., house. businesses. He oversees 140 tech

One problem: In many areas, phone companies won't sell you a traditional landline anymore. Getting a landline often just means plugging into the Internet.

"I thought it was going to be like going from MP3s to vinyl, but it wasn't. It was like going from MP3s to worse MP3s," Dr. Ozimek says of the sound quality.

Then came the spam calls. At

Dr. Ozimek knew, in his heart, that no one he wanted to talk to was ringing. And yet.

"That's how we were raised. You run to answer the phone," he says. After a few months of the nonstop ringing, he gave up and unplugged it.

If you, too, have been trying and failing to perfect your remote work set-up, take heart.

"There are so many nuances to it that I feel bad for the modern end user," says Tom Hughes, who heads the service desk at Electric, an outsourcer of IT services for

experts who have spent the past two years fielding frantic messages from remote workers.

Electric's service desk tickets rose 64% to 4,100 a week this January from 2,500 last January as folks hunker down for long-term teleworking and try to make their newfangled, wire-free set-ups sustainable, he says. By the second or third time someone calls complaining about their AirPods inadvertently connecting to their spouse's car, Mr. Hughes recommends wired headphones.

"Latest and greatest bleedingedge technology isn't always for you," he says.

Part of the problem is an inherent conflict of interest between the companies making technology and the people using it, says Marc Weber, a curatorial director at the Computer History Museum, in Mountain View, Calif. "The companies want to give you something good enough that you'll keep on buying it, but they don't really care about making your experience won-derful or easy," he says. "They want to force you away from older stuff."

Old technology takes us back to a time when life was less complicated. We picked up the phone if we wanted to talk to someone, switched on the television if we wanted to be entertained.

"I think a lot of the nostalgia that people might have is from just having fewer choices," Mr.

Turns out, you can buy that too. That's the idea behind Freewrite, a line of "distraction-free" writing tools. The brand's fourpound aluminum typewriter is fitted with a small E Ink screen (the same technology Kindles use) and not much else. It syncs to programs like Google Drive so you can offload your words to your computer, editing or publishing from there. But on the Freewrite, there is no browser and no email to distract you, nor are there any apps. You can't even waste 15 minutes fiddling with fonts.

"They just really help people to focus because there's nothing else you can do on them," says Adam Leeb, chief executive of Astrohaus, the Detroit startup that makes them.

Ben Hong, a 33-year-old software engineer, likes to take notes while reading books on his Kindle. Trouble is, he would disappear down Reddit rabbit holes on his laptop as he came across interesting tidbits and Googled around to learn more. He recently bought a Freewrite so he could focus.

While he recognizes the irony of buying more technology to try to solve his problem of having too much technology, the device has helped him connect with his thoughts and fully digest books on psychology and self-improvement. Sitting at a coffee shop, the retroinspired device splayed out before

# **Doctors Gain Insight** On TikTok Disorders



JULIE **JARGON** 

ast fall I reported on a phenomenon that doctors around the globe were just beginning to understand: Teen girls were showing up in hospitals and clinics with sudden motor and verbal tics seemingly related to videos they watched on TikTok.

Doctors say they're continuing to see an outsize number of girls suffering from tics, and some are also developing new disorders. New research findings offer hope that the problems can be addressed. Starting back in the spring of

2020, girls in Chicago were uncontrollably blurting out the same words as girls in Calgary. Doctors from the U.S. to the U.K. discovered that many of the teens had been watching TikTok videos of people who said they had Tourette syndrome, a nervous-system disorder that typically strikes males during early childhood and causes them to make repetitive, involuntary movements or sounds. What 岩 doctors diagnosed in these girls wasn't actually Tourette syndrome but rather functional neurological disorders, a class of afflictions that includes vocal tics and abnormal body movements that aren't tied

Many of those early patients have since recovered, although neurologists say some have gone on to develop other disorders. And new adolescent-female patients with tics continue to file into many doctor's

± to an underlying disease.

offices. Views of TikTok videos containing the hashtag #tourettes have risen by almost a billion since last fall, to 5.6 billion.

New research supports doctors' earlier theories that girls who developed tics during the pandemic had pre-existing mental-health issues making them susceptible to other disorders. A paper published earlier this month in Australia's Journal of Paediatrics and Child Health found that underlying undiagnosed or untreated psychiatric disorders, selfharm and school absenteeism are common in adolescents with functional tics. The University of Sydney researchers wrote that the tic-like behavior likely comes from "a mix of cumulative stress, in addition to social-media influence."

TikTok has consulted with experts "who have cautioned that correlation does not mean causation" when it comes to tics and the company's video-sharing platform, a spokeswoman said. For people with Tourette syndrome, the app is a way for them to "express themselves authentically, find community and fight stigma," she said.

When people search TikTok for videos related to certain kinds of harmful content such as disordered eating, suicide and dangerous challenges, TikTok directs them to expert sources such as the National Eating Disorders Association and the National Suicide Prevention Lifeline. The platform doesn't steer people to similarly authoritative sources when they search for videos about Tourette syndrome or tics.

TikTok is working on ways to give users more control over the content they watch, including the



ability to block content they don't want to see in their For You feed, the spokeswoman added. She said TikTok is developing new ways to diversify the videos its algorithm recommends to viewers.

# **Underlying Problems**

Donald Gilbert, a neurologist at Cincinnati Children's Hospital Medical Center, said one child out of eight who came to the hospital's movement-disorders clinic last year had functional tics, up from fewer than one in 50 in 2019. Most of his patients were girls; fewer than half have fully recovered after treatment, which in some cases included cognitive behavioral therapy and staying

veloped eating disorders, tremors or non-epileptic seizures. "What's driving the symptoms in the first place probably hasn't been resolved, so they get an intervention that helps the tics, but the underlying condition manifests in something else later,"

Some patients whose tics im-

proved or disappeared have de-

The pandemic has taken a particularly hard mental-health toll on adolescent girls, according to a recent study by the Centers for Disease Control and Prevention.

Dr. Gilbert said.

Weekly emergency-room visits among 12- to

17-year-old girls for various mentalhealth conditions rose in 2020, 2021 and January 2022, compared with the same weeks in 2019, with visits related to tics and eating disorders increasing in each of those periods. The proportion of visits among adolescent females with eating disorders doubled during the pandemic, while those for girls displaying tic disorders tripled.

Just as doctors have pointed to TikTok videos about tics as being a factor in girls' tics, doctors also have said TikTok videos about severe dieting have been a factor in girls' eating disorders.

Boys appear to have fared better, according to the CDC report. The number of weekly visits for

mental-health conditions overall decreased among adolescent boys during the pandemic-including the number of visits related to tics. There has been a small rise in emergency-room visits among adolescent boys with eating disorders during the pandemic, according to the CDC data.

Some doctors theorize that boys might have found a good outlet from the social isolation of the pandemic in multiplayer online videogames and that they've spent less time than girls on social media. which has been shown to magnify feelings of loneliness and depression. But part of the difference could also be that certain mentalhealth conditions in boys go unrecognized and that boys are less likely to seek help, the CDC said.

# Signs of Improvement

When it comes to TikTok-related tics, there are some signs that the condition can lift. Tamara Pringsheim, a neurologist and professor at the University of Calgary who has been researching this phenomenon, conducted an as-yet-unpublished study on the issue. In it, she found that of the 20 adolescents and nine adults she and fellow doctors studied last summer who had developed sudden tics, nearly all of them improved over the course of six months. She said most patients were treated with cognitive behavioral therapy—a type of talk therapy that helps patients identify and change thought patterns that can hurt their behavior and emotions—for anxiety or depression, and were prescribed antidepressants.

Dr. Pringsheim now sees at least two new patients a week with ticlike behaviors, down from the more than six she was seeing last year. The decrease, she said, could be due to pediatricians learning how to treat tics and thus referring fewer patients to the program she leads.

# PERSONAL JOURNAL.

### By Ellen Gamerman

The Oscars worked mightily to encourage a return to the good old days of movie-watching and Hollywood glitz Sunday night. But the evening was defined by the moment when Will Smith smacked comedian Chris Rock onstage.

While the biggest award of the night went to "CODA," giving Apple+ the first ever best picture win for a streaming service, the announcement came almost as an anticlimax after Mr. Smith's outburst and his tearful acceptance speech.

Midway through the evening, Mr. Rock, before presenting an award, joked that Mr. Smith's wife, Jada Pinkett Smith ought to do a "G.I. Jane" sequel. It was a reference to her short hair—Demi Moore played the role in the original with a shaved head. Ms. Pinkett Smith has said she has alopecia, a hair-loss condition, and has worked to raise awareness of the autoimmune disorder.

Ms. Pinkett Smith made an unamused face. Mr. Smith walked onto the stage and struck the comedian. "Keep my wife's name out your f—ing mouth," he yelled, once he'd returned to his seat. A visibly shaken Mr. Rock said, "Wow, dude, it was a 'G.I. Jane' joke." Mr. Smith repeated himself. "I'm going to, OK?" Mr. Rock said.

Not long after that, Mr. Smith won the Oscar for best actor, for his portrayal of Richard Williams, father of tennis greats Venus and Serena Williams, in the biopic "King Richard."

"Richard Williams was a fierce defender of his family," Mr. Smith said at the start of a long extemporaneous speech. "I look like the crazy father, just like they said about Richard Williams. But love will make you do crazy things." The camera pivoted to Ms. Pinkett Smith, who nodded appreciatively.

Through tears, Mr. Smith said that Denzel Washington had just told him, "At your highest moment, be careful, that's when the devil comes for you."

He apologized to the Academy and his fellow nominees, and before leaving the stage, he added, "I'm hoping the Academy invites me back."

The best picture award has been coveted by streaming services like Netflix, which has tried to win for years, only to be bested by Apple TV+. The "CODA" win is the latest evidence of a shift that

# 'CODA' Wins Top Oscar As Show Drama Unfolds



Will Smith offered a tearful acceptance speech for best actor shortly after an altercation with Chris Rock.



Jessica Chastain won best actress for 'Tammy Faye.'



Jane Campion took home the Oscar for directing.

has redistributed power from Hollywood studios and theaters to tech companies and streaming platforms.

"CODA" won in all three categories it competed in, including supporting actor (Troy Kotsur), and adapted screenplay (Siân Heder).

Yet the exchange between Messrs. Smith and Rock dominated the evening. At least one of the live feeds playing online froze on that moment while others went silent, leaving TV audiences wondering what was said.

Comedian Amy Schumer, one of the evening's three hosts who at one point dangled from the ceiling in a "Spider-Man" suit, attempted to defuse the tension. "I've been getting out of that 'Spider-Man' costume—did I miss anything?" she said. "There's like a different vibe in here."

The ceremony could not shake the moment. When announcing the winner for best actress, Anthony Hopkins said, "Will Smith said it all. What more can be said? Let's have peace and love and quiet."

From the start of the evening, the show had attempted to put on a happy face, despite falling during a period of turmoil around the world, from the war in Ukraine to the global pandemic.

Much of the night unspooled as predicted by Oscar handicappers, from Ariana DeBose winning best supporting actress for her turn as Anita in "West Side Story" to the science-fiction epic "Dune" cleaning up more technical awards like cinematography, sound and visual effects.

Best actress, one of the toss-up categories of the night, went to Jessica Chastain for her performance in "The Eyes of Tammy Faye." Ms. Chastain used her speech to speak out on behalf of the LGBTQ community.

In another top category, and a rare moment of triumph for the Netflix drama "The Power of the Dog," Jane Campion won the directing award for the revisionist Western. Ms. Campion is the first woman to compete in the category twice, having been first nominated for 1993's "The Piano." She lost in that category to Steven Spielberg for "Schindler's List." This time the roles were reversed, with Mr. Spielberg passed over for his "West Side Story" remake.

And as predicted in the days leading up to the ceremony, "CODA" collected Oscar gold.

"CODA" actor Troy Kotsur's win for best supporting actor brought one of the most emotional moments of the night. The audience erupted in applause and then fell silent and waves hands, the sign-language version of clapping. With "CODA," a term for child of deaf adults, Mr. Kotsur is the first deaf male actor ever to be nominated and to win an Oscar. In his signed acceptance speech, Mr. Kotsur dedicated his win to the deaf community, the CODA community and the disabled community: "This is our moment," he said.

Siblings Billie Eilish and Finneas O'Connell won the Oscar for best song with "No Time To Die" from the James Bond movie of the same name. It was one of the starriest categories, with fellow nominees including Beyoncé, Lin-Manuel Miranda and Van Morrison.

References to the war in Ukraine were brief, including a moment of silence to address the crisis.

The show opened with a host for the first time in three years—in this case, a trio of hosts, with Ms. Schumer, Wanda Sykes and Regina Hall opening the telecast by poking fun at the fact that most people aren't going to the movies

—John Jurgensen and Robbie Whelan contributed to this article



### WHAT'S YOUR WORKOUT JEN MURPHY

# **Epic Walks Inspire a Will to Run**

lot of people started walking for mental and physical health during the pandemic. Kirsten Beverley-Waters took up extreme walking. The yoga teacher and fitness coach would put on a hydration vest, leave home in Old Orchard Beach, Maine, and start walking. Some walks stretched 34 miles, others 20.

"When I felt done for the day, I'd call my wife to pick me up," says Mx. Beverley-Waters, who is nonbinary and uses the gender-neutral identifier along with the pronouns they, them and their. "I kept repeating the process and found it therapeutic."

The long walks prompted reflection. Mx. Beverley-Waters, 37, thought a lot about struggles with identity. Mx. Beverley-Waters had also read about mental-health challenges faced by LGBT youth during the pandemic and wanted to do something to help raise awareness.

Mx. Beverley-Waters is now training to break the World Record for the most consecutive 50Ks run. On June 4, they will set out to complete one 50K a day for 22 consecutive days, running an estimated six-and-a-half to nine hours each day. The efforts will raise money for the Trevor Project, a non-profit that provides crisis support to LGBT youth.

"I want kids to see a nonbinary athlete thriving," Mx. Beverley-Waters says. "I'm putting myself out there to remind people that we all struggle and with support we can get through any challenge."

# The Workout

Mondays and Wednesdays bring hour-plus endurance runs, pushing the pace for various intervals to build aerobic capacity. Tuesdays involve a steady endurance

run of around 80 minutes



Kirsten Beverley-Waters is training to run 50K a day for 22 consecutive days to raise money for LGBT youth in crisis.

holding a comfortable pace. Mx. Beverley-Waters teaches yoga classes on Thursdays and considers that recovery day. Fridays are a 90-minute run at a comfortable pace.

Saturdays bring a threeor four-hour run or bike. Mx. Beverley-Waters is careful



about not overtraining so adds in TOF, or "time on feet," workouts that might include hiking or walking long distances. Mx. Beverley-Waters walks as much as possible throughout the day and on Sundays will hike or run on hilly terrain to mix up the muscles worked. Winter workouts

often mean snowshoes and running on snowy trails.

A former CrossFit competitor, Mx. Beverley-Waters has a home gym and lifts weights on Mondays and Wednesdays. Exercises might include banded dead lifts, banded lateral walks, kettlebell swings, back squats, burpees, plank variations and lunge variations while wearing a weighted vest.

Mx. Beverley-Waters is a big proponent of recovery. After every run, they spin at a low cadence on a Peloton bike to flush out lactic acid in the legs. They do at least 10 minutes of myofascial release work and perform yin yoga poses. After Saturday workouts, they take an ice bath—or sometimes jump straight in the ocean—post-run.

Mx. Beverley-Waters has struggled with eating disorders. "When I competed as a CrossFit athlete, I counted macronutrients and it spiraled me into an unhealthy place," they say. Now gluten and dairy-free, they eat what they want based on how their body is feeling.

For dinner "I make every type of rice bowl there is," Mx. Beverley-Waters says. Quinoa, sweet potato, Brussels sprouts, cranberry and chicken topped with homemade balsamic is a staple.

THE WALL STREET JOURNAL.

Monday, March 28, 2022 | A13

# ARTS IN REVIEW



**ART REVIEW** 

# A Painter's Many High Water Marks

An exhibition looks at the J.M.W. Turner's responses to the massive changes wrought by the Industrial Revolution

By Karen Wilkin

**Boston** oseph Mallord William Turner is an institution, admired in his lifetime and today with a wing of Tate Britain dedicated to the vast number of works he bequeathed to the nation. "The Fighting Temeraire, Tugged to Her Last Berth to Be Broken Up" (1839, National Gallery, London) his image of an obsolete man-o-war, sails furled, maneuvered by a steamboat against a setting sun, repeatedly leads "my favorite painting" polls in Britain. He was equally famous in the United States. In Louisa May Alcott's "Little Women," not a book aimed at specialists, the artistic sister, Amy, attempts to paint a Turner sunset. And some of his most important canvases were acquired by Americans.

Born in Georgian England in 1775 and dying in 1851, during Victoria's reign, Turner lived through the American Revolution, the French Revolution, the age of Napoleon, Waterloo, and the expansion of the British Empire. More significantly, his lifetime encompassed the social, political, and technological upheavals of the Industrial Revolution, as coal-powered steam engines transformed transportation and manufacturing in country newly laced together by railroads, filling the air with soot, and offering Turner an important visual motif. Now "Turner's Modern World," organized by Tate Britain, with the Kimbell Art Museum and the Museum of Fine Arts, Boston, (seen earlier in London and Fort Worth, Texas) examines the artist's response to these changes.

Contradictions and surprises abound. The large, vigorous "Fall of the Rhine at Schaffhausen" (1805-06) dominates a gallery of early work, suggesting that Turner could have profitably concentrated on landscapes untouched by modern interventions. His preference for more timely subject matter is attested to by scenes of dockyards,



Joseph Mallord William Turner's 'The Burning of the Houses of Lords and Commons' (1835), top; 'The Battle of Trafalgar, as Seen From the Mizen Starboard Shrouds of the Victory' (1806-08), above; 'Fall of the Rhine at Schaffhausen' (1805-06), below left; and 'Keelmen Heaving in Coals by Moonlight' (1835), below right

glowing lime kilns and forges, and a pier in Brighton, as well as ship-wrecks, the Battle of Trafalgar, the aftermath of the Battle of Waterloo, and the burning of the Houses of Parliament. Turner experienced some of these events; others he constructed from descriptions, interviews with witnesses, and, for paintings of Battle of Trafalgar, a visit to Nelson's flagship Victory while she was being repaired.

Rich color, theatrical light effects and daring paint handling—from incrustations to transparent washes—convey drama as much as specific images do. The blazing Parliament buildings are subsumed by a sweep of pale ochre and orange, a radiant

equivalent of flames and reflection. A royal banquet scene dissolves into expanses of red livery and golden washes punctuated by a fragile, dotted chandelier. We often have to work to find the main event, such as the dying Nelson, a small figure, collapsed on the crowded deck of the Victory.

A gallery evocative of the multilevel installations at the Royal Academy and at Turner's own gallery concentrates on themes of war and peace. Depictions of carefully itemized redcoats coexist with broadly painted meditations on qualities of light, such as the grim, deeply shadowed "The Field of Waterloo" (1818), in which piled bodies are revealed by torchlight as women search for survivors. Turner's works are sometimes so disparate that it is hard to believe they are by the same artist, but they served different purposes: pleasing patrons, competing for royal favor, demonstrating his imagination and adventurousness.

The heart of the show bears witness to Turner's increasing liberalism and his sympathy with England's burgeoning abolitionist movement. The glowing "Slave Ship (Slavers Throwing Overboard the Dead and Dying, Typhon Coming On)" (1840) is a ferocious indictment of a brutal practice, but it takes a moment to get past the gorgeous light and subtly varied sur-

faces to discover the hands and (improbably floating) manacles in the waves, amid oddly sinister fish. (A thoughtful discussion on video nearby, which includes the responses of black artists, contextualizes the painting.) Originally owned by the critic John Ruskin, Turner's champion and executor, "Slave Ship" was purchased by an American and has been at the MFA since 1876. It is prefigured by the unfinished, roiling "A Disaster at Sea (Wreck of the Amphitrite)" (c. 1835), provoked by the drowning of almost everyone on a ship bound for Australia-female convicts, their children, crew-when it ran aground and the captain, fearful that his cargo would escape, refused offers of rescue.

"Unfinished" is a crucial word. Some late oils and watercolors are so minimal that, for today's viewers, they read as abstractions. But the sparse watercolors were private studies, complete for Turner's purposes, but never intended for exhibition. The most stripped-down canvases are unfinished disquisitions on massing and light. Had Turner sent them to the Royal Academy for showing, he would have added detail on Varnishing Day—before the galleries opened to public. Yet he exhibited others almost as radical, such as "Snow Storm off a Harbour's Mouth" (1842), an explosion of spiraling darks and lights that erases the distinction between water and sky, wrenching itself out of its era. The variety of paint applications anticipates Gustave Courbet; the atmosphere, James McNeill Whistler; the composition, Abstract Expressionism.

"Turner's Modern World" is illuminating and beautifully installed. Don't miss it.

# Turner's Modern World

Museum of Fine Arts, Boston, through July 10

Ms. Wilkin is an independent curator and critic.





# A Final Four of Basketball Royalty

North Carolina ends Saint Peter's Cinderella run and advances to play Duke, while Kansas matches up against Villanova

By Jared Diamond

Philadelphia When the referee stepped to center court and tossed the ball into the air here at the Wells Fargo Center on Sunday, just five Division I men's basketball teams still had a chance to win the national championship. One of them came from Saint Peter's University, a tiny commuter school from Jersey City, N.J., with a microscopic budget compared with its competitors.

On the way to the doorstep of the Final Four, Saint Peter's made history. As a 15 seed, the Peacocks dispatched powerhouses Kentucky and Purdue, captivating the nation with their ferocious defense, charming head coach and undersized, overlooked players.

March Madness produces a Cinderella every year. There had never been an underdog like Saint Peter's. The magic finally ran out in the Elite Eight. Saint Peter's improbable journey ended with a 69-49 loss to North Carolina, the epitome of college basketball royalty.

It was a disappointing, if not unexpected, conclusion to one of the most memorable NCAA tournament performances of all time. When Saint Peter's coach Shaheen Holloway removed his regulars near the end of the game, they all gathered around him, put their arms around each other and simply stood for a

"We just told each other, 'Just stay together. What we did was amazing," senior KC Ndefo said.

But the Peacocks' demise paved the way for a deliciously alluring matchup next weekend: North Carolina's opponent in the semifinal in New Orleans on Saturday is Duke, its fiercest rival.

The contest is brimming with story lines. Legendary Duke coach Mike Krzyzewski is planning to retire at the end of this season after more than four decades at the helm of the Blue Devils. He is two victories away from the storybook farewell of a sixth title. North Carolina now has the ability to prevent that from happening.

When the two sides meet, it will be a first. Krzyzewski has never coached against North Carolina in the NCAA tournament—not just in the Final Four, but in any round at all. He is hoping to avenge a brutal loss from earlier this month, when North Carolina came onto Duke's campus for the final regular-season game of Krzyzewski's career and won by 13 points.

At the time, it seemed like an embarrassing send-off for Krzyzewski's part in the Duke-North Carolina annals. It turns out that game wasn't the final chapter after all. As North Carolina accepted the trophy for winning the East region, the fans chanted, "We want Duke!"

"This is probably the most nervous I was before a game, because I



North Carolina's Brady Manek, above, scored 19 points in the victory over Saint Peter's. Below, Kansas players celebrate after winning the Midwest regional.

just really wanted them to go to the Final Four. "It was something that I just desperately wanted for them, ' said Hubert Davis, North Carolina's first-year head coach who went to the Final Four as a UNC player in 1991. "In the huddle I told them that it's not a hope, it's not a dream anymore—it's a reality.

By beating Saint Peter's on Sunday, North Carolina also ensured that the Final Four will look remarkably familiar, composed entirely of legacy programs accustomed to playing into April. Earlier on Sunday, Kansas—the only No. 1 seed left standing after Arizona, Baylor and Gonzaga all fell—overcame a six-point halftime deficit to blow out Miami, 76-50.

The Jayhawks will take on Villanova, who won the national title in 2016 and 2018. All told, the winner of four of the last six championships will be playing at the Caesars Superdome on Saturday.

Saint Peter's had a chance to become the most unlikely guest ever to crash that exclusive party, and after its showing against Purdue on Friday, anything felt possible. But North Carolina has played well on this stage, knocking off Marquette, Baylor and UCLA before facing



Saint Peter's. The Peacocks struggled to score throughout the night Sunday, connecting on just 30% of their field-goal attempts and going 4-of-16 from 3-point range.

After wearing down several top offenses with their relentless defense, the Peacocks couldn't contain North Carolina's firepower. Saint

Peter's had no answer for Armando Bacot, UNC's 6-foot-10 center, who scored 20 points and grabbed 22 rebounds, completely dominating the area around the rim. Brady Manek and Caleb Love added 19 and 14 points, respectively.

There will be plenty of beneficiaries from Saint Peter's accomplishment, however. Chief among them: The other institutions in the Metro Atlantic Athletic Conference, which include schools like Canisius, Siena and Niagara. The league will receive millions of dollars because of how far the Peacocks went, and the money will be distributed to all of

Then there's Holloway, the Saint Peter's head coach who has become the dream candidate for plenty of schools in need of somebody to lead their basketball team.

When Seton Hall lost in the first round of the tournament, coach Kevin Willard said he hoped Holloway would replace him if he left. Shortly after, Maryland hired Willard, increasing the speculation of Holloway—a former star at Seton

Hall—decamping to the Pirates. If he decides to leave, which seems likely, it would be in the wake of an NCAA tournament showing that will not soon be forgotten. In a tournament that will ultimately be won by a program that always wins it, what will be remembered is a little school in Jersey City that shocked the world.

"Saint Peter's did it. Period," Holloway said. "Saint Peter's made it to the Elite Eight. Great story."

31 Opportunity to

32 "Cuchi-cuchi"

entertainer

33 Sound familiar

35 Stone used for

36 Denial from a

overhang

39 Flu symptom

43 Correct, as an

incorrect

password

44 Team lineups

51 Sauna cover

52 Catcher Yogi

54 Confess to be

58 Bygone times

53 Fur tycoon

true

56 Sorts

55 Animal life

59 Rampant

61 Fish eggs

60 Scream

cameos

37 Roof

49 Tiny

swina

### Weather AccuWeather | Go to AccuWeather.com Shown are today's noon positions of weather systems and precipitation. Temperature bands are highs for the day 0s 10s 40s 20s 30s (D) 60s 40s 10s 50s 60s 70s 80s Denve San Francisco 40s 90s 70s·Wichita 100+ Charlotte Oklahoma City Columbia 60s Little Rock Warm Rain Tucso **70**s 80s M Cold T-storms Orland Stationary 80s Snow 80s wers Flurries 40s 70s Ice Forecasts and graphics provided by AccuWeather, Inc

### **U.S. Forecasts** s...sunny; pc... partly cloudy; c...cloudy; sh...showers; t...t'storms: r...rain: sf...snow flurries: sn...snow: i...ice Tomorrow City Anchorage 34 49 Atlanta Baltimore Boise 21 18 **Boston** Burlington Chicago 26 17 64 46 18 70 Dallas 79 33 82 82 43 57 75 70 60 82 Honolulu 66 28 45 53 53 Indianapolis Kansas City Little Rock Los Angeles 50 65 Miami 25 30 43 Milwaukee Minneapolis Nashville 62

63 23

New Orlea

New York City

81 44

29

Today Tomorrow							
City	Hi	Lo	W	Hi	Lo	W	
Omaha	55	38	рс	71	42	C	
Orlando	86	60	S	86	63	S	
Philadelphia	36	24	sf	45	29	S	
Phoenix	83	59	C	68	55	sh	
Pittsburgh	30	16	рс	42	29	рс	
Portland, Maine	32	18	C	37	23	S	
Portland, Ore.	63	47	r	61	43	C	
Sacramento	61	45	C	72	48	S	
St. Louis	53	39	C	66	63	sh	
Salt Lake City	69	48	C	58	44	sh	
San Francisco	62	50	sh	61	50	S	
Santa Fe	71	42	C	53	36	sh	
Seattle	57	45	r	58	44	рс	
Sioux Falls	50	35	рс	47	35	c	
Wash., D.C.	43	25	рс	49	36	S	

Beij

Dub

ando	86	60	S	86	63	S	Geneva	68	43	S	63	47	C
iladelphia	36	24	sf	45	29	S	Havana	85	61	S	87	64	S
oenix	83	59	C	68	55	sh	Hong Kong	68	65	t	73	67	r
tsburgh	30	16	pc	42	29	рс	Istanbul	57	45	S	57	48	рс
rtland, Maine	32	18	C	37	23	S	Jakarta	90	76	t	91	76	t
rtland, Ore.	63	47	r	61	43	C	Jerusalem	61	48	S	70	46	po
cramento	61	45	C	72	48	S	Johannesburg	77	55	рс	76	56	S
Louis	53	39	C	66	63	sh	London	63	48	рс	52	40	sh
t Lake City	69	48	C	58	44	sh	Madrid	64	47	рс	55	48	sh
n Francisco	62	50	sh	61	50	S	Manila	97	81	S	96	81	рс
nta Fe	71	42	C	53	36	sh	Melbourne	78	58	рс	73	57	рс
attle	57	45	r	58	44	рс	Mexico City	80	56	S	83	57	S
ux Falls	50	35	рс	47	35	C	Milan	71	43	S	67	48	C
ish., D.C.	43	25	рс	49	36	S	Moscow	48	34	sn	42	23	C
							Mumbai	94	81	pc	97	80	pc
iternati	ion	al					Paris	70	50	S	64	46	sh
icci iiuc				_			Rio de Janeiro	81	74	t	80	74	t
		Today			morr		Riyadh	76	56	pc	79	58	S
У	Hi	Lo	W	Hi	Lo	W	Rome	64	43	pc	64	50	pc
nsterdam	59	42	рс	54	37	C	San Juan	84	72	S	84	72	pc
nens	63	50	C	64	50	pc	Seoul	57	32	S	61	38	po
ghdad					40	_	Character'	F0	4.5	_	67	57	C
ngkok	71	47	pc	78	48	S	Shanghai	59	45	S			_
	/1 93	47 79	pc t	78 92	48 79	pc	Snangnai Singapore	90	79	t	90	78	t
ijing						-				-			sh
	93	79	t	92	79	рс	Singapore	90	79 68 60	t	90	78 67 66	-
ijing	93 63	79 48	t pc	92 53	79 38	pc sh	Singapore Sydney	90 76 65 59	79 68 60 48	t c	90 72 78 57	78 67 66 51	sh
ijing rlin	93 63 61	79 48 40	t pc s	92 53 52	79 38 35	pc sh c	Singapore Sydney Taipei City	90 76 65	79 68 60	t c r	90 72 78	78 67 66	sh
ijing rlin ussels	93 63 61 65	79 48 40 47	t pc s pc	92 53 52 58	79 38 35 40	pc sh c sh	Singapore Sydney Taipei City Tokyo	90 76 65 59	79 68 60 48	t c r	90 72 78 57	78 67 66 51	sh sh c
ijing rlin ussels enos Aires	93 63 61 65 77	79 48 40 47 66	t pc s pc pc	92 53 52 58 74	79 38 35 40 52	pc sh c sh	Singapore Sydney Taipei City Tokyo Toronto	90 76 65 59 23	79 68 60 48 17 43 43	t c r pc pc	90 72 78 57 34	78 67 66 51 22 44 36	sh sh c
ijing rlin ıssels enos Aires bai	93 63 61 65 77 83	79 48 40 47 66 72	t pc s pc pc pc	92 53 52 58 74 84	79 38 35 40 52 67	pc sh c sh t	Singapore Sydney Taipei City Tokyo Toronto Vancouver	90 76 65 59 23 53	79 68 60 48 17 43	t c r pc pc pc	90 72 78 57 34 54	78 67 66 51 22 44	sh sh c s
ijing rlin ussels enos Aires bai blin	93 63 61 65 77 83 56	79 48 40 47 66 72 40	t pc s pc pc s	92 53 52 58 74 84 54	79 38 35 40 52 67 41	pc sh c sh t s	Singapore Sydney Taipei City Tokyo Toronto Vancouver Warsaw	90 76 65 59 23 53 64	79 68 60 48 17 43 43	t c r pc pc pc s	90 72 78 57 34 54 53	78 67 66 51 22 44 36	sh c s c s

City

Frankfurt

Hi Lo W

46

70

Hi Lo W

64 45 c

### asanna Keshava egard 46 Braz. neighbor

04					ون				
67					68				
BY.	-PR	OD	UC	TS	i   E	Ву Р	ras	anı	na
Across					25	High	rega	ard	
1 li	n the	alto	geth	er	28	Disc	o	_	
5 Plague persistently						(cha "The			ıs")
10 (	Coord	linate	e, as		29	Raise	ed ra	ilroa	ds
	hone		l tab	let	30	"Xan	adu"	ban	d
S	ettin	igs			31	43,50	60 sa	quare	ة

- 14 14-time All-Star feet Rodriguez 34 Some
- 15 Garnish for a martini
- 16 Put on a long 17 Spice akin to
- nutmeg 18 Roadside restaurant
- 19 Money in Madrid
- 20 "It's going to get rough...
- 23 Mischievous sort
- business for a company
- 24 Painting, music,
- 40 Granny, to a Brit 41 Noted name in chair design 42 Period of exceptional

investment

wrong way

takes things the

returns

38 Person who

68 Brings up 69 JFK listings Down 1 Friend of

47 Annoy

50 Perfectly

57 1950 Judy

63 "My turn"

65 Mistake

66 Polluter's

64 Part to play

48 Have creditors

52 Acid neutralizer

54 Toward the stern

Holliday movie

62 Rich, dense cake

punishment

Thumper and

Solve this puzzle online and discuss it at WSJ.com/Puzzles.

45 Much more than

### The WSJ Daily Crossword | Edited by Mike Shenk 2 Bedside clock feature

- 3 Newscast 4 Business bigwig
- for short
- 6 "Silas Marner author
- 7 Cranial cavity
- 8 At all times
- 9 In a succinct
- manner
- 10 Extract metal from ore, in a
- 11 "Get what I'm saying?
- 12 "Fresh Air" airer
- 13 Business biawia.
- for short
- 21 Nosh 22 Popular nail
- polish brand
- 27 Like some forest
- rocks
- 28 Sighted
- 29 "Show Boat"
- author Ferber
  - Previous Puzzle's Solution

The contest answer is KIDNEY(S). Each of the five

long Across answers conceals the adjectival form of a body part: HID**DEN TAL**ENTS, J**OCULAR**LY, SALVADOR ALLENDE, OLDER MALE GALLOPED ALONG. Five grid answers are one letter off from the referenced body parts: TROTH (tooth), EEE (eye), MONTH (mouth), AKIN (skin), FOOL (foot). The changed letters spell RENAL, suggesting the contest answer.

# **OPINION**

# Ukraine's Asymmetric War



By Andy Kessler

Ukraine are filled with stories of Javelin antitank missiles and Turkish Bayraktar TB2 unmanne d aerial vehicles taking out Russian tanks

and armored vehicles. The Biden administration has announced \$800 million in defensive weapons for Ukraine, including Javelins, Stinger antiaircraft weapons and Switchblade drones. More amazing is what Ukraine has also been doing on the cheap. And I don't mean Molotov cocktails.

Wars are increasingly asymmetric-the lesser-armed side can put up a strong fight. The U.S. learned this in Iraq with insurgent use of improvised explosive devices, basically roadside bombs triggered with cellphones. Similarly, Ukraine has been deploying inexpensive, almost homemade weapons and using technology to its advantage.

The Times of London reports that Ukraine is using \$2,000 commercial octocopter drones, modified with thermal imagers and antitank grenades, to find and attack Russian tanks hiding between homes in villages at night. Ukraine's Aerorozvidka, its aerial reconnaissance team, has 50 squads of drone pilots who need solid internet connections to operate.

When the internet was cut in Syria in 2013, enterprising techies set up point-to-point ternet access from across the Territorial Defense volunteers border in Turkey. You can do this with Pringles potato-chip cans and \$50 off-the-shelf Wi-Fi routers. Ukraine may be spared this ad hoc setup as Elon Musk and his firm Starlink have donated thousands of satellite internet-access terminals to Ukraine, including to Aerorozvidka squads, which come with warnings to camouflage the antennas. They typically cost \$499 each and \$99 a month for service.

Ukraine also effectively iammed Russia's long-in-thetooth wireless military-communication technology, which ap-

Moscow has more firepower, but Kyiv is using digital technology better.

parently uses a single-frequency channel to operate. Former Central Intelligence Agency Director David Petraeus told CNN that Russians were then forced to use cellphones to communicate until Ukraine blocked the +7 country code for Russia and eventually took down 3G services that Russia uses for secure connections. Russian soldiers were forced to steal Ukrainian cellphones to communicate with one another. That's no way to

Ukraine also has taken advantage of crowdsourcing. The Journal told the story of Russian tanks that would fire on the city of Voznesensk and then back up a few hundred yards to

would then message the tanks' new coordinates via the Viber social-messaging app.

The propaganda war is also being fought on the cheap, from President Volodymyr Zelensky's Zoom call with the U.S. Congress to Ukraine's work spreading news inside Russia. The Russians have blocked Facebook and Twitter, independent media has been shut down, and on Russian television no one is allowed to say "invasion" or "war." But no country can completely filter and firewall real news. The Telegram and Whats-App messaging apps encrypt their communications. Ukraine has begun using facial recognition to identify killed and captured Russian soldiers, even contacting their families and posting their photos on Telegram channels. Twitter now is using a service to disguise its origin and restore service to Russian users.

Most surprisingly, after much hype and many warnings, Russian cyberwarfare has been deemed fairly ineffective. Hours before the invasion, someone, presumably the Russians, launched a Trojan. Killdisk attack, disk-wiping malware that hit Ukrainian government and financial system computers and took down Parliament's website. Cyberattack tracking firm Netscout called the attack "modest." A Ukrainian newspaper then released a file with details on 120,000 Russian soldiers, including names, addresses, phone and passport numbers. Where the information came from is unknown.

But we have a hint. Ukraine Wi-Fi connections to bring in- avoid return fire. Civilians and is filled with smart coders, and

the government set up an "IT Army of Ukraine" Telegram channel to coordinate digital attacks on Russian military digital systems. As many as 400,000 have volunteered so far. An officer of the Ukraine State Service of Special Communications said they were engaged in "cyber-resistance." This digital flash mob has taken down Russian websites, though I doubt we will ever fully know the damage it may have inflicted. This is definitely a social-network-influenced conflict.

In the fog of war, stories and disinformation swirl. Most are impossible to verify. I've heard of foreign volunteers swarming to Ukraine who then post photos on Instagram. Both Facebook and Instagram strip GPS location coordinates from smartphone photos, but they allow these volunteers to tag nearby locations, potentially giving away refugees' hiding places. These could be targeted by Russian missiles and may have been the reason the Mariupol theater was destroyed.

New technology for use in commerce often emerges after the smoke of battle clears. World War I produced tanks, field radios and improved airplanes. World War II brought penicillin, power, synthetic rubber, Jeeps and even duct tape. What we are seeing in Ukraine is the asymmetric power of pervasive inexpensive commercial technology, especially citizenempowering social networks and crowdsourcing. So far these tools have been altering the war's outcome. Welcome to 21st-century warfare.

Write to kessler@wsj.com.

small geothermal company

called LaGeo, a subsidiary of

the state-owned electricity

Mr. Zelaya insisted. Whether

"it is issued by LaGeo or by

the Salvadoran state, in the

end it is always a debt of the

state." He didn't mention that

with LaGeo as the creditor, El

Salvador avoids adding more

liabilities to its balance sheet

that already has a debt-to-

his expectation that the offer-

ing will be oversubscribed.

But if the written bond con-

tract, yet to materialize, is the

same as the government has

verbalized, it's hard to see the

upside for bond investors with

licit funds to put to work.

They won't have an equity

stake in Bitcoin City, so even if

it booms their best outcome

remains reliant on the price of

the coin and the credibility of

Investors can bet on bit-

coin elsewhere without taking

Salvadoran risk and being

barely compensated for it.

the debt issuer.

court."

Mr. Zelaya also reaffirmed

GDP ratio of 85%.

Pay no attention to that,

company CEL.

**BOOKSHELF** | By Allison Schrager

# Do We Have A Winner?

The Voltage Effect

By John A. List (Currency, 263 pages, \$28)

ohn List's "The Voltage Effect" is marketed as a generic business title on how and whether to scale up an idea or product. Mr. List, an economics professor at the University of Chicago, explores why some ideas attain "voltage" and catch fire while others die out. This angle suggests that it will be another book about how to turn that great invention in your garage into the next Hewlett-Packard. But Mr. List is far too thoughtful to write something gimmicky or simple.

Scaling up can mean taking a product that appeals to a niche, local market and making it commercially viable to the masses. It can also apply to a belief or set of values, or a policy aimed at a small group of people that



has the potential to work on a wider level. Mr. List has run many small-scale policy experiments, in particular with education. He knows that what makes a small charter school in the Chicago area succeed doesn't always work when taken nationally. He also knows what products can scale—he was the chief economist at Uber and Lyft and has consulted with major corporations.

Mr. List starts with five questions to ask yourself before deciding to scale up. First,

is your product or idea actually good, or has your research misled you because you wanted to believe something was true when it wasn't? (Perhaps your test sample doesn't conform to the general population or you mistook correlation for causality.) Do you know your audience, and can you deliver something people want and are receptive to? Does the product or idea work because of the talent of certain individuals, and can it scale without them? Does it work in small settings but once scaled create externalities or spillovers that undermine success or make things worse? And does the idea, instead of getting cheaper, become more expensive as it scales?

Once you have a worthy idea, Mr. List says, you must create incentives among employees to bring it to scale while acknowledging that not everyone thinks like you and your staff. You have to think on the margins rather than in averages and make sure you are spending each additional dollar in the most effective way. You must know when to cut your losses and quit. And finally you need to create a workplace culture that scales.

Mr. List compares two fishing communities in Brazil, one where people fish in teams and the other where they mostly work alone. On a small scale either approach can work, but a culture that fosters teamwork is better if you want to go big. He also describes his time at Uber, when chief executive Travis Kalanick was forced out. A startup "bro" culture of the sort that Uber had may not work so well when you become a big corporation, and Mr. List suggests hiring a diverse staff to avoid this pitfall.

The former chief economist at Uber has sound advice for innovators who, after modest success with an idea or product, would 'go big' with it.

Mr. List is an entertaining and clear writer. His book is chock-full of compelling stories of businesses that failed and others that went big. The British chef Jamie Oliver, for instance, built a hugely successful network of Italian restaurants. Key to its rise (the first location opened in 2008) were an especially talented executive named Simon Blagden, and the spirit and personality of Mr. Oliver. But the chain ran into trouble after Mr. Blagden left in 2017. Mr. Oliver began to overstretch himself, and his absence, Mr. List writes, created a leadership void. The restaurant empire collapsed in 2019. The author also describes research projects he worked on that failed to scale and even shares lessons from his personal life, like when he realized he had more potential as an economist than as a

professional golfer. "The Voltage Effect" is a fine business book, though in many ways it works better as a meditation on the shortcomings of our increasingly data-driven world. The business community and academia have been taken over by data science. Mr. List seemingly argues that good and helpful data analysis may not scale well. It takes tremendous skill and talent to distinguish a scalable idea from one that is doomed to flop when you are working with a limited set of data and have an incentive to overhype your results. Data is the new currency companies are presumed to have an unfair advantage if they have access to more of it. What gets less attention is the shortage of people who know how to make sense of statistical experiments and generalize them to a

larger population. The fields of business, policy and economics have all become enthralled with Randomized Control Trials. These are statistical experiments in which researchers take two populations: a "treatment" group that may be given cash or some other incentive and a "control" group that is not given anything. Researchers then observe any difference in outcomes from the experiment to make policy recommendations. RCTs can be a useful tool. But taking Mr. List's

lessons to heart, you see how limited they are. Even the best-designed experiment may not give you insights that scale. For example, studies have found that it is more effective to give people cash in Kenya than to distribute aid through arcane development programs. The mantra in the development community has become "just give people money." But just because cash is better than aid in Kenva, it doesn't necessarily mean that a

Universal Basic Income will work well in California. We are keen for easy answers, but an idea that will truly scale is rare, and so is the ability of a founder to recognize it and make it grow. The dominance of data science has obscured that hard truth because it is easy to get encouraging results and take them as validation that you have a winner. This is a problem that is itself scaling up as we become more data-driven-and another reason why "The Voltage Effect" is more far-reaching than the simpler book it's presented as.

Ms. Schrager is a senior fellow at the Manhattan Institute and the author of "An Economist Walks Into a Brothel and Other Unexpected Places to Understand Risk."

# El Salvador Bets on Bitcoin Mania



**Bv** Marv Anastasia O'Grady

a project with the name of cryptothe currency attached to it

buzz

ster

all it

animal

inves-

takes to stir

spirits of hip-

tors? Or does

also have to make financial and economic sense? El Salvador's "volcano bond" may one day provide the answer—if it ever comes to market.

Last fall President Nayib Bukele and his team of cryptocurrency experts announced that El Salvador would soon offer a 10-year, \$1 billion bitcoinlinked bond. According to the pitch, half the proceeds would be used to build the infrastructure of "Bitcoin City," powered by low-cost geothermal electricity that could be used to mine bitcoin from a location near the Conchagua volcano. The other half of the money would be used to buy bitcoin. Investors would receive a 6.5% coupon and, after five years, they would participate in the appreciation of bitcoin via a dividend. The proposed bond is supposed to trade on Bitfinex, an exchange not accessible to Americans.

The details of the bond remain uncertain because there is still no prospectus or offering circular. Nevertheless, in February the chief strategy officer for the tech firm handling the offering told The Wall Street Journal that El

bitcoin Salvador already had verbal commitments for \$500 million. He expressed confidence that the government's decision to adopt bitcoin as its legal tender last September would generate the sizzle necessary to raise the rest.

The bond was expected to come to market this month. But on Tuesday Finance Minister Alejandro Zelaya announced that it would be delayed due to unfavorable market conditions. Perhaps that's an elegant way of saying that once the hype died down, investors did the math and opted out.

Let's stipulate that bitcoin's rules-based regime, eliminating central-bank discretion in the creation of money, has value. More broadly, the blockchain technology that cryptocurrencies use to record ownership of an asset on a decentralized ledger is a highly beneficial innovation that goes well beyond the monetary realm.

That said, El Salvador's new law making it mandatory for merchants to accept bitcoin as payment, despite its volatility, reeks of authoritarianism. The government's Chivo wallet-where Salvadorans who don't want to hold the bitcoin they are forced to accept can exchange it for a government-issued stablecoin backed by the full faith and credit of El Salvador-would seem to defeat the purpose of using a cryptocurrency to escape central

The nation has resisted. A he said, it will be debt of a January survey of small and medium-size businesses by the Chamber of Commerce and Industry of El Salvador found that 86% of respondents said they had not made any sales in bitcoin. Not surprisingly, most people don't want to hold next month's rent in it or in Mr. Bukele's fiat digital money.

Mr. Bukele's bond looks rather unappetizing even for those who wish to speculate on bitcoin or hold it for longterm appreciation.

To start with, El Salvador's country risk is sky high. Mr. Bukele, who took office almost three years ago, says the country will pay its debts. But markets are not so sure. The

The 'volcano bond' doesn't compensate investors for high sovereign risk.

2032 dollar bond was yielding better than 19% last week. In downgrading El Salvador's long-term foreign-currency default rating to junk last month, FitchRatings noted that "increasing risks from high and growing financing needs" are estimated to reach \$5.4 billion, or 18% of gross domestic product, in 2023.

Last week Mr. Zelava confirmed that the bitcoin bond won't be issued by the government of El Salvador. Instead,

Plus, as economist Frank Muci at the London School of Economics observed on March 16, the bonds will be "governed by El Salvador law, not New York law, which is bad given that President Bukele just

In other words, good luck collecting if the bitcoin bond goes bust.

packed his country's supreme

Write to O'Grady@wsj.com.

# The Dying Art of Driving a Stick Shift

By Faith Bottum

nly around 18% of American drivers can handle a manual transmission, according to U.S. News and World Report. You know: the clutch pedal and the stick shift—three on the tree, four on the floor or, I don't know, five to drive maybe. Different gears, manually engaged.

Growing up in the South Dakota countryside, I rode in vehicles that didn't have automatic transmissions: farm equipment, old pickups, floorboard-rusted Fords from days gone by. I assumed I knew basically how to drive a car with a manual transmission.

Turns out that "basically" isn't the same as "actually." When my father's Oldsmobile died this month, my family replaced it as the backup car with a used Chevy. Since I'm the backup driver, I climbed in, stepped on the clutch,

the clutch. The engine promptly stalled. Only by grinding the gears, smoking the clutch and jerking forward in jumps did I finally get moving.

In 1980, some 35% of cars produced in the U.S. were manuals. Today that figure is closer to 1%, and only 3.7% of Carmax sales are for stick shifts-shockingly low considering that 80% of cars sold in In Europe, 80% of Europe have manual transmissions. Some car makers, including Audi, no longer offer manual transmissions in the U.S. market at all.

So why would anyone want one? Your car is less likely to get stolen, for one thing. Thieves prove as incapable of using a clutch as any other American. There have been multiple reports over the past year—in Cleveland, St. Louis, Detroit and Pleasantville. N.J.—of carjackers unable to

drive away. Using a manual transmis-

safer driver. A study from the chase price of a new car often National Institutes for Health found that manual transmissions enhance the attention and driving performance of adolescent males with ADHD. The study concluded that "objectively, participants drive safer in the manual transmission mode."

cars sold have manual transmissions. In the **U.S.**, it's only 1%.

Manual-transmission cars are also easier and cheaper to repair. Although the latest automatic transmissions are more fuel-efficient than older versions, Consumer Reports suggests that manual transmissions can improve gas mileage by 2 to 5 miles a gallon, partly from the decreased started the car, stepped off sion might even make you a weight of the car. The pur- Joseph Rago Memorial Fellow.

runs \$800 to \$1,000 lower.

All of these are selling points, I suppose, but only if one can actually drive a car with a stick shift. It's not too hard to learn, provided there's no one in the car with you to criticize your stutters and stalls or shout "Downshift! Downshift!" while gripping the dashboard overdramatically. These are the people who say at stoplights, "Are you sure you don't want me to

I caught on eventually, and I know that Mario Andretti would have been proud of the way I handled the sloping Scurves through the Black Hills on my way back, with two logging trucks, an SUV and an old pickup crowding behind me. You learn quickly when annoyed drivers don't have much patience and you need to get home.

Ms. Bottum is the Journal's

### REVIEW & OUTLOOK

# The President We Have

Biden needs new

advisers and help from

Congress versus Putin.

ore or less the whole world-including his own advisers on backgroundlacktriangle has criticized President Biden for his lacktriangle and Republicans into his Administration. In

latest gaffe in saying in his Warsaw speech on Saturday that Vladimir Putin "cannot remain in power." There's no need to pile on. And someone should say that Mr. Biden's unscripted remark did have

the virtue of telling the truth that the problem in Russia won't end even if Mr. Putin orders his troops out of Ukraine.

Mr. Biden's remark, even after its repudiation on Sunday by Secretary of State Antony Blinken, may well make it harder to negotiate with Mr. Putin over Ukraine or anything else. And Mr. Biden's habit of misstating his own policies—no fewer than three times during his European trip—is especially dangerous amid an international crisis.

Then again, the same critics who are lambasting Mr. Biden helped to hide his obviously fading capacities in the 2020 campaign. They circled the wagons around his Delaware basement because they thought he was the only Democrat who could defeat Donald Trump.

The reality is that we have to live with Mr. Biden for three more years as President. And please stop writing letters imploring us to demand that Mr. Biden resign. Do you really want Vice President Kamala Harris in the Oval Office? She was chosen as a bow to identity politics to unite the Democratic Party in the election campaign, not for her ability to fill the President's shoes. In the last 14 months she has failed to demonstrate even the minimum knowledge or capacity for the job. We are fated to make the best of the President we have.

In that regard, Members of Congress of both parties will have to play a more assertive role, and the good news is that they have been doing so to good effect on Ukraine. Congress has stiffened Mr. Biden's resolve on sanctions and military aid. The pattern is that the White House resists a tougher policy until it faces a defeat or difficult vote on Capitol Hill. Bipartisan coalitions of the willing will be even more important as the war continues, and threats from Iran, China and North Korea escalate.

As we've argued, Mr. Biden would also be wise to bring some high-profile conservatives

> 1940, as the prospect of world war approached, FDR brought in experienced GOP internationalists Henry Stimson as Secretary of War and Frank Knox as Secretary of the Navy. They built credibil-

ity with the public and on Capitol Hill for the hard choices to come.

Harry Truman worked with GOP Sen. Arthur Vandenberg to build support for NATO at the dawn of the Cold War. Jimmy Carter at least had the hawkish Zbigniew Brzezinski as his national security adviser when the Soviets tried to exploit Mr. Carter's weakness.

Mr. Blinken has shown impressive energy as Secretary of State, and he was right in advising Mr. Biden not to withdraw in toto from Afghanistan. But Mr. Biden desperately needs to diversify the advice he gets beyond the liberal internationalists who dominate his councils. Susan Rice, Ron Klain and Jake Sullivan have the Afghan failure on their resumes.

Better advice is needed because Mr. Biden is right that the Russia problem won't go away as long as Mr. Putin sits in the Kremlin. This doesn't mean open advocacy of regime change is wise. Russians will have to decide if Mr. Putin

But Mr. Biden's muscular assertions in the written text of his Warsaw speech need to be supported by more than rhetoric. The U.S. and West need to urgently restore and strengthen the credibility of their military and diplomatic deterrents. More hawkish advisers would send a more determined signal to the world—and especially to adversaries.

The world is entering the most dangerous period since the Soviet Union collapsed, and perhaps since the 1930s. The Covid crisis obscured the trend, but the dangers have become obvious as adversaries have reacted to what they perceive to be the American decline, division and weakness at the root of the Afghanistan debacle. Mr. Biden needs to back up his Warsaw words with a defense buildup and far more diplomatic realism to confront the great risks ahead.

# LETTERS TO THE EDITOR

# Open Minds, Loud Voices and Campus Culture

Regarding Ilya Shapiro's op-ed "Mob Rule at Hastings Law School" (March 23): One 45-minute disruption is neither mob rule nor a "canceling." And campus debate hasn't been "shut down." It continues—but without a tweet that was plainly racist in effect, regardless of intent.

I certainly agree that Mr. Shapiro was exposed to physically intimidating conduct (by a very small number of students) that should not be countenanced. But for the overwhelming majority, after the intermittent chanting and speaking, everyone quietly and peacefully left the room. The possibility of consequences for a few remains. But overall the college is now engaged in constructive, if also unsettling, discussions. The message of the protesters has finally been heard.

I was the only professor in the room that day. My promised response to Mr. Shapiro also wasn't heard. But I am aware of the longstanding discontent of black and other students of color on this campus, and I understand their impulse not to stop speaking their message, at the top of their lungs if need be. I didn't know the protest was coming, but I support my students, from all perspectives (including the two Federalist Society members who were also left unprotected that day) in engaged student activism.

The protest was free speech under any definition; we can argue about duration and decibels. But let's be honest: Constitutional law is murky. inconsistent, and unsettled as to what messages and techniques of expression have priority when two conflict.

Mr. Shapiro laments the canceling of opponents. But refusing to hear the message of discontent from a group of neglected and undervalued members of the community is also "canceling." Mr. Shapiro says he'd "welcome the opportunity" to discuss these issues—I'd welcome the opportunity to join him and offer rebuttals. Let's truly have free speech, not simplistic shutdown critiques.

> UC Hastings College of the Law San Francisco

It is absurd that Mr. Shapiro was put on administrative leave by Georgetown University for eight weeks and counting for a tweet criticizing President Biden's race-based selection of a black woman for the Supreme Court. The protracted suspension violates Georgetown's contractual promise to provide "all members" of its community "the broadest possible latitude to speak, write, listen, challenge, and learn," even if others find it "offensive, unwise, immoral, or ill conceived.'

Such promises are enforceable. even when an instructor's speech angers listeners, as the Wisconsin Supreme Court ruled in McAdams v. Marquette University (2018). Being stripped of teaching or other duties in retaliation for one's speech is a serious impairment of an instructor's rights, under federal court rulings such as Levin v. Harleston (1992). By chilling speech, an unduly protracted investigation can itself violate rights under court rulings such as White v. Lee (2000), in which I was one of the plaintiff's lawyers.

> HANS BADER Arlington, Va.

Salman Rushdie has said: "The university is the place where young people should be challenged every day. where everything they know should be put into question, so that they can think and learn and grow up. And the idea that they should be protected from ideas that they might not like is the opposite of what a university should be."

At a university, minds should be opened, not closed; new and contrary ideas should be embraced, not debased; and biases should be challenged, not confirmed. Many of our universities fail in this important role.

Without freedom of expression, all other freedoms fail. We are right to denounce the incidents at Hastings and Yale law schools. Such behavior is an assault on one of the corner-PROF. RORY LITTLE stones of our democracy.

MICHAEL J. DISTEFANO Jamestown, R.I.

# Mississippi Joins the Tax Cutters

A new plan cuts the top

rate on income and may

preview future cuts.

he tax reform movement has arrived on the Gulf Coast, with Mississippi becom-

The plan will help the state economy—all the more if legislators keep their pledge to follow up with additional cuts.

State legislative leaders agreed Saturday to an income-tax cut that will give

Mississippi the nation's fifth-lowest top rate (for states with an income tax). The plan would reduce the highest rate to 4% in stages from 5% by 2026, and eliminate a current 4% rate that applies to taxable income between \$5,000 and \$10,000. The state House and Senate passed the tax bill on Sunday, and it now awaits Gov. Tate Reeves's signature.

The upside is clear. State revenues have soared since 2020, and several states have taken the chance to offer permanent taxpayer relief. "We have about \$1.5 billion in excess revenue right now," said House Speaker Philip Gunn last week, "and we're on pace to have about \$2.5 billion." Mississippi trailed the nation with a median household income of \$45,000 in 2020, and a low cost of living means even a modest tax cut goes a long way to help family budgets.

The rate cut will have immediate benefits, but the one percentage-point cut is far short of previous plans to end the income tax altogether. Mr. Gunn last week secured House back-

ing for a proposal to slowly phase out the tax, and Gov. Reeves followed with a faster plan to ing the latest state to propose rate cuts. nix it by 2030. The more modest cut that

passed is a compromise to persuade a skeptical state

Republicans hold a majority of more than 2 to 1 in the upper chamber, but Senate leader (who is also Lt. Gover-

nor) Delbert Hosemann is hesitant to end the income tax. "I think there are other ways to spend the funds," Mr. Hosemann said last month, addressing a previous version of the tax plan. Mr. Hosemann endorsed the final taxcut deal, but he'll still have plenty of money to spend as state revenue is expected to be \$7 billion next fiscal year, some \$500 million more than in fiscal 2022.

Mr. Gunn pledged to follow the current deal with additional cuts in future legislative sessions, and reforms in surrounding states provide a strong reason to do so. Louisiana amended its state constitution last year through a ballot measure that caps the income-tax rate at 4.75% and the top rate in 2022 will be 4.25%. Arkansas passed a cut last year that by 2025 will reduce the top rate to 4.9% from 5.9%. Tennessee and Florida have no income tax.

Mississippi's tax cut is a worthy step forward. But competition is a powerful incentive, and the example of neighboring states should encourage greater progress in Jackson.

### Noonan, Armageddon and Zelensky's Message to achieve that? I submit that pro-

In "On Ukraine, History is Listening" (Declarations, March 19), Peggy Noonan captures much that is true in her typical articulate way, but I do have two quibbles. First, in the way of Washington insiders, she assumes there is a right side of history. Not so. History has no moral component. It is written by the winners.

Second, Ms. Noonan asserts that we must be guided above all else by a strategy that avoids provoking Vladimir Putin to use his most terrible weapons—the "avoid Armageddon at all costs" strategy. We certainly want to avoid Armageddon, but how best

### The Sun Doesn't Heed the Decrees of Bright Politicians

Your editorial "Florida Daylight Saving Time" (March 22) says that "all-vear standard time would also mean very early sunrises in many states-before 4:30 a.m." Those sunrises will always occur at 4:30 a.m., no matter what the government may say.

Legislating how to read a clock is akin to mandating that winter temperatures ought to be reported as 10 degrees higher to make us feel warmer, or that distances from suburbs to the city be marked as five miles longer to discourage highway congestion. We don't need the government to try to fool us. Clocks are supposed to tell the time. Let them perform their intended purpose and everyone can decide for themselves if they want to start their days earlier in the summer months. LAWRENCE CRAM

Englewood, Fla.

# Disclosures Are for Investors

The SEC is well within its authority to require companies to publicly disclose climate-related risks. Standardizing the reporting will benefit investors and streamline the information-sharing process. Jay Clayton and Patrick McHenry's argument ("The SEC's Climate-Change Overreach," op-ed, March 21) that the SEC is creating a national climate policy misrepresents what disclosures do. They give investors information needed to make decisions. Disclosures on executive pay don't tell companies how to pay their leaders. In the same manner, climate-risk disclosure doesn't tell companies how they can or can't operate. It merely gives information to investors, who can decide where to put their capital.

> LISA WOLL CEO, US SIF Washington

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.

jecting fear of an opponent is seldom, if ever, the best way to avoid the consequences we fear. Mr. Putin has every bit as much to fear from us as we do from him. At least in private, we should assure Mr. Putin that his use of chemical, biological or nuclear weapons in Ukraine would cross a red line that would provoke us to respond militarily. And unlike former President Barack Obama, we must mean it.

> WALT HILL Rancho Mission Viejo, Calif.

It doesn't take much to lose Ms. Noonan's approbation. In three weeks, Ukraine's President Volodymyr Zelensky went from "a poignant figure bravely beseeching" Congress for help to one who now thinks he has our president "over a barrel."

Should Mr. Zelensky's plea for assistance be conditioned on employing a more obsequious tone? Hardly. The prospect of death invites straight talk.

RICHARD ACKERMAN Longboat Key, Fla.

### This Solution Could Have Rescued Last Night's Oscars

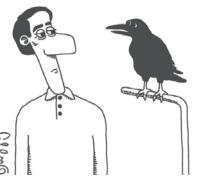
After last year's Academy Awards broadcast drew the smallest audience on record, Brenda Cronin writes, "Perhaps Hollywood should take a page from other industries and confine its honors to banquet rooms, where the only cameras are on smartphones" ("Put the Oscars Out of Their Misery," op-ed, March 23).

Well, before the Oscars are put out of their misery, I have a solution to the slumping ratings. It can be summed up in two words: Ricky Gervais. If the brilliant English comedian were host, millions more people would tune in just to see all the "seat fillers" running around the auditorium, filling the seats vacated by scaredy-cat no-show celebrities.

> DAVID HONIGSBERG **Toronto**

### Pepper ... And Salt

THE WALL STREET JOURNAL



"What part of 'caw' don't you understand?"

# A Case of Charter School Sabotage

Biden's regulators

find another way to

undermine school choice.

tank for the teachers unions, and it is proving it again by imposing new rules to sabotage a modest \$440

million grant program for charter schools.

The 28-year-old federal Charter Schools Program helps pay for charter start-up expenses such as technology

and staff. The funds go chiefly to state agencies, which award the money to charters, and to nonprofit charter management organizations. The federal Department of Education recently proposed new rules that would discourage charters from even applying for grants—which may be the goal.

Applicants will now have to describe "unmet demand for the charter school." Having hundreds or thousands of children on charter waiting lists won't suffice. The Administration wants evidence of "over-enrollment of existing public schools," as well as proof that the new charter "does not exceed the number of public schools needed to accommodate the demand in the community."

This means that charter applicants in school districts with shrinking enrollment, which includes many big cities, would almost certainly be rejected. "Demand for charter schools isn't just about demand for the availability of any seat but the demand for a high-quality seat," says Karega Rausch, president and CEO of the National Association of Charter School Authoriz-

he Biden Administration is deep in the ers. That's why charters have waiting lists in cities with empty public-school buildings. The Administration also plans to require ap-

plicants to "collaborate" with a traditional public school or school district on an "activity" such as transportation or curriculum. In other words, charter operators will be obliged to give the teachers unions

that dominate traditional school systems a say in how their charters are run.

Charters would also have to show "plans to establish and maintain racially and socio-economically diverse student and staff populations." Many charter schools serve chiefly black and Hispanic students in cities. Charter advocates worry this needless diversity rule could discourage schools that don't prioritize racial diversity in their enrollment models. The rule could also deter schools from opening in suburban areas, or from hiring white teachers even if they are willing, able and qualified.

States and local school districts are the main regulators and funders of charters, which are public schools. But the Administration is trying to leverage federal dollars to limit school choice and prop up failing union-run schools that received an incredible \$200 billion in Covid relief since 2020.

After unions spent two pandemic years keeping public schools closed, while many charters and most private schools stayed open, this is an educational and moral disgrace.

# Lviv Prepares for the Worst

By Jillian Kay Melchior

Lviv, Ukraine s the golden evening sun fell softly on the cobblestone streets, diners sat on the patios of cafés enjoying coffee and sweets. A nearby shop sold bundles of yellow tulips. A mother pushed a stroller, and two other passersby walked their dogs. Then the air-raid sirens wailed, incongruent. After four weeks of war, the city's inhabitants have hardened to the sound. They didn't run but strolled for shelter.

That was Tuesday. On Saturdayafter I had left Ukraine and as President Biden visited Warsaw, some 250 miles from Lviv-explosions boomed and smoke billowed in this western Ukrainian city of 700,000. Earlier this month, Russian missiles struck an aircraft-repair plant on the outskirts of Lviv and a military base in the Lviv oblast, but the city itself had seemed one of the few safe places left in Ukraine.

### War arrived this weekend in this western city, which had seemed one of the few safe places in Ukraine.

In peacetime, Lviv is known for its carefree mood and cultural vibrancy. As the war stretches into its second month, it has taken new political and strategic significance, which may put it at increased risk. "It's a city that ensures the proper functioning of the entire country," Mayor Andriy Sadovyi said in an interview late last

The president and Parliament remain in Kyiv, the capital, but there has been discussion of holding some parliamentary sessions in Lviv. Nearly all remaining embassies have relocated here. "Certain ministries and central authorities have relocated not only to Lviv but to different cities in the west of Ukraine." said Maksym Kozytskyy, head of Lviv Oblast. He declined to elaborate, citing security concerns. Some of the cases in Kviv courts have been reassigned to Lviv and other Western oblasts, says Sergii Ionushas, head of the Parliament's Law Enforcement Committee and the Legal Reform Commission.

The city "is changing, and I don't yet know how we're reacting," said Taras Yatsenko, a co-founder of the popular local media outlet Tvoe Misto ("City of Yours"). "I wouldn't call it a capital or second capital," he continued. "It's a cultural capital, the soul of Ukraine. . . . I would call it,



Above, a Lviv street last Tuesday. Below, people walk away from the area near a Russian-bombed industrial facility Saturday.



with a strong emphasis, a temporary second capital, because we do believe that Kviv will keep strong."

Mr. Sadovyi said Lviv removed all military equipment, facilities and infrastructure from the city to reduce its appeal as a target. But Mr. Kozytskyy said the oblast is an important transit point for military equipment and humanitarian aid headed to the rest of Ukraine.

"We were more ready than other cities for this," Mr. Sadovyi said. He and his deputy mayor traveled to the U.K. last year to meet with emergency and resilience specialists and plan a response to a crisis. Lviv stockpiled medical supplies and diesel generators and has ensured it can transmit water even if the electricity fails.

"The preparation is paying dividends now," Mr. Sadovyi said. "But how can you be ready for children being killed and cities being flattened?" The reality of war has been more grave than the worst-case scenarios his team modeled: "We expected about 100,000 refugees—and we have twice the number."

That's a lot for a city with a pre-war

population of just over 700,000. The oblast has absorbed between 450,000 and 500,000 internal refugees in total. The city has been "a place where the wives and children of our fighters feel safe," Mr. Sadovyi said. "It's important for us that Ukrainians stay in Ukraine, because after the war we need manpower to rebuild our country." Mr. Kozytskyy estimated last week 1.1 million Ukrainians had crossed into Poland through the oblast since the start of the war.

The influx into and through Lviv is straining its physical and social infrastructure. Downtown traffic crawls, and parking is hard to find. The mayor says the city desperately needs modular quick-build homes: "We need to understand that all hotels, hostels, apartments and other accommodation places are full, so there is nothing, not a single space that is free." Schools, libraries and theaters serve as makeshift shelters, but "people cannot live there forever.'

A Samaritan's Purse field hospital operates out of the basement parking garage of a shopping center in the city. "Lviv as a system isn't broken, yet there are hundreds of thousands who have not able to get care," said Elliott Tenpenny, an American physician who directs the nonprofit's international health unit. War disrupted surgeries and treatment of chronic diseases in Ukrainians' hometowns. Some patients show up thinking they're having heart attacks that turn out to be panic attacks induced by the stress and trauma of

Lviv also serves as a refuge for Ukrainian businesses relocating from Kharkiy, Kyiy, Zaporizhzhia and other cities under Russian attack or threat. The mayor estimates that 85% of Lviv's local enterprises continue to operate, "and we are ramping up the pace. It's crucial for people to continue working, receiving salaries, paying taxes. This is the primary task for all those citizens in Ukraine that are not under attack right now."

A curfew descends on the city at 10 each night, and alcohol sales are banned. Yet restaurants are open and busy, and so are souvenir shops. One sells rolls of toilet paper with Vladimir Putin's face printed on each sheet. Another sells stickers featuring a cartoon couple and a caption that refers to an antitank missile: "Love is when he gives you a Javelin."

'We have one front line that's our military, and another front line that is our business and economy," said Yaryna Boychuk, CEO of the business school of Ukrainian Catholic University. It recently launched a platform to connect Ukrainian businesses with foreign customers to compensate for lost local ones. Her message to the West: "We need your support buying our things—not just giving us money, but receiving our value."

Lviv's current experience has a familiar feel for Roksolana Holovata of Lviv Interactive, a digital encyclopedia of the city and its history. She had been researching the protection of cultural heritage in the city just before the outbreak of World War II. (Lviv was part of Poland before the Hitler-Stalin pact of 1939. It was pinched between two invading armies and absorbed into the Soviet Union.) Now, she's archiving information about the same subject during the current war for future historians. She says Lviv residents are discovering what their predecessors knew about bomb shelters and air

"For me, it's very important to see the everyday life of the cities, how they survive in wartime," Ms. Holovata said. This war "is only beginning, but I don't know how this his-

Ms. Melchior is a Journal editorial

# Beware a Phony Peace In Ukraine

By Thomas D. Grant

ussia's war against Ukraine is failing. But serious dangers remain. Among them are "peace" terms that, like those Russia imposed on past victims of its aggression, would set up Ukraine-and others-for bloodshed in the years to come. Vladimir Putin, who didn't bargain on a tough fight, is likely to propose terms that look like concessions but are calculated to hobble Ukraine and threaten security far beyond its borders. Ukrainians won't accept such an endgame, and other countries should not try to get them to do so.

Russia's recent wars illustrate what Mr. Putin likely has in mind for Ukraine. In Georgia, which he invaded in 2008; in Moldova, where Russian troops never left; and in Azerbaijan, where Russia supported Armenian separatists in the early 1990s, fighting subsided but ambiguity followed. Russia's proxies—a mix of puppets and Kremlin thugsproceeded to dig in behind semiofficial armistice lines. With Russia's support, fiefs under these proxies in some cases have lasted to the present day.

### Georgia, Moldova and Azerbaijan, which endured Russian coercion for years, are cautionary tales.

Contributing to their persistence are the cease-fire terms. Neither continuing war nor cementing peace, the terms deliberately debilitated the countries Russia had attacked by entrenching its proxies on each country's territory and stipulating "peace processes" that Moscow used not to pursue peace, but to prevent the countries from stabilizing or escaping Russia's shadow.

Hints from the Kremlin suggest that this is how Mr. Putin hopes to gain lasting ground from his botched invasion. Mr. Putin insists that Ukraine accept the permanent loss of the three pieces of the country that Russia already has takenthe Crimean Peninsula and the provinces of Donetsk and Luhansk.

That might sound like a clean-cut outcome, but it wouldn't be. If Russia wins the terms it demands, then other parts of Ukraine will fall under the shadow of contrived secessions, sham independence movements and whatever other forms of subversion Mr. Putin might improvise. Brutal client outposts, fake referendums and forced population exchanges likely won't be limited to two or three parts of Ukraine. Even if Mr. Putin makes a show of restraint at first, he would have convenient launchpads from which to do more harm. Under the endgame he likely is pursuing, Ukraine can expect no better a fate than Georgia, Moldova or Azerbaijan, which endured coercion by Russia for decades.

The West tolerated Russia's strategy of creating and sustaining "frozen conflicts" against its smaller neighbors. This signaled to Mr. Putin in 2014 that it was safe to seize Crimea and conjure the rebel groups through which Russia has ruled Donetsk and Luhansk and menaced Ukraine. Tolerating such an outcome in Ukraine would be a mistake.

The risks for the security of Europe are clear. Ukraine is larger than earlier victims of Russia's aggression and post-armistice intrigues. It borders four countries-Poland, Slovakia, Hungary and Romania-in the North Atlantic Treaty Organization and sets an example for the three NATO countries the U.S.S.R. once directly ruled— Lithuania, Latvia and Estonia. Permanent ambiguity and destabilization in Ukraine aren't acceptable.

The horrors that Russia is inflicting on civilians in Ukraine add urgency to the search for peace. Ukraine might reasonably consider concessions on the timing or terms of joining NATO or the European Union. But concessions that give Russia permanent leverage over Ukraine will supply no peace. They will only set the stage for future war, and on the terms Mr. Putin prefers.

President Volodymyr Zelensky, affirming that Ukraine won't accept ultimatums, sees the danger of accepting Mr. Putin's terms. If the world wants peace and a secure Europe, then it shouldn't impose a settlement on Ukraine that ignores lessons from places where Russia got the endgames it demanded.

Mr. Grant served as senior adviser for strategic planning in the State Department's Bureau of International Security and Nonproliferation, 2019-21. He is author of "Aggression Against Ukraine: Territory, Responsibility, and International

# Beijing Gains From the Ukraine Invasion

By Dan Blumenthal

onventional wisdom has it that Beijing miscalculated by sup-Vladimir Ukraine war. Xi Jinping's partner faces both unexpectedly fierce resistance from the Ukrainian military and surprisingly strong Western punishment. Some in Washington expect China to attempt to extricate itself by brokering a peace deal. This is unlikely to happen. In many ways China has benefitted from the conflict, as Russia tests the international system with disappointing results for the

### Non-Western countries hedge their bets, giving confirmation to Chinese geopolitical assumptions.

True, Beijing is taken aback by Russian military failures. The war will surely lead Mr. Xi to question his military's ability to attack Taiwan. Yet Mr. Xi has long heralded a new era in international relations that overturns the U.S.-made world order. Mr. Putin signed on to this agenda in the Chinese-Russian Joint Statement of Feb. 4. From Beijing's perspective. a new international politics is emerg-

anti-Western position, top Chinese diplomats are pressing their case. Foreign Minister Wang Yi and Vice Foreign Minister Le Yucheng have made statements since the invasion blaming the U.S. for not considering Russia's security concerns and denouncing the North Atlantic Treaty Organization's eastward expansion. In China's telling, the world should have sympathy for Ukraine not because it was attacked by Russia. but because it is the victim of a reckless U.S. bid to maintain geopolitical dom-

According to Beijing, the lesson for small countries is don't be used as a pawn. The U.S. will manipulate them into fighting proxy wars against its adversaries.

China's main target is Asia. In its narrative, the region can avoid Europe's fate if it resists Washington's efforts to contain China. The Chinese Foreign Ministry has taken aim at the recently released U.S. strategy for the Indo-Pacific, which envisions a political and economic order free of Chinese coercion. Mr. Le warned that this strategy will "provoke trouble, put together closed and exclusive small circles or groups, and get the region off course toward fragmentation and bloc-based division.'

The American strategy "is as dangerous as the NATO strategy of eastward expansion in Europe," he added. "If allowed to go on unchecked, it

Far from backing away from an would bring unimaginable consequences and ultimately push the Asia-Pacific over the edge of an abyss." This is a clear warning that if Washington builds an alliance system in Asia akin to NATO, China reserves the option to resist forcefully. In this view. Russia's case for attacking Ukraine sets a useful precedent.

Yet the world's response to the Ukraine invasion should ease Beiiing's worry about the formation of anti-China blocs. Outside the West. America's partners seem to prefer neutrality when confronted with authoritarian aggression. India, a crucial pillar of Washington's Indo-Pacific strategy, hasn't condemned Russia. In Southeast Asia, a region the U.S. views as strategically critical, most have remained neutral. While these countries may feel differently if China starts a conflict, the U.S. cannot count on that.

America's partners in the Middle East, strategically important to the U.S. because of their energy resources, are staying neutral as well. The Syrian war and Iran's regional aggression have made these countries more dependent on China and Russia.

Even more gratifying for Beijing is that Japan's support of Ukraine has caused heightened tensions with Russia. Moscow has called off negotiations to resolve territorial disputes and likely promised Beijing that it would resume joint exercises in the waters around Japan.

Joint Statement was less an aspiration than a description of the current state of international relations. With so many countries staying on the sidelines in the wake of the Ukraine invasion. China has an opportunity to build greater support for its anti-American vision. Over the past decade, Russia has done much of this work by providing arms and extending its influence. China will also exploit distaste for promiscuous use of U.S. sanctions and American hectoring on human rights.

China hasn't miscalculated. It was right about the geopolitical fundamentals. And since few countries joined the West in resisting Russian aggression against a sovereign nation, Beijing may conclude that fewer still would punish it for an attack on Taiwan, which most of the world doesn't recognize as a country. Washington must urgently make a sustained diplomatic case to its partners that such an attack would devastate international security and prosperity.

China doesn't need allies to support its aggressive plans. It merely needs nations to stay neutral, and Russia's invasion of Ukraine has given China more confidence that most of the world will stay on the sidelines.

Mr. Blumenthal is director of Asian studies at the American Enterprise Institute and author of "The China Nightmare: The Grand Ambitions of a Decaying State.'

PUBLISHED SINCE 1889 BY DOW JONES & COMPANY

Rupert Murdoch Matt Murray

Editor in Chief Karen Miller Pensiero, Managing Editor Jason Anders, Deputy Editor in Chie

Neal Lipschutz, Deputy Editor in Chief Thorold Barker, Europe; Elena Cherney, Coverage; Andrew Dowell, Asia; Brent Jones, Culture, Training & Outreach: Alex Martin, Print & Writing; Michael W. Miller, Features & Weekend; Emma Moody, Standards; Shazna Nessa, Visuals;

Matthew Rose, Enterprise; Michael Siconolfi,

**Paul A. Gigot** Editor of the Editorial Page Gerard Baker, Editor at Large

DOW JONES

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; Robert Hayes, Chief Business Officer, New Ventures;

Aaron Kissel, EVP & General Manager, WSJ; Josh Stinchcomb, EVP & Chief Revenue Officer, WSJ | Barron's Group; Jennifer Thurman, Chief Communications Officer

EDITORIAL AND CORPORATE 1211 Avenue of the Americas, New York, N.Y., 10036

# Notable ゼ Quotable: Buses

Malcolm Harris writing for the Nation, March 24:

Fighting inflation by making the bus free is counterintuitive, but the provision of public services insulates people from the capricious market. which in turn exerts downward pressure on prices....

To get a better sense of how local policy-makers are thinking about this issue—one that's traditionally considered beyond their purview—I called Boston Mayor Michelle Wu. Elected in 2021, Wu is the country's leading advocate for free buses, and

on the front line against inflation. . Boston's fare-free pilot has three bus lines, targeted toward workingclass areas hit hardest by rising

There is a Whac-a-Mole quality to this kind of inflation fighting; it lacks the occult, meteorologic power of Federal Reserve action. Free bus lines, for example, could lead to increased rents as landlords capture the benefit. Wu is aware of the potential problem, which is partly why she campaigned on the return of rent control to Boston.

# What if →



you were a major transit system with billions of passengers taking millions of trips every year? You aren't about to let any cyberattacks slow you down. So you partner with IBM to build a security architecture to keep your data, network, and applications protected. Now you can tackle threats so they don't bring you to a grinding halt. And everyone is going places, thinking...

# 



Learn how to protect your business at ibm.com/secure-business



# RISINASSAMAN

© 2022 Dow Jones & Company. All Rights Reserved.

THE WALL STREET JOURNAL.

Monday, March 28, 2022 | **B1** 

Last Week: **S&P** 4543.06 ▲ 1.79% **S&P FIN** ▲ 1.67% **S&P IT** ▲ 2.33%

**DJTRANS** ▼ 0.68% **WSJ\$IDX** ▲ 0.37% **2-YR.TREAS.** yield 2.299%

**NIKKEI** 28149.84 ▲ 4.93%

See more at WSJ.com/Markets

# Oil Prices Stay High on Reduced Supply

Russian exports by sea fall to lowest level in nearly eight months, increasing pressure

By Anna Hirtenstein

The de facto buyers' strike on Russian crude that began a month ago propelled oil prices to their highest levels in years. Now the real effects are starting to create a second wave of impact on oil markets, disrupting Russian exports and threatening further price increases.

Major energy companies and commodity-trading houses balked at buying crude oil from and tractors, have soared. Russia in the days following the invasion of Ukraine. Banks also stopped financing these trades, shippers refused to load cargoes and insurers stopped covering them, fearful of running afoul of sanctions or upsetting company stakeholders.

Oil is typically shipped around three weeks after a deal is struck, meaning that the drop in deal making in the early days of the war led to real disruptions in supply starting in the past week. The turmoil is being strongly felt in Europe, where prices for diesel, which powers cars, trucks

Exports of Russian oil by sea fell to the lowest level in nearly eight months last week, according to data from Kpler. In the first two weeks following the invasion, volume remained strong as trades made before Russian troops crossed the border on Feb. 24 were delivered.

UBS estimates that around 2 million barrels a day, or about a fourth of the Russian output, has been disrupted. International Energy The Agency forecast that the level could reach 3 million by next month, warning of a potential spark in the worst energy-supply crisis in decades.

"Commodities tend to price in the now, not the future," said Giovanni Staunovo, a commodity analyst at UBS. "We are starting to see some disruption in the volumes of both crude oil and products from Russia. If we get more disruptions going forward, the price will react even more."

Global benchmark Brent crude rose 9% last week, settling at around \$117 a barrel after two consecutive weeks of declines. Oil prices have long responded to the push and pull between speculators in futures markets and physical traders who buy and sell actual barrels

of oil, with both trying to assess how much supply there is at the moment and how much there will be in the future. It is harder for oil traders to make those judgments now, with the usual buyers of Russian oil on the sidelines.

Russia is the world's thirdlargest oil producer, behind the U.S. and Saudi Arabia. Before the war, it supplied about 7.5% of the world's crude oil and refined products. The U.S., Canada, the U.K. and Australia have barred oil imports from Russia, while the European Union, its biggest customer, continues to buy but has started discussions about curbing purchases in the future.

There has been an exodus of oil companies from the country, including BP PLC and Shell PLC, as well as oil-services firms including Halliburton Co., Baker Hughes Co. and Schlumberger Ltd.

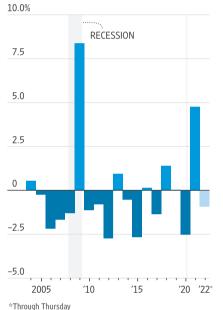
The world consumes around 100 million barrels of oil a day. The hit to global supply affects a market already tight because of curbs in output by the Organization of the Petroleum Exporting Countries and its allies. Oil companies have been slow to spend on new oil fields with shareholders pushing for a shift to cleaner energy

Please turn to page B2

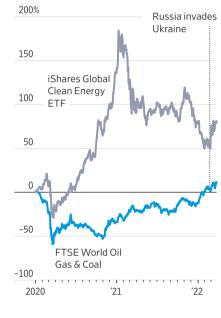
STREETWISE | By James Mackintosh

# Do-Good Investing Is Under Pressure

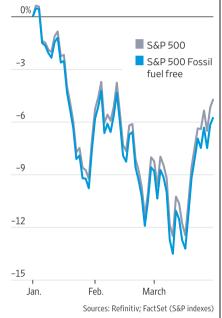
MSCI USA ESG Leaders annual performance minus benchmark



Fossil-fuel stock performance since the end of 2019



Index performance this year





For investors who prided themselves on trying to do the right thing

with their money, Russia's invasion of Ukraine revealed fundamental flaws in the environmental, social and governance investing, known by the acronym ESG.

Here's the problem: ESG is trying to gauge the sensitivity of companies to the public mood. But the public mood keeps changing, and what counted as the right thing to do before Russia invaded suddenly switched. Before the invasion, the focus of most in ESG was on carbon emissions. with many excluding defense stocks, especially makers of weapons such as land mines.

Since the invasion, Western governments put their efforts to cut carbon on hold and become major suppliers of weapons to Ukraine, cheered on by voters. Nuclear deterrence is a topic of conversation again in the face of Russian threats. and it isn't obvious that ESG investors really want to ditch nukes. Yet, what's the point of refusing to invest in nuclearweapons suppliers unless you

want them to shut down?

This about-face has left ESG investors in a bind. At least one fund manager who excluded weapons makers on moral grounds added them back in, and plenty of others are considering the change.

"There are a number of discussions with investors who, in light of events with Russia in the Ukraine, are considering how they approach investment towards defense companies," said Baer Pettit, president and chief operating officer of MSCI, which sells ESG ratings and indexes.

ESG ratings didn't pick up

the risks around Russia. European companies with big operations in Russia before the invasion had significantly higher ESG scores and human-rights scores than those that stayed away, according to analysis by academics Elizabeth Demers. Jurian Hendrikse, Philip Joos and Baruch Lev.

The ESG score gave no guide to the company response either. In the first 12 days of the war—before sanctions forced action—lowerrated companies on Refinitiv's combined ESG score did more to suspend or divest their Rus-

Please turn to page B8

# Investors, Activists Press Vaccine Firms To Widen Access

By Peter Loftus

Socially conscious investors and global-health activists are turning to shareholders to press Covid-19 vaccine manufacturers Pfizer Inc., Moderna Inc. and Johnson & Johnson to make more of their shots available to people in poorer countries.

Groups including the antipoverty organization Oxfam have succeeded in placing proposals on shareholder proxy ballots that ask drugmakers to do more to widen access to the Covid-19 vaccines, such as exploring the transfer of their technology to other manufacturers.

The proxy battles are the latest effort seeking to push Covid-19 vaccine makers to share their technology in order to boost supplies at lower-income countries, after some of the countries asked the World Trade Organization to lift patent restrictions and activists urged the U.S. government to share companies' vaccine technology with other countries.

The efforts haven't succeeded so far, though the companies say they have stepped up shipments and taken other steps to increase supplies. Shareholder votes on the resolutions will be tallied and announced at annual meetings scheduled for April.

"The central problem right now is, by maintaining monopoly control over the technology, the companies are artificially constraining the supply of these lifesaving medicines,' said Robert Silverman, senior advocacy manager of privatesector development at Oxfam America Inc.

The Covid-19 vaccine makers are asking shareholders to reject the ballot measures, which the companies say could lead to low-quality manufacturing of their shots. The companies say they are making good-faith efforts to boost their shipments, though some executives have said the firms could have done a better job distributing shots to lower-income countries.

J&J, which has sold its vaccine on a not-for-profit basis, said that it either directly delivered, or national governments donated, about 70% of its global vaccine supply to low- and middle-income countries last year, and it has licensed its technology to an African company that will make doses for use in Africa.

"From the start, Johnson & Johnson has prioritized global equity in the design, development and delivery of our Covid-19 vaccine. spokesman said.

Pfizer and Moderna declined to comment on the shareholder proposals beyond the positions stated in their proxy statements. In the statements, the

Please turn to page B2

# War Drives Up Cost Of Wind, Solar Power

By JENNIFER HILLER AND KATHERINE BLUNT

Russia's invasion of Ukraine is driving up the price of renewable-energy projects, which facing supply-chain strains and raw-materials increases before the war.

The pressures, which are hitting two years after the pandemic created bottlenecks for wind and solar developers, are adding to delays for projects.

The Biden administration and other governments called for speeding the transition to renewable-energy sources to avoid reliance on Russia for oil and gas. But project developers say it might be nearly impossible to move faster.

Wind and solar development boomed world-wide in the past decade as a result of falling costs that made the projects more competitive with traditional sources of power such as natural gas and nuclear, as well as growing pressure to reduce greenhouse-gas emissions.

Globally, wind and solar accounted for about 6.4% and 4% of power generation last year, respectively, up from 3.8% and 1.4% five years prior, with further sharp growth projected, according to S&P Global Commodity Insights. The cost of so-

Please turn to page B2

# Volkswagen Rethinks Globalization

BERLIN-Volkswagen AG thrived as a global company for years, building and selling its cars all around the world. But as war, health scares and trade disputes roll back decades of globalization, the German auto maker is changing its manufacturing approaches to adapt.

VW's resilience effort includes strategies to shore up access to components and raw materials and shorten supply chains to make its regional businesses less dependent on faraway suppliers, according to senior executives at the company.

Without the vast home market of its U.S. competitors, VW long ago bet on international markets for growth. Now the world's second-largest car maker, VW benefited like few other companies from decades of post-Cold War detente, falling import tariffs and just-intime supply chains.

Yet as the world grows more turbulent, VW's international reach faces a test: Can such a global business endure as supply chains are strained by the global pandemic, the semiconductor shortage, rising rawmaterials prices and new geopolitical fractures?

When Covid-19 shut China down at the beginning of 2020, components built there were suddenly missing from supply chains and VW's factories in China and Europe stood idle. By the end of the year, VW produced 18% fewer vehicles than



VW long ago bet on international markets for growth. One of its plants in Zwickau, Germany, in January.



# **BUSINESS NEWS**

Aluminum makers seek old cans and shredded cars to fuel new plants. B3



**ADVERTISING** 

A growing list of brands focus on mental health in their marketing. **B4** 

the year before, according to the company's annual report.

Then came the next crisis. One of the first big manufacturers to notice that the world's supply of semiconductors was drying up, VW slashed production at factories in China. Europe and North America during the first three months of 2021, just as the industry was rebounding from pandemic lockdowns. VW production fell additional 7% by the end of 2021,

the company said. Even isolated incidents have highlighted the fragility of a business woven across borders. Earlier this year a fire on a cargo ship destroyed nearly 4.000 of Volkswagen's most expensive cars including Porsche, Bentley and Lamborghini on

their way to the U.S. In February, when Russia invaded Ukraine, shutting down the country's economy, Volkswagen found itself without wiring harnesses—contraptions used to organize cables and connectors in a car-made in the Eastern European country, forcing it to halt production of

electric vehicles at VW, Audi

and Porsche, and stop production at its biggest German factory in Wolfsburg.

As geopolitical tensions rise, members of VW's supervisory board now worry about VW's growing dependence on the Chinese market-its biggest, fastest-growing and most profitable.

Moved by the rapid succession of crises, VW directors and labor leaders say VW management should buttress the company's fragile international supply chain and step up in-

Please turn to page B4

# INDEX TO BUSINESSES

These indexes cite notable references to most parent companies and businesspeople rts aren't cited in these indexes.

in today's edition. Articles	on regional page inser
A	н
Alibaba Group Holding B3	Halliburton Hindalco Industries
Amazon.comA4	
В	Indian Oil
Baker Hughes B1	J
Boeing	Johnson & Johnson
C C	L
Cheniere EnergyA7	Lukoil
China Eastern Airlines	M
A10	Matalco
Coca-ColaB4	McCann Worldgroup
CoupangB3	Meta Platforms A4,
D	Moderna
DiDi GlobalB3	N-P
E	Nayara Energy
EngieB2	Nissan MotorB3 Norsk Hydro
EQTA7	Novelis
F-G	Nvidia
Ford MotorB3	Orsted
General MotorsA10,B4	Pfizer

<b>H</b> HalliburtonB1 Hindalco IndustriesB3	Phalanx Investment PartnersB. ProShares UltraPro QQQ
Indian Oil	A1 ProShares UltraPro
J	Short QQQA
ohnson & JohnsonB1	SchlumbergerB Semiconductor
ukoilB2 <b>M</b>	Manufacturing InternationalA1
MatalcoB3 McCann WorldgroupB4 Meta PlatformsA4, B9 ModernaB1	Shell
N-P	TalkspaceB- TellurianA
layara EnergyB9 lissan MotorB3,B4	TeslaA10,B Toyota MotorB
lorsk HydroB3 lovelisB3	U-Y
VidiaA2 OrstedB2	Uber Technologies B3VolkswagenB

# hour, down from \$89 in 2010.

# **Hycroft Lures Meme Money**

By Alexander Gladstone

**Hycroft Mining Holding** Corp. raised roughly \$140 million by selling new shares since **AMC Entertainment Holdings** Inc. bought its stake in the gold miner this month, according to people familiar with the matter.

Hycroft launched an at-themarket stock offering on March 15 after saying AMC and a precious-metals investor, Eric Sprott, had each committed to put \$28 million into the company. Hycroft didn't respond to requests for comment.

Hycroft was on the verge of

Oil Supply

Drop Keeps

Prices High

and fatter

A common type of Russian

oil, known in the industry as

Urals, is priced at an increas-

ingly wide discount, signaling

that buyers of Russian oil re-

main skittish. The trading arm

of the Russian oil major Lukoil PJSC tried to sell Urals crude

at \$31 below Brent last week,

according to a trader. That was

bigger than the gap two weeks

cash

Continued from page B1

nancing to build a mill it needed to economically mine its ore, the people familiar with the matter said. But Hycroft, which owns a more than 70,000-acre gold and silver mine in northern Nevada, caught the attention of meme-focused investors Russia's invasion of Ukraine. The ensuing sanctions and geopolitical instability caused metals prices to soar, spurring day traders to post on social media that Hycroft was an attractive bargain stock.

bankruptcy last month, down to

\$8 million of cash because it

hadn't obtained sufficient fi-

ago, when the gap was around \$28. Before the war, Urals mostly traded close to benchmarks.

A Lukoil spokesperson didn't respond to a request for comment

Some deals are still being struck away from wider view, traders said. Known as offmarket deals in industry parlance, the purchases are made by larger trading houses that are able to finance the purchases themselves rather than using bank credit, they said. Those barrels of Urals have sold at less-steep discounts than on online platforms where other participants can see records of trades.

These deals will come into the public view when the oil is loaded into cargoes about three weeks after the trades were agreed upon. Shipping data typically details the contents, buver and seller,

But renewable-energy projects are being hit by soaring prices for key materials such as aluminum and steel, as well as higher transportation costs

stemming from higher oil

prices, which surged by more

The rising costs are particu-

larly acute in the U.S., where

many projects were facing in-

creases in part because of

trade tariffs targeting China, a

dominant producer of solar

cells and other renewable-en-

ergy components. A third of

U.S. utility-scale solar capacity

scheduled for completion in the

fourth quarter of 2021 was de-

layed by at least a quarter and

13% of the projects planned to

complete this year were de-

layed for a year or canceled,

according to a new report from

Wood Mackenzie and the Solar

Energy Industries Association.

A report by LevelTen En-

than 50% this year.

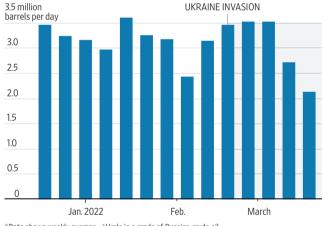
Russia has quickly switched from having an open, central role in global oil supplies to becoming the black sheep of crude. Traders said that Russian oil is no longer discussed at work or among friends in the industry. Some traders are under companywide bans on trading Russian grades, with compliance departments reluctant to leave it up to individual traders' discretion.

One trader likened buying Russian oil to an instance when he was asked to sell oil to a Japanese whale-hunting fleet. "It's the kind of situation where you don't even want to be talking about it," he said.

**Urals discount to Brent** benchmark, dollars per barrel†



### Russian weekly crude and condensate exports by sea



\*Data shows weekly average †Urals is a grade of Russian crude oil. Source: Kpler (crude and exports); S&P Platts (dollars per barrel)

# *Investors* Press on **Vaccines**

Continued from page B1 companies said transferring their technology to another manufacturer would be complex and time-consuming.

"Expanding manufacturing to organizations who do not meet Pfizer's requirements would put patients at risk and pressure on resources," Pfizer said.

Shareholders may submit proposals on various aspects of a company's governance, in addition to routine matters that companies put to a vote, like electing directors and ratifying auditors.

A shareholder needs to have owned at least \$2,000 of shares since January 2020 to be eligible to submit a proposal for annual meetings held before January 2023, when more stringent ownership thresholds are set to fully take effect.

Shareholder-sponsored proposals that are opposed by companies often fail to gain a majority of support among shareholders, while companybacked actions are usually approved. The proposals are typically nonbinding, but sometimes companies will implement new policies voluntarily

in response to majority votes. The Covid-19 vaccine-access measures could still influence the decisions of executives and

boards of directors, however, if the resolutions get sizable minority votes, said David Maris, portfolio manager for **Phalanx** Investment Partners, an investment firm focused on environmental, social and governance investing criteria.

Global-health advocates have criticized Western vaccine makers' distribution of shots during the pandemic. A disproportionate share of the vaccine supply so far has gone to wealthy countries including the U.S. and European nations, some of which now have surpluses, while poorer countries in Africa and elsewhere have received

fewer doses per capita. Boston-based Oxfam America owns shares of the major vaccine companies, and placed proposals on the ballots for Pfizer, Moderna and Johnson & Johnson. Oxfam said it owns at least \$2,000 of shares for each of Pfizer and J&J, and it owns 376 shares of Moderna, which were valued at more than \$61,000 as

of Friday's closing price. Oxfam's proposals on the Pfizer and Moderna ballots ask the companies to study the feasibility of transferring their intellectual property and technical know-how to other manufacturers that could make doses for low- and mid-

dle-income countries. Pfizer and Moderna asked the Securities and Exchange Commission in December for permission to exclude Oxfam's resolutions from their proxy ballots because they related to ordinary company business, among other reasons. The SEC

denied their requests, saying

the matters transcend ordinary business.

Pfizer said it expects one billion of its Covid-19 vaccine doses will be allocated to lowand middle-income countries in 2022, out of four billion total doses planned for the year.

Moderna said in its proxy statement there have been instances when it prepared to deliver vaccine doses to lowand middle-income countries, but they were declined by African countries because of distribution logistical challenges on the ground. Moderna said it won't enforce its patents in more than 90 poorer countries, which could allow manufacturers there to make its vaccine without fear of patentinfringement litigation.

"The shareholder proposal puts forward an unproven solution, lacking in appropriate oversight of our manufacturing processes, which could have negative consequences in terms of safety, quality, efficiency and long-term confidence in mRNA technology," Moderna said.

Oxfam's J&J resolution asks the company to report to shareholders whether its receipt of government funding for its Covid-19 vaccine is being, or will be, taken into account when the company sets prices or takes other steps that affect access to its vaccine.

J&J said publishing the report requested by Oxfam could damage the company's competitive position by revealing its

commercial strategy. The annual meetings for J&J, Pfizer and Moderna are scheduled for April 28.

# **BUSINESS & FINANCE**

# Solar and Wind Power Costs Rise Continued from page B1 lar generation fell to \$45 for a megawatt-hour last year, down from \$381 in 2010, S&P estimated. The cost of onshore wind generation, meanwhile, fell to \$48 for a megawatt-

Companies that make wind turbines have been among the hardest-hit since the pandemic's start.

ergy, a renewable-energy marketplace, found prices for long-term contracts for wind and solar-power purchases, which are used to finance new projects, rose substantially last year in almost every competitive power market in the U.S. Fourth-quarter prices jumped 12.1% for solar and 19.2% for wind compared with the prior year, according to the company's indexes.

French utility and renewables developer Engie SA is signing customer contracts closer to project start dates to get a better view of cost inflation or logistics problems, said Dave Carroll, head of North American renewables. Predicting costs has become far more complex than even a year ago, Mr. Carroll said. "This is sending shock waves through the materials prices," he said. "It's uncertain how that's going to settle out."

Denmark's Ørsted AS, a major wind-power developer, said last month that inflation and permitting delays were pressuring its planned offshore wind projects in the U.S. Now marine fuels, tied to the rising price of oil, are pushing vessel contracts higher, said David Hardy, chief executive for Ørsted Offshore North America. He called the need to contract for vessels now "kind of Murphy's law."

Companies that make wind turbines have been among the hardest-hit since the start of the pandemic, as the cost and complexity of moving giant blades around the globe have no easy workarounds. Their costs are set to rise again. though no critical components are sourced in Russia or Ukraine, said Deepa Venkateswaran, senior renewables analyst at Bernstein Research.

Nevertheless, she said the current spate of troubles is being viewed as a near- to midterm problem, as demand for renewables projects accelerates under more calls to become less dependent on fuel from Russia.



# Simple. Worldwide. Stock trading.

The IBKR GlobalTrader app makes it easy to trade stocks worldwide. Open your account in minutes and enjoy commission-free trading on US stocks and ETFs and access over 80 stock markets in the US, Canada Europe, and Asia.

The app is packed with powerful functionality, including:

- Scan the globe for undervalued stocks
- Deposit in your local currency
- Trade in fractions
- Free educational resources

# Start your FREE TRIAL today.

Download your app by scanning the QR code and put the world in the palm of your hand.





Download on the App Store for iPhone and iPad

Get it on Google Play

ibkr.com/gtrading

**IBKR** GlobalTrader

Interactive Brokers LLC - member NYSE, FINRA, SIPC. Any trading symbols displayed are for illustrative purposes only and are not intended to portray 03-IB22-1528CH1522

# **Aluminum Makers Seek Cans and Cars**

Companies are investing in recycling scrap to meet rising demand for the metal

By Bob Tita

Aluminum makers are on a nationwide hunt for more old cans, shredded cars and factory waste to keep up with demand.

Companies including Norway's **Norsk Hydro** ASA, **Nove**lis Inc. and Canada's Matalco Inc. are adding U.S. plants to produce more of the lightweight metal sought by auto companies, beverage can makers and other manufacturers. U.S. aluminum consumption grew 11% last year, bouncing back from 2020's pandemic-influenced reduction, according to the Aluminum Association trade group.

The threat of disrupted shipments from Russia, which supplies about 6% of aluminum in the U.S. made in smelters, is driving aluminum prices higher as well as providing momentum for more scrap-based production in the U.S., analysts and company executives said.

To meet rising demand, aluminum companies are doubling down on recycling, melting more scrap to increase their output. "When you look at scrap capture and processing, it becomes more economical than it used to be," said Mike Stier, vice president of finance and strategy for Norsk Hydro's North American extrusion unit.

Norsk Hydro last year started work on a plant in Cassopolis, Mich., that will be able to produce 120,000 metric tons of new aluminum from scrap each year. The \$140 million project is expected to be completed by the end of 2023.

More than 40% of the country's aluminum supply is produced this way, making the U.S. one of the world's biggest consumers of aluminum scrap. The U.S. is one of the world's biggest exporters of aluminum scrap, too, with 2 million metric tons of it sent overseas last year, according to government data.

Keeping more of that scrap, particularly from autos, for domestic production is a challenge for aluminum executives aiming to boost production.

In The Dalles, Ore., Norsk Hydro is expanding one of its 11 U.S. plants that melt scrap to double the facility's production capacity to 50,000 metric tons of aluminum ingots a year. To supply the plant, Norsk Hydro is cranking up scrap collection and sorting operations in the Pacific Northwest.

Norsk Hydro and other aluminum producers are fortifying closed-loop recycling arrangements with aluminum customers to buy back the scrap waste

100% Smelters Recycled

2011 Note: Annual totals don't reflect additions or Sources: Aluminum Association;

U.S. Census Bureau

generated by their manufacturing processes, which is particularly sought after because it is clean and often easy to collect. Aluminum from old cars, discarded beverage cans and build-

Share of U.S. aluminum supply ing demolitions is more abundant but harder to recycle.

Atlanta-based Novelis, a subsidiary of India's Hindalco Industries Ltd., said in January it plans to construct a plant in Guthrie, Ky., capable of making 240,000 metric tons of aluminum ingots annually from scrap. The \$365 million plant is scheduled for completion in 2024. Novelis plans to roll the metal from the plant into aluminum sheet for automotive customers.

The company recovers clean scrap from auto customers including Ford Motor Co. and Nissan Motor Co., but it is looking to increase its haul from end-of-life scrapping operations for cars, building materials or other products.

Demand for aluminum beverage cans is rising as more drink makers opt for cans instead of plastic containers and consumers buy more canned drinks. Demand for the cansheet used to make cans rose 8.4% in 2021 from 2020, according to the Aluminum Association. Imports of cansheet rose nearly 38%.

Aluminum beverage cans have some of the best recovery and reuse rates of any recycled household consumer products. About 70% of new cans are made from old cans, according to the Can Manufacturers Institute. The group said 45% of the cans used in the U.S. are recovered through recycling or deposit programs. The can makers want to raise the recovery rate for used cans to 70% by 2030.

Scrap aluminum is becoming more important to the industry as the number of smelters has been shrinking for years. Six smelters continue to operate in the U.S., down from about two dozen 20 years ago, as executives have said aging equipment and rising electricity costs make them expensive to operate.

# SoftBank's Stake In Alibaba Comes Under the Spotlight

By Dave Sebastian

The turmoil in Chinese technology shares is damping the financial firepower Japan's SoftBank Group Corp. has for new investments, and prompting debate about whether it might sell some of its stake in Alibaba Group Holding Ltd.

Shares in Alibaba-Soft-Bank's single biggest investment—and other Chinese tech companies were hit hard over the past year by Beijing's clampdown on the sector and have been highly volatile in recent weeks. Outside of Chinese shares, some other fast-growing tech companies backed by SoftBank also fell in value, such as **Uber Technologies** Inc. and Coupang Inc.

The Nasdaq Golden Dragon China Index of U.S.-listed Chinese stocks declined 52% over the 12 months through Friday. Alibaba fell 49%, and Soft-Bank's Tokyo-listed stock

dropped 40%. Falling valuations for its holdings pushed SoftBank close to its self-imposed debt limit of a loan-to-value ratio of 25%, estimated David Gibson, a senior research analyst who covers the Japanese internet sector at MST Financial in Australia. That would imply limits on new borrowing, investments and share buybacks, he said. Mr. Gibson pointed to SoftBank's Vision Fund, which includes holdings such as **Didi Global** Inc., whose U.S.-listed shares fell more than 70% from its offering price of \$14 last summer. "SoftBank is constrained by

Fund as well," he said. Founder Masayoshi Son has said SoftBank's loan-to-value ratio, or net debt divided by the equity value of its holdings, should usually be 25% or lower. S&P Global Ratings in March said it expects SoftBank to manage the ratio at about 30%, by adjusting the pace of investment in its fund busi-

capital now, and that's because

of not just Alibaba's market-cap

decline, but also the Vision

Investors have been watchful recently for signs SoftBank could potentially sell part of its near-25% stake in Alibaba. SoftBank recorded a gain equivalent to \$558 million in the last three months of 2021 after using what Mr. Son called a "tiny bit" of Alibaba stock to settle contracts.

"SoftBank might need to sell more of [its] Alibaba stock

because they have a lot more funding needs going forward," said Atul Goyal, an analyst covering tech, games and telecommunications at Jefferies.

A SoftBank spokeswoman declined to comment on listed

In its quest to fund new investments, Mr. Son's company has in recent years raised tens of billions of dollars backed by shares in the Chinese e-commerce giant and some of Soft-Bank's other listed holdings, while stopping short of an outright sale. This so-called asset-backed funding, using a mix of derivatives and loans, shows SoftBank's openness to bold and sometimes complex financial arrangements. The figures don't affect the loanto-value ratio, which reflects conventional debt.

SoftBank said it raised a net \$6.9 billion of assetbacked financing in April through December 2021 using Alibaba shares. It raised funds against its holdings in T-Mobile US Inc., Deutsche Telekom AG and SoftBank Corp., the company's telecommunications affiliate.

Overall, asset-backed financing using Alibaba stock was valued at the equivalent of about \$25.8 billion at the end of 2021. SoftBank said last month, equivalent to about 35% of its Alibaba holding.

The funding is obtained partly through margin loans, and partly through prepaid forward contracts. The contracts are agreements in which banks or brokers pay SoftBank upfront, and it agrees to settle the obligation later, either in stock, cash or a mixture.

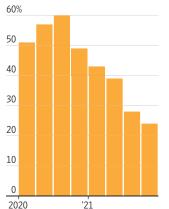
The contracts could be one way in which SoftBank reduces its stake in Alibaba. However, they don't commit SoftBank to selling any shares in future, and how it chooses to settle could depend on issues such as its liquidity and

Alibaba's share price. Alibaba's contribution to SoftBank's overall net asset value fell to 24% as of December 2021, down from a peak of 60% in September 2020. The figures exclude Alibaba shares that were used for fundraising.

Alibaba remains among the most successful investments for SoftBank, which started with a \$20 million investment in the Hangzhou, China-based company in 2000. "I think Alibaba is still a great company," Mr. Son said in February.

Alibaba's contribution to the overall equity value of





over the past year 10%

Share-price performance



CME Group

Derivatives are not suitable for all investors and involve the risk of losing more than the amount originally deposited and profit you might have made. This communication is not a recommendation or offer to buy, sell or retain any specific investment of service. Copyright ©2021 CME Group Inc. All rights reserved.

\*Adjusted for asset-backed financing. Shows calendar quarters; SoftBank's financial year runs April-March.

Sources: SoftBank (contribution); FactSet (performance)

# WHEN OPPORTUNITY STRIKES TAKE ACTION Capturing opportunities can be like catching lightning in a bottle. With groundbreaking technology, unique data insights and 24-hour access to innovative products across all major asset classes, CME Group can help you seize opportunities at precisely the right moment. VISIT CMEGROUP.COM/OPPORTUNITY

# **Mental Health Offers** Brands an Opening

By Suzanne Vranica

To woo consumers, hotel chains typically offer free room upgrades and complimentary breakfast. Kimpton Hotels is trying a new incentive: help with mental health.

In a recent social-media campaign, the boutique-hotel operator said it is offering 1.000 of its guests free access to a video-therapy session from teletherapy company Talkspace Inc.

Kimpton is among a growing list of brands, from car companies to meal-kit makers, putting mental wellness front and center in their marketing. As the issue is increasingly destigmatized-with celebrities and athletes openly discussing their own mental health—companies are seeing an opportunity to connect

Laura Simpson. chief intelligence officer at ad giant McCann Worldgroup, said the Covid-19 pandemic played a n significant role in boosting mental-health awareness. "That was the straw that broke the camel's back of finally making us have proper conversations about mental health." she said.

Coca-Cola Co.'s Powerade is currently running a series of TV commercials that tell viewers "pause is power."

In one spot featuring gymnast Simone Biles, Tottenham Hotspur manager Antonio Conte and British diver Tom Daley, Ms. Biles-who withdrew from some competitions during last year's Tokyo Games because she wasn't in the right mental place to continue—tells reporters during a

news conference that she is taking a break. She is then seen getting a manicure.

Ms. Biles has been one of the highest-profile athletes—a list that also includes tennis star Naomi Osaka and former swimmer Michael Phelps—to open up about mental health in recent years.

"Sometimes you've got to stop to be an actual human." Ms. Biles said in the commercial, as a manicurist paints over images of a goat on her fingernails. General Motors Co. plans

to launch a social-media campaign next month that shows influencers encouraging drivers to get their stress out before getting behind the wheel. GM said it decided to take a deeper look at the rise in anxiety and stress partly after seeing an alarming rise in traffic



Earlier this year, GM showed off a self-driving concept car whose seats feature biometric sensors.

fatalities during the pandemic. According to the National Highway Traffic Safety Administration, more people died in motor-vehicle crashes in the first nine months of last year than in any similar period since 2006.

GM said an online poll of nearly 3,000 American drivers conducted by McCann Worldgroup—a unit of Interpublic

Group of Cos.—found that a majority of respondents said they can remember a time when they cried in their cars, while a third said they have had to pull over because they felt too emotional to drive.

"High levels of stress and emotions can be a significant cause of distraction for drivers," said Deborah Wahl, GM's global chief marketing officer.

Earlier this year, GM showed off a self-driving electric concept car at the Consumer Electronics Show in Las Vegas, whose seats feature biometric sensors that monitor a person's fatigue level. The Cadillac-branded car, which doesn't have a steering wheel, can display soothing colors, play calming sounds and emit relaxing scents, GM said.

# Volkswagen Rethinks **Operations**

Continued from page B1 vestment in core Europe and U.S. markets to dilute the com-

pany's dependence on China. "We're not saying they should shrink in China but we're saying they should focus on other markets too," said a supervisory board member.

Murat Aksel, VW's purchasing chief, is restructuring how the company sources parts and materials and began monitoring each supplier—and these

suppliers' suppliers. The chip crisis showed us that we have to be involved with the entire supply chain,' he said.

Production stoppages caused by Russia's invasion of Ukraine and the loss of Chi-

nese components during the pandemic exposed how VW could no longer focus solely on obtaining the cheapest parts, however remote or scattered their producers.

Now, Mr. Aksel said, VW is making the uninterrupted delivery of parts a priority over competitive pricing, and could accept dual sourcing of some components, a practice that the industry gave up years ago in favor of single sourcing components and just-in-time

"We still want competitive prices, but my priority is securing supply. Without components, you can't build cars," Mr. Aksel said. "And zero production means zero profit."

VW is applying this new strategy now as it tries to restore part deliveries from suppliers in Ukraine that have been struggling to maintain production during the conflict. VW and suppliers such as Leoni AG, one its main suppliers for wiring harnesses, are duplicating Ukraine production in



One of the company's electric models at a show in Munich last year.

other countries including Poland, Romania and Tunisia.

In China, where the company makes nearly 40% of its annual sales and a hefty part of its profit, VW has faced criticism for operating a factory in Xinjiang. Human-rights advocates say China operates re-education camps there for members of the local Muslim population. VW says it employs Muslim Uyghurs at the plant, but uses no forced labor.

A senior VW executive who has now left the company said that VW requires every person working at the Xinjiang plant to be employed with an individual contract rather than using a local employment agency. This is aimed at preventing Chinese officials from using such agencies to conceal indentured labor, this person

China has denied using forced labor. Chinese authori-

ties and state-controlled news outlets have criticized Western companies for highlighting forced-labor concerns in Xinjiang. As part of its effort to re-

duce China's weight in its business, VW said it would invest more than \$7 billion in the U.S. over the next five years, mainly on developing electric vehicles with the goal of doubling its share of the U.S. market to at least 10%.

Under consideration is a new Audi plant, said Hildegard Wortmann, sales chief for the VW group and the Audi luxury car brand. VW officials have also said the company could build a battery plant in the U.S.

"China will remain one of the growth regions, but, yes, we have to strengthen our footprint in the United States," Volkswagen Chief Executive Herbert Diess said earlier this month. "And that might lead to a situation where we can balance our global setup better."

In the 1960s, VW cracked

the U.S. market thanks to its iconic Beetle, immortalized in the 1968 Walt Disney film "The Love Bug" which starred a selfdriving racing Beetle named Herbie. But as VW turned its focus to China in the 1980s, it neglected its U.S. business. Asian manufacturers led by Toyota Motor Corp. and Nissan Motor Co. raced ahead with American consumers.

After refocusing its product portfolio on SUVs, VW turned a profit in the U.S. last year for the first time in years. VW has struggled in the past to significantly boost market share in the U.S. But as EVs begin to play a bigger role in the market, VW's share of U.S. EV sales is growing faster than the company's overall vehicle sales.

VW now ranks second in EV sales in the U.S. after Tesla Inc., Mr. Diess said, with 8% EV market share, twice VW's overall U.S. market share. VW is targeting an overall market share of 10% in the U.S., VW officials said.

game.qu.edu

# a colorful celebration

INDULGE IN THE VIVID STYLE OF **OUR CRYSTAL-ENCRUSTED ENAMEL BRACELET** 



Our candy-colored confection will be the sweetest piece in your jewelry collection! Against a backdrop of glowing 18kt yellow gold over sterling silver and bright white enamel, a rainbow of vibrant blue, pink, green and yellow crystals adorn our cheerful 7½" cuff bracelet. A pretty pair of icy blue Swarovski crystals cap the ends of the eyecatching design, completing the festive, party-ready look.

To receive this special price and free shipping use offer code:

**FESTIVE54** 1.800.556.7376 or visit ross-simons.com/festive

Item #936341

Available in 8½" \$449 Ross+Simons fabulous jewelry & great prices for 70 years **ORDER TODAY!** 



Thank you to our sponsors



THE WALL STREET JOURNAL.





Megan is more than an analyst

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

Quinnipiac

School of Business

with a successful career.

She's on top of her GAME.

to help today's students become tomorrow's leaders.

Quinnipiac

G.A.M.E.

**FORUM** 

THE WALL STREET JOURNAL.

Monday, March 28, 2022 | B5

# GET YOUR SHARE OF BONDS.

In today's low-rate world, consider a different approach to help offset equity risk, preserve capital and seek income. Barbell your bonds by anchoring your portfolio with low cost iShares bond ETFs and allocating your fee budget to flexible and alternative active strategies.



Get your share of progress.

Invest in something bigger.®

iShares.

Visit www.iShares.com to view a prospectus, which includes investment objectives, risks, fees, expenses and other information that you should read and consider carefully before investing. Investing involves risk, including possible loss of principal. Fixed income risks include interest-rate and credit risk. Typically, when interest rates rise, there is a corresponding decline in bond values. Credit risk refers to the possibility that the bond issuer will not be able to make principal and interest payments. The strategies discussed are strictly for illustrative and educational purposes and are not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. There is no guarantee that any strategies discussed will be effective. Buying and selling shares of ETFs may result in brokerage commissions. Prepared by BlackRock Investments, LLC. @2022 BlackRock, Inc. All rights reserved. BLACKROCK, iSHARES, and INVEST IN SOMETHING BIGGER are trademarks of BlackRock, Inc., or its subsidiaries. iCRMH1221U/S-1949415

# **MARKETS DIGEST**

Trailing P/E ratio

P/E estimate \*

Dividend yield \*

All-time high

65-day moving average

0

S&P 500 Index

the past 52 weeks

200-day moving average

Track the Markets

Compare the performance of selected

global stock indexes, bond ETFs,

currencies and commodities at WSJ.com/TrackTheMarkets

ΜА

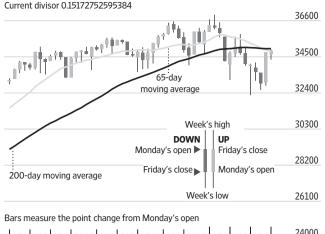
52-Week Range

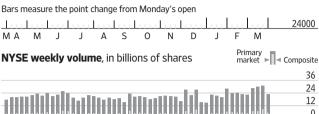
**4543.06 A**79.94, or 1.79% last week

High, low, open and close for each of

### **Dow Jones Industrial Average**

Last Year ago **34861.24 \( \)** 106.31, or 0.31% last week Trailing P/E ratio 19.36 29.27 P/F estimate 18.14 21.24 High, low, open and close for each of Dividend yield 2.02 2.04 the past 52 weeks All-time high 36799.65, 01/04/22

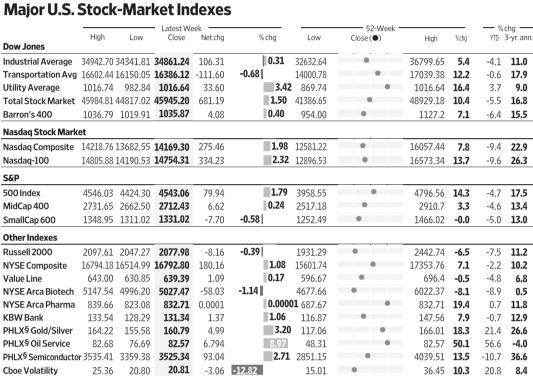




Ν D

# \*Weekly P/E data based on as-reported earnings from Birinyi Associates Inc; †Based on Nasdaq-100 Index

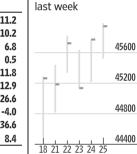
s o



Sources: FactSet; Dow Jones Market Data

YTD

High



18 21 22 23 24 25

▲ 681.19, or 1.50%

**DJ US TSM** 

### International Stock Indexes

§ Nasdaq PHLX

Region/Country Index

Region/Country	y Index	Close	% (	chg	Low	Close	High	% chg
World	MSCI ACWI	709.58		1.16	655.47	•	758.86	-6.0
	MSCI ACWI ex-USA	320.29		0.28	299.19	•	359.82	-7.0
	MSCI World	3049.11		1.28	2797.70	•	3248.12	-5.7
	MSCI Emerging Markets	1125.01		0.18	1026.77	•	1390.85	-8.7
Americas	MSCI AC Americas	1743.80		1.79	1534.68	•	1836.68	-4.6
Canada	S&P/TSX Comp	22005.94		0.86	18700.67	•	22074.35	3.7
Latin Amer.	MSCI EM Latin America	2660.33		6.50	2036.85		2687.02	24.9
Brazil	BOVESPA	119081.13		3.27	100774.57	•	130776.27	13.6
Chile	S&P IPSA	3228.45		2.20	2631.83	•	3396.76	15.0
Mexico	S&P/BMV IPC	55436.05	-0.06		47246.26	•	55829.86	4.1
EMEA	STOXX Europe 600	453.55	-0.23		415.01	•	494.35	-7.0
	STOXX Europe 50	3693.96		0.73	3297.60	•	3866.60	-3.3
Eurozone	Euro STOXX	430.33	-0.93	l	388.62	•	487.72	-10.1
	Euro STOXX 50	3867.73	-0.89	l	3505.29	•	4401.49	
Austria	ATX	3267.78	<b>-2.7</b> 8	l	2920.29	•	4057.59	-15.4
Belgium	Bel-20	4119.42	<b>-0.6</b> 8	l	3672.45	•	4402.32	-4.4
France	CAC 40	6553.68	-1.01	l	5962.96	•	7376.37	-8.4
Germany	DAX	14305.76	-0.74	l	12831.51	•	16271.75	-9.9
Greece	Athex Composite	843.11	-2.29	l	789.66	•	971.09	-5.6
Israel	Tel Aviv	2036.49		3.85	1578.07	•	2071.10	3.0
Italy	FTSE MIB	24558.74		1.39	22160	•	28163	-10.2
Netherlands	AEX	723.90		1.05	656.74	•	827.57	-9.3
Portugal	PSI 20	5849.12		2.75	4836.86	•	5849.12	5.0
Russia	RTS Index	829.62	-11.45		742.91	•	1919.58	
South Africa	FTSE/JSE All-Share	74324.67	-0.70	l	61453.42	•	77536.12	8.0
Spain	IBEX 35	8330.60	-1.03	l	7644.6	•	9281.1	-4.4
Sweden	OMX Stockholm	871.17	-3.59		807.41	•	1045.27	
Switzerland	Swiss Market	12121.67	-0.52		10970.93	•	12970.53	-5.9
U.K.	FTSE 100	7483.35		1.06	6713.63	•	7672.40	1.3
Asia-Pacific	MSCI AC Asia Pacific	179.32		0.52	165.6	•	210.4	-7.1
Australia	S&P/ASX 200	7406.20		1.53	6738.4	•	7628.9	-0.5
China	Shanghai Composite	3212.24	-1.19		3063.97	•	3715.37	
Hong Kong	Hang Seng	21404.88	-0.04	-	18415.08	•	29468.00	-8.5
India	S&P BSE Sensex	57362.20	-0.87		47705.80	•	61765.59	-1.5
Japan	NIKKEI 225	28149.84		4.93	24717.53	•	30670.10	-2.2
Malaysia	FTSE Bursa Malaysia KLCI			0.76	1480.92	•	1623.47	2.3
Singapore	Straits Times	3413.69		2.49	3041.29	•	3441.57	9.3
South Korea	KOSPI	2729.98		0.85	2614.49	•	3305.21	-8.3

15353.89

### **Commodities and** Currencies

	Close	ast Weel. Net chg	k —— %Chg	YTD % chg
DJ Commodity	1229.07	57.49	4.91	29.89
Refinitiv/CC CRB Index	307.33	15.09	5.16	32.26
Crude oil, \$ per barrel	113.90	10.81	10.49	51.44
Natural gas, \$/MMBtu	5.571	0.708	14.56	49.36
Gold, \$ per troy oz.	1953.80	25.60	1.33	6.91
U.S. Dollar Index	98.80	0.57	0.58	2.95
WSJ Dollar Index	91.43	0.34	0.37	2.10
Euro, per dollar	0.9106	0.006	0.63	3.56
<b>Yen,</b> per dollar	122.05	2.91	2.44	6.04
U.K. pound, in dollars	1.32	0.0004	0.03	-2.57
	Low	52-W Close(●)	eek <del></del> High	% Chg
DJ Commodity	794.01		1264.48	52.26
Refinitiv/CC CRB Index	184.08		309.12	63.71
Crude oil, \$ per barrel	58.65		123.70	86.81
Natural gas, \$/MMBtu	2.456	•	6.312	117.87
Gold, \$ per troy oz.	1683.90	•	2040.10	12.79
U.S. Dollar Index	89.64		99.29	6.50
WSJ Dollar Index	85.05		91.96	4.74
Euro, per dollar	0.8162		0.9212	7.41
<b>Yen,</b> per dollar	107.88		122.37	11.29
<b>U.K. pound,</b> in dollars	1.30			

Real-time U.S. stock quotes are available on WSJ.com.

Track most-active stocks, new highs/ lows, mutual funds and ETFs.

> All are available free at WSJMarkets.com

### TAIEX Source: FactSet; Dow Jones Market Data

banks.† Excludes closing costs.

### **Consumer Rates and Returns to Investor Selected rates U.S.** consumer rates

17676.95

New car loan A consumer rate against its benchmark over the past year Bankrate.com avg†: 3.82% 2.49% First Command Bank 4.00% Fort Worth, TX 888-763-7600 New **Cambridge Savings Bank** 2.99% Cambridge, MA 888-418-5626 3.00% 3.50 First Savings Bank of Hegewisch Prime rate Chicago, IL 773-646-4200 **PNC Bank** 3.27% Washington, DC 888-PNC-BANK 3.54% **Chase Bank**  $\mathsf{A}\,\mathsf{M}\,\mathsf{J}\,\mathsf{J}\,\mathsf{A}\,\mathsf{S}\,\mathsf{O}\,\mathsf{N}\,\mathsf{D}\,\mathsf{J}\,\mathsf{F}\mathsf{M}$ New York NY 800-CHA-SE24

2021	2022	New	000-CHA-3E24			
Interestrate	—Yield/R Last (●)	ate (%)— Week ago	52-V Low 0	Veek Range 2 4 6	e(%) — 8 High	3-yr chg (pct pts)
Federal-funds rate target	0.25-0.50	0.25-0.50	0.00		0.50	-2.00
Prime rate*	3.50	3.50	3.25	•	3.50	-2.00
Libor, 3-month	0.98	0.93	0.11	)	0.98	-1.63
Money market, annual yield	0.07	0.07	0.07		0.10	-0.52
Five-year CD, annual yield	0.50	0.46	0.41		0.50	-1.53
30-year mortgage, fixed <sup>†</sup>	4.57	4.49	3.00		4.59	0.48
15-year mortgage, fixed <sup>†</sup>	3.83	3.67	2.28	•	3.83	0.24
Jumbo mortgages, \$647,200-p	olus† <b>4.59</b>	4.52	3.03		4.65	0.30
Five-year adj mortgage (ARI	M)† <b>3.18</b>	3.13	2.82	•	3.43	-0.94
New-car loan, 48-month	3.82	3.58	3.41	•	4.12	-0.89
Bankrate.com rates based on survey o	of over 4,800 on	line banks. 🤻	Base rate po	sted by 70%	of the nation	's largest

### **Benchmark Yields and Rates Treasury yield curve** Forex Race

18526.35

Yen, euro vs. dollar; dollar vs. Yield to maturity of current bills, notes and bonds



### $\hbox{Sources: Tradeweb ICE U.S. Treasury Close; Tullett Prebon; Dow Jones Market Data}\\$ **Corporate Borrowing Rates and Yields**

	Yiel	d(%)	Spread +/ in basis pt			Total	Return
Bond total return index	Last	Wk ago	Last	Low	High	52-wk	3-yr
U.S. Treasury, Bloomberg	2.500	2.170				-4.92	1.15
U.S. Treasury Long, Bloomberg	2.690	2.490				-4.89	2.68
Aggregate, Bloomberg	3.000	2.720	n.a.	29	50	-5.36	1.38
Fixed-Rate MBS, Bloomberg	2.990	2.790	n.a.	7	38	-6.01	0.23
High Yield 100, ICE BofA	5.719	5.588	289	247	370	-1.052	3.323
Muni Master, ICE BofA	2.317	2.027	2	2	17	-4.319	1.560
EMBI Global, J.P. Morgan	<b>6.</b> 488	6.278	391	303	452	-7.450	0.273

### New to the Market

### **Public Offerings of Stock**

### IPOs in the U.S. Market

Last Year ago

44.66

22.62

1.48

4800

4500

4200

3900

3600

3300

3000

14100

13900

13700

13500

Spain 7-10 year 9.2

garian forint 8.8

lish krone 8.6

Bulgarian lev 8.5

iwiss Market 8.4

**Nasdaq Composite** 

**275.46, or 1.98**%

S&P 500 I

last week

Euro 8.6

8.3

24.78

19.85

1.39

4796.56, 01/03/22

None expected this week

### **Lockup Expirations**

Below, companies whose officers and other insiders will become eligible to sell shares in their newly public companies for the first time. Such sales can move the stock's price.

Lockup expiration Issuedate	Issuer	Symbol		Offer amt (\$ mil.)	Through Friday (%)	Lockup provision
March 28 Sept. 29, '2	l Olaplex Holdings	OLPX	21.00	1206.0	-25.3	180 days
March 30 Oct. 1, '21	First Watch Restaurant Group	FWRG	18.00	175.0	-30.1	180 days
Oct. 1, '21	TDCX	TDCX	18.00	319.1	-31.9	180 days
Oct. 1, '21	Exscientia	EXAI	22.00	275.0	-36.8	180 days
Sept. 29, '2	MELI Kaszek Pioneer	MEKA	10.00	250.0	2.9	180 days

Sources: Dealogic: Dow Jones Market Data

### **IPO Scorecard**

Performance of IPOs, most-recent listed first

		% Chg	From			% Chg	From
Company <b>SYMBOL</b> IPO date/Offer price	Friday's close (\$)	Offer price	1st-day close	Company <b>SYMBOL</b> IPO date/Offer price	Friday's close (\$)	Offer price	1st-day close
AN2 Thera ANTX March 25/\$15.00	15.40	2.7		Valuence Merger I VMCAU March 1/\$10.00	10.02	0.2	0.2
RF Acquisition <b>RFACU</b> March 24/\$10.00	10.03	0.3		FG Merger FGMCU Feb. 25/\$10.00	10.03	0.3	0.4
Goldenstone Acquisition GDSTU March 17/\$10.00			-0.1	GSR II Meteora Acquisition GSRMU Feb. 25/\$10.00		1.0	0.9
Akanda <b>AKAN</b> March 15/\$4.00	8.97	124.3	-14.6	Clean Earth Acquisitions CLINU Feb. 24/\$10.00	10.03	0.3	0.3
Nubia Brand Intl NUBIU March 11/\$10.00	9.99	-0.1	0.3	Blue Water Vaccines <b>BWV</b> Feb. 18/\$9.00	51.11	467.9	-11.0
Patria Latin American Opportunity Acquisitio		0.7	0.3	PowerUp Acquisition <b>PWUPU</b> Feb. 18/\$10.00	10.06	0.6	0.5
Lakeshore Acquisition II LBBBU March 9/\$10.00		0.8	8.0	AXIOS Sustainable Growth Acquisition <b>AXAC.UT</b> Feb. 16/\$10.00		1.8	0.6
Kensington Capital Acquisition IV KCAC.UT March 2/\$10.00			0.1	Futuretech II Acquisition FTIIU Feb. 16/\$10.00	10.03	0.3	0.2
SHUAA Ptnrs Acquisition SHUAU March 2/\$10.00		0.3	0.4	Meihua Intl Med Tech MHUA Feb. 16/\$10.00	8.55	-14.5	-33.8
Sound Point Acquisition <b>SPCMU</b> March 2/\$10.00		0.5		Smart for Life SMFL Feb. 16/\$10.00	1.04	-89.6	-61.2

Sources: Dow Jones Market Data; FactSet

# **Public and Private Borrowing**

### **Treasurys**

Monday, March 28 Auction of 13 and 26 week bills; announced on March 24; settles on March 31

Auction of 2 year note; announced on March 24; settles on March 31

Auction of 5 year note;

announced on March 24; settles on March 31 Tuesday, March 29

Auction of 7 year note;

announced on March 24; settles on March 31

Thursday, March 31

announced on March 29; settles on April 5

Auction of 4 and 8 week bills;

# Currencies

U.S.-dollar foreign-exchange rates in late New York trading

Country/currency	in US\$	per US\$	(%)	Country/currency	in US\$	per US\$	(
Americas		pc. 004	(1-)	Vietnam dong	.00004374	22864	_
				Europe			•
Argentina peso		110.3850	7.5	•			
<b>Brazil</b> real	.2109			Czech Rep. koruna	.04471		_
Canada dollar	.8015	1.2477		<b>Denmark</b> krone	.1475		3
<b>Chile</b> peso	.001285			Euro area euro	1.0982	.9106	3
<b>Colombia</b> peso		3792.27		<b>Hungary</b> forint	.002947	339.37	4
<b>Ecuador</b> US dollar	1	_	unch	<b>Iceland</b> krona	.007701	129.86	0
<b>Mexico</b> peso	.0499	20.0350	-2.3	<b>Norway</b> krone	.1162	8.6054	_
<b>Uruguay</b> peso	.02392	41.8050	-6.5	Poland zloty	.2347	4.2604	_
Asia-Pacific				Russia ruble	.00962	104.000	39
Australian dollar	.7516	1.3305	-33	Sweden krona	.1062	9.4171	4
<b>China</b> yuan	.1571	6.3663	0.2	Switzerland franc	1.0745	.9307	2
Hong Kong dollar	.1277	7.8282	0.4	Turkey lira	.0674	14.8359	11
India rupee	.01311	76.275	2.4	<b>Ukraine</b> hryvnia	.0338	29.5500	8
India rupee Indonesia rupiah	.0000697		0.6	<b>UK</b> pound	1.3181	.7587	2
	.0000697		6.0	Middle East/Afri	ca		
<b>Japan</b> yen <b>Kazakhstan</b> tenge	.002028	493.17		Bahrain dinar		.3771	0.
					2.6522		10
Macau pataca	.1240		0.3	Egypt pound		18.3100	10
Malaysia ringgit	.2375		1.1	Israel shekel	.3110	3.2159	-
New Zealand dollar	10,02	1.4366		Kuwait dinar	3.2879		(
Pakistan rupee		182.200	3.4	Oman sul rial	2.5970		٠.
Philippines peso	.0192	52.160	2.3	Qatar rial	.2746	3.642	
Singapore dollar	.7362	1.3583	0.7	Saudi Arabia riyal	.2666	3.7513	
South Korea won	.0008161		3.1	South Africa rand	.0688	14.5311	-8
<b>Sri Lanka</b> rupee	.0034188	292.50	44.1		Close Net C	ha % Cha !	vTD≏
<b>Taiwan</b> dollar	.03486	28.684	3.5				
<b>Thailand</b> baht	.02976	33.600	1.1	WSJ Dollar Index	91.43 -0.	05-0.05	2.:

Cash Prices | wsj.com/market-data/commo@itielay, March 25, 2022

These prices reflect buying and selling of a variety of actual or "physical" commodities in the marketplace—separate from the futures price on an

		ommodity might be worth in	
	Friday		Frida
Energy		Grains and Feeds	
Coal,C.Aplc.,12500Btu,1.2SO2-r,w Coal,PwdrRvrBsn,8800Btu,0.8S02-r,w	97.300 16.750	Barley,top-quality Mnpls-u Bran,wheat middlings, KC-u	n.a. 180
Metals		Corn,No. 2 yellow,Cent IL-bp,u	7.3300
Gold, per troy oz Engelhard industrial Handy & Harman base Handy & Harman fabricated LBMA Gold Price AM LBMA Gold Price PM Krugerrand,wholesale-e Maple Leaf-e American Eagle-e Mexican peso-e Austria pribil-e Silver, troy oz.	1949.00 1953.80 2168.72 *1945.90 *1965.20 2031.85 2051.39 2051.39 2363.58 1918.02 2051.39	Corn gluten feed,Midwest-u,w Corn gluten meal,Midwest-u,w Cottonseed meal-u,w Hominy feed,Cent IL-u,w Meat-bonemeal,50% pro Mnpls-u,w Oats,No.2 milling,Mnpls-u Rice, Long Grain Milled, No. 2 AR-u,w Sorghum,(Milo) No.2 Gulf-u Soybean,Meal,Cent IL,rail,ton48%-u,w Soybeans,No.1 yllw IL-bp,u Wheat,Spring14%-pro Mnpls-u Wheat,No.2 soft red,St.Louis-u Wheat - Hard - KC (USDA) \$ per bu-u Wheat,No.1soft white,Portld,OR-u	222.9 683.1 355 178 388 7.1700 29.25 n.a. 510.40 16.8200 12.6225 10.6975 11.0200 11.6250
Engelhard industrial Handy & Harman base	25.5000 25.4450	Food	
Handy & Harman fabricated LBMA spot price (U.S.\$ equivalent) Coins,wholesale \$1,000 face-a	31.8060 *£19.1700 *25.3150 21402	Beef,carcass equiv. index choice 1-3,600-900 lbsu select 1-3,600-900 lbsu Broilers, National comp wtd. avgu,w	227.25 217.51 1.5573
Other metals LBMA Platinum Price PM Platinum,Engelhard industrial Palladium,Engelhard industrial Aluminum, LME, \$ per metric ton Copper,Comex spot Iron Ore, 62% Fe CFR China-s Shredded Scrap, US Midwest-s,m	*1020.0 1025.0 2540.0 *3664.0 4.6860 150.8 n.a.	Butter,AA Chicago-d Cheddar cheese,bbl,Chicago-d Cheddar cheese,blk,Chicago-d Milk,Nonfat dry,Chicago lbd Coffee,Brazilian,Comp-y Coffee,Colombian, NY-y Eggs,large white,Chicago-u Flour,hard winter KC-p	2.7950 225.00 227.50 185.25 2.2082 2.8559 1.5350 29.85
Steel, HRC USA, FOB Midwest Mill-s <b>Battery/EV metals</b> BMI Lithium Carbonate, EXW China, =99.2%-v,k	1380	Hams,17-20 lbs,Mid-US fob-u Hogs,Iowa-So. Minnesota-u Pork bellies,12-14 lb MidUS-u	n.a. 99.35 n.a.

BMI Flake Graphite, FOB China, -100 Mesh, 94-95% -v,m Fats and Oils Fibers and Textiles 70.0000 Degummed corn oil, crude wtd. avg.-u.w Burlap,10-oz,40-inch NY yd-n,w 0.8600 Grease,choice white,Chicago-h 0.7100 Cotton,11/16 std lw-mdMphs-u 1.3690 Lard.Chicago-u Soybean oil,crude;Centl IL-u,w 0.7713 Cotlook 'A' Index-t 146.75 Hides, hvv native steers piece fob-u Tallow,bleach;Chicago-h 0.7375 Wool,64s,staple,Terr del-u,w Tallow,edible,Chicago-u n.a.

71825

6479

BMI Lithium Hvdroxide, EXW China, =56.5% -v.k

BMI Cobalt sulphate, EXW China, >20.5% -v,m

BMI Nickel Sulphate, EXW China, >22%-v.m

Pork loins,13-19 lb MidUS-u

Steers,Tex.-Okla. Choice-u

Steers,feeder,Okla. City-u,w

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; na.=not quoted or not available; P=Sosland Publishing; R=SNL Energy; S=Platts-TS!; T=Cotlook Limited; U=USDA; V=Benchmark Mineral Intelligence; W=weekly; Y=International Coffee Organization; Z=not quoted. \*Data as of 3/24

Source: Dow Jones Market Data

0.9896

138.00

# **CLOSED-END FUNDS**

Listed are the 300 largest closed-end funds as measured by assets. Closed-end funds sell a limited number of shares and invest the proceeds in securities. Unlike open-end funds, closed-ends generally do not buy their shares back from investors who wish to cash in their holdings. Instead, fund shares trade on a stock exchange. Ma Signifies that the information is not available or not applicable. MS signifies funds not in evisitence for the entries period 12 months vialed is evisitence for the entire period. 12 month yield is computed by dividing income dividends paid (during the previous 12 months for periods ending at month end or during the previous 52 weeks for periods ending at any time other than month-end) by the latest month-end market price adjusted for cap gains distributions. Depending on the fund category, either 12-month yield or total return is listed. Source: Lippe Friday, March 25, 2022

Prem NAV Close/Disc Ret Fund (SYM)

**General Equity Funds** Adams Diversified Equity ADX 21.60 18.44 -14.6 17.1 Boulder Growth & Income **BIF 17.56 14.97 -14.7 23.4** 48.29 41.54 -14.0 19.7 CohenStrsCEOppFd **FOF 13.00 12.54 -3.5** EVTxAdvDivIncm **EVT** 27.91 28.48 +2.0 17.7 GabelliDiv&IncTr GDV 27.89 24.57 -11.9 7.3 Gabelli Equity Tr **GAB** 5.98 7.05 +17.9 GeneralAmer **GAM** 50.70 42.15 -16.9 15.3 JHancockTaxAdvDiv HTD 26.27 24.57 -6.5 16.9 Liberty All-Star Equity **USA** 7.45 8.01 +7.5 17.0 Liberty All-Star Growth ASG 6.97 7.44 +6.7 -2.5 Royce Micro-Cap Tr RMT 11.83 10.50 -11.2 Royce Value Trust **RVT** 18.12 17.03 -6.0 4.8 Source Capital **SOR** 44.36 41.10 -7.3 5.5

Sprott Focus Trust FUND 9.74 9.05 -7.1 26.1 Tri-Continental TY 35.48 30.88 -13.0 10.5 **Specialized Equity Funds** Aberdeen Glb Prem Prop AWP 6.49 6.31 -2.8 17.8 Adams Natural Resources PEO 25.15 21.64 -14.0 54.9 ASA Gold & Prec Met Ltd ASA 27.16 22.99 -15.4 14.7 21.13 20.73 -1.9 14.3 BR Enh C&I CII BlackRock Energy & Res BGR 13.44 11.73 -12.7 38.7 BlackRock Eq Enh Div BDJ 10.24 9.79 -4.4 13.9 BlackRock Enh Glbl Div **BOE 12.60 11.13 -11.7** 3.3 BlackRock Enh Intl Div **BGY** 6.36 5.69 -10.5 BlackRock ESG Cap Alloc **ECAT 18.85 16.19 -14.1** NS BlackRock Hlth Sci Tr II BMEZ 22.03 19.57 -11.2 -17.7 BlackRock HIth Sciences BME 44.79 43.77 -2.3 1.9 BlackRock Innov and Grow BIGZ 13.27 11.48 -13.5 BlackRock Res & Comm BCX 11.96 11.48 -4.0 34.4 BlackRock Sci&Tech T II BSTZ 32.00 28.84 -9.9 -7.3 BlackRock Sci&Tech Trust BST 45.05 43.99 -2.4 -8.6 BlackRock Utl Inf & Pwr Bul 24.43 24.35 CLEARBRIDGEENGY MDS OPP EMO NA 27.94 NA 60.0 ClearBridge MLP & Midstm CEM NA 33.61 NA 55.1 ChnStrInfr UTF 28.27 28.52 +0.9 12.7 Cohen&SteersQualInc RQI 16.49 16.08 -2.5 24.0 Cohen&Steers TotRet RFI 14.88 14.94 +0.4 12.3 CohenStrsREITPrefinc RNP 26.46 25.09 -5.2 10.3 -0.2 17.0 Columbia Sel Prm Tech Gr STK 32.31 32.25 DNP Select Income **DNP 10.27 11.87 +15.6 29.7** Duff&PhUti&InfraIncFd **DPG 14.54 14.57 +0.2 25.5** EtnVncEqtyInc **EOI** 18.22 18.74 +2.9 19.6 EtnVncEgtylncoll **EOS** 20.66 21.02 +1.7 6.5 EVRskMnDvsEqInc ETJ 9.56 9.82 +2.7 0.2 ETnVncTxMgdBuyWrtInc ETB 15.67 16.88 +7.7 EtnVncTxMgdBuyWrtOpp **ETV 14.95 15.72 +5.2 11.8** EvTxMnDvsEaInc ETY 13.51 14.13 +4.6 20.5 EtnVncTxMgdGlbB ETW 10.05 10.24 +1.9 9.4 EVTxMnGblDvEqInc **EXG** 9.64 9.62 -0.2 14.0 Ecofin S&S Impact Term **TEAF 17.30 15.05 -13.0 15.5** First Trust Energy Inc G FEN 16.01 16.08 +0.4 31.8 First Tr Enhanced Eq FFA 20.01 20.34 +1.6 17.4 FirstTrEnergyInfra FIF 17.52 14.99 -14.4 30.4 FirstTrMLPEner&Inc FEI 9.41 8.18 -13.1 28.7

Gabelli Healthcare **GRX 14.35 12.84 -10.5 10.6** 

GAMCOGIGold&NatRes GGN 4.27 4.06 -4.9 26.6

Neuberger Brmn MLP & EI NML 8.28 6.34 -23.4 56.0

NubrgrRIEstSec NRO 4.93 4.84 -1.9 16.9

NuvCorEqAlpha JCE 16.37 16.75 +2.3 26.0

Nuveen Nasdaq 100 Dyn Ov QQQX 27.46 27.94 +1.7 10.8

J Han Finl Opptys **BTO** 39.65 44.08 +11.2

Neuberger Nxt Gen Conn NBXG 16.23 13.84 -14.7

Nuv Dow 30 Dyn Overwrite DIAX 17.58 16.47

Gab Utility GUT

Prem Fund (SYM) NAV Close / Disc Ret Nuv Real Est JRS 12.18 11.43 -6.2 28.9 Nuveen RI Asst Inc & Gro JRI 16.88 14.79 -12.4 10.0 NuvS&P500DynOvFd SPXX NA 17.68 NA 15.3 NuvSP500BuyIncFd **BXMX 14.57 13.76** ReavesUtilityIncome **UTG** 33.94 33.50 -1.3 8.4 Tortoise Enrgy Infra Crp **TYG** 41.48 33.71 -18.7 48.3 VAGIAI & Tech Opptys AIO 23.91 21.45 -10.3 0.0 VDivInt&PremStr NFJ 15.70 14.30 -8.9 11.5 Income & Preferred Stock Funds CalamosStratTot **CSQ** 17.45 17.23 CohenStrsLtdDurPref&Inc LDP 23.57 22.05 -6.4 -5.9 CohenStrsSelPref&Income PSF 23.80 22.29 CohenStrsTaxAvPreSecs&l PTA 23.44 21.11 -9.9

-6.3 -11.1 -8.9 Dividend and Income DNI 19.71 14.03 -28.8 19.6 FirstTrIntDurPref&Inc FPF 22.20 21.17 -4.6 JHanPrefinc HPI 18.92 18.38 -2.9 -1.1 JHPrefincil HPF 18.73 18.35 -2.0 -0.6 HnckJPfdInco III **HPS** 16.74 17.27 +3.2 5.2 J Han Prm PDT 14.96 15.54 +3.9 18.4 LMP CapInco SCD NA 14.30 NA 22.7 Nuveen Multi-Asset Inc NMAI NA 15.56 NA NS Nuveen Pref & Inc Opp JPC 9.00 8.31 -7.7 -4.8 Nuveen Fd JPS 8.82 8.05 -8.7 -9.8 Nuveen Pref & Inc Term JPI 22.69 21.51 -5.2 -7.1 TCW Strat Income TSI 5.49 5.12 -6.7 Convertible Sec's. Funds

AdvntCnvrtbl&IncFd AVK 16.31 15.58 -4.5 CalamosConvHi **CHY** 13.93 14.15 +1.6 4.2 CalmosConvOp **CHI** 13.20 13.14 -0.5 VAGI Conv & Inc II NCZ 4.70 4.30 VAGI Conv & Inc **NCV** 5.25 4.95 -5.7 -2.9 VAGI Dvs Inc & Conv ACV NA 25.14 NA 4.7 VAGI Egty & Conv Inc NIE 29.65 27.23 -8.2 10.9 **World Equity Funds** 

Aberdeen Emg Mkts Eq Inc AEF 7.35 6.54 -11.0 -17.3 Aberdeen Tot Dyn Div **AOD** 10.59 9.38 -11.4 6.9 Allspring GI Div Oppty **EOD** 5.72 5.19 -9.3 10.7 BlackRock Capital Alloc **BCAT 19.15 16.36 -14.6 -13.6** Calamos GloDyninc CHW 8.69 8.74 +0.6 -3.7 16.33 14.86 -9.0 -27.0 EV TxAdvGlbDivInc **ETG 20.65 19.93 -3.5 13.5** EtnVncTxAdvOpp **ETO** 28.37 29.60 +4.3 21.1 FirstTr Dvn Euro Ea Inc **FDEU 14.25 12.39 -13.1 1.6** Gabelli Multimedia GGT 7.18 9.18 +27.9 7.8 Highland Global Alloc HGLB 12.65 9.67 -23.6 41.0 20.88 18.96 -9.2 4.9 Japan Smaller Cap JOF 8.48 7.28 -14.2 -16.6 LazardGlbTotRetInc LGI 18.82 17.64 -6.3 2.4 Mexico MXF NA 16.09 NA 19.0 MS ChinaShrFd **CAF** 18.52 16.30 -12.0 -22.3 29.62 24.88 -16.0 13.2 MS CBRE Gl In Mg MEGI 20.53 17.94 -12.6 12 95 11 56 -10 7 -13 4 New Germany **GF** Templeton Dragon TDF 14.97 13.28 -11.3 -29.0

Templeton Em Mkt EMF 15.44 13.60 -11.9 -23.2 Prem12 Mo Fund (SYM) NAV Close/Disc Yld U.S. Mortgage Bond Funds

BlckRk Income **BKT** 5.14 4.98 -3.1 8.0 **Investment Grade Bond Funds** Angel Oak FS Inc Trm **FINS 16.95 15.82** 

BIRck Core Bond BHK 13.67 12.53 -8.3 BR Credit Alloc Inc **BTZ 13.46 12.13 -9.9** InvescoBond **VBF** 18.13 16.96 -6.5 3.6 J Han Income JHS 13.72 12.90 -6.0 3.33 3.10 9.8 MFS Intmdt MIN -6.9 Western Asset Inf-Lk Inc WIA 12.76 11.56 -9.4 11.7 Western Asset Inf-Lk O&I WIW 13.19 11.98 -9.2 Westn Asst IG Def Opp Tr IGI 19.36 18.35 **Loan Participation Funds** 

Apollo Senior Floating AFT NA 14.29 NA BR Debt Strategy **DSU 11.20 10.06 -10.2** 6.8 BR F/R Inc Str FRA 13.53 12.95 -4.3 6.0 BlackRock Floatng Rt Inc BGT 13.14 12.38 Blackstone Strat Cr **BGB 13.96 12.57 -10.0** Eagle Point Credit **ECC** NA 13.10 NA 12.2 EtnVncFltRtelnc **EFT** 14.01 12.88 -8.1 6.3 Fund (SYM) NAV Close/Disc Yld EV SenFIRtTr **EFR** 13.79 12.96 -6.0 FT/Sr Fltg Rte Inc 2 **FCT 11.93 12.27 +2.8** Highland Income **HFRO** 14.95 11.59 -22.5 InvDYCrOpp:AX **VTA** 12.20 NA InvSnrIncTr **VVR** 4.56 4.18 -8.3 7.1 Nuveen Credit Strat Inc JQC 6.64 5.93 -10.7 NuvFloatRateIncFd **JFR 10.18 9.61 -5.6** NuvFloatRteIncOppty **JRO 10.11 9.74** -3.7 Nuveen Senior Income NSL 5.98 5.42 -9.4 7.1 **High Yield Bond Funds** Aberdeen Inc Credit Str ACP 9.16 9.61 +4.9 11.9 AllianceBernGlHilncm AWF 11.87 11.00 -7.3 7.2

Allspring Income Oppty **EAD** 8.36 7.77 -7.1 8.8 Barings Glb SD HY Bd BGH 17.03 15.03 -11.7 8.0 BR Corporate HY HYT 11.04 10.30 -6.7 8.6 BlackRock Ltd Dur Inc **BLW 15.28 14.00** BNY Mellon Hi Yield Str DHF 3.01 2.70 -10.3 Brookfield Real Asst Inc RA 19.12 20.81 +8.8 8.4 2.37 2.14 CrSuisHighYld DHY 8.4 DELAWAREIVYHIGHINCOPP IVH 13.97 12.29 -12.0 6.3 DoubleLine Inc Sol **DSL 15.26 14.10** DoubleLine Yld Opps **DLY** 18.12 16.33 -9.9 8.0 First Tr Hi Inc Lng/Shrt **FSD 14.69 13.11 -10.8** 9.4 First Trust HY Opp:2027 FTHY 18.97 17.07 -10.0 KKR Income Opportunities **KIO 15.66 13.92 -11.1** Nuveen Global High Inc JGH 15.16 13.81 -8.9 9.4 PGIM Global High Yield GHY 14.71 13.04 -11.4 8.9 PGIM High Yield Bond **ISD** 15.71 13.97 -11.1 8.6 PGIM Sh Dur Hi Yld Opp **SDHY** 18.55 16.68 -10.1 PioneerHilncm **PHT** 8.82 7.90 -10.4 10.0 WstAstHIF II HIX 6.14 5.97 -2.8 9.2 Western Asset Hi Inc Opp **HIO 4.88 4.42 -9.4** 7.7

Other Domestic Taxable Bond Funds Allspring Multi-Sector ERC 11.12 10.07 -9.4 10.1 Apollo Tactical Income AIF NA 13.93 6.9 Ares Dynamic Crdt Alloc ARDC NA 13.76 7.9 BlackRock Mlt-Sctr Inc BIT 16.58 15.74 BlackRock Tax Muni Bd BBN 21.65 20.85 -3.7 DoubleLine:Oppor Crdt Fd DBL 17.39 16.26 -6.5 7.9 EVLmtDurlncm **EVV** 12.17 11.58 -4.8 10.2 Franklin Ltd Dur Income FTF 8.07 7.43 J Han Investors JHI 16.32 15.75 -3.5 7 66 7 11 MFS Charter MCR -7.2 9.2 NuvCorePlusImpact NPCT 16.32 14.33 -12.2 NS Nuveen Taxable Muni Inc NBB 19.82 19.07 PIMCO Corp & Inc Oppty **PTY 12.81 14.61 +14.1** PIMCO Corp & Inc Strat **PCN 13.13 15.33 +16.8** 5.36 5.67 +5.8 10.0 PIMCOHilnco PHK PIMCO IncmStrFd **PFL** 9.50 9.91 +4.3 10.0 PIMCO IncmStrFd II PFN 8.33 8.42 +1.1 10.2 Putnam Prem Inc PPT 4.25 3.90 -8.2 5.8 NS

Western Asset Hi Yld D O HYI 14.22 13.43

World Income Funds Abrdn AP IncFd **FAX** 3.83 3.28 -14.4 MS EmMktDomDebt **EDD** 5.76 4.85 -15.8 PIMCO Dynamic Income **PDI 22.38 23.81 +6.4 10.9** PIMCO Dynamic Inc Opp **PDO 17.78 16.39** -7.8 10.1 PIMCO Stratg Inc **RCS** 5.33 5.76 Templeton Em Inc **TEI 7.21 6.36 -11.8 11.6** Templtn Glbl Inc **GIM** 5.36 4.95 -7.6 WstAstEmergDebt **EMD** 11.64 10.24 -12.0 9.9 Western Asset GI Cr D Op **GDO 15.51 14.37** 7.6

5.2

3.0

5.2

5.0

4.3

4.4

4.9

4.9

4.5

5.0

5.4

5.1

Western Asset Dysfd Inc WDI 18.28 15.77 -13.7

AllBerNatlMuninc AFB 13.68 12.83 -6.2 BlckRk Inv O Mun **BKN 14.65 14.64** -0.1 BlackRock Muni 2030 Tgt BTT 24.58 23.55 -4.2 BlackRock Muni BFK 12.94 12.26 BlackRock Muni II **BLE 13.32 12.22** BlckRk Muni Inc Olv BYM 14.11 13.21 -6.4 BR MuniAssets Fd MUA 13.20 12.49 -5.4 BR MuniHoldings Qly MFL 13.39 12.29 BR MH Qly 2 MUE 12.68 11.69 -7.8 BR MuniHoldngs MHD 15.21 13.79 -9.3 BR MuniVest Fd MVF 8.83 8.06 -8.7 BR MuniVest 2 MVT 13.75 12.84 -6.6 BR MuniYield Fd MYD 13.44 12.27 BR MuniYield Qlty MQY 14.59 13.43 -8.0 BR MuniYld Qlty2 MQT 12.88 11.82 -8.2

Fund (SYM) NAV Close/Disc Yld BR MuniYld Qly 3 MYI 13.56 12.36 -8.8 4.6 BNY Mellon Muni Bd Infra DMB 13.28 12.27 4.8 BNY Mellon Str Muni Bond DSM 7.48 7.00 4.9 BNY Mellon Strat Muni LEO 7.80 7.11 -8.8 5.2 DWS Muni Inc KTF 11.30 10.14 -10.3 4.6 EVMuniBd EIM 12.52 11.32 -9.6 4.8 EVMunilncm **EVN** 12.73 11.84 20.05 18.87 3.7 EVNatMuniOpp EOT InvAdvMuIncTrII VKI 10.81 10.12 -6.4 -0.7 Invesco MuniOp OIA 7.09 7.04 5.1 InvescoMuOppTr VMO 12.12 10.95 -9.7 5.3 InvescoMuTr VKQ 12.13 10.94 InvescoQual Inc IQI 12.17 10.99 -9.7 5.1 InvTrInvGrMu **VGM** 12.50 11.33 -9.4 5.3 InvescoValMunInc IIM 14.83 13.52 -8.8 5.0 MAINSTAY:MK DEFTR MUN OP MMD 19.09 18.47 5.2 13.45 13.01 -3.3 Nuveen AMT-Fr Mu Val NUW 15.92 14.81 -7.0 2.9 Nuveen AMT-FrOlty Mun I NFA 14 09 12 94 -8.2 4.9 Nuveen AMT-Fr Mu CI **NVG** 15.33 14.38 -6.2 5.1 Nuveen Dyn Muni Opp NDMO 13.59 13.20 -2.9 6.5 Nuveen Enh Muni Val NEV 13.94 12.83 Nuveen Int Dur Mun Term NID 13.97 13.59 -2.7 3.8 Nuveen Mu Crdt Opps NMCO 13 97 13 30 -4.8 5.2 Nuv Muni Credit Income NZF 15.15 14.11 -6.9 5.1 NuvMuniHilncOpp NMZ 12.93 13.00 Nuveen Muni Val **NUV** 9.84 9.41 Nuveen Quality Muni Inc NAD 14.47 13.24 -8.5 4.9 Nuveen Sel TF **NXP** 15.12 14.20 -6.1 3.6 PIMCO Munilnc **PMF** 11.61 11.96 +3.0 5.0 PIMCOMunilncll PML 10.77 11.20 9.90 10.24 +3.4 5.0 Pimco Muni III PMX PioneerHilncAdv MAV 10.76 9.74 -9.5 5.0 PionrMuniHilncOppty MIO 16.15 14.22 -12.0 NS PioneerMunHilcm MHI 11.67 10.38 -11.1 4.6 Putnam Mad Inc **PMM** 7.40 7.01 -5.3 Putnam Muni Opp PMO 12.32 11.56 RiverNorth Fly Mulnell RFM7 17 61 16 30 -7.4 6.3

RiverNorth Mad Dur Mun I RMM 18.25 16.98 -7.0 6.1 Western Asset Mgd Muni MMU 12.61 11.54 -8.5 3.9 Single State Muni Bond BlackRock CA Mun **BFZ** 13.98 12.25 -12.4 BR MH CA Qly Fd Inc **MUC 14.02 12.97 -7.5** 4.8 BR MH NJ Qly **MUJ** 14.12 13.08 -7.4 5.4 13.20 12.61 BR MH NY Qly **MHN** -4.5 5.0 BR MuniYld CA MYC 14.23 12.97 -8.9 BR MuniYld CA Qly MCA 14.21 12.99 -8.6 4.8 BR MuniYld MI Olv MIY 14.16 12.68 -10.5 4.9 BR MuniYld NJ **MYJ** 14.29 13.17 -7.8 5.3 BR MuniYld NY Qly MYN 12.69 12.02 BlackRock NY Mun **BNY 13.18 12.02 -8.8** 5.7 EVCAMuniBd **EVM** 11.21 9.84 -12.2 4.7 Eaton Vance NY Muni Bd ENX 11.84 10.30 -13.0 4.2 InvCaValMuIncTr **VCV** 12.17 10.95 -10.0 4.8 InvPAValMuIncTr VPV 12.99 11.39 -12.3 InvTrInvGrNYMu **VTN** 12.94 11.79 -8.9 4.6 Nuveen CA AMT-F Qual MI NKX 14.70 13.30 -9.5 4.7 Nuveen CA Val **NCA** 9.93 9.12 -8.2 3.1 NuveenCAQtyMulnc **NAC 14.19 12.93 -8.9** 4.7 NuvNJ Qual Muni Inc **NXJ** 14.69 13.21 -10.1 Nuveen NY AMT/Fr Qual MI NRK 13.40 11.94 -10.9 4.5 Nuveen NY Qual Muni Inc NAN 13.90 12.34 -11.2 4.5 Nuveen OH Qual Muni Inc NUO 15.82 13.82 -12.6 3.9

PIMCOCAMunill **PCK** 7.77 7.50 -3.5 4.7 52 wk Prem Ttl NAV Close /Disc Ret Fund (SYM)

12.30 15.10 +22.8

NΑ

4.6

4.7

Nuveen PA Qual Muni Inc **NQP 14.62 13.44 -8.1** 

Nuveen VA Qlty Mun Inc **NPV 13.75 13.71 -0.3** 

PIMCO CA **PCQ** 

**General Equity Funds** BOW RIVER CAPTL EVGN:II NA NA NA Specialized Equity Funds ArrowMark Financial Corp BANX NA 21.75 NA Aspiriant Rsk-Mgd RA NA NA NA NS Bluerock Total Inc+ RE:A 35.69 NA NA 26.8 Bluerock Total Inc+ RE:C 33.65 NA

Bluerock Total Inc+ RE: 1 36.49

Fund (SYM) NAV Close/Disc Yld Bluerock Total Inc+ RE:L 35.26 NA 26.4 NA Broadstone RI Est Acc:I NA NA3.0 1.30 Broadstone RI Est Acc W 1.28 NA NA 9.31 CBRE GlbRIEst IGR 8.75 -6.0 16.2 CIM RA&C A 26.42 NA NA 9.7 CIMBARCO 26.04 NΑ NΑ 8.9 CIM RA&C I 26.54 NA NA 10.0 CIM RA&C L 26.28 NA 9.4 Clarion Partners REI D 12.30 NA Clarion Partners REII 12.31 NA NA 24.8 NA NA 23.8 Clarion Partners REIS 12.31 NA 23.9 GS Real Est Div Inc:P NA NANS NexPointRIEstStrat: A 22 74 NA NA 46.6 NexPointRIEstStrat;C 23.00 NA 45.5 NA NexPointRIEstStrat:Z 23.00 NA 46.9 Principal Dvs Sel RA A 27.60 NΑ NA 11.4 Principal Dvs Sel RA Ins 27.66 NA NA 11.5 Principal Dvs Sel RAY 27.82 NA NA 11.8 The Private Shares; A 43.44 NA 15.1 The Private Shares: 43.94 NA NA 15.4 42.96 The Private Shares;L NA NA 14.8 Thirdline Real Estate I 10.13 USQ Core Real Estate: 29.67 NA 24.8 USO Core Real Estate: IS 29.71 NA NA 24.9 Versus Cap MMgr RE Inc:l 30.83 NA NA NE Versus Capital Real Asst 27.59 Wildermuth:A 13.52 NΔ NA Wildermuth:C 12.85 NA NA 5.8 13.64 Wildermuth:1 NA NA 6.8 Income & Preferred Stock Funds A3 Alternative Inc 7.42 NA NA -16.9

Calamos L/S Eqty and DI CPZ 21.38 20.05 1.9 -6.2 First Trust Alt Opps;A Flat Rock Opportunity 22.12 Lord Abbett Spec Sit I:A 9.83 NA NS 9.83 Lord Abbett Spec Sit I:I NA NA Variant Altrnty Inc:Inst 28.45 Variant Impact; Instl 25.51 NΔ NA NS Zell Capital NA NA NA NS Convertible Sec's. Funds

Calmos Dyn Conv and Inc CCD 26.57 26.66 +0.3 -4.7 **World Equity Funds** 

ACAP Strategic:A 18.76 NA NA -22.7 ACAP Strategic:W 13.88 NA -22.2 Aspiriant Rsk-Mgd Cap Ap NΔ NΔ NA CalamosGlbTotRet CGO 13.53 14.60 +7.9 -0.7 12.12 NA Primark Priv Eq Inv:l NA 5.9 Thornburg Inc Bldr Opps **TBLD.0 19.01 17.06 -10.3** VirtusTotalRetFd ZTR 9.12 9.56 +4.8 10.2

Prem12 Mo Fund (SYM) NAV Close / Disc Yld **U.S. Mortgage Bond Funds** Ellington Inc Opp:A 9,42 NΔ NA Ellington Inc Opp:M 9.32 NA NA 5.4 **Loan Participation Funds** 1WS Credit Income;A2 NA 1WS Credit Income;Inst NA NA NA 6.1 NA 9.2 AlphCntrc Prime Merid In 9.65 NA Axonic Alternative Inc NA11.4 23.30 NANABlackstone FR EI D Blackstone FR EII 23.27 NA NA 5.6 Blackstone FR EIT 23.23 NA NA 5.1 23.80 NA5.1 Blackstone FR EI T-I NA

Blackstone FR EI U 24.26 NA BNYM Alcntr Glb MS Cr Fd 96.97 NA NA CliffwaterClFd;I 10.75 NA NA CliffwaterElFd;A 10.69 NA CNR Strategic Credit NANANA Equalize Community Dev 9.70 NA NΑ FedProj&TrFinanceTendr 9.83 NA NA Flat Rock Core Income 20.65 NAInvDYCrOpp:A 12.20 NA NA InvDYCrOpp:R6 12.20 NA NΑ InvDYCrOpp:Y 12.20 NA NA

6.43

6.44 NANA

6.43

Invesco Sr Loan A

Invesco Sr Loan C

Invesco Sr Loan IB

Fund (SYM) NAV Close / Disc Yld 6.43 NA NA Invesco Sr Loan IC 6.43 Invesco Sr Loan Y OFS Credit Company **OCCI** NA 12.25 NA Yieldstreet Prism NA NA NA 10.1 **High Yield Bond Funds** Griffin Inst Access Cd:A Griffin Inst Access Cd:C Griffin Inst Access Cd:F NA NA NA Griffin Inst Access Cd:I NA Griffin Inst Access Cd:L NA Griffin Inst Access Cd:M NΔ NΔ NΑ PIMCO Flexible Cr I;A-1 8.73 NA NA PIMCO Flexible Cr I;A-2 8.73 NA PIMCO Flexible Cr I;A-3 NA NA PIMCO Flexible Cr I; A-4 8.73 NΑ NΑ PIMCO Flexible Cr I;Inst 8.73 NA NA WA Middle Mkt Inc 622.64 NA Other Domestic Taxable Bond Funds AFA MMC;Inst 9.99 NA NA AFA MMC;Inv 9.98 NA NA Alternative Credit Inc:A 10.90 Alternative Credit Inc:C 11.03 NANA Alternative Credit Incil 10 92 NA NA Alternative Credit Inc:L 10.90 NA NA Alternative Credit Inc:W 10.89 Angel Oak Str Crdt:Inst 21.81 NABR Credit Strat:A 9,43 NA NA

6.3

NS

NS

6.1

5.8

BR Credit Strat;U NA BR Credit Strat;W 9,43 NA NA NS BlackRock Mlt-Sctr Oppty 76.87 NA NA BlackRock Mlt-Sec Opp II 81.59 NA 7.5 Carlyle Tact Pvt Cred:A NA Carlyle Tact Pvt Cred: 8.86 NA 7.2 Carlyle Tact Pvt Cred:L 8.81 NA NA 6.8 Carlyle Tact Pvt Cred:M Carlyle Tact Pvt Cred:N 8.81 NACarlyle Tact Pvt Cred:Y 8.82 NA NA 7.0 CION Ares Dysfd Crdt:A NA NA NA CION Ares Dysfd Crdt;C CION Ares Dvsfd Crdt;I  $\mathsf{N}\mathsf{A}$ NANA 5.4 5.4 CION Ares Dysfd Crdt:L NA NΑ NA CION Ares Dvsfd Crdt;U NA NA NA CION Ares Dysfd Crdt:U2 CION Ares Dvsfd Crdt;W NΔ NA CNR Select Strategies 12.30 0.0 NA NA First Eagle Crdt Opps A 25.80 7.3 NA First Eagle Crdt Opps I 25.76 FS Credit Income;A 12.90 NA NA 5.7 FS Credit Income;I 12.94 NA NA FS Credit Income;T 12.92 NA FS Credit Income;U FS Credit Income;U-2 12.95 NA NA GL Beyond Income 0.47 KKR CREDIT OPPTY;D 24.07 KKR CREDIT OPPTY;I 25.94 NA KKR CREDIT OPPTY:T 25.71 NA NA 5.7 KKR CREDIT OPPTY;U 24.76 NA 5.8 Lord Abbett Cred Opps Fd 10.22 Lord Abbett Cred Opps Fd 10.23 NA Lord Abbett Crd Op:U 10.23 NA 4.7 Palmer Square Opp Inc NA NA NA The Finite Solar Finance Thrivent Church Ln&Inc:S 9.72 NA NA

9.43 NA

BR Credit Strat;Inst

World Income Funds BlueBay Destra Itl E:A 23.26 NA BlueBay Destra Itl E:I 23.28 BlueBay Destra Itl E:L 23.23 NA NA BlueBay Destra Itl E:T 23.17 NA NA Oaktree Dvsfd Income;D 9.55 NA NA PIMCO Flexible EM I;Inst 10.05 NA National Muni Bond Funds NA

Ecofin Tax-Adv Soc Impct 9.53 Lind Cap Pt Mun Cred Inc Nuveen En HY Muni Bd:A 8.52 NA NA Nuveen En HY Muni Bd:l 8.52 NΑ NΑ NS PIMCO Flex Mun Inc; A-3 10.81 NA NA 1.6 PIMCO Flex Mun Inc:A1 10.81 PIMCO Flex Mun Inc;A2 10.81 NA NAPIMCO Flex Mun Inc;Inst 10.81 NA

WSJ+

4.14 7.47 +80.4 23.8

NS

**EXPERIENCES OFFERS EVENTS INSIGHTS** 

7.8

6.9

13.7

2.5

2.2

NS

NS

NS



**Enjoy Quality Time Outdoors** With Savings on a **Premium Fire Pit** 

H. Bee Fire's outdoor fire pits are perfect for the backyard, cottage, lake, campsite, beach—anywhere you want to add warmth and glow to the setting. Assemble in minutes without the need for tools or hardware, thanks to a unique "slotted" design. Save 20% off a long-lasting, portable fire pit from H. Bee Fire and enjoy fun, memorable gatherings for years to come.

WSJ MEMBER EXCLUSIVE

REDEEM NOW AT WSJPLUS.COM/FIRE



# **MARKETS**

Benchmark 10-year general

obligation muni bond yields

2.00%

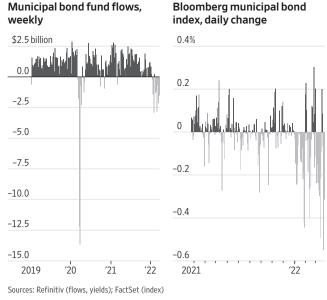
1.50

1.25

1.00

0.50

0.25



# Ways Muni Investors Can Navigate New Rate Outlook

By Heather Gillers

With the Federal Reserve interest-rate increase this month and expectations of more increases, municipal-bond prices have grown volatile, and the Bloomberg Municipal Bond Index has been down 46 of 57 trading days so far this year.

But there are options for navigating the \$4 trillion market for state and local government bonds.

### 1. Buy very short-term bonds

Bonds that mature soon, say within the next three years, won't fall in price as much as sav 10-year bonds in response to Fed moves. (Yields rise as prices

The Week's Action :

4.38

10.74

7.58

7.44

2.31

2.23

1.43

2.59

2.46

2.68

3.07

2.14

6.91

1.82

2.08

2.66

2.45

3.25

2.54

0.48

-0.24

-1.99

-1.00

-3.88

-7.89

-7.77

-30.06

9.23

4.69

4.13

3.70

2.82

2.38

2.01

1.87

1.78

1.58

1.44

1.37

1.30

1.19

1.11

1.11

1.08

0.94

-0.23-0.44

-0.31-0.68

-0.51

-0.83 -1.16

-1.37

-1.79

-2.01

-2.28

-3.55

Stockprice Point chg ) change in average\* Company

28.87

49.96

49.04

15.22

14.70

9.42

17.07

16.21

17.66

20.23

14.10 3M

45.54

12.00

13.71

17.53

16.15

21.42

16.74

3.16

-4.48

-1.58

-7.65

-13.12

-6.59

-25.57

-52.00

-51.21

**ANNOUNCEMENTS** 

**LAWSUITS FILED** 

We pay all court costs

**Nations Top Attorneys** 

(800) 838-8816 call 24hrs

**BUSINESS OPPORTUNITIES** 

COLLATERALIZED

FOR ACCREDITED INVESTORS

SECURED,

**INVESTMENT** 

OPPORTUNITY

-198.12

A Week in the Life of the DJIA

Intel

Dow

**IBM** 

Nike

Merck

Coca-Cola

Honeywell

McDonald's

Caterpillar

Microsoft

**Amgen** 

Verizon

Walgreens

Walmart

Cisco

Boeing

**Walt Disney** 

**Goldman Sachs** 

salesforce.com

Visa

**Procter & Gamble** 

JPMorgan Chase

American Express

UnitedHealth Group UNH

Johnson & Johnson JNJ

Apple

Chevron

Travelers

A look at how the Dow Jones Industrial Average component stocks did in the

past week and how much each moved the index. The DJIA gained 106.31

points, or 0.31%, on the week. A \$1 change in the price of any DJIA stock =

of 1.07%, on the \$30,000 investment, including reinvested dividends.

6.59-point change in the average. To date, a \$1,000 investment on Dec. 31 in each current DJIA stock component would have returned \$29,680, or a loss

Symbol Close

INTC \$51.83

AAPL 174.72 ...

TRV 187.75

64.70

81.34

61.53

131.35

133.70

152.83

197.79

513.03

176.92

241.58

51.28

190.28

V 218.43

WBA 47.12

DIS 139.14

WMT 143.45 **....** 

BA 188.95 ...

54.97

211.03

<sup>°</sup>Based on Composite price. DJIA is calculated on primary-market price. Source: Dow Jones Market Data; FactSet.

310.68

**BUSINESS OPPORTUNITIES** 

**M&AINTERMDIARIES** 

ligh Net Worth Entrepreneurs needed to han middle market Mergers and Acquisitions.

Contact: denny@chapman-usa.com

(847) 884-0010

CHAPMAN ASSOCIATES'
Nationwide Mergers & Acquisitions

\$26K PER EMPLOYEE

COVID TAX REFUND NOW!

Revenues Down 50%

in '20 or 20% in '21?

704-576-0477

Visit http://whyerc.com/jgalles

75 acres of commercially

zoned land for sale by owner

in Saratoga Springs, NY

518-429-0575

MMM 150.46

JPM 141.92

CAT 223.36

MSFT 303.68

AMGN 238.79

CVX169.31

DOW

MRK

ΚO

**IBM** 

NKE

PG

HON

MCD

AXP

CSCO

GS 337.49

CRM

HD

**ADVERTISEMENT** 

The Marketplace

To advertise: 800-366-3975 or WSJ.com/classifieds

fall.) That is because it won't be long until the bonds mature and the cash can be reinvested in potentially higher-yield munis.

### 2. Buy very long-term bonds

Those bonds are likely to lose more value over the next several years than short-term debt, but could rebound stronger if the Fed reins in inflation and rates fall. Plus, there is steady demand for long-term bonds from asset managers such as insurers, which helps push up prices.

### 3. Buy junkier bonds

A stimulus-fueled economic boom buoyed the finances of municipal borrowers. That means repayment worries are unlikely to drive down prices on most bonds, at least in the near Buying lower-rated, higher-yielding muni debt could be a way for investors to insulate themselves against rising rates. That is because a change in rates will erode the value of a higher coupon bond less than it would a lower interest one with the same maturity date.

### 4. Sell and lower the tax bill

Lowering tax costs is usually the reason investors turn to the munis, since the bonds typically pay interest that is exempt from federal, and often state, taxes. Falling muni prices in 2022 present another way of reducing tax bills. That means selling an investment that dropped in value to book the loss and count it against any gains booked during 2022, with the goal of reducing next April's tax bill.

### **Borrowing Benchmarks**

### Money Rates

\$1,014

1,458

1,206

1,071

1,047

995

804

939

954

856

1,025

1,041

1,086

999

1,010

913

995

873

939

888

830

753

906

902

March 25, 2022

Key annual interest rates paid to borrow or lend money in U.S. and international markets. Rates below are a guide to general levels but don't always represent actual transactions.

Inflatio	1		
Feb. index	Chg From (%)		
level	Jan. '22	Feb. '21	

U.S. consun	ner price inde	ex	
Allitems	283.716	0.91	
Core	288.059	0.72	
Int	ernationalı	rates	

Latest	Week ago	– 52 High

	Latest	ago	High	Lo
Prime ra	tes			
U.S.	3.50	3.50	3.50	3.
Canada	2.70	2.70	2.70	2.

**1.475** 1.475 1.475 1.475

Policy	Rate
_	

Japan

Euro zone	0.00	0.00	0.00	0.00
Switzerland	0.00	0.00	0.00	0.00
Britain	0.75	0.75	0.75	0.10
Australia	0.10	0.10	0.10	0.10

Britain	0.75	0.75	0.75	0.10
Australia	0.10	0.10	0.10	0.10
Overnight	repurch	ase		

# **U.S.** government rates

rastrana	0.10	0.10	0.10	0.10
Overnight	repurch	ase		
U.S.	0.28	0.30	0.30	-0.02

# Discount

**0.50** 0.50 0.50 0.25

# Federal funds

Effective rate **0.3400** 0.3400 0.3400 0.0500 0.4000 0.4000 0.4000 0.0700 **0.3000** 0.3000 0.3000 0.0100

Bid **0.3300** 0.3300 0.7000 0.0300 Offer **0.3800** 0.3500 0.3800 0.0500 **Treasury bill auction** 

# High

**0.135** 0.190 0.195 0.000 4 weeks **0.480** 0.450 0.480 0.015 **0.870** 0.820 0.870 0.030 26 weeks

# **Secondary market**

# Fannie Mae

30-year mortgage yields **4.057** 3.754 4.057 2.216 30 days **4.132** 3.828 4.132 2.261

# Other short-term rates

Week high

# **Call money**

**2.25** 2.25 2.00 Commercial paper (AA financial)

**n.a.** 1.01 1.12 0.04

One month 0.44657 0.46757 0.07263 Three month 0.98286 0.93400 0.98286 0.11413 1.28757 1.45114 0.14663 Six month 1.78643 2.08871 0.21950

### **Secured Overnight Financing Rate COMMERCIAL REAL ESTATE** 0.30 0.30 0.01

Traded High Low DTCC GCF Repo Index

### 8.400 0.288 -0.006 0.274

Treasury **0.294** 17.700 0.310 0.004

### **U.S. prime rate** is the base rate on corporate loans posted by at least 70% of the 10 largest U.S. banks, and is effective March 17, 2022. **Other prime rates** aren't directly comparable. ending practices vary widely by location; Discount rate is effective March 17, 2022

Secured Overnight Financing Rate is as of March 24, 2022. DTCC GCF Repo Index is Depository Trust & Clearing Corp.'s weighted average for overnight trades in applicable CUSIPs. Value traded is in billions of U.S. dollars. Federal-funds rates are Tullett Prebon rates as of 530 nm ET.

Sources: Federal Reserve; Bureau of Labor Statistics; DTCC; FactSet; Tullett Prebon Information, Ltd.

# Conflict Presses ESG Investing

Continued from page B1 sian operations than those with higher ratings.

This isn't just a temporary problem for ESG. The defects the war exposed run through the main approaches to sustainable investing.

approach to ESG is to try to do good with your money, and almost every ESG fund tries to imply it does this, at a minimum excluding producers of controversial weapons and the most-polluting forms of coal.

But what counts as accept able behavior changes rapidly. The invasion of Ukraine has shown ESG investors what should have been obvious, that a country can't defend itself without weapons, and that means funding weapon makers. Even nuclear weapons—banned by almost every ESG fund-suddenly

prices as a result of Russia's invasion and sanctions prompted about-turns from Western governments. Just five months after hosting the Glasgow climate summit at which world leaders agreed to phase out fossil-fuel subsidies the U.K. is cutting taxes on road fuel and trying to shield households from energy costs, while encouraging Gulf states to drill more oil. The U.S. is calling on frackers to pump more, and some European countries want price controls.

to give up now to prevent global warming in future should be made by society as a whole through governments, not by well-meaning rich people. The same goes for alcohol, cigarettes or lottery with unpleasant weapons.

vestors in ESG funds mostly right thing, many funds use ESG scores purely to spot this approach, followed by Sustainalytics, if a company can do bad things without any effect on its stock, it should not lower the ESG score.

"We're focused on the ma-

terial environmental and social issues that we think might have a financial impact on the company," Michael Jantzi, founder of Sustainalytics, said recently. Sustainalytics plans separate impact ratings later this year to assess companies on their effect on the environment and social issues, even where they pose no threat to investors.

The approach makes intui

tive sense. Investors should

try to anticipate policy shifts by governments, since new taxes, regulations and sanctions have huge business impact. They need to pay attention to changing consumer priorities; customers worried about carbon emissions might change eat ing habits, travel and shopping behavior. And boycotts of companies that say or do the wrong thing are becom-

But there are two fundamental problems with using ESG scores to spot risks.

ing more common.

First, it's hard to tell in advance which issues will matter to the stock price, and ESG scores move slowly.

Since the war, carbon emissions are suddenly much less of a concern, while energy-price-induced poverty is more of a worry. Equally, investing in or trading with Russia is widely regarded as a moral outrage, even where it remains legal. Oil major Shell even apologized for buying a cheap shipment of Russian crude, something explicitly excluded from sanctions at the time.

Second, even if the scores perfectly captured nonfinancial risks, it makes no sense simply to buy stocks with higher ESG scores, as ESG index funds do. Risk alone is no basis for investment, because it has to be compared with the stock price.

Sure, riskier stocks should have a lower price, and lessrisky stocks a higher price. But if the price already reflects all the risks, and more, a dirty and immoral company should be a solid buy on this approach.

### THE TICKER | MARKET EVENTS COMING THIS WEEK

### Monday

Earnings expected

Jefferies Financial Group **0.89**/2.13 Science Applications International 1.23/1.67

# **Tuesday**

Consumer confidence Feb., previous March, expected 108.0

# Earnings expected\*

Concentrix **2.71**/2.29 Elbit Systems 2.03/1.53 Lululemon Athletica 3.27/2.58

McCormick **0.62**/0.72 Micron Technology **1.98**/0.98 **5.59**/5.07

# Wednesday

EIA status report Previous change in stocks in millions of barrels

Crude-oil stocks down 2.5 Gasoline stocks down 2.9 Distillates down 2.1

### **GDP Deflator** 4th qtr. sec. est. up 7.1% 4th qtr., third est. up 7.2%

Percentage change annual rate

Refinan., prev. down 14% Earnings expected\*

Thursday Chicago PMI Feb., previous

> Previous change in stocks in billions of cubic feet

# **Personal spending**

up 2.1% Jan., previous Feb., expected up 0.7%

up 0.0% Jan., previous Feb., expected up 0.5%

Personal income

# Earnings expected\*

**Duck Creek** Technologies 0.01/0.01 Walgreens Boots Alliance **1.37**/1.26

# **Friday**

Nonfarm payrolls Feb., previous 678,000 March, expected 460,000

Feb., previous 3.80% March, expected 3.70% **Construction spending** 

**Unemployment rate** 

Jan., previous up 1.3% Feb., expected up 1.0% ISM mfg. index

Feb., previous

Earnings expected\* Array Technologies

\* FactSet Estimates earnings-per-share estimates don't include extraordinary items (Losses in

down 51

parentheses) ♦ Adjusted for stock split

Note: Forecasts are from Dow Jones weekly survey of economists

**Insider-Trading Spotlight** 

Trading by 'insiders' of a corporation, such as a company's CEO, vice president or director, potentially conveys new information about the prospects of a company. Insiders are required to report large trades to the SEC within two business days. Here's a look at the biggest individual trades by insiders, based on data received by Refinitiv on March 25, and year-to-date stock performance of the company

KEY: B: beneficial owner of more than 10% of a security class CB: chairman CEO: chief executive officer CFO: chief financial officer CO: chief operating officer D: director DO: director and beneficial owner GC: general counsel H: officer, director and beneficial owner I: indirect transaction filed through a trust, insider spouse, minor child or other O: officer OD: officer and director P: president UT: unknown **VP:** vice president Excludes pure options transactions

# **Biggest weekly individual trades**

Based on reports filed with regulators this past week

Date(s)	Company	Symbol	Insider	Title	No. of shrs in trans (000s)	Price range (\$) in transaction	\$Value (000s)	Close (\$)	Ytd(%)
Buyers	S								
Mar. 16-18 Mar. 21	Confluent	CFLT	B. Gerstner B. Gerstner	BI BI	202 175	32.43-36.35 38.33	7,090 6,707	39.63	-48.0
Mar. 22-24 Mar. 17-21	Revolution Medicines	RVMD	T. Schroeder T. Schroeder	DI DI	232 168	22.15-24.26 18.78-21.22	5,490 3,429	24.33	-3.3
Mar. 21	FIGS	FIGS	T. Tull	В	254	19.38-20.16	5,009	20.85	-24.3
Mar.16	Natera	NTRA	R. Botha	DI	153	31.92-33.49	5,005	39.70	-57.5
Mar.15	DocuSign	DOCU	D. Springer	CEOI	67	73.63-76.45	5,000	100.45	-34.0
Mar. 22	Aspen Aerogels	ASPN	R. Gervis	D	136	33.12	4,500	36.14	-27.4
Mar.15	TeraWulf	WULF	P. Prager	CEOI	396	7.76	3,076	9.05	-39.9
Mar.17	Cano Health	CANO	L. Gold	D	300	6.81	2,043	6.50	-27.0
Mar. 22-23	iTeos Therapeutics	ITOS	A. Davis	DI	50	31.88-33.43	1,625	33.29	-28.5
Mar. 18-21	Kezar Life Sciences	KZR	F. Berger	D	80	14.77-17.00	1,300	18.06	8.0
Mar.15	Stem	STEM	M. Morgan	DI	150	7.62	1,143	10.89	-42.6
Mar.17	Bumble	BMBL	A. Griffin	DI	35	28.37	999	28.17	-16.8
Mar. 16-18	Vita Coco	coco	M. Roper	CEOI	100	8.45-9.06	875	8.77	-21.5
Mar. 24	Global Water Resources	GWRS	A. Cohn	D	37	16.00	587	16.03	-6.3
Mar.17	Kennedy-Wilson Holdings	KW	R. Boucher	DI	24	23.45	563	24.38	2.1

# Sellers

Mar.17 SoFi Technologies

Snowflake	SNOW	M. Speiser	DI	750	221.06-222.83	166,635	219.81	-35.1
Airbnb	ABNB	J. Gebbia	HI	300	159.69-165.45	48,514	167.22	0.4
Alphabet	GOOGL	L. Page L. Page L. Page L. Page	DO DO DO DO	14 2	2655.72-2692.75 2661.49-2713.44	36,987 36,358 20,947 20,434	2833.46	-2.2
MP Materials	MP	D. Gold	DI	800	43.82-43.87	35,076	54.81	20.7
Live Nation Entertainment	LYV	M. Rapino	CEO	234	107.99-114.68	25,988	116.30	-2.8
Workday	WDAY	D. Duffield	BI	103	217.82-222.33	22,535	238.09	-12.8
Alphabet	GOOGL	L. Page L. Page L. Page	DO DO DO	7 2	2578.10-2636.29	19,851 19,165 17,389	2833.46	-2.2
Palo Alto Networks	PANW	N. Arora	CEO	32	545.36-576.15	17,551	622.40	11.8
Alphabet	GOOG	L. Page L. Page	DO DO			16,649 16,272	2830.43	-2.2
Crowdstrike Holdings	CRWD	G. Kurtz	CEO	76	196.31-205.12	15,230	221.95	8.4
SentinelOne	S	D. Loeb	BI	405	35.93-36.65	14,591	40.48	-19.8
Intra-Cellular Therapies	ITCI	R. Riggs	DI	227	58.72-61.35	13,624	60.78	16.1
	Airbnb Alphabet  MP Materials Live Nation Entertainment Workday Alphabet  Palo Alto Networks Alphabet  Crowdstrike Holdings SentinelOne	Airbnb ABNB Alphabet GOOGL  MP Materials MP Live Nation Entertainment LYV Workday WDAY Alphabet GOOGL  Palo Alto Networks PANW Alphabet GOOG Crowdstrike Holdings CRWD SentinelOne S	Airbnb ABNB J. Gebbia Alphabet GOOGL L. Page L	Airbnb ABNB J. Gebbia HI  Alphabet GOOGL L. Page DO L.	Airbnb         ABNB         J. Gebbia         HI         300           Alphabet         GOOGL L. Page L. Page L. Page DO         DO         142 L. Page DO         DO         142 L. Page DO         83 L. Page DO         82 B. Page DO         BI         800           MP Materials         MP         D. Gold         DI         800           Live Nation Entertainment         LYV         M. Rapino         CEO         234           Workday         WDAY         D. Diffield         BI         103           Alphabet         GOOGL L. Page L. Page DO         DO         72 L. Page DO         72 L. Page DO         62 L. Page DO	Airbnb         ABNB         J. Gebbia         HI         300         159.69-165.45           Alphabet         GOOGL L Page L Page DO L Page DO L Page DO BEST-72-2692.75 L Page DO BEST-72-2692.75 L Page DO BEST-72-2692.75 L Page DO BEST-72-2650.95         DO BEST-72-2692.75 L Page DO BEST-72-2650.95           MP Materials         MP D. Gold DI BOU BOU BEST-79-2650.95         DO BEST-79-2650.95           Workday         WDAY D. Duffield BI DO 234 DO 72-698.66-2723.97           Alphabet         GOOGL Page DO 72-678.10-2636.29 L Page DO 72-678.10-2636.29 L Page DO 72-678.04-2665.97           Palo Alto Networks         PANW N. Arora         CEO 32 S43.6-576.15           Alphabet         GOOG L Page DO 62-574.99-2737.62 L Page DO 62-652.99-2673.75           Crowdstrike Holdings         CRWD G. Kurtz         CEO 76 196.31-205.12           SentinelOne         S D. Loeb BI 405 35.93-36.65	Airbnb         ABNB         J. Gebbia         HI         300         159.69-165.45         48,514           Alphabet         GOOGL L. Page L. Page L. Page DO         DO 14 2645.83-2679.48         36,987 36,358         36,987 14 2655.72-2692.75         36,358 36,358           L. Page L. Page DO         DO 8 2587.95-2650.95         20,434         20,947 20,434           MP Materials         MP         D. Gold         DI         800         43.82-43.87         35,076           Live Nation Entertainment         LYV         M. Rapino         CEO         234         107.99-114.68         25,988           Workday         WDAY         D. Diffield         BI         103         217.82-22.33         22,535           Alphabet         GOOGL L. Page DO         DO         7 2678.10-2636.29         19,165 19,165 19,165 19,165 19,165 17,758           Alphabet         GOOG L. Page DO         DO         6 2714.99-2737.62 16,649 16,272         16,649 16,272           Crowdstrike Holdings         CRWD         G. Kurtz         CEO         76         196.31-205.12         15,230           SentinelOne         S         D. Loeb         BI         405         35.93-36.65         14,591	Airbnb         ABNB         J. Gebbia         HI         300         159.69-165.45         48,514         167.22           Alphabet         GOOGL L. Page L. Page DO         L. Page DO         DO B. 2587.95-2692.75         36,358 36,358 20,434         20,947 20,434           MP Materials         MP         D. Gold         DI         800         43.82-43.87         35,076         54.81           Live Nation Entertainment         LYV         M. Rapino         CEO         234         107.99-114.68         25,988         116.30           Workday         WDAY         D. Duffield         BI         103         217.82-222.33         22,535         238.09           Alphabet         GOOGL L. Page DO         L. Page DO         Page DO         7 ≥578.10-2636.29         19,165         21,165           L. Page L. Page         DO         7 ≥578.10-2636.29         17,389         17,389         17,389           Palo Alto Networks         PANW         N. Arora         CEO         32         545.36-576.15         17,551         622.40           Alphabet         GOOGL L. Page         DO         6 ≥714.99-2737.62         16,649         2830.43           L. Page DO         DO         6 ≥552.99-2673.75         16,272         16,272

SOFI H. Schwartz

D

58

8.84

**513** 9.01 -43.0

\* Half the transactions were indirect \*\*Two day transactior p - Pink Sheets

# Buying and selling by sector

Based on actual transaction dates in reports received this past week

Sector	Buying	Selling	Sector	Buying	Selling
Basic Industries	5,000,784	50,406,781	Health care	22,478,017	134,479,504
Business services	0	0	Industrial	0	0
Consumer durables	421,118	18,524,077	Media	0	0
Consumer nondurables	0	0	Technology	7,465,411	40,860
Consumer services	9,162,203	175,611,080	Transportation	76,900	2,705,620
Energy	445,286	67,260,552	Utilities	0	0
Finance	3,358,314	72,079,310			

Sources: Refinitiv; Dow Jones Market Data

### 8-YEAR AVG.: 9.87% MONTHLY DIVIDENDS FIRST LIEN MORTGAGES www.LYNKCapital.com (410) 258-3903

Will pay commission for a

phone call with America's foremost Corporate Raider to pitch my plan.

Jim Carr - 916 214 9460

Business Park For Sale Southern CA > 61 acres Zoned Indus.; 300MSF buildings; outdoor trailer/container parking. Call 618-654-2161 x427 wweder@highlandsupply.com

◆ Whose morals? The first

seem a lot more attractive. Soaring oil and natural-gas

Decisions about how much

whether companies should sell tickets, or supply governments ◆ Which risks? While in-

think they are trying to do the risks to the share price. Under both MSCI and Morningstar's

Gross domestic product

4th qtr. sec. est. up 7.0% 4th qtr., third est. up 7.0% Mort. bankers indexes Purch, previous down 2%

Five Below **2.48**/2.20 Paychex **1.05**/0.96

56.3 March, expected 57.0 EIA report: natural gas

Initial jobless claims Previous 187,000 Expected 196,000

March, expected

**(0.03)**/0.08

# HEARD ON STREET

FINANCIAL ANALYSIS & COMMENTARY

# India Tops Up With Russian Oil

Discount purchase likely is opportunistic buying, not a structural shift

Desperate times call for desperate measures.

The adage may sum up India's recent decision to buy discounted Russian oil. While it raised eyebrows in the West, the purchase at this time of soaring prices likely represents opportunistic buying by the world's third-largest crude importer rather than a significant structural shift.

That could change if the murky international politics—and future price trajectory—of Russian oil clear up a bit.

India snapped up 3 million barrels of Russian crude at around 20% below global benchmark prices earlier this month, with insurance and shipping costs borne by the seller. And on Wednesday Reuters reported that **Indian Oil**, the country's top refiner, had bought an additional 3 million barrels of Russian Urals crude, and private refiner **Nayara Energy** had

bought 1.8 million barrels.

With Brent crude-oil futures again near \$120 a barrel, such enormous discounts are hard to decline for a country whose energy imports are equal to a full 4% of gross domestic product. India imports more than 80% of its overall crude needs—a net 1.25 billion barrels over the past 12 months, according to Credit Suisse, which estimates that annual imports could rise to 1.5 billion barrels as the economy opens up. At that rate, every one-dollar price rise could cost India \$1.5 billion a year.

But despite India's desperation to tank up, its bargain shopping in Russia will probably remain relatively small scale for now.

Processing significant amounts of Russian Ural crude might entail extra costs for Indian refiners. But the key uncertainty is the risks related to and emerging from the Ukraine situation, says Sushant Gupta, research director for Asia-Pacific refining and oil markets at Wood Mackenzie.

For one, oil prices have remained extremely volatile since the war began last month. Even if Indian buyers were considering dramatically shifting toward Russian oil, alienating the longtime Middle Eastern suppliers that provide more than 60% of its imports or investing in new transport capacity makes little sense until there is more clarity on future prices, transport and insurance costs—and whether Russian energy will ultimately be subject to strict sanctions. The longer trade route between Russia and India already makes purchases more prone to volatility, according to Prashant Vasisht, vice president and cogroup head of corporate ratings at



India's shopping for Russian oil will probably remain relatively small scale for now.

ICRA, an arm of Moody's.

Western sanctions' energy carveouts mean India's oil imports aren't a violation. India's oil minister, Hardeep Singh Puri, told lawmakers two days before the Reuters report that Indian buyers had contracted the equivalent of about three days' oil needs from Russia, to be supplied over the next three to four months. Russia still accounted for less than 1% of the country's total oil imports, he said.

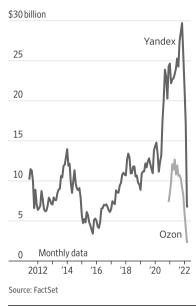
New Delhi has faced criticism

New Delhi has faced criticism from the West for its longstanding political and security ties with Moscow. But its recent bargain-basement oil purchases probably shouldn't keep drillers in Texas or politicians in Washington up at night—at least, not yet.

—Megha Mandavia

# Russia's Internet Giant Struggles to Dodge Geopolitics

Market value of Nasdaq-listed Russian technology companies



If you thought Silicon Valley had a problem with politics, look at Russia's top internet company.

Nasdaq-listed **Yandex**, which runs the largest Russian search engine and ride-hailing service, is caught between its local customers and regulators on the one hand, and U.S. technology and finance on the other. The latest flashpoint is the potential sale of its media interests, which consist of a news-aggregation service and a social platform called Zen.

Since Russia's invasion of Ukraine, the Kremlin cracked down on dissident voices. Yandex's aggregator, which under local regulations is only allowed to show licensed content, displays news that hews ever more closely to the official line.

One casualty is Yandex's former executive director and deputy chief executive, Tigran Khudaverdyan, who recently was sanctioned by the European Union. The EU

cited the news service, as well as Mr. Khudaverdyan's attendance of a Kremlin meeting on the day of the invasion, as reasons for putting him on the sanctions list. He resigned from his Yandex roles.

Before his sanctioning, Mr. Khudaverdyan wrote a Facebook post arguing that, although "war is a monstrous thing," Yandex needed to keep its head below the parapet and carry on offering tech solutions to the Russian people. The company now seems to be taking a similar view by "exploring strategic options" for its news aggregator and Zen. It is trying to position itself as an apolitical technology provider.

Fast-growing Zen is much more valuable than the aggregator and hasn't yet come in for criticism. As pressure increases on the likes of **Facebook** to take more responsibility for the content on their platforms, Yandex appears to see a

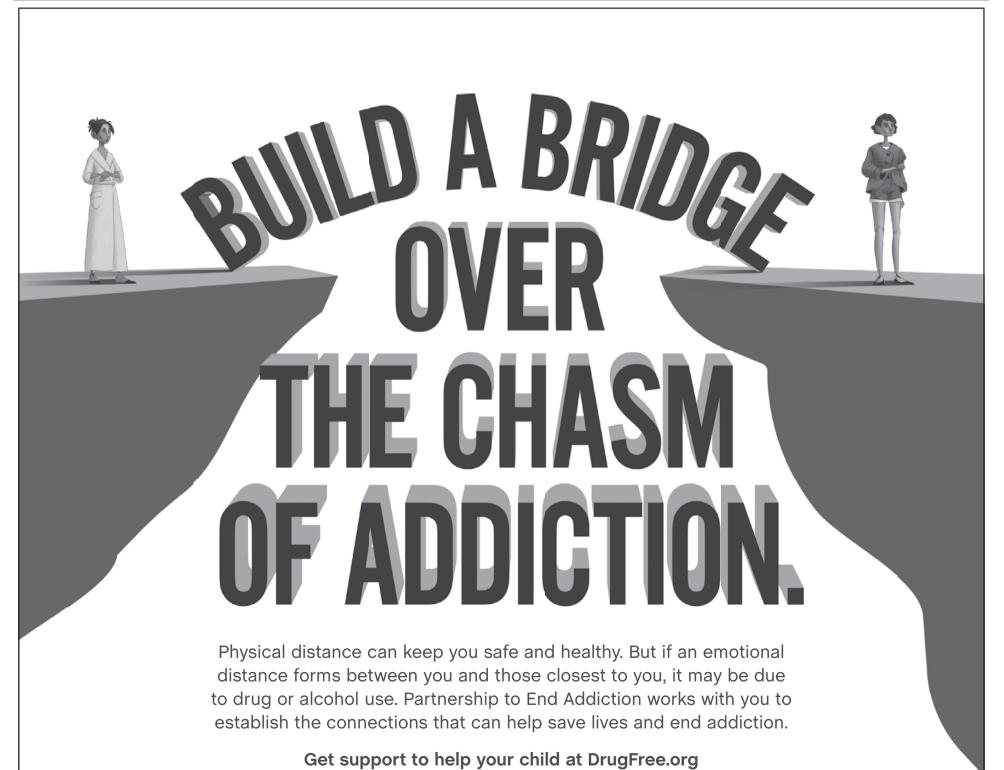
risk that its social-media channel could also become a problem.

One of the biggest challenges the company faces is a brain drain if its well-educated staff see its apolitical stance as little better than complicity in President Vladimir Putin's repressive rule. Until now, the company kept at the cutting edge of consumer technology by retaining bright Russian computer scientists who could easily get jobs in the U.S. Some will leave; the only question is how many.

This is by no means the company's only problem. Imports of vital technology hardware are on pause as vendors wait to see how sanctions play out. Trading in its stock is suspended, which triggered an obligation it can't readily meet to redeem a \$1.25 billion convertible bond. Russia's economy is under intense pressure, which will hit the company's growth.

Yandex's search business is highly profitable, which should provide some financial security while it is cut off from Western capital. That stands in contrast to the situation at Ozon, a cash-burning e-commerce company pitched as Russia's Amazon.com in a Nasdaq initial public offering less than 18 months ago. Still, Yandex will need to tighten its belt: Its strategy of plowing search profits into less-developed markets such as food delivery is no longer viable.

In November, the company hit a peak market value of about \$31 billion. Its shares are now literally uninvestable with an aggregate value below \$7 billion. Such dramatic falls from grace usually follow corporate scandals, not geopolitical ones companies can do little to resolve. Yandex's refuge in a studied neutrality just shows how few good options it has. —Stephen Wilmot



Partnership to End Addiction

**B10** | Monday, March 28, 2022



# Service Now.

More than ever, technology is helping people around the world work together to solve some of our greatest challenges. Look around. Vaccines in just over a year. Virtual offices that are more inclusive to all. Solar-powered skyscrapers. Work is actually working.

Organizations of every size, in every industry, everywhere in the world, are looking to ServiceNow for better ways to work. Digitally transforming everything about the work they do – so it simply works better. Unlocking progress once blocked by barriers. Streamlining ideas once stymied by processes. So your employees can be more engaged, unified, and focused on the work they love. Your customers can enjoy the intuitive, connected experiences they've come to expect. And we can all create the future we imagine. Not next year. Not next quarter. Now.

Every day, we're helping organizations like yours find smarter, faster, better ways to work. To be more connected, more innovative, and more agile. There are infinite applications of our solutions to help solve even your toughest business challenges. Because when the work flows, the world works.

That's why over 80% of Fortune 500 companies work with us. That's why the world works with ServiceNow.

ServiceNow.com/WorldWorks

