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# What's

#### Business ぢ Finance

The Justice Department proposed to Congress ways to curb legal protections for internet companies such as Facebook, Alphabet's Google and Twitter and force them to shoulder more responsibility for managing content on their platforms. A1

- ◆ The SEC raised the bar for investors to submit proposals for a vote at companies' annual meetings, a win for executives who have bristled at shareholder efforts to influence policies. A1
- ♦ U.S. stocks dropped, extending a turbulent run. The S&P 500, Nasdaq and Dow retreated 2.4%, 3% and 1.9%, respectively. B1
- ♦ JPMorgan is nearing a deal with federal prosecutors and regulators to pay about \$1 billion to settle civil and criminal charges that its traders rigged futures and securities markets. B1
- ◆ TikTok asked a federal judge to stop the Trump administration from imposing a ban on the popular video-sharing app over national-security concerns. B1
- ◆ WeWork is selling control of its China business, the latest sign that the company is abandoning its former rapid-growth approach. B1
- ◆ Talks between Nikola and several potential partners, including BP, to build hydrogen-refueling stations stalled following allegations Nikola had misled investors. B2
- ♦ Wells Fargo CEO Charlie Scharf apologized in a letter to employees for his remarks related to recruiting Black talent. B5

#### World-Wide

- ♦ California Gov. Newsom signed an order that aims to end the sale of new gasoline and diesel-powered passenger cars in the state by 2035, a bid to bolster electric vehicles in the U.S.'s largest car market and tackle emissions that most scientists say contribute to climate change. A1
- ◆ A grand jury indicted one of the Louisville, Ky., police officers involved in Breonna Taylor's fatal shooting, but on charges related to endangering her neighbors, not ones linked to her death. The move set off protests during which two Louisville officers were shot. A3
- **♦** Trump wouldn't commit to a peaceful transfer of power after the election and predicted the outcome would be decided by the Supreme Court, a reason he wants to quickly fill the vacancy left by Justice Ginsburg's death. A4
- ◆ The president criticized forthcoming Food and **Drug Administration** guidelines being developed around the release of a Covid-19 vaccine. A3
- **♦ The official assigned** to examine whether Bolton's book contains classified information said Trump administration lawyers asked her to sign misleading statements about her review. **A5**
- ♦ Canada's Trudeau laid out plans to rebuild the country's economy, an effort to address damage done by the pandemic and turn the page on a contract scandal. A10
- **♦** Belarus's embattled president was sworn in for a sixth term in a surprise inauguration ceremony. A8

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#### A Somber Court Honors Justice Ginsburg



on Wednesday by court police officers. President Trump plans to announce his nominee for the vacancy on Saturday. A5

# Justice Department Proposes Limits to Tech's Legal Shield

By Ryan Tracy AND BRENT KENDALL

WASHINGTON—The Justice Department proposed to Congress ways to curb longstanding legal protections for internet companies such as Facebook Inc., Alphabet Inc.'s Google and Twitter Inc. and force them to shoulder more responsibility for managing content on their platforms.

The proposal on Wednesday advances two main goals the

Trump administration and the department outlined in June: encouraging online platforms to actively address illicit conduct and manage content on their sites in fair and consistent ways.

The department refined its proposal in the intervening months based on feedback from market participants and other stakeholders such as victims' rights groups. As a result of that process, the department made some changes, including clarifying that internet companies would have immunity when they take down material that promotes violent extremism or self-harm, a senior administration official said.

President Trump, discussing social-media companies at a White House meeting Wednesday with Republican state attorneys general, described the proposal as part of "concrete legal steps to protect an open internet and a free society." At issue is Section 230 of the Communications Decency Act

of 1996, which gives internet platforms broad latitude to police their sites and shields them from legal liability related to users' actions, except in relatively narrow circumstances.

Mr. Trump, a Republican, also said his administration would be watching the social-media platforms "very closely" as Election Day draws near, after some of his posts have been removed or labeled as misleading because they were deemed to violate the Please turn to page A2

### California **Bans Sale** Of New **Gas Cars** By 2035

Newsom order to boost use of electric vehicles aims to cut emissions as part of climate plan

California Gov. Newsom signed an order Wednesday that aims to end the sale of new gasoline and diesel-powered passenger cars in the state by 2035.

> By Alejandro Lazo, Russell Gold and Micah Maidenberg

It is an ambitious attempt to bolster electric vehicles in the largest car market in the U.S., as well as a bid to tackle emissions that most scientists say contribute to climate change. Transportation is responsible for more than half of carbon pollution in California, the governor said.

More than 11% of all light vehicles in the U.S. last year were registered in California, according to IHS Markit.

California is the first state in the nation to commit to such a goal, but could serve as a spark for other left-leaning states to follow, given its size and historic leadership on regulatory issues. Seventeen countries including France, the U.K. and Germany have adopted goals to phase out internal combustion passenger cars, according to the International Council on Clean Transportation, a nonprofit that supports decarbonizing fuels.

Through July, 6.2% of light vehicles registered in California were electric powered and 1.6% in the entire U.S., according to IHS Markit.

Please turn to page A10

### **SEC Adds Hurdles** to **Investor Proposals**

By Paul Kiernan

WASHINGTON—The Securities and Exchange Commission raised the bar for investors to submit proposals for a vote at companies' annual meetings, a win for executives who have bristled at shareholder efforts to influence corporate policies on social and political issues.

Commissioners voted 3-2 to pass a final rule requiring shareholders to hold \$25,000 of stock for a year, up from \$2.000 currently, in order to submit such proposals. That threshold will fall to \$15,000 after two years of ownership and to \$2,000 after three years, setting a sliding scale that gives priority to longerterm shareholders.

The new rule also raises the percentage of votes that proposals must receive to be resubmitted—and prohibits multiple shareholders who don't individually meet the minimum thresholds from joining together to submit a proposal.

The changes address one of SEC Chairman Jay Clayton's top priorities to overhaul proxy rules—along with a rule passed in July to more-heavily regulate the firms that institutional investors pay for proxyvoting advice.

Mr. Clayton, a former Wall Street deals lawyer at Sullivan & Cromwell LLP, is a Trump appointee who took the helm at the SEC in May 2017. He signaled early in his tenure that he would review how shareholders weigh in on corporate policies and practices.

Wednesday's vote caps an active period of SEC rule-making activity as Mr. Clayton, picked by President Trump in June to be the next U.S. attorney in Manhattan, has worked *Please turn to page A8* | in the real world.

### **INSIDE**



**U.S. NEWS** Protests erupt over an

indictment in the killing of Breonna Taylor, A3

#### **PERSONAL JOURNAL**

Movie fans surprised to find many old favorites unavailable on streaming. A13

### A Texas Tycoon Throws Millions Into Covid Testing

Graham Weston aims to screen schoolchildren at a low cost

NEW BRAUNFELS, Texas—A hotly debated attempt to solve America's coronavirus testing shortage began with a sick, frustrated billionaire at home in a leafy Texas Hill Country town north of San Antonio.

Graham Weston, co-founder of cloud-computing company Rackspace Hosting Inc., owns a pair of homes in New Braunfels. When the pandemic hit in March, he flew his son back from studying in the U.K. and quarantined him in a spare riverside ranch house.

It didn't work. Though Mr. Weston's son showed no symptoms, he was carrying the virus; he gave it to his father at the airport pickup, the family suspects. Mr. Weston fell so ill he thought he would die.

Since then, he has been on a crusade to persuade high-level politicians, teachers and fellow business leaders that the key to reopening schools and the economy is to test people who don't appear to be sick.

"It's like looking for a needle in a havstack, except the needle is a match," Mr. Weston says.

The 56-year-old, despite having no background in science, is part of a giant, realtime experiment to test asymptomatic people. The concept is fraught and has drawn a wealth of detractors who say precious test-Please turn to page A12

◆ Virus's heart damage is shown to linger...... A3

#### A Robot Beats Humans at Their Own Game—This Time on the Ice

Curling competition gives machines a victory in the real world

By Daniela Hernandez

Robots on the loose in the world are clumsy and sometimes make bad decisions. They trip on sidewalks and fall down stairs and into water fountains.

What about robots on ice? The sport of curling-sometimes called "chess on ice"—is

across a frozen surface. Ma-

chines, however, can freeze up

a hotbed of dynamism, making it the perfect training environment nimble robots of the future, according to new research.

Nerves of steel

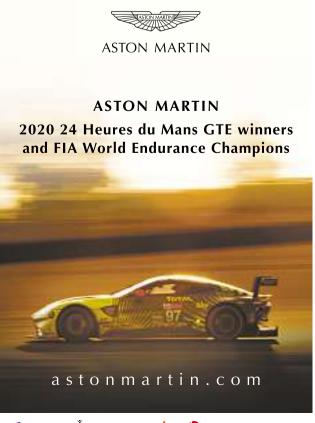
Humans are good at figuring out the intricate physics of cording to the study. object-ice interactions that affect how giant stones slide

Until now. Curly, a new curling-playing robot, has a better handle on those complexities, thanks to an artificially intelligent brain that can quickly assess and map the icy environment, the state of play and optimal strategies for winning, according to a paper published Wednesday in the journal Science Robotics by a team of roboticists

at Korea University in Seoul.

The white, turtle-shaped robot, recently beat out elite curling South Korean players in a series of four matches, losing only once, ac-

Curly's triumph is the latest example of machines besting humans at their own games but it marks an important step Please turn to page A12



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### U.S. NEWS

CAPITAL ACCOUNT | By Greg Ip

# Road Map for Muting China's Tech Influence



Warner was in the telecommunications business in the 1980s and

1990s, he didn't think much about how U.S. rules and standards shaped the global use of technology—it was a given. "I never appreciated how much we set the standards on almost every technology and innovation, even if not invented in America," Mr. Warner said in an interview. "We flooded the zone with engineers. We had the best schools, we had most of the companies. It got built in as an assumed advantage, and we kind of got lazy about it."

Today, as the top Democrat on the Senate Intelligence Committee, he sees China's erosion of that technological advantage as an existential threat to American values at home and abroad.

Nor is he happy with the U.S. response—either the hands-off attitude of previous administrations or an "erratic. reactionary" approach exemplified by the current administration's campaign against the social-media app TikTok. In a series of speeches over the past year, Mr. Warner, a former governor of Virginia, has laid out an alternative strategy: set standards on where

interacting with China poses unacceptable risks to national security, get allies on board. and then pour the necessary resources into building up Western alternatives to Chinese companies.

In a speech last week, he confessed he once thought China would liberalize economically and politically by integrating with the world, and that technological innovation could flourish only in free societies. "Like so many, I was wrong," he told the National Democratic Institute. "Instead, China has shown that the development and use of cuttingedge technology and economic expansion are, indeed, possible within authoritarian-state capitalism.'

e describes China's strategy thus: Let domestic companies fight it out until a national champion emerges and nurture it by keeping out competition. Use state resources to expand into foreign markets. Then target the international bodies that set standards that allow differing manufacturers' equipment to work together. In this way, he said, Chinese instead of American values will become embedded in the way the world uses technology.

As a former telecom investor-he co-founded the wire-

#### **Huawei Makes Headway**

Share of global telecommunications equipment revenue Huawei 30 Nokia Ericsson ZTE Cisco Ciena

\*through Q2 Source: Dell'Oro Group

less company that became Nextel—Mr. Warner knows that with technology, a market can "tip" to one company or one standard, and its competitors then wither away. Despite the Trump administration's all-out efforts to constrain Huawei Technologies Co., its share of global telecom revenue hit 32% this year, according to Dell'Oro Group, as that of Sweden's Ericsson AB and Finland's Nokia Corp. shrink.

'We've been told that if Huawei is able to gain 50% global market share, it will send Ericsson or Nokia—and potentially in the longer term, both—into a tailspin," Mr. Warner said last week.

As China's prowess advances, so does its ability to suppress domestic dissent "at scale," to export that suppression abroad to, for example, the Chinese diaspora, and eventually challenge U.S. leadership, Mr. Warner warned.

Mr. Warner proposes several steps. First, all stakeholders, not just the federal government, must be involved. Mr. Warner and Sen. Richard Burr of North Carolina, until May the intelligence committee's Republican chairman, have had intelligence officials brief leaders of universities, businesses and the Asian-American community on China's efforts to acquire American know-how and influence the Chinese diaspora.

The message "was that things were changing, they had new concerns [about] the relationship between China and the U.S.," said University of Pittsburgh Chancellor Patrick Gallagher, who attended one meeting. For example, international academic collaborations may pose risks that didn't exist before, he said. "That's a jarring shift for a lot of research faculty."

Next, the U.S. needs clear security standards on how much business U.S. companies and researchers can do with Chinese entities. It must then persuade allies to sign on to common principles on cybersecurity, social-media abuse, technology standards and permissible use.

Mr. Warner said the Trump administration uses haphazard tactics that repel rather than attract allies. He called negotiations over TikTok "the epitome of nontransparency." Why, he asked in the interview, is Oracle Corp., a supporter of Mr. Trump, now the preferred bidder instead of Microsoft Corp.? A Treasury spokeswoman declined to comment. (The Journal reported that

TikTok's parent, Beijing-based ByteDance Ltd., saw Oracle as more aligned with its interests than Microsoft.) The U.S., he said, is losing credibility on what constitutes a national security threat by using it to justify tariffs on steel and aluminum from allies.

Finally, to ensure access to equipment as good as anything China produces, Mr. Warner said the U.S. may have to embrace industrial policy, often criticized as "picking winners." He has co-sponsored one bill to fund an international consortium that develops telecommunications equipment and another to fund semiconductor research and development.

any businesses will no doubt see Mr. Warner's road map as overkill. Nor would China take such measures lying down. Moreover, having accused China of undermining the rules of global commerce, the U.S. would in effect be imitating the same practices.

Mr. Warner doesn't deny that risk. The goal, he says, should be for the U.S. and its allies to "only buy from countries with systems that are based on rule of law."

◆ TikTok asks federal judge to block download ban..... B1



The recently reopened Hudson Yards mall in New York. U.S. service-sector and manufacturing companies reported solid growth this month.

### Business Surveys Show a Continued Recovery

By David Harrison AND PAUL HANNON

The U.S. economy in September continued its steady recovery from the sharp declines in the second quarter as demand and output strengthened. according to new business surveys. But the pace faltered in Europe and Asia, where new infections have led to new restrictions on activity.

U.S. service-sector and manufacturing companies reported 30 solid growth in September, a positive signal for overall economic growth in the third quarter.

Data firm IHS Markit said Wednesday its composite purchasing managers index for the U.S.—a measure of activity in the private sector—was 54.4 in September, down slightly from 54.6 in August. A reading above 50 indicates that activity is increasing, while a reading below points to a decline in ac-

Growth in the services sector slowed slightly to 54.6 in

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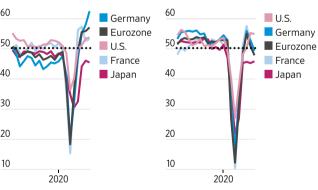
While manufacturing continues to recover from spring declines, the services sector has faltered in the face of rising infections.

**Purchasing managers** 

for services

business activity indexes

Purchasing managers output indexes for manufacturing



Note: Readings below 50 indicate contraction, above, expansion Source: IHS Markit

September from 55 in August, while in the manufacturing sector it accelerated to 53.5 from 53.1.

The numbers suggest the U.S. economy continues its slow and steady climb from the deep declines in the spring.

The recovery has been slower in other parts of the

Purchasing-manager surveys in France, Germany and Japan pointed to a decline in activity at businesses that provide services during September, an in-

dication that the global economy may struggle to return to pre-pandemic levels of output until a vaccine becomes widely available.

The surveys indicate a faltering end to the third quarter, which saw the recovery of much of the output lost to strict lockdowns. The weakening of services activity comes as a number of European countries, including the U.K., France, Spain and the Netherlands, have tightened restrictions in response to accelerating infection rates.

IHS Markit's PMI for the eurozone fell to 50.1 in September from 51.9 in August, While the PMI for the manufacturing sector rose to 53.7 from 51.7 to reach a 25-month high, the PMI for services fell to 47.6, its lowest since May, from 50.5.

According to purchasing managers, services activity continued to decline in Japan and stagnated in Australia.

◆ Heard on the Street: Inventory effect gains power...

#### CORRECTIONS ゼ AMPLIFICATIONS

Corp. Nikola founder Trevor Milton is 38 years old. and a younger cousin accused him of inappropriately touching her in 1999 when he was 17. A Page One article Tuesday about Mr. Milton's resignation as Nikola's executive chairman incorrectly said he is 39 and was 18 at the time of the alleged incident. Mr. Milton, through a spokesman, has denied the cousin's allegations.

About 62 million people, or about 19% of the U.S. population, are covered by Medicare, according to government data. A U.S. News article Tuesday about coverage for a coronavirus vaccine incorrectly said that about 44 million people,

or about 15% of the U.S. population, are covered by Medi-

Charles Dickens, who died in 1870, never stayed at the Palmer House in Chicago, which opened in 1871. A Business & Finance article Wednesday about the hotel incorrectly said Dickens was one of its famous guests.

#### Notice to readers

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

### U.S. Takes Aim at a Tech Shield

Continued from Page One platforms' policies.

Sen. Ron Wyden (D., Ore.), who helped write the legal protections targeted by the administration's proposal, said Republicans are trying to "work the refs ahead of the election" by threatening social-media companies with retribution if they censor or fact-check content. The legislative proposal is "a warmed-over mishmash of existing Republican proposals to force private companies to host lies, misinformation, hate speech and other slime online," he said in a statement.

While the legislation is unlikely to pass during a busy and contentious election year, Congress could take up the proposal or others like it next year. Both Democrats and Republicans have said they want to review the legal protections internet companies enjoy, though they have differing concerns.

presidential Democratic nominee Joe Biden called early this year for revoking Section 230 altogether, though he hasn't outlined if or how he would replace it. He has said platforms need to do more to curb the spread of false information.

Attorney General William Barr at the event Wednesday urged the state law-enforcement officials to investigate whether social-media platforms deceive users, even if federal law doesn't change.

When they engage in unfair and deceptive practices, state AGs can be the tip of the spear," he said.

The tech industry has opposed efforts to change or repeal Section 230, saying it has enabled internet platforms to blossom without fear of excessive lawsuits.

'Good-faith moderation efforts that remove things like misinformation, platform manipulation, and cyberbullying would all result in lawsuits under this proposal," said a statement from Elizabeth Banker, deputy general counsel for the Internet Association trade group, whose members include Facebook. Twitter and others. "Even commenting on another individual's post could open an online forum or individual to a flood of litigation."

The proposal would remove Section 230 legal immunity when online platforms don't live up to certain standards. For example, they could lose legal protections if they facilitate criminal activity or know of unlawful conduct but don't restrict and report it.

They could also face liability if they don't spell out contentmoderation practices and follow them consistently, including by explaining the basis for

decisions to restrict users' ac-

The proposal also wouldn't confer immunity to platforms in cases of online child exploitation and sexual abuse, terrorism or cyberstalking. Those carve-outs are needed to allow victims to seek redress, the department has said.

The proposal appeared aimed at winning support from Republicans on Capitol Hill because it included aspects of previous GOP proposals.

Tech companies have said they don't manage content based on political considerations. They came under intense scrutiny over how Rusactors used platforms to spread misinformation before and after the 2016 U.S. presidential election.

This year, social-media companies have shifted from a hands-off approach to a more active one toward Mr. Trump's conduct on social media. In May, Twitter applied a factchecking notice to a post about voter fraud by the president, a first, saying it contained "potentially misleading information.'

Days later, Twitter attached a notice to another post by Mr. Trump about violent protests in Minneapolis, saying it violated the company's rules about glorifying violence.

Facebook left untouched a similar post about the protests, calling it political speech, but

#### The legislation is unlikely to pass during a busy election year.

later clashed with Mr. Trump when it removed some Trump campaign ads and some of the president's statements about the coronavirus.

Days after Twitter's move in May, Mr. Trump signed an executive order pushing federal agencies to take a more active role in regulating how online platforms police content.

Members of Congress have

proposed their own ideas to narrow tech firms' legal immunity. A bill introduced this month by Republican senators seeks to restrict companies from claiming immunity because they deemed content "objectionable," requiring them to instead meet a more specific standard. The Justice Department's proposal has a similar provision.

Democrats, for their part, have said GOP accusations of political bias by tech companies are unfounded, saying conservative content is widely shared on Facebook. Twitter. and other platforms. But they agree Section 230 needs review, and top Democrats on Capitol Hill have said they plan to discuss the matter in the coming months.

-Alex Leary contributed to this article.

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### Top Fed Officials Urge More Spending

By Nick Timiraos

Federal Reserve officials said the economy was likely to need additional government spending to avoid an uneven and protracted recovery from the coronavirus pandemic.

The recovery would move along faster "if there is support coming both from Congress and from the Fed," Fed Chairman Jerome Powell said Wednesday during the second day of testimony on Capitol Hill. "The power of fiscal policy is really unequaled by anything else."

The Fed said last week it would hold interest rates near zero until inflation reaches 2% and is likely to stay somewhat above that level, something most officials don't see happening in the next three years.

Recent improvements in economic data reflect both the reopening of commercial activities that had been limited to suppress the virus as well as enhanced unemployment benefits, small-business grants and other relief measures Congress approved earlier this year, Mr. Powell said.

While around half of 22 million workers who lost jobs in March and April have returned to work, Mr. Powell said, "There's a long way to go....We need to stay with it, all of us."

Separately, Fed Vice Chairman Richard Clarida said the economy had recovered "very robustly" as curbs this spring to slow the virus's spread had been lifted. "But we're still in a deep hole," he said in an interview on Bloomberg TV.

Congressional Democrats have been at a stalemate for months with Republicans and the White House over the size of another spending package. Democrats are pushing for a package of at least \$2.2 trillion. Republicans have balked at the size of the plan.

### President Criticizes Vaccine Guidelines

By TED MANN

President Trump criticized forthcoming Food and Drug Administration guidelines being developed around the release of a Covid-19 vaccine.

Health regulators have drafted guidelines that would require a Covid-19 vaccine to meet rigorous standards to gain a speedy clearance for use. That could clash with Mr. Trump's repeated claims that a vaccine could be available before the November presidential election.

'That sounds like a political move," Mr. Trump told reporters Wednesday evening. 'Why would they do this?"

Mr. Trump expressed confidence in the companies working on vaccines. "I don't see any reason why it should delay it further," he said. "If they delay it a week or two weeks or three weeks, you know that's a lot of lives you're talking about."

Johnson & Johnson said Wednesday it had begun a 60,000-person clinical trial of a single dose Covid-19 vaccine, the fourth experimental vaccine to enter the final stage of testing in the U.S. The company said it could have results from the trial by early next year.

Draft requirements indicate the FDA wants to hold Covid-19 vaccines to high standards similar to what it would have used for a typical review of the shots.

The White House must sign off on the plan, but if it does so, it would make it difficult for a vaccine to be authorized for emergency use before Election Day.

This week the U.S. surpassed 200,000 Covid-19 deaths, with new infections trending upward for the past week. Johns Hopkins University reported 39,334 new infections Tuesday, bringing the U.S. total to nearly 6.9 million.

# One Officer Indicted in Louisville

Charges in Breonna Taylor case relate to endangering neighbor, not the fatal shooting

By Arian Campo-Flores

A grand jury indicted one of the Louisville police officers involved in Breonna Taylor's fatal shooting-but on charges related to endangering her neighbors, not charges linked to her death, Kentucky's attorney general said.

The announcement sparked protests Wednesday night during which two Louisville officers were shot, interim Police Chief Robert Schroeder said.

Ms. Taylor, a 26-year-old Black emergency-room technician, was killed when police executed a search warrant on her apartment six months ago. Former Detective Brett Hankison, Sgt. Jonathan Mattingly and Detective Myles Cosgrove discharged their weapons during the raid.

The grand jury indicted Mr. Hankison on three counts of wanton endangerment, stemming from bullets fired recklessly into a neighboring apartment. Under Kentucky law, wanton endangerment involves conduct that creates a substantial danger of death or serious injury, while showing indifference to human life.

Attorney General Daniel Cameron said Sgt. Mattingly and Detective Cosgrove were justified in using force after they were fired on, and they weren't charged.

"I know that not everyone will be satisfied with the charges we've reported today," Mr. Cameron said. "My team set out to investigate the circumstances surrounding Ms. Taylor's death. We did it with a singular goal in mind-pursuing the truth."

Ms. Taylor's killing set off months of protests in Louisville and other cities and drew national attention, with celebrities and civil-rights activists urging Mr. Cameron to bring charges against the officers involved. After the announcement Wednesday, protesters took to the streets in Louisville, at times facing off with police.

Two officers were shot while responding to reports of gunfire, Chief Schroeder said at a news briefing. The officers were receiving treatment at a hospital, with one alert and stable and the other undergoing surgery and stable, he said. Police had a suspect in custody, he added.

Riot police with batons dispersed a group of protesters confronting a line of police in the street, live video footage of the incident showed. At one point, officers used tear gas and they took several people



#### **Charges Are Rare** In Killings by Police

The decision not to indict officers for the killing of Breonna Taylor has brought renewed scrutiny of investigations into police shootings. An academic review of such cases shows that very few police officers are charged with crimes related to shootings on the job.

An average of eight officers have faced murder or manslaughter charges every year since 2005 for shootings conducted on the job, according to research by Philip Stinson, a Bowling Green State University criminologist who studies the topic. There are about 1,000 deadly police shootings a year, according to Dr. Stinson.

into custody.

The city issued a curfew from 9 p.m. until 6:30 a.m., and the National Guard was activated to help with patrolling.

President Trump said he would be speaking to Kentucky Gov. Andy Beshear about the case. "I understand he's called up the National Guard, which is a good thing," Mr. Trump said.

Democratic presidential nominee Joe Biden urged protesters to remain peaceful. Attorney Ben Crump, who is

Most deadly police shootings are investigated by local authorities and found to be justified. Out of the 121 charged in

deadly shootings since 2005, 44 were convicted of some crime, and 26 are pending, according to Dr. Stinson. That is lower than the 70% conviction rate in cases in which those who aren't police officers are charged with murder, according to the federal government's Bureau of Justice Statistics.

The high legal standard for charging police officers is one reason for the low numbers. "There's a real divide between common sense and what the public expects and the legal standard," said Dr. Stinson.

The Supreme Court has given police leeway to make split-second life-or-death decisions based on their perceptions of danger. Officers can use

deadly force if they reasonably believe that their lives or the lives of others are threatened, although there are some variations in different states.

After protests over the police killings of Black men swept the nation in 2014, pressure grew to charge more officers in such cases. States and cities made changes to the ways that police shootings were investigated and prosecuted. In some places, independent prosecutors were required.

Since 2015, an average of 12 officers have been charged with murder or manslaughter, more than double the average from the previous 10 years.

But activists say they would like to see more legal changes that make it easier for prosecutors to bring and win charges. -Zusha Elinson

didn't reach a determination on said that despite having sewhich officer did. cured a no-knock warrant-The FBI is continuing an inquiry into potential civil-rights which allows police to storm a violations. Mr. Cameron's office, which took over the investigation of the case after the commonwealth's attorney in Louisville recused himself, will proceed with the case against Mr. Hankison.

The wanton-endangerment charge carries a penalty of as much as five years in prison for each count.

the return of deadly fire, after

having been fired upon by Ken-

Ms. Taylor was struck six

In June, Chief Schroeder

times, though medical evidence

showed only one of the shots

fired Mr. Hankison, saying he

violated procedures when he

"wantonly and blindly" fired 10

rounds in the encounter. Mr.

Hankison is appealing the deci-

body-camera footage of the in-

cident was available, and that

investigators relied on ballis-

tics evidence, 911 calls and in-

terviews, among other ele-

ments. There was no conclusive

evidence that bullets from Mr.

Hankison's weapon hit Ms. Tay-

lor, he said. A Federal Bureau

of Investigation lab concluded

that Detective Cosgrove fired

the fatal shot, while a state lab

Mr. Cameron said that no

sion to fire him.

was fatal, Mr. Cameron said.

neth Walker," he said.

On Tuesday, Sgt. Mattingly sent an email to colleagues in which he expressed support for them and assailed the mayor and police leadership for their handling of the matter.

–Cameron McWhirter contributed to this article.

representing Ms. Taylor's family, said the grand jury's decision was "outrageous and offensive to her memory" and "yet another example of no accountability for the genocide of persons of color by white po-

#### lice officers." Sadiga Revnolds, president

of the Louisville Urban League, said, "Justice looks different for different people in this country....What we got today is what Black people normally Louisville Mayor Greg

Fischer, at a news conference after the decision was announced, said: "I know there are people in our community who feel that these charges fall short of achieving justice." He added that "the case is far from over," citing continuing investigations of the officers and a top-to-bottom review of the police department.

In the raid on Ms. Taylor's apartment on March 13, police residence without first announcing their presence—they banged on the door several times and announced themselves. Mr. Cameron said that claim was backed by evidence that his office reviewed. Attorneys for Ms. Taylor's family have said police burst in

without warning. Thinking they were intruders, according to the attorneys, Ms. Taylor's boyfriend, Kenneth Walker, shot at them, striking Sgt. Mattingly. Sgt. Mattingly responded by

firing six times and Detective Cosgrove by shooting 16 times, Mr. Cameron said. "Mattingly and Cosgrove were justified in

> said Todd McDevitt, senior investigator at the Gladstone Institutes and one of the lead authors of the study. The researchers also found that DNA seemed to be missing from the nuclei in many heart-

> "A cell that can't contract or that's missing its nuclear DNAit's not going to function," Dr. McDevitt said. The study hasn't been peer-reviewed.

muscle cells.

His team found similar changes in heart autopsy samples they obtained from three Covid-19 patients. A study published in the journal JAMA Cardiology in July found detectable coronavirus in the hearts of 24 of 39 Covid-19 patients who were autopsied.

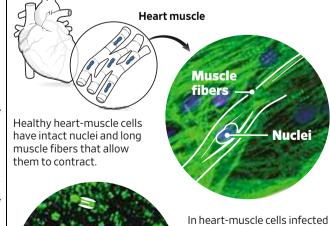
Scientists are trying to figure out whether their findings explain the heart symptoms of some Covid patients, even months after they had appeared to recover.

Researchers studying 100 Covid-19 patients around two months after illness found heart-muscle inflammation in magnetic resonance imaging of the hearts of 60 of the people, according to a paper published in July by the journal JAMA Cardiology. The researchers also found abnormalities in magnetic resonance imaging of the hearts of 78 patients.

In some patients, symptoms lingered long after the illness, said Eike Nagel, a lead author and director of the Institute for Experimental and Translational Cardiovascular Imaging at University Hospital Frankfurt.

# Covid's Heart Damage Is Shown to Linger

Lab-grown heart-muscle cells exposed to the new coronavirus in one study show extensive damage.



Some of the infected heartmuscle cells shown here are

#### Possible consequences

also missing their DNA.

Functional muscle fibers and nuclei are essential for proper heart-muscle contraction and coordination. Researchers say damage could lead to an irregular heartbeat or other heart-related issues.



with the coronavirus, those

long fibers are diced up,

cells'—and therefore the

heart's—ability to beat.

which can disrupt the

Sources: McDevitt, Conklin and Ott laboratories, Gladstone Institutes Alberto Cervantes, Josh Ulick/ THE WALL STREET JOURNAL By Sarah Toy

The new coronavirus can leave some natients with signs of heart inflammation and injury months after they get sick with Covid-19, even in cases where their illness wasn't severe, researchers say.

The findings could help explain the symptoms of recovered Covid-19 patients, some of whom are struggling with such issues as shortness of breath. chest pain and heart palpitations, scientists say. And in some patients, the

heart inflammation and damage could lead to serious problems years from now, including irregular heartbeats and even heart failure, though there hasn't been enough time to study the long-term implications, according to researchers.

"We basically die with the heart-muscle cells we're born with, so anything that results in the death of heart muscle has the potential to irreversibly damage the heart's mechanical ability and the heart's electrical function," said Charles Murry, director of the University of Washington's Center for Cardiovascular Biology.

Heart inflammation can follow cases of the seasonal flu or other respiratory viruses and lead to irregular heartbeats or even heart failure in some cases, doctors and researchers say. The mounting evidence of Covid-19's toll on the heart stems from studies probing the effect of the coronavirus on heart-muscle cells and autopsying people who died from the disease, as well as looking at the hearts of patients who have recovered. The findings are preliminary,

researchers say, especially those gleaned from testing in lab-grown cells. More research, including studies in natients. needs to be done before scientists can reach any conclusions. Researchers suspect there

are two ways the coronavirus could cause heart inflammation and injure heart muscle. One possibility is the heart

becomes collateral damage in a patient's intense immune reaction. The other suspicion is that the virus invades heart tissue, which contains the molecular parts known as ACE2 receptors that the virus uses to enter cells. Dr. Murry's team found that

the coronavirus could infect and replicate in lab-grown heart-muscle cells, impairing their ability to contract and to conduct the electrical signals required for regulating heartbeat, eventually killing them. They reported their findings in a paper that was posted in August on a preprint server, but it hasn't been peer-reviewed yet.

Muscle fibers in heart-muscle cells grown in a lab looked as though they had been diced into tiny pieces after being exposed to small doses of the virus, according to a study by Gladstone Institutes posted on a preprint server in August.

Heart-muscle cells can't contract properly and produce a normal heartbeat without those fibers functioning properly,

A4 | Thursday, September 24, 2020

#### U.S. NEWS

# **Trump Ties Court Seat** To Election

By Alex Leary AND ALEXA CORSE

President Trump wouldn't commit to a peaceful transfer of power after the November election and predicted the outcome would be decided by the Supreme Court, a reason he wants to quickly fill the vacancy left by the death of Justice Ruth Bader Ginsburg.

"I think this will end up in the Supreme Court. And I think it's very important that we have nine justices," Mr. Trump said Wednesday.

During an event on socialmedia companies Wednesday, Mr. Trump amplified his longrunning claim of widespread ballot fraud-which studies show is rare-and asserted without providing evidence the idea that Democrats plan to use mail-in voting to tilt the election in their favor.

Later, during a news conference, Mr. Trump was asked if he would commit to a peaceful transfer whether he won or lost in November.

"Well, we're going to have to see what happens," he responded. "I've been complain-

ing very strongly about the ballots....The ballots are out of control."

Democratic candidate Joe Biden said about the president's remarks: "What country are we in? Look, he says the most irrational things. I don't know what to say."

Lawmakers from both parties called Mr. Trump's comments unacceptable.

"President Trump: You are not a dictator, and America will not permit you to be one," tweeted Senate Minority Leader Chuck Schumer (D.,

"Fundamental to democracy is the peaceful transition of power," tweeted Sen. Mitt Romney (R., Utah). "Any suggestion that a president might not respect this Constitutional guarantee is both unthinkable and unacceptable." Five states-Colorado, Ha-

waii, Oregon, Washington and Utah—routinely conduct elections primarily by mail. In response to the pandemic, at least four additional states-California, Nevada, New Jersey and Vermont—and the District of Columbia have pledged to



President Trump at a news conference Wednesday amplified his concerns over voting in November's election.

mail out ballots to all properly registered voters for the November election.

Many other states allow voters to request a mail-in ballot without providing a specific reason, such as being away on Election Day. Some states restrict who can vote absentee.

Mr. Trump, who in 2016 frequently predicted a "rigged" election, contends the measures, many put in place because of the pandemic, would lead to fraud and prompt legal challenges that end up before the Supreme Court.

Demand Justice, a liberal group that focuses on the courts, decried the remarks.

"Even though Republicans may claim to already have the votes to confirm Trump's pick, Democrats cannot afford to compartmentalize this Supreme Court fight because the fate of the election itself may ride on it," the group's executive director, Brian Fallon, said.

Mr. Trump is set to name his court nominee Saturday. setting off what is expected to be an intensely partisan fight, even though Republicans appear to have the votes to confirm a successor for Justice Ginsburg, who died Friday.

His comments about voting by mail or absentee ballot which is how the president casts his vote in Florida—have generated confusion and led to some concern among Republicans that it could hurt turnout.

Mr. Trump in tweets has sought to draw a distinction between ballots people request and those that states are sending out automatically to properly registered voters.

State and local governments

have various measures to protect mail-in ballots, though specifics vary. Election officials regularly have chain-of-custody processes to track how many ballots were mailed to voters. Other examples of safeguards include bar codes to track ballots through the mail, or requiring voters to provide personal information such as a signature.

Academic studies say there is no evidence of widespread fraud linked to mailed ballots, though there have been iso-

## GOP Probe Says Hunter Biden's Work Raised Concern

By Andrew Duehren

AND DUSTIN VOLZ

WASHINGTON—Two Obama administration officials raised concerns to the White House in 2015 about Hunter Biden serving on the board of a Ukrainian natural-gas company while his father, then Vice President Joe Biden, led U.S. policy efforts toward the country, a Senate investigation by Republicans concluded.

The GOP-led probe shows that officials working on U.S.-Ukraine relations saw Hunter Biden's position as creating the perception of a conflict of interest with his father's work, a concern that had previously been made public during last year's impeachment proceedings. The findings, outlined in an 87-page report, don't support a central accusation President Trump and other Republihave made about Democratic presidential candidate Joe Biden's duties in Ukraine: that he sought the removal of the country's top prosecutor to protect the gas company, Burisma Holdings, from investigation.

"Hunter Biden's position on Burisma's board cast a shadow over the work of those advancing anticorruption reforms in Ukraine," the report says, calling the arrangement "problematic." Both Bidens have denied wrongdoing.

Andrew Bates, a spokesman for the Biden campaign, said before the report's release that Sen. Ron Johnson, the Republican chairman of the Senate

The report doesn't back claims about Joe Biden's duties in Ukraine.

Homeland Security Committee who led the probe, was using committee resources to "subsidize a foreign attack against the sovereignty of our elections with taxpayer dollars—an attack founded on a long-disproven, hard-core right-wing

conspiracy theory." An attorney for Hunter Biden didn't respond to a request to comment.

With the report, Republicans on the Homeland Security and Finance committees sought to return a spotlight to the work the Bidens did in Ukraine, renewing a partisan battle over an issue that was central to Mr. Trump's impeachment weeks before the presidential election. Mr. Trump's attempt last year to press the Ukrainian president to investigate the Bidens led to his impeachment in the Democrat-led House, which ended with acquittal in the GOP-controlled Senate.

Republicans have long said Hunter Biden's service on the Burisma board represented a conflict of interest with Joe Biden's policy role in Ukraine.

In their own report released Wednesday in response to the Republican probe, Democratic Sens. Gary Peters and Ron Wyden, the top Democrats on the Homeland Security and Finance panels, said there remained no evidence that Joe Biden distorted policy to favor his son. They also charged Republicans with knowingly mirroring Kremlin-backed disinformation about the Bidens, saying the investigation relied on witnesses that have promoted Russian

disinformation narratives. Republicans said they relied largely on U.S. documents and testimony from U.S. officials.

The Republican investigation plumbed Hunter Biden's financials, including payments he received from foreign enti-



Former Vice President Joe Biden and his son Hunter Biden in 2010

ties and transactions that the House working for Mr. Biden potential criminal activity.

Democrats wrote in their report that the information in at the U.S. Embassy in Ukraine. the financial documents the committees obtained hasn't been verified.

The Republican report contained few revelations about the Bidens' work in Ukraine that haven't previously emerged publicly. Republicans identified as a central finding the efforts of a State Department official, George Kent, to raise concerns in 2015 with unidentified officials at the White

report said were flagged for about his son's position at Burisma. Mr. Kent served as the acting deputy chief of mission

> Mr. Kent previously told congressional investigators in testimony during last year's impeachment inquiry of his concern about Hunter Biden's board position and the potential optics of a conflict of interest, which he said at the time he had raised with the Obama White House.

In testimony to the Senate committees for their investigation, the report says Mr. Kent

James D. Tunick, said, "Every

explained he was concerned Hunter Biden's position could send the wrong message at a time when U.S. officials were pressing Ukraine to root out corruption. He said he believed that Hunter Biden should have stepped down from his position at Burisma. Hunter Biden took the board position with Burisma in May 2014 and stepped down in April 2019 and was paid roughly \$50,000 a month for his work.

Mr. Kent also said the U.S. government never made a decision about Burisma that was affected by Hunter Biden's presence on the company's board.

In addition to Mr. Kent, the Senate committees also found that Amos Hochstein, a U.S. special envoy for international energy affairs, raised concerns directly to Joe Biden about his son serving on the Burisma board. Mr. Hochstein testified that he informed the vice president in October 2015 that media outlets tied to Russia were highlighting Hunter's position to undermine his anticorruption efforts in Ukraine.

Hunter Biden has said that being on Burisma's board while his father worked on the U.S. relationship with Ukraine showed poor judgment.

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### U.S. Drops Case Against Chinese Scientist

By Kate O'Keeffe And Aruna Viswanatha

Prosecutors abruptly moved to drop criminal charges against a visiting Chinese scientist at the University of Virginia who had been arrested last month on allegations of stealing trade secrets from his professor, after the university acknowledged the scientist was authorized to access some of the material.

In a motion filed Sunday, the U.S. Attorney's office in Charlottesville, Va., asked the court to dismiss its case against Hu Haizhou, who works for a military-funded lab at Beihang University in Beijing and was researching underwater robotics, according to a previously filed FBI affidavit. He had been charged with stealing proprietary software code under development for two decades by his UVA adviser, who runs a collaborative program with other schools funded by the Office of Naval Research.

At a hearing Friday, a federal prosecutor in Chicago, where Mr. Hu had been arrested, said further investigation of the UVA computer systems showed that "some portion" of the relevant proprietary information allegedly found on Mr. Hu's computer was actually "in a shared space that Mr. Hu had authorized access" to, according to a transcript of the hearing. The prosecutor told the court that, as a result, the government would seek to dismiss all charges

against Mr. Hu, the transcript said. The development is a black eye for the Justice Department in its recent cases against Chinese military-linked researchers studying in the U.S.

The court granted the dismissal request Monday.

A spokesman for the U.S. Attorney's office declined to comment. A representative for the uni-

versity said in a statement to The Wall Street Journal on Tuesday the school continued to investigate "the circumstances surrounding the former research scholar's unauthorized possession of University files while attempting to leave the country," adding that Mr. Hu "did not have permission to access or take the files and was repeatedly denied permission to access them."

The spokesman said the university had determined that one of the computing systems that Mr. Hu had access to included "permission settings that were not sufficient to establish a violation of law," and said the university is reviewing its data access and permission standards as a result.

Mr. Hu's adviser at UVA, Haibo Dong, reiterated to the Journal what he had told the FBI: that he believed Mr. Hu had improperly taken his code. "It's not ethical and not appropriate but whether it reaches a criminal level, I'm not sure," he said, referring questions about the case to university officials.

Mr. Hu's lawyer in Chicago,

file that was on Haizhou's computer he was authorized to possess, as he used his login credentials provided by the University of Virginia." He said his client "was not aware of the content/substance of many of the files, since they were part of a larger folder that he was required to access and copy to perform certain research." He said his client "absolutely feels betrayed by Professor Dong."

To prove Mr. Hu stole trade secrets, prosecutors would need

#### He had been arrested on allegations of stealing trade secrets from his professor.

to prove both that the defendant wasn't entitled to the information, and that the owner of the information had kept it guarded securely to ensure no unauthorized disclosure of it.

FBI agents questioned dozens of researchers over the summer about their work and military affiliations, leading to the arrests of at least six scientists accused of hiding their ties to the Chinese military when applying for U.S. visas or of engaging in other alleged misconduct.

Mr. Hu had been interviewed by Customs and Border Protection officers in Chicago as he was attempting to leave the country on Aug. 25, and said he had code on his laptop that his adviser would be upset to learn he had, according to the FBI affidavit for his arrest filed three days later.

Mr. Dong told authorities Mr. Hu "had left UVA to return to China without contacting him to bid him farewell, which he found unusual," the affidavit said.

Mr. Hu's lawyer told the Journal that Mr. Dong did know Mr. Hu was leaving for China, as his research assistant position had concluded and his visa was set to expire. He added that Mr. Hu says he emailed Mr. Dong and talked with him on the phone a couple of days before his planned departure.

Mr. Dong had also told investigators that he had repeatedly denied Mr. Hu's requests to access his code and didn't know how he obtained it, according to the affidavit. Mr. Tunick said his client didn't make those requests and that he had "acted like any other research assistant who wanted to assist with the project he had been assigned."

An FBI agent involved in the investigation acknowledged under cross-examination by Mr. Tunick that investigators didn't know how the code in question allegedly ended up on Mr. Hu's computer, and didn't have evidence that Mr. Hu had stolen any credentials or used other improper means to access the information.

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#### U.S. NEWS

# Mourners Pay Respects to Ginsburg

By Kristina Peterson AND SIOBHAN HUGHES

WASHINGTON-Official commemorations of the late Justice Ruth Bader Ginsburg began at the Supreme Court on Wednesday, honoring the groundbreaking jurist whose death reverberated across the country and touched off an intense political clash.

President Trump plans to announce on Saturday evening a woman to succeed her. Republicans this week largely fell in line around a plan to move ahead with Mr. Trump's planned nomination, despite Democrats' calls to leave the decision to the winner of the

presidential race.

Senate Judiciary Committee Chairman Lindsey Graham (R., S.C.), have said they hope to get a new justice confirmed by Election Day.

Justice Ginsburg's casket arrived Wednesday morning at the Supreme Court, where a private service was held in the court's Great Hall attended by the justice's family, her close friends and court justices.

During the service, Rabbi Lauren Holtzblatt, of the Adas Israel Congregation in Washington, called Justice Ginsburg a hero and prophet, and closed with a Hebrew prayer for the departed.

Justice Ginsburg "wanted to Some Republicans, including be an opera virtuoso, but became a rock star instead," said Chief Justice John Roberts.

Members of the public lined up to pay their respects. Her body will lie in repose at the top of the steps of the Supreme Court to allow for public viewing through Thursday evening, the court said. Mr. Trump plans to pay his respects on Thursday, a White House spokesman said.

Justice Ginsburg will then lie in state in the U.S. Capitol, with a formal ceremony Friday morning. She will be the first woman in the nation's history to receive the honor. In 2005, civil-rights pioneer Rosa Parks lay in honor in the Capitol, a similar tribute for private citizens. A private service will be held next week at Arlington National Cemetery.

Amid the celebrations of her life, the political struggle over her successor is expected to dominate the Capitol.

Although Senate Republicans have enough support to move forward with the confirmation process, fresh acrimony and new questions are expected to arise when Mr. Trump names his nominee on Saturday.

U.S. Appeals Court Judge Amy Coney Barrett of the Seventh Circuit in Chicago is thought to be a leading contender, as is Judge Barbara Lagoa of the 11th Circuit in Atlanta, with several other women also in the mix, according to a Republican close to the

Mr. Trump met with Judge Barrett in 2018 before choosing Justice Brett Kavanaugh to fill a vacancy. He told allies at the time that he was impressed by her, but that he was saving her for a future seat, said a Republican close to the White House.

Democrats said Senate Republicans are being hypocritical after keeping open the seat in 2016 for which President Obama had nominated Judge Merrick Garland. Mr. Trump nominated now-Justice Neil Gorsuch to that seat the following year.



Justice Ginsburg lies in repose at the U.S. Supreme Court building.

### Vetter Says She Faced Pressure On Bolton

By Aruna Viswanatha

WASHINGTON—The government official assigned to examine whether former national security adviser John Bolton's book contains classified information said Trump administration lawyers asked her to sign misleading statements about her review, adding fuel to Mr. Bolton's claims that he was targeted for his unflattering portrait of President Trump.

In a 17-page letter, an attorney for Ellen Knight, the then-National Security Council official whose office conducted the review, said White House lawyers were involved to an unusual degree in the review process, withheld information and conducted a flawed second review in what appeared to be an effort to justify a lawsuit against Mr. Bolton over his book.

Lawyers for Mr. Bolton filed the letter in court on Wednesday in response to a case the Justice Department filed days before Mr. Bolton's bestseller, "The Room Where It Hap pened: A White House Memoir," went on sale in June.

"Had their concern been to produce a publishable manuscript without classified information, they presumably would have asked the experts who had devoted hundreds of person-hours to a painstaking review of every page of the manuscript," Ms. Knight's attorney, Kenneth Wainstein, wrote.

The allegations came days after prosecutors issued grand

#### The Justice Department alleges the book contained classified data.

jury subpoenas to Mr. Bolton's publisher and literary agent as part of a criminal investigation into whether Mr. Bolton mishandled classified information in his book, which relays stories about Mr. Bolton's time in government and his relationship with the president.

In its lawsuit, the Justice Department asked the court to set aside Mr. Bolton's profit from the book, alleging he violated his employment contracts by publishing it.

Mr. Bolton has argued that Ms. Knight cleared the manuscript after months of edits, and that the White House improperly extended the review process to delay his book because it embarrassed Mr. Trump.

A lawyer for Mr. Bolton, Charles Cooper, said he had received the letter late Tuesday night. "We are still assessing its implications for the Justice Department's lawsuit. We did not solicit the letter in any way; it came as a complete surprise," Mr. Cooper said.

A Justice Department spokeswoman said it is "undisputed" that the review process hadn't been completed before Mr. Bolton's book was released.

"The publication of a memoir by a former National Security Adviser, right after his departure, is an unprecedented action, and it is not surprising that National Security Council staff would pay close attention to ensure that the book does not contain the release of classified information," Kerri Kupec said.



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A6 | Thursday, September 24, 2020

# Online School Program Questioned

Inaccurate and racist content in widely used curriculum draws fire from parents, teachers

By Yoree Koh

Paige Kemerer opened her school's new online program and saw a lesson that used an image of beer to teach about St. Patrick's Day. Another inaccurately said Rosa Parks was arrested because she didn't sit in the Blacks only section on a bus, instead of correctly noting that she refused to give up her seat to a white man, said Ms. Kemerer, a third-grade teacher at Kapa'a Elementary School on the island of Kauai in Hawaii.

Ms. Kemerer told her principal she didn't want to use Acellus and stopped using the program for her class earlier this month.

The online program, called Acellus Learning Accelerator and purchased by schools to help with remote learning, is sparking complaints from parents and teachers. Hawaiian parents by the thousands signed a petition and lodged complaints calling Acellus content racist, sexist and low quality, according to a Change.org petition and written testimony to the Hawaii board of education. Seven schools in Hawaii, four school districts in California and at least one school district in Ohio dropped Acellus this fall.

Schools across the country had used Acellus before the Covid-19 pandemic, which drove a mass shift to online learning. But in places like Hawaii, its use before the pandemic had been limited to small home-schooling populations or for high-school students retaking classes for credit. This fall, Acellus became the primary remotelearning provider at two-thirds of Hawaii schools, covering nearly 80,000 students.

As most of the country turns to remote learning, schools have purchased online curricula to help with the transition. The online programs are designed to teach students without an adult supervising; some schools mix them with teachers leading a class via a video call. Many experts say



A photo taken by a parent of her child's fifth-grade lesson using the Acellus remote-learning program.

districts making the switch to online learning often lack the time or resources to adequately yet the material.

Phyllis Unebasami, deputy superintendent at the Hawaii Department of Education, said at a state board of education meeting last week that the department didn't thoroughly vet Acellus before offering it as an option to all schools. She said that she didn't know whether the curriculum met state standards and that the department is going to start a comprehensive review of the program.

Roger Billings, the founder of Acellus, which is based in Kansas City, Mo., defended the quality of Acellus's curriculum in an interview and said he believes the complaints are manufactured as part of an organized campaign to attack him by people from his past, describing the accusations as "very thin and unfounded."

According to its website, Acellus was created in 2001. Mr. Billings said 6,000 schools that have 3.5 million students currently use Acellus. It couldn't be determined how many schools used the program before this fall.

"I don't think any parents have raised any issues," he said in the interview. He declined to comment on specific complaints in the parents' petitions

"It's a magical system with technologies like none other,"

Acellus founder Roger Billings

said Mr. Billings, in a video sent last week to schools using the program.

Hawaii's schools opened last month online only. Schools may choose their own online content, according to state policy. The Hawaii Department of Education declined to comment beyond the deputy superintendent's remarks at last week's board meeting.

In one Acellus lesson, a multiple-choice question asked students, "Osama bin Laden was the leader of what terrorist group?" One answer option was "Towelban." In a video on phonics, an Acellus teacher said "G is for gun" before pulling a toy gun from a box, according to a video viewed by The Wall Street Journal. Acellus told school officials and

wrote in a document it sent to Ms. Kemerer's school that was viewed by The Journal that the bin Laden and "g" phonics lessons had been removed.

Mr. Billings, Acellus's founder who goes by Dr. Billings, received his doctorate from the Institute of Science and Technology, a nonaccredited school based in Kansas City that he founded. At least three other Acellus instructors who go by "Dr." also received their "doctor of research degree" from the institute, according to the teaching biographies on the company website.

Longtime Acellus user Preston Carr, director of the alternative learning center at Chino Valley Unified School District in California, a K-12 district serving nearly 30,000 students, said in an interview that Acellus has been helpful for high-school students who need to retake classes for credit recovery. His district has been using Acellus for about seven years, said Dr. Carr, who is featured praising Acellus in a testimonial video on the company's website.

Dr. Carr said that his teachers review each lesson before the students view it and that Acellus is correcting the mistakes.

Parents in Hawaii in late August collected more than 2,500 petition signatures in an attempt to get the Hawaii Department of Education to ban Acellus, some parents said in interviews. Some parents said they also found past news articles and a 2013 blog written by Mr. Billings's son alleging that the Acellus founder was a polyamorous religious sect leader whose followers live in an underground outpost in Independence, Mo. The blog, since removed from the internet, was circulated with the petition.

Mr. Billings directed the Internet Archive, which stores historical snapshots of websites, to take down the blog on Sept. 1, according to documents viewed by The Wall Street Journal. Mr. Billings claimed copyright ownership of the material as next of kin to his son Aaron Billings, who wrote the blog and who died on Aug. 21, and provided a death certificate to the Internet Archive.

Mr. Billings said, in an interview, there is a "whole big attack culture of a lot of people [who] are very angry because they say I'm a polygamist, a cult leader and [that] I've even molested children and it's not true."

Former Acellus employees, people familiar with the alleged religious sect's activities and emails from one of Mr. Billings's sons viewed by The Wall Street Journal describe Mr. Billings as having been the leader of a religious sect called The Church of Jesus Christ in Zion. Acellus instructors, including some of Mr. Billings's children, have at some point lived in the underground location, the people said.

La Mesa-Spring Valley Schools District, located near San Diego, dropped Acellus two days before the start of school this fall, said Deann Ragsdale, assistant superintendent of educational services.

Earlier this summer, La Mesa-Spring Valley parents voiced concerns about Acellus's alleged connection to a religious sect, Ms. Ragsdale said. The district was assured by Acellus that the reports about the religious sect were unsubstantiated rumors, she said.

The district's decision to drop Acellus was due to the content, she said.

—Jim Oberman contributed to this article.

### Fewer Students Are Taking SAT, ACT

By Maya Goldman

Jeb Bartholomew, a highschool senior from Weston, Mass., started studying for the ACT in February, planning to take it two months later. His test date was canceled. Then again. And two more times.

Now, Mr. Bartholomew said he won't take the ACT at all before applying to college.

The coronavirus pandemic upended college entrance exams in the spring, and the chaos is continuing into the fall as students face test cancellations and long journeys to an open testing site.

SAT and ACT testing has been canceled for a number of students who registered for some of the exams since June. At least a third fewer highschool seniors are expected to take the tests this year as both the ACT and the College Board, which runs the SAT, deal with the consequences of the Covid-19 pandemic. The growing number of schools that have made the tests optional during the pandemic also is expected to result in fewer students taking the tests.

The College Board said Tuesday that about 334,000 students registered for the Sept. 26 SAT and 363,000 for the Oct. 3 SAT and SAT Sub-

A growing number of schools have made the tests optional during the pandemic.

ject Tests, but testing site closures mean at least 183,000 September-registered students and 154,000 October-registered students won't be able to take the test. This comes after about 53% of testing centers for the Aug. 29 SAT exam closed or reduced capacity, leaving only 150,000 students able to take the test that 402,000 students had registered for, according to the College Board.

Similarly, 1,400 students couldn't complete the July ACT because of 21 site closures, according to an ACT statement.

For students determined to take the tests, traveling long distances to find a testing site has become commonplace. Lindsay Falder, a senior from Kentfield, Calif., woke up at 5 a.m. on Sept. 12 to arrive by 7:30 a.m. at the closest ACT testing site she could find, at Lower Lake High School in Lower Lake, Calif., a couple of hours' drive from her house.

College Board and ACT require social distancing, symptom checks and masks at all testing sites, among other safety protocols. Ms. Falder said a handful of people were in her testing room, and she had to keep her mask on the whole time. She said it was "slightly irritating," but she had taken practice tests masked to prepare.

More than 2.2 million students in the graduating class of 2020 took the SAT in high school, and 1.8 million 2019 graduates took the ACT. Compass Education Group, a test prep company, expects that a third fewer will take both in the 2020-21 testing cycle. The test companies declined to give their own projections, though an ACT spokesperson said the company acknowledges the number of test takers will be lower this year due to the pandemic.

"While we cannot directly control capacity and testing center availability, we are working to ensure that as many students as possible are able to test safely," College Board spokesperson Jaslee Carayol wrote in an email.

Both organizations have worked to remedy problems. Each has added test dates throughout the fall. The College Board is asking universities to extend deadlines for receiving scores and begins fall school-day testing on Wednesday. ACT is opening "pop-up test sites," which are testing sites at hotels or other buildings not previously used for testing, and seeing increased school-day testing, chief marketing officer John Wannemacher said.

#### U.S. WATCH



LENDING A HAND: Volunteers with Bethel Global Response of Redding, Calif., sift through the rubble of a home destroyed in the Almeda fire in Talent, Ore.

NEW YORK

### Eric Trump Ordered To Sit for Deposition

Eric Trump and others who have done work for the Trump Organization must sit for depositions by next month as part of a civil fraud investigation conducted by the New York attorney general, a state court judge ruled Wednesday.

President Trump's middle son, who had said he couldn't be available until after the Nov. 3 election, must appear by Oct. 7, Justice Arthur Engoron said Wednesday. The judge also ordered the production of some

documents about Trump Organization transactions sought by the attorney general and said he would make determinations about other documents sought by the attorney general's office office reviewing them privately.

after reviewing them privately.

A lawyer for Eric Trump declined to comment. New York
Attorney General Letitia James said the ruling "makes clear that no one is above the law, not even an organization or an individual with the name Trump."

The state attorney general's office is examining whether the Trump Organization and the president improperly inflated the value of his assets on financial statements to obtain loans and get economic and tax benefits.

Trump Organization lawyers have said there was nothing improper. They have said some documents the office requested are subject to attorney-client privilege and other requests are overbroad.

Matthew Colangelo, representing the attorney general, said his office had made targeted requests.

Lawrence Rosen, a lawyer for the Trump Organization, said the organization had been cooperating, including by having Chief Financial Officer Allen Weisselberg sit for a deposition and by scheduling an interview with Donald Bender, an accountant for the president.

-Corinne Ramey

CAL STATE

Truston

#### Trustees Name New Chancellor

California State University trustees named Dr. Joseph I. Castro as the new chancellor of the CSU system, making him the first Mexican-American and native Californian to lead the nation's largest four-year public university system.

A seasoned university administrator, Dr. Castro, 53 years old, has been president of CSU Fresno since 2013 and previously held leadership positions in the University of California system.

—Associated Press

ALASKA Wild F

#### Wild Bear Burrows Into Zoo, Kills Alpaca

A wild brown bear tunneled under perimeter fencing and killed a popular alpaca at the Alaska Zoo in Anchorage, officials said Wednesday. It was killed a day later by wildlife officials.

The bear had been hanging around the zoo, knocking over trash bins and breaking bearproof latches before it got under the fence early Sunday when the facility was closed to the public.

—Associated Press



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#### A8 | Thursday, September 24, 2020

### WORLD NEWS

# Navalny Backers Drove Poisoning Probe

Supporters recorded Putin critic falling ill on flight, then retrieved items from hotel room

By Thomas Grove AND ANN M. SIMMONS

TOMSK, Russia-Shortly after Russian opposition leader Alexei Navalny collapsed in August on a plane over Siberia with signs of poisoning, his supporters rushed to the hotel room where he had been staying to look for clues.

Instead of calling the police, they said they bagged everything they could find there in the hopes of solving the mystery of what struck down the 44-year-old activist.

Days later, German doctors who were treating Mr. Navalny. a critic of Russian President Vladimir Putin, determined that the opposition politician had been poisoned by Novichok, a military-grade nerve agent.

Who administered the toxin to Mr. Navalny, how it was dispensed and where all remain unclear. On Tuesday, he was discharged from the hospital after spending 24 days in intensive care.

With little faith in Russia's law-enforcement agencies, Mr. Navalny's supporters are working to "move toward finding out exactly what happened, when, and hopefully-one day-who did it," said Maria Pevchikh, head of investigations for Mr. Navalny's anticorruption fund.

Supporters of Mr. Navalny said they believe figures in Russia's political hierarchy or security apparatus were involved in his poisoning, which they think was an attempt on his life, they said. One potentially important clue: a water bottle left in Mr. Navalny's room they say a German military laboratory confirmed contained traces of Novichok.

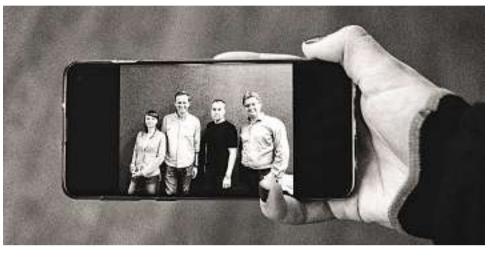
"It wasn't any sort of attempt to scare him," Ms. Pevchikh said. "We are all convinced that they tried to kill him. It wasn't anything else."

The Kremlin denies it played any role and has dismissed Mr. Navalny's illness as a metabolic disorder akin to a sudden surge in blood-sugar levels.

The Russian government has so far declined to investigate the incident, and the opposition leader's supporters



Alexei Navalny stopped at an airport cafe, above, in Tomsk, Russia, before falling ill on a flight to Moscow in August. Below, Ksenia Fadeyeva shows a photo taken earlier with Mr. Navalny.



are themselves scrutinizing his movements up to when he collapsed 40 minutes after boarding an S7 Airlines flight from Tomsk to Moscow. Supporters who spent time with him in Tomsk and aided him when he fell ill described his visit and the aftermath in interviews.

Mr. Navalny had arrived in Tomsk on Aug. 17 to support two loyalists based in Tomsk-Ksenia Fadeyeva, 28, and Andrey Fateyev, 32, who were running for city council.

The vote was an opportunity for Mr. Navalny to test support for his opposition movement, which had grown out of his popular YouTube channel, where he dug into allegations of government corruption and excess.

Mr. Navalny and a team of

colleagues checked into an upscale Tomsk hotel before meeting with Ms. Fadeyeva and Mr. Fateyev to go over plans for a documentary they were making about local corruption.

Mr. Navalny hoped the video would stoke anger against local members of United Russia, the country's ruling party that backs Russian President Vladimir Putin, who were running against his supporters.

Early the next morning, Mr. Navalny, his spokeswoman Kira Yarmysh and an assistant took an early taxi for a flight to Moscow. At a cafe in the terminal, a waitress brought their order—a cup of tea for Mr. Navalny and a coffee for Ms. Yarmysh.

Pavel Lebedev, a DJ and producer, recognized Mr. Navalny at the cafe and snapped a photo of him drinking tea, which Mr. Lebedev posted on social media.

Ilya Ageyev, a lawyer, noticed Mr. Navalny and asked to

shoot a selfie together. "He looked fine, normal; he

was joking," Mr. Ageyev said. Five minutes after the plane took off, Mr. Navalny closed his laptop and turned to Ms. Yarmysh, asking for a tissue. He asked her to talk to him so that he could focus. He became pale and started sweating.

Mr. Navalny stood to go to the bathroom, Ms. Yarmysh said, recounting the episode on the opposition politician's YouTube channel. Soon after, Mr. Navalny collapsed.

Sergey Nezhenets, a lawyer on the flight, said it sounded like someone was dying. "[He

#### **Opposition Leader Leaves Hospital**

Russian opposition leader Alexei Navalny has been discharged from a Berlin hospital after being treated for what scientists said was exposure to the nerve agent Novichok.

He was released Tuesday night after spending 24 days in the intensive-care unit, Berlin's Charité Hospital said on Wednesday. He had been receiving treatment in the German capital since late August after falling ill while traveling in Russia.

The hospital said doctors believed Mr. Navalny could achieve a complete recovery, but it was too early to say if he would suffer long-term effects from the poisoning

Mr. Navalny, who has long

been a thorn in President Vladimir Putin's side, thanked his doctors in an Instagram post-in which he is seen below—and said he was still working to keep his balance and perform basic movements.

"For now the plans are simple: a physical therapist every day," he wrote, saying he learned how to ride a wakeboard over the summer. "Now, I'm learning how to stand on one foot." —Bertrand Benoit



was] screaming and moaning loudly. It was clear he couldn't speak."

Mr. Lebedev, who photographed Mr. Navalny at the airport cafe, filmed a video of the prostrate opposition leader writhing in pain and posted it to social media.

The plane was diverted to Omsk, 450 miles west of Tomsk. Waiting medics carried him out of the plane on a stretcher.

Back at the hotel in Tomsk, Mr. Navalny's team saw the video of him in distress on the plane that had gone viral in Russian opposition circles.

The group knew they needed to get inside Mr. Navalny's room. They took turns keeping watch until the hotel manager agreed to allow them inside.

The team gathered up three water bottles, Ms. Pevchikh said, as well as anything Mr. Navalny may have touched that morning. All were placed into separate plastic bags.

At the hospital in Omsk, Mr. Navalny's family and supporters pleaded with doctors to let them take him to Germany for treatment. The doctors refused.

In a press conference, Mr. Navalny's wife, Yulia Navalnaya, accused the hospital of playing for time to allow for any toxins in his system to pass out of his body. The doctors said they acted in his best interests and took all the necessary medical measures that ultimately saved his life.

The next day, she wrote an open letter to Mr. Putin, asking for permission to take her husband to Germany. Hours later, doctors gave the green light and early Aug. 22, Mr. Navalny was loaded onto a German medevac plane and placed in a special chamber to treat victims of radiation poisoning. His wife and Ms. Pevchikh joined him, carrying the bags with the water bottles and other items collected from the hotel room.

In the days that followed, German authorities said they had determined Mr. Navalny had been poisoned with Novichok. They later confirmed their findings by sending samples to labs in Sweden and France, each of which came to the same conclusion.

Then, one of the bottles from the hotel revealed traces of Novichok, his supporters

The Kremlin has said it played no role in Mr. Navalny's sudden illness and Russian authorities have balked at opening a full-fledged investigation until German doctors share more information with Moscow on their findings.

Meanwhile, Mr. Navalny's supporters, Ms. Fadeyeva and Mr. Fateyev, won their contests in Tomsk, securing the opposition's control of the city council.

A few days later, Mr. Navalny regained consciousness and started breathing without a ventilator.

### Belarusian President Sworn In Amid Outcry

By Ann M. Simmons

MOSCOW-Belarus President Alexander Lukashenko was sworn in for a sixth term in a surprise inauguration ceremony, catching his opponents off guard and depriving them of an opportunity to stage another mass protest against the handling of last month's election.

Several hundred people were invited to Wednesday's ceremony in the capital. Minsk, including senior officials, members of Parliament, scientists and sports and cultural figures, state media reported. The event came six weeks after the Aug. 9 vote, in which the Belarusian leader, in office for 26 years, claimed a landslide victory, triggering mass protests by opponents who believe the election was neither free nor fair.

Political analysts said the low-key inauguration suggested Mr. Lukashenko was anxious to avoid another confrontation with the growing protest movement, which has generated crowds of over 100,000.

The opposition swiftly condemned the inauguration.

"We all understand what's going on," opposition leader Svetlana Tikhanovskaya, who was forced to flee to neighboring Lithuania immediately after the election, said in a video statement. "This attempt to recognize himself as legitimate concludes that his previous powers are over and the people did not give him a new mandate. This so-called inauguration is, of course, a



Alexander Lukashenko, who was inaugurated in Minsk on Wednesday, has faced mass protests after a vote opponents called fraudulent.

#### FROM PAGE ONE

### SEC Curbs Investor Proposals

Continued from Page One to address remaining items on his agenda.

Mr. Clayton and the two Republican commissioners who supported the change said it would discourage so-called gadfly investors from buying stocks simply to pressure companies to advance their personal beliefs.

"It's all about having a credible demonstration that the proponent's interests are aligned with all of the others' interests from an investment or ownership standpoint," Mr. Clayton said. "Our approach to this has been content-neutral." Critics of the move said it

was the Trump administration's latest effort to stymie Wall Street's growing focus on environmental, social and governance—or ESG—issues, which are the subject of most shareholder proposals.

The proxy-advisory firms reined in by the SEC's July rule change often recommend supporting proposals related to increasing diversity on boards, disclosing political lobbying, and reporting on greenhouse-gas emissions. In June, the Labor Department proposed a rule aimed at limiting private retirement plans from investing in funds that

pursue ESG objectives. **Democratic Commissioners** Allison Herren Lee and Caroline Crenshaw voted against the rule, saying it would make the vast majority of small investors ineligible to submit

proposals. A preliminary analysis of outside data by SEC economists found the new rule would preclude shareholder proposals from between half and three-fourths of individual-investor accounts in S&P 500 companies that previously qualified.

"The final rules represent the capstone in a series of policies that will dial back shareholder oversight of management at the companies they own." Ms. Lee said.

In 2020 so far, 15 of 303 shareholder proposals related to environmental, social or political issues submitted were approved, according to a report by Sullivan & Cromwell, including four on climate, three on workplace diversity and five on political spending. The number of proposals submitted fell, in part because companies have become more proactive in implementing governance changes, the report said.

The SEC received thousands of letters from individual investors, pension funds, lawmakers, activist groups and religious institutions opposing the new rule.

One, from the Council of Institutional Investors, which represents pension funds, said that at least nine shareholder proposals that garnered majority support during the 2020 proxy season couldn't have been filed if the new ownership thresholds were in place.

Companies don't have to include every shareholder proposal on proxy statements, but they must receive SEC approval to exclude them.

While votes generally aren't binding, advocates said the proposals are a way to focus managers' attention on issues that might not immediately affect a company's near-term performance.

Congressional Republicans and business groups such as the U.S. Chamber of Commerce came out strongly in favor of the new rule after the SEC proposed it in November, saying the changes could save large corporations tens of thousands of dollars in costs associated with analyzing and contesting proposals.

They said that such costs fall not on the proponent but on the companies and other investors who, if they are managing other people's money, might have to make an informed voting decision.

'Companies often feel their feathers are ruffled if some shareholders are trying to dictate that a company must have a particular policy," said Howard Berkenblit, a corporate and securities lawyer who leads the capital-markets group at Sullivan & Worcester LLP.

Among the most active fil-

ers of shareholder resolutions is the New York City Employees' Retirement System, which manages the pensions of schoolteachers, police officers and firefighters. Since its first resolution in 1985 urging countries doing business in apartheid South Africa to follow certain human-rights guidelines, the retirement system has submitted more than 1,000 proposals for consideration on company proxies, city Comptroller Scott Stringer said.

"These are mechanisms through which we and other shareowners have pushed for antidiscrimination policies, greater diversity in the C-suite and boardroom, better climate policies and improved transparency," said Mr. Stringer, a Democrat, after the SEC's decision. "This tool should be enhanced, not diminished."

–Mark Maurer contributed to this article.

#### WORLD NEWS

### Saudi Arabia Will Reopen Religious Sites To Boost Its Economy

By Stephen Kalin

Saudi Arabia plans to reopen the two holiest sites in Islam to pilgrims in October, seven months after it suspended visits to prevent the spread of the coronavirus, as it attempts to revive its floundering economy.

The kingdom curtailed visits to the main mosques in Mecca and Medina in March after religious gatherings emerged as major spreaders of the virus in the Middle East and other parts of the world. It also locked down parts of its economy but eased most restrictions in June.

Under new regulations, local and foreign residents of Saudi Arabia will be permitted to enter the Grand Mosque in Mecca and the Prophet's Mosque in Medina for the year-round umrah pilgrimage starting Oct. 4, the interior ministry said late Tuesday.

The capacity of both mosques initially will be limited to 30% and gradually increase to 100% on Nov. 1, when pilgrims from outside the kingdom also would be allowed. Entry to the sites will be controlled via a mobile app, and worshipers will be required to wear face masks and practice social distancing.

Restoring religious tourism,

a major source of revenue for the Saudi government, in a phased manner follows a nearly three-month decline in reported infections prompted authorities last week to begin removing curbs on international travel.

Saudi Arabia's economy has been hit by depressed oil prices, while coronavirus measures have hurt its nascent tourism and entertainment sectors. Gross domestic product shrank 1% in the first quarter and the International Monetary Fund expects it to contract 6.8% overall this year.

Authorities have tried to balance curbing the pandemic with protecting the economy and upholding their responsibility as stewards of the Muslim world's most important religious event.

Saudi authorities allowed international flights to resume last week, but said that foreigners must test negative for Covid-19 no more than 48 hours before entering and self-isolate for three days upon arrival.

Mecca and Medina sustained some of the country's worst Covid-19 outbreaks. In July, the kingdom hosted a scaled-down hajj pilgrimage, with worshipers confined to small groups, in contrast with the millions that typically attend one of Islam's most important annual rituals.



Saudi Arabia had restricted visits to holy sites to curb the virus.

# Europe Builds Force in Africa

By James Marson

BRUSSELS-In a troubled part of West Africa, Europe is fielding a military force intended to show it can handle its own security and reduce its reliance on the U.S.

The coalition of European countries, led by France, is assembling based on a calculation that helping each other overseas will cement security and defense back in Europe. But the effort in the Sahel, the semiarid belt running along the southern edge of the Sahara, faces an uphill battle.

European forces are scattered across various missions and have different appetites for lethal combat. Military and civilian deaths are mounting, while the number of violent attacks by Islamist extremist groups has risen sharply. Local allies have been accused of human-rights abuses, and one of them, the president of Mali, was ousted in a coup in August.

France and Estonia this summer deployed elite troops as part of a new task force that will train local militaries and take part in counterterrorism operations with them. Commandos from countries including the Czech Republic, Sweden, Belgium and Italy will join during the next year.

The Takuba task force, named after a local word for a saber, is a signature initiative of an effort by French President Emmanuel Macron-who questions U.S. commitment to Europe—to bolster Europe's military capabilities.

As the Trump administration has cut troop numbers in Africa and announced plans for reductions in Europe, Mr. Macron has led calls for what he has dubbed a European army. Mr. Trump tweeted that the move is "very insulting."

No one sees the effort as a replacement for the U.S.-led North Atlantic Treaty Organization. It is more of a coalition of forces than a joint army. But the combination of U.S. reticence and French ambition is pushing the project forward and attracting European allies.



French troops patrolled in Burkina Faso in 2019. European forces are scattered across the Sahel region.

French military bases established in the Sahel

Permanent base Temporary ALGERIA LIBYA MAURITANIA NIGER CHAD NIGERIA

Source: France Ministry of Armed Forces

"Macron sees the vacuum in international politics and wants to fill it but doesn't have the means," says Yvan Guichaoua, an expert on the Sahel at the Brussels School of International Studies, part of the U.K.'s University of Kent.

France, once the main colonial power in the Sahel, has some 5,100 troops in the region as part of efforts launched in 2013 to counter a militant insurgency. They are spread among three permanent bases in Mali, Niger and Chad, and several other temporary advanced bases in those countries. Some allies, including Germany, are focused on the United Nations' peacekeeping mission in Mali. Others are part of the European Union's training mission for the Malian armed forces.

Takuba is aimed at bolstering the performance of local forces in the fight against Islamist militants by training and mentoring troops from the region and accompanying them into battle.

Estonia, a tiny Baltic nation with no evident link to Africa, has assigned a small team of special forces to Takuba. "Estonia wants to find a solution to a wider European problem," Estonian Defense Minister Jüri Luik said in an interview. "If we are ready to help others, others are ready to help us.'

French soldiers have rotated through Estonia as part of a battalion aimed at deterring Russia. "It's not a bargain, but it's a spirit of solidarity," Mr. Luik said.

Some analysts say European efforts in the Sahel are too small and tasks too diffuse. But boosters contend each country's approach adds up to a more nuanced coalition.

"By working together they are bringing their strategic cultures together," said Olivier-Rémy Bel, a visiting fellow at the Atlantic Council in Washington and a former French Defense Ministry official.

The European efforts rely on U.S. intelligence and logistical support. Europe doesn't have enough drones to conduct surveillance of the Sahel, and France needs U.S. aircraft to deploy forces in many of its missions, said French officials. Amid rumors that the U.S. would pull back some troops last year, France's defense minister lobbied against it in Washington. "It's good that France wants to do more," said a senior U.S. official. But "they have realized that they can't do it alone."

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#### WORLD NEWS

### **Worried Italians** Remain Vigilant As Cases Recede

Many people maintain keep a lid on infections. precautions in places hit hard in first wave; lots of masks in public

Months after Italy's lockdown against the coronavirus ended, Enrica Grazioli still sanitizes everything that comes into her Milan apartment, wears face masks diligently and limits interactions between her sons and their grandparents.

> By **Eric Sylvers** in Milan and **Margherita** Stancati in Rome

Ms. Grazioli, a self-proclaimed social butterfly who loves to cook for guests, still hasn't had friends over for dinner since the virus struck. "Am I overdoing it?" she said. "Maybe, but we had a national tragedy of epic proportions and you don't quickly forget something like that."

Italy, the first nation outside Asia to suffer a major coronavirus outbreak, had one of the world's worst death tolls this spring. Overflowing hospitals in parts of northern Italy had to choose which patients got intensive-care beds. The Italian army drove truckloads of victims out of the city of Bergamo, which couldn't cope with the dead.

That shocking experience helps explain why Italy is having greater success than many other European countries in limiting the pandemic's second wave.

Infections in Europe are rebounding partly because millions of people have grown tired of social-distancing rules, mask-wearing and hand-sanitizing, and have relaxed their behavior, health experts said. The public's fatigue and vearning to get back to normal life are two of the greatest challenges facing governments as they try to

Experts had hoped that mask-wearing and keeping a distance would become everyday habits, at least as long as Covid-19 remains a publichealth threat. East Asian societies such as South Korea, Hong Kong or Singapore have been the model for widespread acceptance of such precautions.

That has proved a tougher sell in Western nations with less experience containing viral outbreaks and especially in politically polarized countries.

But Italy's left-leaning national government and rightleaning opposition, which governs northern Italian regions that were badly hit by the virus, cooperated in containing the worst phase of the pandemic. Across Italy, masks are mandatory in indoor public places, on public transport and outdoors in crowded areas.

In Italy, the new precautions have become a widespread part of everyday life, more than in many other Western countries. Millions of Italians continue to wear masks outdoors, even when it isn't obligatory, and carry hand sanitizer.

New habits and a relatively effective test-and-trace regime have helped Italy to limit the rise of infections since August. Increases in Europe have been driven by people traveling on their summer vacations and by more relaxed attitudes among young people who wanted to return to socializing.

"People were very afraid in March and April and that has an effect on short-term behavior, but it's not clear how long it will last," said Guendalina Graffigna, a psychology professor at Milan's Catholic University. "We're a Mediterranean country and often we act on our emotions more than in other countries.'

Giovanni Ferrante, a 30year-old building manager from fecting them, though it wasn't



Italy has adopted strict rules for students' return to school, while warning that older residents face continued coronavirus risks.



Rome, is among those who are required by Italy's rules and he being extra careful. When he had no symptoms. visited his family in southern Italy over the summer, he selfquarantined for two weeks on arrival to avoid potentially in-

"There is a bit of fear and because of that we behave appropriately," said Mr. Ferrante, who was walking in central Rome wearing an N95 face

mask, which provides more protection than a surgical mask.

About 85% of Italians said they wear a mask in public places, more than anywhere else in Europe except for Spain, which is now battling Europe's biggest outbreak, according to a coronavirus behavior survey by Imperial College London and YouGov. Italians are also more likely to say they avoid crowded public places than most other Europeans, according to the survey. which was updated last week.

It isn't just about individual behavior. Italy has done a better job than most at detecting infected people through its testing and tracing regime. Over two-thirds of Italians who tested positive for the coronavirus in recent weeks were identified not because they had symptoms, but through contact tracing and widespread screening tests, according to the National Health Institute.

The percentage of tests that come back positive—a measure of whether testing is sufficiently comprehensive—is 2.1% in Italy, higher than it was in June but lower than in most of Europe, official data show. A low positivity rate indicates testing is widespread and not restricted to people who show symptoms. The World Health Organization recommends a positivity rate of 5% or less as a condition for reopening.

In Spain, by comparison, government data show 11.9% of tests are positive, suggesting many infections go undetected.

Italian authorities fear infections could rise more strongly as a result of the reopening of schools on Sept. 14, and as fall weather leads Italians to spend more time indoors.

One recent Saturday evening, Mirko Marin, who works in corporate relations at Milan's Polytechnic University, headed to the trendy Navigli canal district with his wife and three children. They quickly returned home when they saw the crowds.

"During the day the rules are respected, and then at night the young people suddenly forget what happened in March and April," said Mr. Marin. "We have to remember so we never

## Trudeau Seeks to Rebuild Economy

By PAUL VIEIRA

OTTAWA—Canadian Prime Minister Justin Trudeau laid out his plans to rebuild the country's economy, in an effort to address damage done by the pandemic and turn the page on a scandal over the awarding of a contract.

His Liberal government outlined the broad strokes of its near-term agenda in a ceremonial speech to Parliament. The plans include a renewed focus on social policy, with an emphasis on increasing child-care spaces and improving care for the elderly. The government pledged to maintain financial support for the hardest-hit industries, target spending to foster growth in the cleantechnology sector and work toward helping the economy add another one million jobs

to reach pre-pandemic levels. Advanced economies such as Canada "are realizing that



**Canadian Prime Minister Trudeau** aims to put scandal behind him.

things should not go back to business as usual," according to a copy of the speech, which was read by Canada's viceregal. The government said its agenda would address gaps in its social system, invest in health care, and create jobs.

These initiatives, tele-

officials before Wednesday's unveiling, have stirred worries among debt-rating agencies, economists and former officials about the price tag and whether it will harm the country's fiscal profile. One firm, Fitch Ratings, stripped Canada of its triple-A rating this year.

Data from Johns Hopkins University shows Canada has recorded about 8,000 confirmed cases in the past seven days, a sizable increase compared with about 5,100 in the previous one-week period.

In a televised address Wednesday, Mr. Trudeau said a second wave of infections is underway in four of the country's biggest provinces. He said the government is prepared to take on more debt to see a recovery through.

The prime minister runs a minority government in the Canadian legislature and therefore requires the support of at

graphed by Mr. Trudeau and least one of three opposition parties to remain in power. The policy road map will come for a vote in the legislature, and some opposition politicians and political analysts have said the government likely would survive that vote. That could change after the government presents a budget plan this fall that includes the cost of some initiatives, they said.

Polls showed support for the prime minister and his government dwindled during the summer following revelations that the cabinet awarded a contract to WE Charity, a Toronto youth-oriented charity with financial ties to the prime minister's family and other members of Liberal administration. Mr. Trudeau faces his third probe by the country's ethics watchdog for possible violation of conflict-of-interest laws. He has said he didn't direct officials to award the contract to WE Charity.

### Mexico Reports Rare Fall in 2019 Homicides

By Anthony Harrup

MEXICO CITY—Mexico reg-2019 than a year earlier, the first decline in five years, though the murder rate remained at its highest level in decades, the National Statistics Institute said Wednesday.

The country registered 36,476 homicides last year, down from 36,685 in 2018, according to preliminary data based on death certificates. The homicide rate was unchanged from 2018 at 29 per 100,000 inhabitants, the high-

est level on record in 30 years. Monthly police reports for 2020 show that homicides were up 1.5% in the first eight months of this year from a vear earlier, although the numbers have been overshadowed by more than 74,000 deaths of people infected with the coronavirus.

The drop in the preliminary number of homicides for 2019 istered 209 fewer homicides in will likely become a small increase when final data are released at the end of October, said security analyst Alejandro

"The good news is that it's not growing, the bad news is that it's not falling," he said.

Lowering the level of violence, much of it by organizedcrime groups, is among the main concerns of President Andrés Manuel López Obrador whose strategy has been to reduce direct confrontation between security forces and heavily armed criminal gangs.

Since taking office at the end of 2018, Mr. López Obrador has disbanded the Federal Police and replaced it with a National Guard drawn mostly from the ranks of army and naval police.

#### FROM PAGE ONE

# California Sets Gas Car Ban

Continued from Page One "Of all the simultaneous cri-

ses that we face as a state...none is more forceful than the issue of the climate crisis," Mr. Newsom, a Democrat, said while standing in front of several electric cars. "What we're advancing here today is a strategy to address that crisis head on, to be as bold as the problem is big."

The order also says that, "where feasible," medium- and heavy-duty vehicles such as trucks and construction equipment should be zero-emission by 2045.

Mr. Newsom has emphasized climate change as a key cause of the historically disastrous fires that have ravaged the state in the past month. Scientists have said California has become more susceptible to fast-moving, destructive wildfires due in part to a warmer climate, which causes trees and plants to dry out and become more flammable, as well as overgrown forests and an increase in housing in fireprone areas. The announcement spurred

criticism from the Trump administration. "This is yet another example of how extreme the left has become," said White House spokesman Judd Deere. "They want the government to dictate every aspect of every American's life, and the lengths to which they will go to destroy jobs and raise costs on the consumer is alarming. President Trump won't stand for it."

The Trump administration is already waging a legal battle against California over its special authority to regulate tailpipe emissions, established under the Clean Air Act of 1970. The case is currently before a federal appeals court in Washington, D.C.

California's authority to enforce Mr. Newsom's new mandate would come from that same part of the law, likely making it highly dependent on



Gov. Gavin Newsom spoke of climate change in front of electric cars.

the outcome of November's presidential election, said Bob McNally, a former energy adviser to then-President George W. Bush who is now a private energy consultant.

If Mr. Trump's nominee to replace Ruth Bader Ginsburg is confirmed and he remains in office and challenges the order, a conservative majority on the Supreme Court could potentially strike down the California program, Mr. Mc-Nally said. If Mr. Biden wins,

he likely wouldn't proceed with a case, he said.

In a sign that left-leaning states might follow California's lead on ending the sale of gas-powered vehicles, Oregon Gov. Kate Brown praised Mr. Newsom's announcement. "I will do all I can to accelerate electrification here," the Democrat wrote on Twitter.

John Bozzella, chief executive of the Alliance for Automotive Innovation, a trade group that represents U.S. and overseas-

based auto manufacturers, said his members are committed to expanding their electric-vehicle offerings, but mandates like the one issued by Mr. Newsom aren't the best way to do so.

What builds successful markets is widespread stakeholder engagement," among governments, auto makers, utilities, infrastructure providers and others, Mr. Bozzella said in a statement. A spokesman for Ford Mo-

tor Co. said: "We agree with Gov. Newsom that it is time to take urgent action to address climate change....Progress requires public-private partnerships, smart infrastructure and key resources that encourage consumers to invest in electrified products.

The order is aimed at newcar sales and won't prohibit Californians from owning or selling existing gas-powered cars, Mr. Newsom said.

The leaders of both houses of California's Democraticdominated Legislature said Wednesday they support Mr. Newsom's executive order.

"The Assembly looks forward to working with him to pass the necessary legislation to make this bold step land solidly," Assembly Speaker Anthony Rendon said in a statement.

The California Air Resources Board, which has been at the center of most of the state's climate and vehicle emissions policies, will be charged with developing the specific regulations needed to implement the state mandate for passenger cars and trucks. A shift from petroleum

products, such as gasoline and diesel, to electricity will require a new statewide charging infrastructure, and could impact the viability of the state's thousands of gasoline stations. And it will need to upgrade a grid already in need of significant overhaul. The state's electricity grid experienced two days of rolling blackouts last month during a heat wave. The state's largest utilities now routinely shut off large sections of their aging grids to stop their power lines from sparking wildfires on windy days.

-Timothy Puko contributed to this article.

#### WORLD NEWS

### Violence Mars First Afghan Peace Talks

By Ehsanullah Amiri AND SUNE ENGEL RASMUSSEN

KABUL-Deadly violence in Afghanistan has marred the first-ever direct talks between Kabul and the Taliban, underscoring the high stakes that face the warring sides as they struggle to get negotiations off the ground to end nearly two decades of fighting.

Representatives of the Afghan government and the Taliban kicked off a first round of U.S.-brokered talks in Qatar's capital nearly two weeks ago. But as the teams wrangle over the agenda and framework for talks that are likely to drag out for months, both factions have accused the other of ramping up attacks against their people in recent days.

On Wednesday, Afghan officials said overnight Taliban attacks on security checkpoints in southern Afghanistan killed at least 28 Afghan policemen. The insurgents have killed dozens of security personnel and nearly 100 civilians in several attacks over the past two weeks, officials say.

Government forces, meanwhile, continue to target the Taliban. Airstrikes on the group accidentally killed as many as 24 civilians in the northern province of Kunduz on Saturday, according to news reports. The Ministry of Defense said it was investigating claims of civilian deaths.

The attacks highlight how neither party is willing to cede ground without concessions from the other side.

The Afghan war began with the U.S.-led invasion in response to the Sept. 11, 2001, terrorist attacks that al Qaeda orchestrated from the country, then ruled by the Taliban. It has claimed tens of thousands of Afghan lives and destroyed hospitals, schools and other infrastructure.

#### WORLD WATCH

**EUROPE EU to Overhaul** 

### **Asylum System**

The European Union announced a major overhaul of its asylum system Wednesday in hopes that more countries will finally share responsibility for people landing on Europe's shores seeking sanctuary or better lives.

The move comes after years of chaos and dispute among the bloc's 27 nations over the handling of migrants and refugees amid a recognition that the current EU system for deciding whether they should receive protection or be sent home has failed.

The old system to deal with it in Europe no longer works," European Commission President Ursula von der Leyen said, adding that the "New Pact for Migration and Asylum" offers Europe "a fresh start."

The arrival in 2015 of well over one million migrants, mostly refugees fleeing war in Syria, sparked one of the EU's biggest political crises. EU nations have fought since over who should take responsibility for the migrants, with front-line Mediterranean nations like Greece, Italy, Malta and Spain demanding more help from their EU neighbors.

The arguments rage on even though the number of unauthorized migrants has dwindled sharply in recent years. Some 140,000 people arrived last year, compared with around two million migrants who entered legally, the European Commission says. Turkey, Lebanon and Jordan have had to cater to far more.

The new plan hinges on the fast-track screening of migrants arriving at Europe's borders without permission. It would be completed within five days. People would then be sent into an asylum track if they qualify for protection, or they would be prepared for deportation. Both procedures would take 12 weeks and the migrants could be held in detention. —Associated Press

**CUBA** 

#### **Trump Announces New Sanctions**

Americans won't be allowed to bring home cigars and rum from Cuba under measures President Trump announced



BYSTANDERS: At least 28 people were killed, including children, on Wednesday when a truck carrying gasoline exploded in the central Nigerian state of Kogi, starting a fire that engulfed vehicles and buildings, government officials said, according to Reuters.

Wednesday to financially starve the island's government, a move taken as he tries to boost his appeal among Cuban-Americans, a crucial voting bloc in the battleground state of Florida.

The action comes as the Republican president reaffirmed his administration's "ironclad solidarity" with the Cuban people, whose descendants in the U.S. often vote for the GOP. It also comes as Trump considers a Cuban American from Florida for a seat on the U.S. Supreme Court.

At a White House ceremony recognizing nearly two dozen veterans of the failed Bay of Pigs invasion of Cuba in 1961, the president said U.S. travelers will also be prohibited from staying at hotels and other properties owned by the Cuban government.

Mr. Trump said the new steps announced by the Treasury Department will ensure that U.S. dollars don't fund the Cuban government, but go directly to everyday Cubans.

The new restrictions are the latest in the Trump administra-

tion effort to reinstate an economic blockade of Cuba and reverse the strategy of restoring diplomatic relations with the island, the policy that was pursued by the Obama's administration.

-Associated Press

**FINLAND** 

#### **Virus-Sniffing Dogs Deployed at Airport**

Finland has deployed coronavirus-sniffing dogs at the Nordic country's main international airport in a four-month trial of an alternative testing method that could become a cost-friendly and quick way to identify infected travelers.

Four dogs of different breeds trained by Finland's Smell Detection Association started working Wednesday at the Helsinki Airport as part of the governmentfinanced trial.

"It's a very promising method. Dogs are very good at sniffing," said Anna Hielm-Bjorkman, a University of Helsinki professor of equine and small animal medicine.

"If it works, it will be a good [coronavirus] screening method at any other places," she said, listing hospitals, ports, elderly people's homes, sports venues and cultural events among the possible locations where trained dogs could put their snouts to work.

Ms. Hielm-Bjorkman said that Finland is the second country after the United Arab Emirates—and the first in Europe—to assign dogs to sniff out the coronavirus. A similar program started at Dubai International Airport over the summer.

-Associated Press

**SPACE** 

#### **Bus-Sized Asteroid** To Miss Earth

An asteroid the size of a school bus is headed to Earth, but NASA says the space rock will zoom safely past the planet on Thursday.

The newly discovered asteroid will come within 13,000 miles of Earth, well below many

of the communications satellites orbiting the planet, scientists said this week. The closest approach will occur Thursday morning over the southeastern Pacific Ocean.

Once it is gone, the asteroid won't be back to Earth's neighborhood until 2041.

Scientists estimate the asteroid is between 15 feet and 30 feet. By asteroid standards, that is considered puny. Asteroids of this size hit Earth's atmosphere and burn up once every year or two, said Paul Chodas, director of the Center for Near-Earth Object Studies at NASA's Jet Propulsion Laboratory. There could be as many as 100 million of these little asteroids out there.

The real threat are considerably bigger asteroids. The good news is that these are easier to spot much sooner than just a few days out.

Asteroid 2020 SW, as it is known, was discovered on Friday by the Catalina Sky Survey at the University of Arizona in Tucson.

–Associated Press



The coronavirus has so far killed around 900,000 people and sickened about 27 million around the world. The global response has wrecked economies and altered the fabric of daily life. In this series, the Journal examines the causes of the catastrophe and the bungled attempts by governments to remedy their errors.

Read each installment at WSJ.com/covidstorm

THE WALL STREET JOURNAL. THE COVID STORM

#### **A12** | Thursday, September 24, 2020

# RobotConquers Curling

Continued from Page One forward: Other big wins for the robots have been in digital environments, where the physics of the real world didn't get in the way.

Previous storied defeats for humans came from algorithms, including Facebook Inc.'s bluffing poker champion and Google Deepmind's AlphaGo. Those systems didn't have physical bodies; their brains existed solely in the digital world. The machines were playing on their home turf.

"At some point you have to

start tackling the real world, and all of a sudden that's when things get really, really hard," said Mike Haley, vice president for research at design-software provider Autodesk Inc., who wasn't involved in Curly's design. Most "simulated environments for robots today are never fully representing the physics, the natural behavior of the world" because it is so complex and computationally intensive.

Curling is a team sport in which human players use a stick to grab, maneuver and propel a 40-pound puck, or stone, across the ice toward a red-blue target that resembles a bull's-eye. Curly clinches the stone with a pair of grippers that sit close to the ice. Like the human players, the robot releases it at a specified point in the court after accelerating with it.

When robot brains graduate into physical bodies and spaces, they don't know how to account fully for the unforeseen, whether that's an unexpected open manhole or minute changes in friction. humidity, temperature and ice melt that affect how a curling stone glides across a court.

"If you would freeze everything, sorry for the pun...then it would be wonderful. It would be ideal, but then comes the problem that with every throw, the ice changes," said Klaus-Robert Müller, a machine-learning expert and one of the Curly study authors. It is impossible to gather enough data to account for all permutations, he said, so if the robot stuck to what it learned in simulation for an entire game, it wouldn't be able to hammer out a winning strategy and "then you would be miserable."

Even if Curly threw a stone in a way that was advantageous during a previous turn, changes in the ice and ambient conditions could affect how far the piece traveled the next time around by 6 to 13 feet, which could make the difference between winning and losing, Dr. Müller said.

FROM PAGE ONE

To dominate the ice, the robot was equipped with antislip software, without which it was more prone to constant wheelies, Dr. Müller said.

During one game against top human curlers, the robot scanned the ice to figure out its strategy for sliding its stone toward the target. One of Curly's stones was already on the inner red circle. The humans' pieces had stopped feet before the blue outer circle, blocking the bull's-eye and scrubbing Curly's chances for a straight shot.

The machine didn't want to knock off its own stone, so it took that into consideration. With its stone tucked under its body, it started moving toward the release line. At just the right moment, it let go of the stone, a bit off center. The stone stopped in the red circle, part of it on the center, in the general area it had aimed for. The robot ended up winning

While AI developers and roboticists say the technology is interesting and applicable to domains such as self-driving cars or drones, some think the victory dance should be put on ice because the competition didn't include what's become hallmark of curling: sweeping. The often-furious ice-scrubbing action is meant to heat up the ice, reducing friction and making it easier for the stones to glide toward

that match.

their target.

"That would have been my first guess as to what it does given Roombas," said Than Tibbetts, communications director for the Brooklyn Lakeside Curling Club in New York. "It seems like a natural thing for it to sweep the ice.'

The authors point out that some versions of the sport don't include sweeping, and that Curly was able to play well alongside humans in a demonstration game where humans swept and the robot

"These special matches are a good example of collaborative robots in the real world," said Seong-Whan Lee, lead author of the Curly study. "It is not about humans versus robots but rather humans and robots cooperating."

-Frances Yoon contributed to this article.

Dr. Gabriel's laboratory is now performing 65,000 tests a

Testing has reached an all-time high within the past week, while the number of positive cases has fallen.

#### Daily test results

Seven-day rolling average



Note: As of Sept. 21 Source: The Covid Tracking Project

**L**aunches

Tycoon

in American life.

erational.

children in America to go op-

pand the facility to test every

student between kindergarten

and 12th grade in San Antonio,

the country's seventh-largest

city. Texas Gov. Greg Abbott, a

Republican, has been calling

Mr. Weston on his cellphone

for frequent updates. Mr. Ab-

bott says he envisions dozens

of such labs around the state

testing schoolchildren—if the

The effort puts Mr. Weston,

an occasional Republican do-

nor, at the center of a public-

health rift. On the one hand,

many epidemiologists and

other health-care experts say

that in an ideal world there

would be no limit to testing if

the coronavirus is to be con-

tained. The Centers for Dis-

ease Control and Prevention

estimates that 40% of people

who get infected show no

symptoms and can unwittingly

spread the disease. With this

in mind, the White House reg-

ularly tests staffers who come

into contact with President

real world there are supply

constraints, including lab

space and access to chemicals

and other testing material-

and the money to pay for it all. That has tipped the argu-

ment toward limited testing,

just as a scarcity of masks

early on colored official guid-

ance about whether the gen-

eral public should wear them.

has delivered mixed messages.

The president has said he

thinks testing is overrated and

blamed its widespread use for

inflating U.S. coronavirus sta-

tistics. The CDC has flip-

flopped, initially recommend-

ing everybody get tested, then

last month saying that people

who appear healthy "do not

necessarily need a test," and

finally last week revising the

directive to say that asymp-

The Trump administration

On the other hand, in the

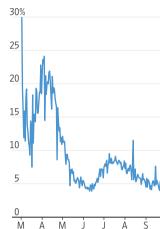
Trump.

early results are promising.

**Public-health rift** 

Mr. Weston hopes to ex-

#### Positive tests as a share of total results



Virus Tests Continued from Page One ing capacity should be reserved for individuals with vicommercial rus symptoms. Yet a growing number of public-health ex-The tests will be run with perts and fellow billionaires are backing Mr. Weston's ap-

proach to accelerate a return to anything close to normalcy Yesterday a school district just outside San Antonio began weekly testing of all its 4,000-plus students using a \$2.5 million nonprofit lab Mr. Weston helped bankroll. It is the largest effort for schoolsionals collecting samples.

the virus in its earliest days. Mr. Weston's team says their cost savings come from using generic equipment, such as mass-produced swabs that go for a few cents each, rather than custom orders.

universities.

Part of the struggle is to get on the radar of hospitals and other providers that have long-term contracts with big laboratories, such as Quest Diagnostics. A Quest spokeswoman said the company has performed more diagnostic tests than any other provider during the crisis, at "competitive" rates.

#### Open Rolodex

Mr. Weston hopes to prove that her laboratory can be replicated nationwide. He has opened up his Rolodex to line up other financiers to fund similar labs in their own hometowns. Russ Ramsey, a Washington, D.C., financier and former head of that city's Olympics effort, is lining up money for a facility that will test students, as well as regional employees of companies such as Deloitte and Amazon.com Inc. as soon as next month in the Washington area.

Mr. Weston has been surprised by the reluctance of Texas institutions to join in. The state's largest medical school, University of Texas Southwestern in Dallas, told his team they had other plans. A university spokesman de-



tomatic people should be tested if they have been exposed to someone who has the

Mr. Weston wants to show that general testing is viable. His effort is roughly based on one pioneered by Stacey Gabriel, a Boston geneticist, and is rooted in a shared conviction that testing can be performed at scale, outside existgovernmental infrastructure.

off-the-rack equipment, including mass-produced plastic tubes used in traditional blood tests, which Mr. Weston and his team found by calling around to pharmaceutical companies. The cost is about \$35 per test, roughly 15% of what major commercial laboratories can charge, including the cost for medical profes-

These molecular tests, commonly called PCR tests, search for the virus's genetic material and are seen as the gold standard in accuracy. They catch

Dr. Gabriel used similar techniques this summer to turn her Massachusetts Institute of Technology-affiliated laboratory into a coronavirus testing facility for more than 100 Northeastern colleges and

"It's not hard," says Dr. Gabriel says, who normally focuses on sequencing the human genome.



scribed the conversations as



Graham Weston at a coronavirus testing lab he built at BioBridge Global in San Antonio, Texas.

"a listening session."

Fellow technology billionaire Michael Dell separately turned down entreaties to help fund a facility in Austin, people briefed say.

"I've watched all the naysayers slam all the doors in their faces," says Dallas investor Joe Colonnetta, who is connecting Mr. Weston with policy makers. "The main innovation here is that they have the courage to try."

At the start of the pandemic, the question was how. not whether, to test. The CDC shipped its first testing kits to local governments in early February. While those early efforts were flawed by accuracy and manufacturing stumbles, few disagreed on the need to expand the system. Manufacturers rolled out not just hypersensitive PCR tests but antibody tests that purported to measure, via blood draw, whether a now-healthy person was previously infected.

By June, some of the country's most prominent doctors were calling for the country to conduct at least six million tests a week to better isolate infected people.

The seven-day average of new daily Covid-19 tests completed in the U.S. was 854,000 as of Monday, only modestly up over the past month.

Many government-run testing centers won't test children. Public school districts like New York City and San Francisco have pushed back without symptoms, according restart dates, citing uncer-

tainty about the virus. The lack of testing frustrated Mr. Weston, who now runs a startup incubator near ration is possible." a downtown San Antonio office tower that bears his name. Gun-shy because of his prior infection, he asked all his 77 employees to get tested before they returned to the office in August. Three came back positive for Covid-19 and were sent to quarantine. Mr. Weston suspects they would have infected many others at his com-

#### 'I've watched all the navsayers slam all the doors in their faces.

That set him off on a path to find broad, regular testing. "Manhattan Project" group spent dozens of hours talking to elected officials in Wyoming about setting up regular testing for the entire state, but the idea was sidelined after a call with Gov. Mark Gordon, a Republican, people on the call say.

Mr. Gordon told the group that 30% of Wyoming residents were against vaccinations, and couldn't be convinced of the need to be tested to people on the call. A spokesman for the governor said conversations continue "to explore if a future collabo-

'We've talked to decision makers in almost every state, most of Congress and the White House," says Dr. Tom Cahill, organizer of the scientist group, of expanding testing. "They all say they want to do it, but no one wants to be the first one."

#### Little faith

Over barbecue brisket on a recent sweltering evening at the same house where his son was quarantined, Mr. Weston professed little faith in the institutions that have led America's efforts so far: "All the greatest minds at the CDC had years upon years and billions of dollars to prepare for this, and what they came up with was: Wear a mask?'

The regulatory infrastructure, both state and federal. isn't designed for regular, nationwide testing of hundreds of millions of Americans. Under many state health directives, only a health-care professional may perform the nasal swab, even though, in Dr. Gabriel's case, the swab is only entering an inch or two into the nose. Hers is the so-called shallow test, not the "deep brain" one, though the accuracy is roughly equal, she says.

day for about 100 Northeastern colleges and universities. She does it for around \$25 San Antonio, Mr. In Weston's experiment is close to the proving point.

Though he hoped to be operational at the start of this school year, hiccups arose. He linked up with a local laboratory, Biobridge Global, which acquired equipment sitting idle in warehouses across the country. They wound up designing a system reliant on what they call "plug and play" machines, like the \$200,000 Hamilton Microlab STAR, a robot that automates moving samples from tubes en masse.

They say it was easier for them to amass supplies like reagents because they designed a process that worked with multiple, generic alternatives, unlike some commercial laboratories. The Food and Drug Administration in July validated supply alternatives for certain scarce testing components. "It's an open format and an open platform," says Scott Jones, Biobridge's vice president of scientific affairs.

The team also found a workaround to the requirement for a doctor to order every test. Under emergency orfrom the commissioner of health, every state citizen is considered having been prescribed a test during the pandemic. Because the center will be testing only asymptomatic people, it is being pitched as one that only screens for Covid, rather than diagnoses it formally.

Still, regulatory approval has run long. Mr. Weston hoped to be ready by Labor Day, but the team discovered early this month that they hadn't tested enough known positive samples to get FDA laboratory clearance. The group's CEO considered posting on Facebook to hunt for coronavirus patients, before scrounging up enough Covidpositive samples from the local University of Texas hospital system.

After calling around, Mr. Weston found a school district south of the city, Somerset Independent School District, ready to take a leap of faith. Superintendent Saul Hinoiosa says the solution comes at a dire time: Just 35% of the district's students showed up in the first week of classes. Many of their parents work as day laborers or at a local Toyota factory.

#### Weekly tests

Local foundations connected to Mr. Weston are picking up the bill. Gov. Abbott says he plans to use federal funding on the initiative, too.

Mr. Hinojosa plans to test every student and staffer every week, with parental permission, mostly in the cafeteria or gymnasium. At-home instruction will be mandated for anyone who comes back positive. Though Mr. Weston has

some prominent support in San Antonio—including from the county judge, a Democrat and the region's highest elected official—he hasn't yet cracked the main school district in his hometown.

San Antonio's medical director said in a late-August town hall that she didn't favor testing asymptomatic students, citing CDC guidance and potential cost. The school board, too, will have to give its assent.

Who will get them all to change their minds? "I will." says Mr. Weston.

-Sarah Krouse contributed to this article.



Lab technicians handle plasma samples for Covid-19 antibody testing at BioBridge Global.

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### GREATER NEW YORK

### NYC Will Furlough 9,000 Workers

By Katie Honan

About 9,000 New York City government workers must take five-day furloughs in the coming months, Mayor Bill de Blasio said Wednesday, as part of cost-saving measures aimed at balancing a budget deficit.

Mr. de Blasio said last week that 495 mayoral staffers would have to take five-day furloughs between October and March.

The additional 9,000 workers, who are in managerial and non-union roles, will take furloughs during that time as well, saving the city \$21 million, the Democratic mayor said at a news conference.

The announcement came as the city faces a \$9 billion deficit during the next two years and as the mayor considers laying off up to 22,000 municipal workers.

'We have to keep taking actions to address this situation. None them are pleasant. None of them are things we would want to do in normal times," Mr. de Blasio said.

# MTA Is Set to Tap Fed for Loan

By Paul Berger

New York's Metropolitan Transportation Authority plans to apply to the Federal Reserve to borrow as much as \$2.9 billion from a short-term lending program, as it faces an unprecedented financial

Lawrence Schwartz, chairman of the MTA's finance committee, told board members at a meeting Wednesday that in the absence of a new federal coronavirus bailoutwhich has stalled in Congress—the MTA should seek the maximum amount possible from the Fed program.

MTA officials estimate that they are losing \$200 million a week because of a slump in fares, tolls and dedicated taxes caused by the coronavirus pandemic.

They have said they might have to slash subway and bus service in New York City by as much as 40% and lay off thousands of workers if they don't receive federal aid soon.

The state-controlled authority, which received nearly \$4 billion in a federal coronavirus bailout earlier this year, projects a deficit of about \$12 billion through the end of

The MTA and the state of Illinois are the only two bor**Subway Cars Will Return to Service** 

New York City's newest subway cars are expected to return to service this week after transit officials pulled them for a safety review in June when two cars decoupled while a train was moving.

A report by a four-member panel of specialists concluded that known safety issues with the cars have been resolved. The panel recommended that the cars should be reintroduced gradually and monitored for further potential defects. About 20% of the cars will be reintroduced in a first phase this week.

A spokeswoman for Bombardier, which made the cars. said the company is pleased the cars were deemed safe and would return to service.

rowers to have tapped the

In August, the MTA sold

\$450 million in bonds to the

Fed at a vield of 1.9%, reject-

ing offers from the private

market at yields of about

Fed's municipal-lending pro-

gram so far.

criteria, the MTA could be eligible to borrow a total of almost \$3.4 billion, transit officials said.

A panel said safety issues with new cars have been resolved.

Mr. Schwartz told board members that he believes the MTA could borrow \$2.9 billion at a rate of about 1.8%.

"That is the cheapest Based on the Fed program money the MTA will ever be

able to get as a loan," Mr. Schwartz said.

He asked the MTA's chief financial officer, Robert Foran, to begin drawing up an application.

If the MTA's application is approved, the authority would have until the end of the year to decide how much, if any, of the money to draw down.

Authority officials say they have enough liquidity to carry the agency through the first quarter of 2021, but the Fed program is scheduled to close on Dec. 31 this year.

Mr. Foran said the funds could act as a bridge loan and be repaid as early as next year if federal bailout money comes through by then.

Patrick McCoy, the MTA's director of finance, said at a congressional hearing last week that the Fed should extend the borrowing deadline beyond the end of 2020 and increase the maximum maturity for facility debt beyond three years.

Budget watchdogs, and even some MTA board members, have raised concerns that the authority, which already owes more than \$45 billion, shouldn't take on more

Rachael Fauss, a senior research analyst at fiscal watchdog group Reinvent Albany. said in an interview that a low-cost federal loan could make sense under certain conditions.

But she added that as one of the nation's largest issuers of municipal debt, the MTA should work with the Fed and with Congress to lower interest rates further.

## Area Backlash Derails Brooklyn Development Plan

By Kate King AND EMMA TUCKER

Industry City developers withdrew their application to rezone the Brooklyn property, prompting cheers from local elected officials and neighborhood groups who said the proposal would exacerbate gentrification in the working-class neighborhood.

Business leaders bemoaned the rezoning's demise, saying it would cost the city thousands of potential jobs at a time when the unemployment rate exceeds 16%. Andrew Kimball, chief executive of Industry City, said politics scuttled the plan's chances for approval.

"Sadly, in the context of one-in-five New Yorkers losing their jobs and the city's fiscal crisis spiraling out of control, the leadership needed to approve this development failed to emerge," Mr. Kimball said.

Industry City, a 16-building campus across 6 million-squarefeet on the Sunset Park waterfront, houses 550 businesses, including manufacturing, technology, artisans and retail. Its developers—a partnership of Jamestown LP, Angelo Gordon and Belvedere Capital Real Estate Partners—were seeking to add 1.3 million square feet by building on two adjacent vacant pieces of property that it owns.



Protesters spoke out against rezoning laws in Sunset Park last week outside City Hall in Manhattan.

The property's current zoning allows for manufacturing, some retail, office, warehousing and distribution The developers asked for rezoning to allow additional types of retail and

classroom space. Mayor Bill de Blasio never publicly stated his position for or against Industry City's rezoning application. On Wednesday he told reporters his administration supported a "progressive vision of development, where there's strong, clear community

benefits that are enforceable."

The City Planning Commission approved the rezoning application in August, but Council Member Carlos Menchaca, whose district includes the site, was against it. On Tuesday, four of New York's congressional representatives, two state senators and four members of the state assembly sent a letter to the New York City Council opposing the rezoning.

Mr. Menchaca said he felt Industry City's developers

should have done more to guarantee jobs for local residents and advocate for affordable housing in the neighborhood to prevent people from being displaced by gentrification. More broadly, he said the application's withdrawal shows residents are successfully demanding more involvement in city planning and development.

The days of developers making decisions for communities are over," Mr. Menchaca said. "The growth and devel-

opment of our neighborhoods will now be led by our neighborhoods in collaboration with unions and business and developers. But it will be the community to lead that effort."

Former deputy Mayor Alicia Glen, who oversaw economic development and affordable housing for Mr. de Blasio's administration for five years, said the rezoning would have brought capital investment and goodpaying jobs to Sunset Park. "This is a really terrible loss for New York City," she said.

Ms. Glen helped secure a 2018 deal to bring a new Amazon.com Inc. headquarters to New York City, which the company backed out of months later because of backlash from local elected officials and activists. She said she felt Industry City's developers had worked for years to address the community's concerns, but in the end it wasn't enough to overcome what she described as a worrying antigrowth sentiment.

"I think that the narrative around development has gotten so heated that people are conflating and lumping together projects and just being against them for the sake of being against them," Ms. Glen said.

Kathryn Wylde, chief executive of the business organization Partnership for New York City, said the rezoning's collapse sent a bad signal to the broader business community at a time of economic crisis. The city's political leaders can't urge businesses to bring their employees back and invest, if they aren't going to support worthwhile projects like Industry City, she said.

"We're not seeing the pressures of gentrification today, we're seeing the potential loss of jobs and people—the middle and working class," she said.

Locals sought more job guarantees and proposals for affordable housing.

Gia Sharp, a Sunset Park resident, said Industry City hasn't followed through with promises to engage the larger community. She said she attended community board meetings about the rezoning plan.

"Most of the community members were against it just because the big developers. are putting a lot of money into it. But they are not actually putting in money that will benefit the community," she said. "It's just kind of trading among wealthy people."

#### GREATER NEW YORK WATCH

**NEW YORK CITY** 

#### **Officials Boost Virus Rules Enforcement**

New York City authorities will increase enforcement of socialdistancing rules in a handful of neighborhoods in Brooklyn and Queens that have seen a sharp rise in novel coronavirus infections, officials said Wednesday.

The increase in cases in the neighborhoods has led the city's health commissioner to close two yeshivas, Mayor Bill de Blasio said. Large indoor activities are the biggest concern, he said, adding that the New York Police Department and the New York City Sheriff's Office would enforce limits on the size of gatherings.

City health officials said the percentage of people testing positive for the virus is at 4.71% in the Brooklyn neighborhoods of Midwood, Borough Park and Bensonhurst. In Brooklyn's Williamsburg and Queens' Kew Gardens, the percentage of people testing positive for the disease is 2% or above, and in the Edgemere-Far Rockaway neighborhood in Queens, it is 3.69%.

The six neighborhoods accounted for about 20% of new cases in the city between Aug. 1 and Sept. 19. Some of the areas are home to large communities of ultra-Orthodox Jewish resi-

Mitchell Katz, president and chief executive of Health + Hospitals, the city's public-hospital system, said he sympathizes with New Yorkers in those neighbor-



hoods who engage in typical religious practices that bring large numbers of people together. Those gatherings must be avoided, he said. "In the absence of doing the right thing, we will need to be in a lockdown type of situation," he said, adding there could be business closures or

other restrictions. - Melanie Grayce West

#### **Performances Put on Hold Until Sept. 2021**

METROPOLITAN OPERA

The Metropolitan Opera has canceled all performances for its 2020-21 season, saying the coronavirus pandemic remains too serious a health concern.

The company, one of the most august cultural institutions in the world, previously announced the cancellation of performances through Dec. 30 because of the pandemic.

The Met shut down in mid-March, as did other theaters and arts-presenting organizations in New York City, though the company initially anticipated a stoppage of just a few weeks.

Officials said the loss of an entire season is no small matter for the Met.

"The inability to perform is taking a tremendous toll on our company," General Manager Pe-

The Met, with a pre-pandemic annual budget of around \$300 million, already has furloughed its orchestra and chorus in an effort to keep its finances in check during the health crisis.

Mr. Gelb said even when the company resumes performances, it could be some time before attendance reaches pre-pandemic levels in its 3,800-seat theater. -Charles Passy

MANHATTAN

#### **Crisis Tips Historic Hotel Into Bankruptcy**

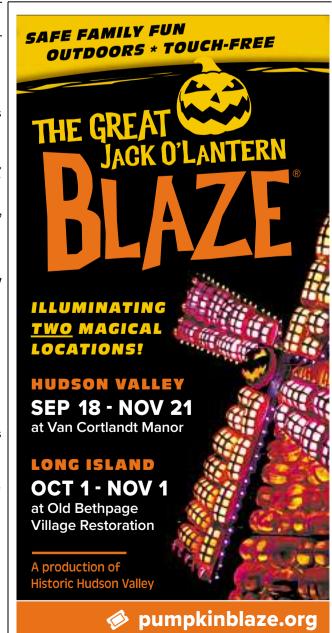
The operator of the Martinique hotel, one of Manhattan's oldest, filed for chapter 11 protection, seeking relief from rent payments and union obligations as the pandemic hammers New York City's lodging market.

Built in 1897 in a French Renaissance style at 32nd Street and Broadway, the Martinique earned a notorious reputation as a "welfare hotel" in the 1970s and '80s, when municipal leaders used it to house the city's burgeoning homeless population.

Developer Harold Thurman acquired the Martinique in a 99year lease in 1989, a year after the city stopped using the hotel for emergency housing.

Reborn under the Holiday Inn banner, the Martinique was designated a city landmark in 1998. Mr. Thurman still owns the 531-room hotel that now carries the Hilton brand.

-Andrew Scurria



**A12B** | Thursday, September 24, 2020



# PERSONAL JOURNAL.

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THE WALL STREET JOURNAL.

Thursday, September 24, 2020 | **A13** 

Clockwise

'Mississippi Masala,

'Rebecca,'

'Silkwood' and 'The

Baskethall

from top left:

Want to Stream 'Rebecca' Or 'Silkwood' at Home? If Only You Could.

By Don Steinberg

ant to stream 'Silkwood" on demand tonightthe 1983 drama that stars Meryl Streep and was nominated for five Oscars? Sorry, that isn't possible. How about John Huston's "Prizzi's Honor," or "Bamboozled" by Spike Lee? Good luck.

In today's internet-connected home theaters, it might seem that every movie is available with a few clicks of a mouse or remote. But random holdouts remain unavailable to stream or rent digitally in the U.S., sometimes for inexplicable reasons.

Call them The Unstreamables. The list-which evolves occasionally as streamers add to their lineups—can be frustrating for cinephiles. It includes notable films by Mr. Lee ("Jungle Fever" and "Bamboozled"), Bong Joon Ho ("Memories of Murder"), Mike Nichols ("Silkwood"), Elaine May ('The Heartbreak 1995

Kid"), Peter Bog-danovich ("Mask"), Sydney Pollack ("They Shoot Horses, Don't They?"), Woody Allen ("A Rainy Day in New York"), and Samuel Fuller ("White Dog"). No digital subscription or on-demand service offers "Rebecca," which won Alfred Hitchcock his only Best Pic-

popped up on YouTube). We have 150,000 titles in our combined libraries," said Cameron Douglas, vice president of home entertainment for Fandango, whose parent Comcast just acquired Vudu, another movies-ondemand purveyor. "You'd think that would be everything anyone

ture Oscar (though a bootleg has

would ever want in the canon of film. But there's all these onesies and twosies that just aren't available, and we keep trying to

The causes of unstreamableness

find them."

vary. For films made before digital distribution existed, it can be unclear who owns streaming privileges. Restrictions on digital use of the music in a film can hold it € back. Some "unstreamables" are movies that have been shunned across all platforms, for one reason or another, like Disney's "Song of the South," with its racist stereotypes, and the last Woody Allen  $\stackrel{\cong}{\scriptscriptstyle \sim}$  and Louis CK films, made by tar-

1983 SILKWOOD' Produced by a now defunct film division of the ABC TV network, Silkwood remains unavailable 'THE BASKETBALL DIARIES' ▶ Years of multinational corporate acquisitions left even its producers unsure who owns the film.

nished directors. A film can also simply become buried in a company's holdings. For those who want to release older films in new formats, hunting down rights holders can become a Watergate-like investigation. After decades of mergers and acquisitions, the corporate owner of a film may not even know it's the owner.

Tim League, founder of the Alamo Drafthouse theater chain and the Alamo on Demand online service, recalls having to inform a major studio that they had a film he was pursuing for his film distribution company. "They had no idea," he said. "Then it got bogged down in music clearances, and it wasn't worth their while to dig into." He said rights often are

murky and interpreted differently by divisions within a studio.

Film libraries are exchanged, as paperwork and physical prints, "and then it's like in 'Raiders of the Lost Ark.' It's just sitting in a box somewhere," said Liz Heller, who produced "The Basketball Diaries," released in 1995. That movie currently has no digital distribution. Like a few other films with digital rights issues, "The Basketball Diaries" is available on some cable systems like Comcast's Xfinity and Verizon Fios, but it's unavailable to cord-cutters.

It's an issue not easily fixed: Ms. Heller didn't know who owns the rights to the film. Chris Blackwell, the entrepreneur behind Island Records whose Island Pictures made

"The Basketball Diaries," didn't know either. He'd hired someone to find out.

The chain of custody is unclear. Island was part of the entertainment company PolyGram. Canadian beverage giant Seagram bought PolyGram in 1998. Seagram also acquired Universal Pictures. French conglomerate Vivendi acquired Seagram in 2000, then in 2004 sold entertainment assets to General Electric, which formed NBC Universal, which Comcast acquired in 2011. "It just gets lost in the rush. That's our sad story," Mr. Blackwell said.

It turns out that "The Basketball Diaries" didn't even follow that corporate path. Instead it's owned by MGM, which bought

films from Seagram in 1999. Still, undisclosed rights issues are keeping it off any digital streaming service. "The absence of certain older titles on certain digital platforms is generally due to rights in certain media or certain means of delivery," MGM stated.

"Silkwood" also is mysteriously unstreamable. The film was produced by ABC Motion Pictures, a unit of American Broadcasting Co. dismantled in 1985. Disney bought ABC in 1995, but reached for this story, Disney couldn't say if it

owns the film. Home video distributor Kino Lorber released "Silkwood" on Blu-ray in 2017, licensing it from Disney, according to Kino president and CEO Richard Lorber. He figured even if Disney still owns it, there may be legitimate reasons it isn't streaming. Actors' or writers' residuals could be an issue. Broadcast

deals may preclude streaming. "It could be they're sitting on it, maybe for their own platform." Mr. Lorber said (Disney has Hulu and Disney+). "But the major streaming services are prioritizing new releases, original productions, TV series. They don't really need a 'Silkwood' at this point. Maybe that changes when Meryl does a new film, or something hap-

Some films may just take a while. In August, Paramount made the 1971 Steve McQueen racing classic "Le Mans" available on a digital platform for the first time, 49 years after it opened in theaters. That happened thanks to Paramount's 2019 corporate reunion with CBS, which owned the rights.

pens where it becomes timely."

"We inherited some classics," said Bob Buchi, Paramount's president of world-wide home media distribution. The racing movie "Ford v Ferrari" was popular, and "we thought, oh my gosh, how can 'Le Mans' not be available?"

"Roar," a 1981 cult film starring Tippi Hedren, Melanie Griffith, and many untamed lions, made its debut digitally this March, partly due to serendipity. Alamo's Mr. League heard about it for the first time while chatting in a line at a film festival. Excited, he discovered that the family of "Roar" producer/director Noel Marshall had, two weeks earlier, licensed rights to Olive Films, a Bluray publisher. He got in on the deal, securing "Roar" for theatrical rerelease and Alamo on Demand.

Fandango's Mr. Douglas said he's been hunting for elusive streaming rights to "Mississippi Masala," a 1991 romance starring Denzel Washington and Sarita Choudhury.

"That's my latest project," he said. "We're all searching for our Maltese Falcon, aren't we?'

#### HERE'S WHAT IS STREAMING THIS WEEK

#### New Release: 'The Amber Ruffin Show' (Peacock)



Peacock, NBCUniversal's streaming service, has been stretching into the late-night wars. Just last week, it launched "WILMORE," starring late-night veteran Larry

Wilmore. On Friday, it premieres a new weekly show, "The Amber Ruffin Show." Ms. Ruffin is a writer and performer for

"Late Night with Seth Meyers" and her set is built on Mr. Meyers' stage. She says to expect the show to have a very different feel than "Late Night." It'll be heavy on jokes, ≒ sketches, bits and songs, she says, but she won't be interviewing guests. Although she'll be developing plenty of brand-new material, she says, she's also going to be dipping into a Google Doc that she's filled with material .....



over the years that was either rejected by "Late Night" or she knew wouldn't work on the show.

"I don't have to worry about whether or not white people are going to get my jokes," she says. "I can just tell the exact joke the way it occurred to me without fixing it in any way or twisting it to be for everyone. It can just be what it is and you get or you don't.





Country-pop artist Kelsea Ballerini released a new album, "ballerini," earlier this month. Here, she recommends a podcast that she has been listening to during the pandemic.

"I have not been binging during the pandemic. The only TV that I watch religiously is that my husba nd and I watch 'The Office' before we go to bed. But I have been listening to podcasts. I've really been enjoying 'Good For You,' hosted by comedian Whitney Cummings. I feel like the world's very heavy right now and she tackles what's going on in a way that I can handle. She has a really beautiful way of coating everything in this thick layer of comedy and it makes me belly

.....



laugh. The first 45 minutes or so of each episode is basically her doing standup, then she has guests that are other comedians, as well as experts like doctors, therapists, all of that. It helps you kind of have a better perspective on what's going on in the world in a lighthearted way. It's definitely one that I recommend if you need a good belly laugh, but also want a better grip on what's up."

#### Escapism: 'Chef's Table: BBQ,' 'The American Barbecue Showdown'



Netflix added two new titles dedicated to barbecue this month. Both feature equal portions of meat, sauce and stories about where, and whom, the recipes and tradi-

The first, "Chef's Table: BBQ," takes an international look at the craft. It starts in Texas and tells the story of Tootsie Tomanetz, a legendary pitmaster who claims to not know the temperature she keeps her cookers at—just what the heat feels like against her 85-year-old hands. The four-episode season also includes stops in Mexico, Australia and South Carolina.

The second is "The American Barbecue Showdown," a carnivorous, decidedly stateside response to "The Great British Bake



Off." Here, a pack of pitmasters compete in a different challenge each episode. As has become the custom, judges and hosts flutter about, second-guessing the contestants, who juggle protein, salt and anxiety.

'The thing about competing is adversity," judge Melissa Cookston says of a contestant grousing about the cut of her meat, the time of the challenge and the quality of her fire, "how you react to it, how you recover from it."

#### **New Release: 'Console Wars'** (CBS All Access)



"Console Wars," a new documentary that premiered this week on CBS All Access, looks at the short but fierce competition between Nintendo and Sega in the 1990s. The docu-

mentary was co-produced and co-directed by Blake J. Harris, author of the 2014 book "Console Wars: Sega, Nintendo, and the Battle That Defined a Generation." It's a battle that plays out in board rooms, beneath Christmas Trees, and in competing versions of "Mortal Kombat."

"Whenever you're at war, you always hit the guy in the mouth as hard as you can." Paul Rioux, identified as both a Vietnam war veteran and former Sega of America executive, says in the film. "If you can't hit 'em hard, you might as well not even fight."



Nintendo emerged victorious and survived to face more challengers. One of them is Sony, a rivalry that was explored earlier this year in a season of the "Business Wars" podcast. David Brown, the host of the podcast, says the story of Nintendo is fascinating on its own, but stacked up against a competitors, it's all the more intriguing. "I'm fascinated, for example, by why it is that people will wear a Nintendo logo," Mr. Brown says, "but not necessarily a Sony logo."

-Chris Kornelis

**A14** | Thursday, September 24, 2020

### ARTS IN REVIEW



**EXHIBITION REVIEW** 

## A Cross-Cultural Home

A show celebrates four remarkable designers who worked together in 1930s Tokyo

By Michael J. Lewis

Philadelphia ow often is an exhibition not just intellectually stimulating but emotionally healing? "Shofuso and Modernism: Mid-Century Collaboration Between Japan and Philadelphia" is so perfectly suited to our times you could suspect its curators of having known the pandemic was coming. For they present their superb selection of objects under the breeziest possible conditions, beneath the spreading roof of a traditional Japanese house, open to nature and essentially outdoors.

Shofuso is the model Japanese house that was built in 1954 for the Museum of Modern Art in New York as part of its "House in the Museum Garden" exhibition. In 1958 it was moved to its permanent home in Philadelphia's Fairmount Park, where it was installed in a Japanese garden. Shofuso is at once home to the exhibition and its most significant object. Constructed in the style of a 17th-century house, it could just as easily be called Mid-Century Modern, a reminder of how widely the sources of that movement stretched across time and space.

That eclectic sweep is the theme of "Shofuso and Modernism," which was organized by the Japan-America Society of Greater



Views of George Nakashima woodworker's interior in New Hope, Pa., above and below right; installation view of 'Shofuso and Modernism,' top; view of the Shofuso house in Philadelphia, below left

Philadelphia and curated by William Whitaker and Yuka Yokoyama. It celebrates the work of four remarkable designers who worked together in Tokyo in the 1930s. The founding figure was Antonin Raymond, an architect born near Prague who came to Japan to supervise construction of Frank Lloyd Wright's Imperial Hotel. He

stayed on, and together with his French wife, Noémi, established the most influential modern architectural firm of prewar Japan. Their clientele was diverse: wealthy Japanese who wanted houses in the fashionable International Style, but also foreign diplomats in need of new or updated quarters, including the American,

Soviet, French and Italian embassies. Business boomed, as we see in a rather moving 1935 photograph that shows the Raymonds with all 17 of their assistants.

Labor was smoothly divided in the Raymond office. Antonin was chief designer, while Junzo Yoshimura, a gifted designer in his own right, served as the Japanesespeaking job captain. Noémi designed the interiors and decorative art, while the furniture fell to George Nakashima, who was Japanese but American-born, and who had an almost spiritual reverence for wood. Looming war brought all to an end. In 1938, the Raymonds retreated to a farm in New Hope, outside Philadelphia, where they managed with great difficulty to extricate Nakashima from his internment camp in Idaho. There he made what is surely the saddest item in the exhibition, a humble toy chest for his daughter, built from leftover plywood from the construction of the camp barracks.

One need not master this intricate history to appreciate "Shofuso and Modernism." The star is the house itself, designed by Yoshimura, with its exposed wood frame and spreading roof of cedar bark, the only one outside Japan. Although such houses were meant to be spatially open and not cluttered with furniture, the curators sensibly decided that its main room (known by its dimensions as

a "15-mat room") might accommodate a dozen judiciously chosen objects by Noémi and Nakashima.

Of Noémi's work, alas, we see tantalizingly little, and leave wanting more. A few vibrant-colored textiles show her to be a designer of spirit and wit. Especially amusing are a pair of iron fire dogs that stretch and waddle like surrealist dachshunds.

Nakashima's work, by contrast, is heartfelt rather than playful. His mission, a statement of his philosophy declares, was to fill the "lag between mass production and hand craftsmanship." We see him attempting this in various ways. A robust chair with a corded hemp seat is an Arts and Crafts essay, while a Windsor chair made of birch takes an utterly conventional form and gracefully updates it for Knoll, the innovative furniture company. But he also loved free-form invention, especially when given a unique piece of wood. A lustrous walnut plank forms the top of a coffee table of 1947, showing the naturally irregu-

lar "free edge" that became his most recognizable device. It is abstract sculpture, but one must look at the sturdy legs of Nakashima's furniture, which always present a strong structural idea, to realize that he was a trained architect with a master's degree from M.I.T.

It is startling how good these midcentury objects look in Shofuso. Here the exhibition shows what imaginative juxtaposition can do, which is to make us see familiar objects as if for the first time. In this case, it makes the traditional house seem contemporary and the contemporary objects seem timeless. "Shofuso and Modernism" offers a thoughtful rejoinder to those for whom all cultural appropriation is misappropriation. The cultural exchange on display here is crosspollination at its most creative, as a quartet of designers, born in four different countries, came together to make work that transcended any cultural or geographic barrier.

One should make every effort to visit the exhibition before it closes on Nov. 29. Two suggestions: Be prepared to walk in your socks (which lets you feel the texture of the mats). And, when finished, buy a cup of fish food and take it to the spring-fed pond. You will be rewarded by a long caravan of koi, streaming happily to meet you. A gentle coda to an uncommonly soothing exhibition in these fraught times.

Shofuso and Modernism: Mid-Century Collaboration Between Japan and Philadelphia

Shofuso Japanese House and Gardens, Philadelphia, through Nov. 29

Mr. Lewis teaches architectural history at Williams and reviews architecture for the Journal.





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# JALEN ROSE

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NEW YORK POST

#### **A16** | Thursday, September 24, 2020

### **SPORTS**



Notre Dame, which temporarily joined the Atlantic Coast Conference for the 2020 college football season, had to postpone Saturday's game against Wake Forest.

# Virus Disrupts Notre Dame, ACC

Covid-19 outbreaks have affected four games and paused practices at several schools

ACC football has

unwittingly become

a microcosm for the

2020 season.

By Laine Higgins

he football season in the Atlantic Coast Conference is less than two weeks old and already under heavy pressure from a blitzing opponent: the coronavirus pandemic.

Since launching an amended pandemic-year schedule on Sept. 12, the 14-member conference plus Notre Dame has postponed or canceled four games. One team, Virginia Tech, has yet to play a game after two outbreaks, one on its squad and one on an opponent's roster. A head coach, Florida State's Mike Norvell, has tested positive for the virus and cannot interact inperson with his team.

Then on Tuesday, the ACC's marquee special guest-Notre Dame, which temporarily joined the conference for the 2020 season-said that an outbreak of seven positive tests on its roster this week meant that its scheduled game on Saturday against Wake Forest would be postponed. The game was rescheduled for Dec. 12.

The ACC's pandemic guidelines indicate that it will continue to play as long as 50% of its teams "continue to compete," giving it lots of leeway to continue even if some teams stopped playing. But the current situation shows how quickly things can get messy in an already shortened season.

Ten teams, including Notre Dame, paused practices at some point after reporting clusters of Covid-19 on their rosters. Players at Syracuse at one point over the summer refused to practice upon finding testing procedures inadequate.

Beyond the football field, North Carolina and North Carolina State

reverted to virtual instruction and sent undergraduates back home permanently after coronavirus outbreaks on campus. Notre Dame temporarily halted in-person activities due to a surge in infections, but resumed campus life just before football season began. Every other university in the league has experienced similar, albeit less intense, increases in Covid-19 infections

among students following move-in. Although the ACC is best known for its basketball prowess, the conference has unwittingly become a

microcosm for the 2020 college football season shaped by coronavirus. It's anyone's guess what the conference will look like by the time of its championship game on Dec. 19.

Consider the situation at Virginia Tech. The Hokies opener against N.C. State was postponed to Sept. 26 after an unspecified number of Wolfpack football players tested positive for Covid-19. N.C. State had paused all athletic practices days before the postponement after 27 athletes across all fall sports tested positive.

Then, last week's game against in-state rival Virginia was pushed off until Dec. 12 when Virginia Tech discovered a coronavirus cluster of undisclosed severity on its team and paused workouts for four davs Due to a bye week on Sept. 12, Virginia has also yet to take the field.

We're taking it one day at a time here and trying to get our guys ready to go," said Virginia Tech coach Justin Fuente on Monday. "Hopefully everything works out fine, and it all works out. I'm

not trying to raise alarm, but I'm also just being honest with the situation we're in."

At a certain point, Virginia Tech may run out of wiggle room.

What may be more likely is that the ACC will reach its season finale three months from now with many of its teams playing different numbers of games. It won't be the only conference to do so: the Southeastern Conference is squeezing 10 games into 12 weeks and the Big Ten will operate under an even tighter window of nine games in as

> many weeks. Notre Dame said Tuesday that it wouldn't be ready to play Wake Forest because seven of the team's 94 players tested positive and another 13 are in isolation due to contact tracing.

Health officials in St. Joseph County, Ind., where the university is located, advised the team not to practice until another round of test ing could be conducted, the second time the Fighting Irish have paused workouts due to outbreaks on the "We knew COVID would present

challenges throughout the season, and we'll always put student-athlete health and safety at the forefront of our decision making," said head coach Brian Kelly on Tuesday in a statement.

The outbreak at Notre Dame comes about two weeks after Jack Swarbrick, the university's athletic director, wrote a commentary piece for The Wall Street Journal's opinion section expressing confidence in the school's ability to manage the virus while playing a contact sport

on a campus where hundreds of students contracted Covid-19.

"Through last week, the 1,366 Covid-19 tests involving members of our football team produced 12 positive results," he wrote on Sept. 11. "This data across three months has reinforced our confidence that we can help keep our student-athletes safe with frequent testing, masks and carefully structured approaches to physical spaces, workouts and practice."

He added that "the structure and discipline of being 'in season' can have a positive impact and perhaps make student-athletes more focused and more cautious about their behavior."

Swarbrick could not be reached for comment.

Perhaps the most unusual coronavirus development to strike the ACC does not involve players, but one of its coaches.

On Sept. 20, Florida State said first-year head coach Norvell had tested positive for Covid-19 and would be out of commission for the Seminoles' upcoming game at Miami. Deputy head coach Chris Thomsen will take over on Saturday while Norvell watches from Tallahassee.

Florida State has not disclosed results from its thrice-weekly testing of players and football personnel. The university also declined to comment on whether any additional coaches or players would be isolated due to contact tracing related to Norvell's positive result.

In the meantime, Norvell has resorted to leading staff meetings and watching practices via Zoom.

"It's not ideal," he said. "But being able to make the most of it that's one of the great things about technology."

### Skating Goes Virtual

By Louise Radnofsky

U.S. FIGURE SKATING champion Nathan Chen started his new competitive season with a videographer, a cluster of proctors and instructions to display a time-stamp before he performed his program in an empty training rink. Then he had to quickly upload the recording to his sport's governing body.

This is how the figure skating world is experimenting with holding competitions during the pandemic: by having skaters perform verified routines that are recorded and then judged from afar.

It would be almost a week before Chen, the 2018 and 2019 world champion, would find out how he and his rivals had done. Their videos and scores from a remote judging panel were published online Tuesday by the U.S. Figure Skating Association.

With an uncertain international events calendar ahead, it was the surest way for Chen to debut his new programs.

Chen said he still felt some of the usual adrenaline of a contest, because skaters were allowed only a single shot at a performance, to be carried out on command. "At the end of the day, you still go in for your mission."

At the same time, there was a lot missing—like being able to eye up other skaters' efforts, which Chen has often done and then adjusted the number of quadruple jumps he might do accordingly. Or being able to draw energy from the crowd, or get any kind of feed-back in real time.

"It feels weird after every element that I do to just feel silence completely," Chen said, adding that not knowing how he'd been scored wasn't exactly comfortable either.

There were familiar parts too. Chen comfortably won the men's category.
U.S. Figure Skating is still

planning an in-person 2021 national championship for January. But the virtual option offers a potential fallback.



Figure skating star Nathan Chen

29 Medium ability

36 Athenian leader?

39 Mobster's fear

40 Least sensible

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45 Sees to it

states

48 Restaurant

chain begun

50 Senator Patty

52 Mice, to cats

Weinberg

59 Harriet's husband

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60 MLB semifinal

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round

63 Clock std.

Arthur

54 Folk singer

55 Deliberate

or "Stuff You

Should Know'

46 No. 2s in some

47 Nation whose full

name ends with

"Abode of Peace"

with a California

from Washington

34 Lady bird

38 Wipe out

#### Weather AccuWeather Plan your week | Get the NEW app Shown are today's noon positions of weather systems and precipitation. Temperature bands are highs for the day. 50s 0s 0 10s 20s 70s 30s 409 509 60s Boston 609 Hartford 70s 709 Salt Lake City Chicago 80s 90s Charleston 100-70s. 60s Los Angeles Charlotte Santa Fe 1005 BETA Birmingham Warm Rain 90s Jackson Cold T-storms Stationary Snow Orlando 8**0**s 11111 **U.S. Forecasts** s...sunny; pc... partly cloudy; c...cloudy; sh...showers;

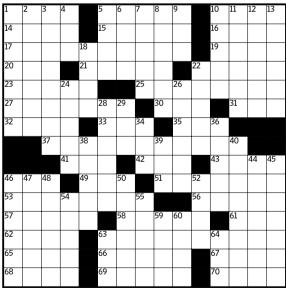
		Today	,	Tomorrow			
City	Hi	Lo	W	Hi	Lo	W	
Anchorage	55	46	c	55	45	r	
Atlanta	72	66	r	80	67	t	
Austin	83	60	S	86	66	S	
Baltimore	78	58	C	75	60	r	
Boise	73	52	pc	73	56	р	
Boston	77	58	pc	77	59	S	
Burlington	74	53	pc	77	59	р	
Charlotte	73	60	C	74	65	r	
Chicago	79	60	pc	81	66	S	
Cleveland	77	57	pc	77	59	S	
Dallas	80	63	pc	86	65	S	
Denver	89	58	S	90	55	S	
Detroit	79	56	pc	78	59	S	
Honolulu	88	74	pc	89	75	S	
Houston	81	64	pc	85	66	po	
Indianapolis	78	57	S	78	60	po	
Kansas City	80	60	pc	85	63	S	
Las Vegas	101	74	S	99	72	S	
Little Rock	73	59	C	81	62	po	
Los Angeles	86	63	S	82	62	po	
Miami	88	79	pc	87	78	t	
Milwaukee	77	61	C	77	65	S	
Minneapolis	75	60	t	83	58	po	
Nashville	67	61	r	77	64	C	
New Orleans	83	69	C	83	72	C	
New York City Oklahoma City	78 82	64 59	pc	80 87	64 62	po	
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City	Hi	Lo	W	Hi	Lo	W	
Omaha	86	62	рс	91	62	S	
Orlando	89	74	рс	90	75	t	
Philadelphia	78	60	рс	77	60	рс	
Phoenix	105	79	S	105	77	S	
Pittsburgh	77	54	C	77	55	pc	
Portland, Maine	76	54	рс	74	52	S	
Portland, Ore.	66	59	r	64	56	r	
Sacramento	86	56	S	87	61	S	
St. Louis	77	57	рс	82	64	рс	
Salt Lake City	88	59	S	82	56	pc	
San Francisco	75	58	pc	73	59	S	
Santa Fe	85	51	S	88	51	S	
Seattle	64	58	r	63	56	r	
Sioux Falls	86	63	pc	85	55	рс	
Wash., D.C.	78	61	c	75	63	r	

International														
Today Tomorrow														
City	Hi	Lo	W	Hi	Lo	W								
Amsterdam	62	48	sh	57	49	sh								
Athens	83	70	рс	86	70	S								
Baghdad	104	73	рс	105	73	pc								
Bangkok	88	78	r	92	78	t								
Beijing	77	59	sh	77	60	pc								
Berlin	71	56	pc	61	47	r								
Brussels	64	45	sh	57	45	sh								
Buenos Aires	67	61	рс	68	60	C								
Dubai	106	81	pc	104	82	pc								
Dublin	51	40	r	54	39	sh								
Edinburgh	53	38	C	54	37	pc								

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s Johannesburg 80 55 pc	83 61	pc
	58 43	pc
	67 43	pc
	90 79	t
	52 43	sh
	73 55	t
	66 50	t
	72 51	pc
	88 78	t
	58 45	sh
	30 72	S
	04 77	pc
	79 55	t
5	89 80	t
	79 56	S
	79 67	r
3 1 1 1	85 76	t
	73 49	pc
	82 75	r
	78 68	sh
	78 59	S
	61 52	r
	76 59	t
pc Zurich 71 47 sh !	53 43	r

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



**GOING UNDERCOVER** By Samuel A. Donaldson

Across
1 High priest?
5 Sudden rush
10 Pool shade
14 Febreze target
15 Boiling
16 Doesn't pass, perhaps
17.6

- 17 Good feelings 19 Some lighters 20 Book reviewer,
- in brief 21 Grad students' grillings 22 This is it 23 When one hand's
- up and the other's down
- 25 Golf bucket, e.g. 46 Dumbbell no 27 Change the locks? 49 You can bank on it 30 Not neg.

51 Philippines

53 Tests

56 Coins

threatener

depicting

57 Knock back

58 Lyon divider

61 Post-op stop

63 Yellowstone

sighting

formations

65 Geese

62 Just

springboks

- 31 Canine-care deg 32 Emmy winner de Matteo 33 Kinda-sorta 35 Forever stamp
  - letters 37 Operatives living in secret, and a hint to four squares in this arid
  - 41 Univ. divisions 42 "Not for me,
- thanks" 43 Swiss Guard charge
- 66 Totally freaking ► Solve this puzzle online and discuss it at WSJ.com/Puzzles.

- 68 Palace address
- 69 Pre-K attendees 70 Firm figs.

#### Down

- 1 Deuce, usually 2 Travel kit gadget 3 Overwhelming
- muddles 4 Ready for war
- 5 Bit of trash talk
- 6 Pie for dinner 7 Walled city of
- Spain
- 8 Keeps busy
- 9 Hollywood's Harris and Helms
- 10 Photographer Diane
- 11 Grilled
- 12 In the buff
- 13 They may be
- liquid or frozen
- 18 Cunning
- 22 Singer's squad
- 24 San Marino surrounder
- 26 Easily offended
- 28 Hoodwinks



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### **OPINION**

### Biden Can't Duck Trump's Court



By Daniel Henninger

Bader Ginsburg has been told more this week than the one about her warm relationship with conservative Justice Antonin

story

sonal

about

Scalia. It brings to mind similar stories of the "Friends after 6 p.m." camaraderie between Ronald Reagan and Democratic House Speaker Tip O'Neill. Thanks for the memories, but those days are gone.

With the prospect before us that on Saturday Donald Trump—a president loathed without limit by liberals—will nominate a conservative to the Supreme Court in the shadow of the 2020 election, we'd say

#### A Barrett or Lagoa nomination will give voters a choice about the justices' role.

"The Godfather" offers a more apt description of our politics just now: We are "going to the mattresses." To quote Con-Schumer: sigliere Chuck "Nothing is off the table." Nancy Pelosi is threatening fusillades of arrows.

How American politics went from live-and-let-live to tribal war is a long story, but the issue in front of us now is the Supreme Court of the United

That subject alone surfaces an important right-left distinction. While conservatives typically talk about "the court" as an institution and its compet- prescient Lewis Carroll's Queen whether you like him or not, the court's proper role. ing judicial philosophies, Demof Hearts ("Sentence first, verit's a vote to let democracy

ocrats and the left prefer No other perdiscussing the court in terms of discrete policy Ruth goals, such as abortion or various public services.

Thus did Democratic Sen. Dianne Feinstein summarize the battle this week: "Let's be clear what's at stakehealth insurance for millions of Americans and lifesaving protections for the 129 million people with preexisting conditions." about more than that.

In conservative circles, a famous date in the political system's descent into total war is 1987 and the hearings into Reagan's nomination of Robert Bork to the Supreme Court. Those hearings-actually, a show trial—were presided over by Judiciary Committee Chairman Joe Biden, an exercise that included the public excavation of Judge Bork's history of video rentals, which ironically included Alfred Hitchcock's "The Man Who Knew Too Much.'

With respect, we would like to call Robert Bork back as a witness to what happened to American politics and why we are going to war over what looks to be the nomination of the first conservative woman to the Supreme Court, likely either Judge Amy Coney Barrett or Judge Barbara Lagoa. Back in 1971, Bob Bork saw what was coming.

Writing for the Indiana Law Journal—by some accounts it is the 10th most cited lawiournal article of all time-Bork made an argument on behalf of judicial decisions based on principles in the Constitution versus rulings based on personal, albeit strongly held, values.

In an unstated homage to



dict afterwards!") Bork called judging based on personally derived values, "Decisions first, principles later."

But Bork didn't find much to be amused about in where such judging would take American democracy, which he posed as a question. What does a man conclude, he asked, about "a Court that does not share his politics or his morality? I can think of nothing except the assertion that he will ignore the Court whenever he can get away with it and overthrow it if he can."

And here we are, with prominent Democrats such as Rep. Jerrold Nadler and Sen. Edward Markey and liberal commentators promising to pack the court with additional justices if President Trump (whose 2016 election Democrats have rejected daily the past four years) doesn't stand down from his constitutional right to appoint RBG's replacement. They will overthrow the current court, if they can.

A main element of the election is tension between the Biden-led Democratic establishment and the ascendant Sanders-Warren progressives. As Rep. Alexandria Ocasiofor Joe Biden, it's not about

live another day." Mr. Biden didn't create

this division during the primaries. The Democratic Party has been moving leftward for years on policies affecting personal rights claims, the environment and regulatory authority-so much so that the possibility of liberalconservative legislative compromise in Congress all but disappeared.

Ever resourceful, the left turned to filing policy-outcome lawsuits whose goals were implemented by policy-oriented federal judges, effectively making the courts a parallel legislature. Decisions first, principles never.

The culture wars fought in so many presidential elections didn't originate in legislatures. They came out of left-liberal judicial decisions. A Barrett or Lagoa Supreme Court won't "make" conservative policy. It likely will force policy making back into legislatures, where it belongs.

Robert Bork asked 50 years ago whether Americans understood enough of what was happening to the courts to be able to say they had consented to it. The left's use of the judiciary as a parallel legislature has rarely been put clearly before Americans, in large part because Democratic candidates won't talk about it.

With this nomination, which the Senate may confirm days before the election (the real one Nov. 3, not the mail-in tabulation weeks later), Mr. Trump is forcing an important and overdue choice before the country's voters. We'll see in Tuesday's debate whether Mr. Cortez acidly put it: "Voting Biden can get through the evening ducking the question of

Write henninger@wsj.com.

**BOOKSHELF** | By Adam J. White

### Self-Government Minus the Self

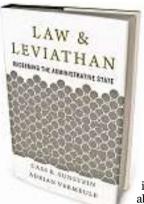
#### Law & Leviathan

By Cass R. Sunstein and Adrian Vermeule (Belknap/Harvard, 188 pages, \$25.95)

he U.S. Constitution's separation of powers is a concession to man's fallibility. Man tends to abuse power, so the Founders dispersed it. To preserve liberty and promote the public interest requires not just intentions but also institutions.

Yet when we think of our institutions merely as safeguards, we sell them short. Clarence Thomas, then a young regulator, contended in 1987 that the task of constitutional selfgovernment "is not replacing good intentions with good institutions, but rather having good institutions that protect and reinforce good intentions." Congress embodies the Founders' aims for moderation and deliberation in making laws; the presidency for energetic and steady administration of those laws; and the courts for dispassionate maintenance of the rule of law.

But more recently, America created new institutions namely the alphabet soup of federal agencies that constitute the "administrative state," from the Federal Trade Commission to the Consumer Financial Protection Bureau—to make rules or decide disputes much more swiftly and unilaterally. These new institutions embody aims quite different from those of the Founders: less democratic accountability and more technocratic authority, among other things. And the creators of these



new institutions succeeded. Today the main engine of federal lawmaking is the administrative state, not Congress.

Justice Thomas and other judges and scholars have grown increasingly vocal in challenging the administrative state's constitutional legitimacy. They question the statutes and judicial precedents that undergird the administrative state. In courtmade doctrines of judicial "deference" to agencies' legal interpretations, these jurists see abdication of the Constitution's "iudicial power." In old statutes

giving some agencies substantial independence from presidential control, they see violations of the Constitution's grant of "executive power" to the president alone. And in old statutes empowering agencies to regulate with minimal limits, they see violations of the Constitution's vesting of "legislative" powers" in the Congress alone. All of these, they argue, undermine republican government and the rule of law.

Cass R. Sunstein and Adrian Vermeule reject that position in "Law & Leviathan: Redeeming the Administrative State." Mr. Sunstein was President Obama's White House regulatory coordinator and is perhaps the leading regulatory thinker in Democratic policy-making circles. Mr. Vermeule is an intellectual leader for a rising generation of conservatives who demand a much more explicitly paternalistic and moralistic constitutionalism. While the two Harvard Law professors surely disagree on many things, they both believe that the administrative state doesn't undermine the rule of law but exemplifies it.

Drawing inspiration from "The Morality of Law" (1964), a major work of legal philosophy by Lon Fuller, they argue that "American administrative law has its own internal morality," which "embraces many of the concerns and objections of those who are deeply skeptical of the administrative state" and which ultimately serves to "both empower and constrain the administrative state."

Fuller contrasted administrative law's morality with eight ways in which policy makers can fail. The "first and most obvious" of these was a failure to make rules at all ("so that every issue must be decided on an ad hoc basis"); the others included "a failure to make rules understandable" and "introducing such frequent changes in the rules that the subject cannot orient his actions by them." While acknowledging that Fuller's approach has its limits, Messrs. Sunstein and Vermeule identify similar principles animating the Supreme Court's decisions governing agency action.

#### Two Harvard professors—one from the left, the other from the right—defend the 'morality' of the administrative state.

Take, for example, their account of the Supreme Court's rule that an agency must follow its own rules—the doctrine of Arizona Grocery v. Atchison, Toneka & Santa Fe (1932). This rule is "foundational" for limiting agency discretion, they write, yet "remarkably, the US Supreme Court has never clarified" the actual legal basis for such a standard, and it is not clear, the authors insist, that any such statutory basis exists. In the absence of such a basis in written law, Messrs, Sunstein and Vermeule see Arizona Grocery as exemplifying Fuller's natural moral principle of "congruence between the rules as announced and their actual administration."

Similarly, in the court's increasing tendency to give more deference to agencies' longstanding legal interpretations and less deference to agencies' novel or inconsistent ones, Messrs. Sunstein and Vermeule see Fuller's moral principle against "frequent changes in rules." These doctrines seem to reflect judges' own prudential view rather than the more concrete foundation of, say, the Administrative Procedure Act of 1946, which set the basic rules for agency process and judicial review. But this absence of hard statutory foundation is, for Messrs. Sunstein and Vermeule, evidence of the natural, though invisible, gravitational pull of administrative law's

The authors freely admit that the administrative state is not perfect. But, they contend, it is far better than its critics allow. And administrative law's morality helps to "legitimate the administrative state," not just "as arbitrary command but as law."

"Law & Leviathan" makes a strong case for the administrative state as a "lawful" state. But what kind of law is it full of? Again, Congress was built to produce laws through deliberation, negotiation and compromise; those laws can then be changed only by the same laborious process. Administrative agencies, built quite differently, produce laws much more swiftly and unilaterally—and those laws can be remade or unmade just as swiftly and unilaterally by the next administration. The administrative state might govern us by a rule of law, but its rule is much less moderate, and much less steady, than the rule envisioned by the Founders.

When governance becomes a matter of administrative assertion rather than legislative deliberation, politics becomes a matter of power rather than persuasion. The administrative state demoralizes citizens, in both senses of the word.

Mr. White is a resident scholar at the American Enterprise Institute and director of George Mason University's C. Boyden Gray Center for the Study of the Administrative State.

### Here We Go Again: Debates Start Tuesday

By Karl Rove

n Tuesday night, President Trump and former Vice President Joe Biden will arrive on the healtheducation campus of Case Western Reserve University and the Cleveland Clinic to begin the first presidential debate of the general election. This "Clash in Cleveland" will have its own tempo and tone, but the 36 such debates since 1960 have elements in common.

Incumbents often do badly in the first debate, perhaps because after being president for four years, they wonder why they're even sharing the stage with a challenger. Or maybe many challengers, with fewer demands on their time, come better prepared and psyched up.

Mitt Romney was widely thought to have manhandled President Barack Obama in 2012's opening bout. President Ronald Reagan did so poorly in the first 1984 debate with Walter Mondale that news reports questioned whether, at 73, he was too old. Reagan answered that in the next debate with a joke: "I am not going to exploit, for political purposes, my opponent's youth and inexperience." (Mr. Mondale was 56.) Game, set, match.

Yet debates are rarely dispositive. It's the unusual encounter-think the first Kennedy-Nixon debate in 1960new direction. Sen. John F. ing while George W. Bush was memorable lines tagging an Kennedy trailed going into that debate but won among people who watched on television, as Vice President Richard Nixon perspired with no makeup and a 5 o'clock shadow. JFK came across as elegant and in command. He emerged with a durable polling bump and went on to win narrowly.

Usually, though, debates tend to harden trends already as well as obscure. The kerfufpresent in the race. Take the fle over President Gerald bungled coronavirus response, second 1988 debate, when Ford's 1976 denial that the So-CNN's Bernie Shaw asked Michael Dukakis, "If Kitty Duka-

#### Trump and Biden continue the tradition JFK and Nixon began six decades ago.

kis, were raped and murdered, would you favor an irrevocable death penalty for the killer?" Historian John Pitney characterized Mr. Dukakis's "robotic response"-"No, I don't, Bernard"—as sounding "as if he were talking about Swedish land-use planning." But this didn't change the race's trajectory. Mr. Dukakis had already fallen behind in August amid charges that he was too far left; the debate continued his slide.

Small gestures and actions are magnified by the moment. that bends the contest in a Al Gore's sighing and eye-roll-

speaking in the first debate of opponent's weakness. Every 2000, and Mr. Bush's head nod in the third debate when Mr. Gore tried intimidating him by invading his space, left the impression that Mr. Gore was the go again" retort to Jimmy insufferable, smarty-pants high-school debater every classmate detested. Appearing likable is key to winning the night.

Such moments can inform Europe took days to walk back, chewing up time that lower drug costs. could have been devoted to better issues for Ford.

Expectations also matter. Each camp should lower them for its candidate and raise them for its opponent. That's why Mr. Trump's comments on Mr. Biden's incoherence have been striking and why the Trump campaign recently shifted gears. Reports have surfaced of Mr. Trump privately and his team publicly reflecting on Mr. Biden's long history of Senate and vice presidential debates, and his seasoning in this year's dozen primary debates in which he held his own, even though Sen. Bernie Sanders held back in the final mano-a-mano contest because the race was over. That won't be the case Tuesday, but Mr. Trump should be careful not to go over the top with personal attacks.

There will probably be

candidate comes armed with some. They must be delivered naturally but are rarely as effective as Reagan's "There you Carter in 1980.

Most important for debaters is to remember the rationale for their candidacy, their theory of the case. Mr. Biden's is simple: This election is a referendum on Mr. Trump's and Mr. Biden is a normal viet Union dominated Eastern Democrat who can be trusted to improve health care and

For his part, Mr. Trump must use the debates to make this a choice election. This requires him to remind voters what he's done and explain what he'll do that's new in a second term, and then contrast both with Mr. Biden's

Covid-19 has denied us the months of appearances and news conferences that reveal the candidates' personalities, values and abilities. For good or ill, voters know Mr. Trump; they don't possess anywhere near the same information about Mr. Biden. That leaves him with more to gain and more to lose in Cleveland.

Mr. Rove helped organize the political-action committee American Crossroads and is author of "The Triumph of William McKinley" (Simon & Schuster, 2015).

### Africans Knock on America's Door

By Dave Seminara

he left keeps saying America is systemically racist and President Trump is a white supremacist. So why do so many black Africans want to immigrate?

On Sept. 4 the State Department released statistics on the green-card lottery, a good gauge for U.S. visa demand because anyone with a high-school diploma or specialized work experience is eligible to apply. For fiscal 2020, the number of applicants from 47 eligible Sub-Saharan African nations was 9.2 million, compared with only 2.8 million in fiscal 2011.

Residents of the countries that send the most immigrants-including Brazil. China, India and Mexico—may not apply. Hopefuls apply in the fall and receive their visas

2011 applicants would have Lottery winners who didn't study from the University of applied in the fall of 2009. Nigeria, the lone African country excluded from the program, was eligible until 2015. Between fiscal 2010 and 2016, an average of 14.9 million foreign nationals in all registered for

Why would millions want to immigrate if the U.S. is a land of 'systemic racism'?

the annual lottery. From 2017 and 2020, the average figure was 21.9 million a year.

The Trump administration, which has sought to eliminate the program, recently tightened its eligibility requirements, and subsequently applications for the fiscal 2021 a year or more later, so fiscal program sank to 11.8 million.

obtain visas because of Trump's June moratorium on bor-force participation rate is immigration sued, and a federal judge ordered the State Department to resume processing visas. A group called African Communities Together is also suing over a new requirement that applicants have valid passports. The application period for the 2021 program was last fall, so there's no connection to this year's racial unrest, and the dip is likely attributable to the new application requirements.

Clearly most aspiring immigrants from Africa don't buy the left's thesis that America is a racist country. Why should they? By most measures African immigrants are successful. Pew Research reports that African immigrants are more likely than author of "Bed, Breakfast & Americans overall to have a college degree, and a recent From the Margins of Europe."

Kansas reveals that their la-73%, 10 points higher than that of the overall population. By some measures, Nigerians are the most successful immigrant group in the country. Fifty-nine percent have a college degree, more than double the population as a whole; and in 2018 their median household income was nearly \$7,000 higher than the average.

If leftists really believed America is a hostile, dangerous place for nonwhites, wouldn't they be warning potential immigrants from Africa and elsewhere not to

Mr. Seminara is a journalist and former diplomat. He is Drunken Threats: Dispatches **A18** | Thursday, September 24, 2020

### Good Vaccine Progress, Bad Politics

enters Phase 3, never

mind the carpers.

that its vaccine candidate for Covid-19 will enter Phase 3 trials, the fourth to do so. The speed of vaccine de-A fourth candidate

velopment is remarkable, and credit goes to scientific advances and some smart government decisions.

The shame is that this good news has been swamped by

the politicization of vaccines, like everything else about Covid-19. Democrats say the Trump Administration is compromising safety by rushing out a vaccine before the election, while Mr. Trump is playing into their hands by overpromising and trolling regulators. "Big news. Numerous great companies are seeing fantastic results. @FDA must move quickly!" he tweeted Wednesday.

There's no evidence the Food and Drug Administration or vaccine makers are cutting corners in clinical trials, and they have no incentive to do so. But by sowing distrust in the process, politicians may make it harder to convince Americans to get inoculated once a vaccine proves to be safe and effective.

Centers for Disease Control and Prevention Director Robert Redfield last week wisely tamped down hope that a vaccine could be available next month. Pfizer has said it could seek regulatory approval for its vaccine as soon as October if early data from its Phase 3 trial

But initial doses would likely be reserved for health-care workers, nursing-home residents and high-risk individuals. The FDA is also planning to issue guidance this week that manufacturers should track participants in Phase 3 trials for at least two months after their second shot before seeking emergency authorization. This makes it unlikely that a vaccine would be approved before Election Day.

Phase 3 trials test for efficacy and safety in some 30,000 people and are crucial because vaccines must generate antibodies that prevent illness in the real world. Rare side effects can also appear in larger populations, though these usually occur within 40 or so days of in-

Politics aside, the Covid vaccine project looks so far like a private-public success story. Vaccines typically take a decade to develop, and the Covid-19 genome was deciphered only nine months ago. Companies are benefiting from

ohnson & Johnson announced Wednesday years of investment in vaccine platforms for other diseases and advances in genetic sequencing. The FDA has helped by providing reg-

ular, nearly real time, feedback on their protocols and data analysis.

But manufacturers and the FDA aren't sacrificing safety for speed. FDA Commissioner Stephen Hahn has promised

to allow an outside panel of experts to review trial results. While companies are understandably reluctant to disclose their protocols for competitive reasons, Pfizer, Moderna and AstraZeneca have done so-which still hasn't pleased the Twitter carpers who fear Mr. Trump might get some credit if a vaccine is approved before the election.

AstraZeneca this month halted its trial enrollment when a healthy 37-year-old volunteer developed transverse myelitis, a rare disease that causes spinal inflammation. The patient is recovering and the company has resumed enrollment in the U.K. after determining the disorder was not likely caused by the vaccine.

Other side effects may occur as trials continue. An estimated 10 individuals per million who received the swine flu vaccine in 1976 developed Guillain-Barré syndrome, in which the immune system attacks nerves. But about 80 to 160 new Guillain-Barré cases occur each week in the U.S., and the disorder has been linked to viruses including the flu.

If severe reactions emerge in trials, the public will have to keep perspective. Covid has also been found to cause long-term damage in previously healthy individuals, and regulators will have to weigh the overall public-health risks and benefits.

The good news is that Health and Human Services has invested in a portfolio of six vaccine candidates, lest some fail or prove less effective. It has also signed contracts with companies to produce hundreds of millions of doses in advance so they can be rolled out quickly upon FDA approval. This is a financial risk well worth taking.

The Administration is coordinating with McKesson, retail pharmacies and others to distribute vaccines. If one or more vaccines are approved this year, they could be widely available to most Americans in the spring. If that happens, the credit will go to drug-company innovation combined with government cash and coordination.

### Justice for Breonna Taylor

Kentucky's Attorney

General argues for

truth over narratives.

t a time when Americans have watched too many public officials abdicate their responsibilities to uphold the law, Ken-

tucky Attorney General Daniel Cameron on Wednesday proved to be an encouraging exception.

Mr. Cameron is the special prosecutor handling the Louisville police shooting of Bre-

protests. Taylor was killed when police returned fire from her boyfriend during a home raid gone bad. On Wednesday Mr. Cameron had the unenviable task of explaining the grand jury's decision to return criminal charges—three counts of wanton endangerment—against only one of the officers, Brett Hankison. He said the investigation concluded the two other officers were justified in returning fire.

Mr. Cameron said he knows many won't be happy with this decision, not least the protesters in Louisville who clashed with cops after they heard the news. But he insisted that the

system operate on facts, evidence and the law, not "emotion or outrage." He also confirmed another fact that had been misreported: The

> police did knock and announce themselves, and they had a civilian witness to corroborate it.

> Mr. Cameron's manner was calm and deliberate, always returning to facts and

Taylor, which has sparked nationwide law. His handling of a difficult task ought to reassure Americans who worry about police who use excessive force, but also about the riots following some police shootings and cases of politicized justice.

> Mr. Cameron said his "heart breaks" for the Taylor family, that Breonna's death is a "tragedy," and that "as a black man" he understands the pain the community feels. But he says this has made his team all the more determined to get to the facts. Now, he says, it is up to the community: "Our reaction to the truth today savs what kind of society we want to be. Do we really want the truth, or do we want a truth that fits our narrative?"

#### **Hunter Biden's Business**

A Senate report reveals

Joe's passivity amid his

son's influence-peddling.

oe Biden is running against Donald Trump's character and supposed corruption, so a Senate report documenting the Biden family's ethical swampi-

ness certainly counts as news. Senate committee Chairmen Ron Johnson and Chuck Grassley on Wednesday released the findings of their

year-long investigation into the problems that the business dealings of Hunter Biden, Joe's son, presented to the Obama-Biden administration. The report makes clear Hunter was profiting off his father's position—in Ukraine, and notably in China. Foreigners knew they were buying influence by association.

The Ukrainian gas company Burisma hired Hunter to "consult" on corporate governance in May 2014, only weeks after Vice President Biden took the U.S. lead in helping Ukraine fight corruption. Burisma was a top investigation target, and U.K. officials had seized the London bank accounts of Burisma's owner. Hunter had no experience in Ukraine or natural gas. The report cites emails showing Hunter and his business associate, Devon Archer, requesting meetings with State Department officials after their Burisma appointments.

Former State official George Kent wrote to superiors in 2016 that Hunter's Burisma position made it "very awkward for all U.S. officials pushing an anti-corruption agenda in Ukraine." He testified that officials had to worry about "opponents" saying "What about Hunter Biden?" State Department email chains show U.S. officials mulling how to handle the Hunter problem.

Committee documents show Hunter's busi-

nesses received millions of dollars from other deals with foreigners during the Obama years. This included a \$3.5 million wire transfer in

2014 from Elena Baturina, the widow of the former mayor of Moscow.

The report details a "vast web of corporate connections and financial transactions between and among the Bi-

den family and Chinese nationals." Several of these transactions involved Hunter and Joe Biden's brother, James. No charges have been filed against the Bidens, who say they did nothing wrong.

Mr. Kent raised Hunter's Burisma ties with Joe Biden's staff in 2015. And former Obama Special Envoy Amos Hochstein that same year took it directly to the Vice President, warning that Russians and corrupt oligarchs would use Hunter's position to "undermine [Vice President Biden's] message."

Yet Mr. Biden never stopped Hunter or recused himself from work on Ukraine, China or elsewhere. Joe Biden said last year that "I have never spoken to my son about his overseas business dealings." But the report includes testimony that he was informed and discussed it

Democrats and the press are dismissing this as old news, but the facts show this was a legitimate area for investigation—especially after Democrats made Ukraine the center of their impeachment case. At best Hunter's tale is an example of egregious Beltway influence-peddling and a father's passivity despite warnings. Voters can now add this to their election calculus, and decide whether this is what Joe Biden means by a return to normalcy.

#### LETTERS TO THE EDITOR

#### The Late Justice Ginsburg and Her Successor

Regarding your editorial "Breaking Judicial Norms: A History' (Sept. 21): While I agree with the historical record that it is the Democratic Party which has challenged or ignored historical precedent when it got in the way of achieving or enhancing political power, that is only part of the current calculation. It looks like a certainty that if Joe Biden wins and the Democrats take the Senate they will abolish the filibuster and pack the Supreme Court, regardless of whether Ruth Bader Ginsburg's seat is filled by the current Senate or not. But the issue for me is less the nomination than the current state of the na-

The level of disunity in our society has reached epic proportions for modern times and could very well be close to a breaking point. Yes, the Constitution's instructions support President Trump nominating and the Republican-led Senate confirming his nominee before Jan. 20, and historical precedent also supports doing so. But there is no precedent for this exact timing.

If Republicans like me believe that Donald Trump can win and Republicans can hold the Senate, then the new nominee can be confirmed after Jan. 20, 2021, or before then once the election results are certi-

Your suggestion to confirm before then carries serious downside risk, even to the point of warfare on our streets. For those reasons, I am willing to take my chances and delay confirmation until after the November election.

SAUL STEIN Cordova, Tenn.

The maxim "be careful what you wish for" applies to filling the Ginsburg vacancy during the Trump presidency. While I support appointing another "conservative" justice to the Supreme Court, if President Trump succeeds in doing so before the election there would be one less reason to vote for him, and enraged Democrats would be more determined to take retribution on Nov. 3.

GREG BYRNE Oracle, Ariz.

A president has the power to appoint members to the Supreme Court as long as his term lasts. The greatest Supreme Court justice in American history was nominated by a president who had already lost the election: Lame-duck President John Adams appointed John Marshall in 1801.

> BOB IRVIN Atlanta

Face it, this is going to happen. It's about political expediency. Who said never let a crisis go to waste? Had President Obama had a Senate majority, Merrick Garland, or more likely someone more progressive, would be on the Supreme Court today despite the "Biden rule" or Republican moral pretexts. It's going to be fun to watch the Democrats go after a woman nominee.

> JON LINKER Houston

With all the talk of it being unseemly to fill the Supreme Court seat vacated by the death of Justice Ginsburg, it is appropriate to understand that filling it in the few weeks before the 2020 election isn't without precedent: William O. Douglas was confirmed in 14 days, John Paul Stevens was confirmed in a good bit less than a month, Sandra Day O'Connor was confirmed in about a month and Justice Ginsburg's confirmation took a month and a half.

President Trump can temporarily fill the vacant Supreme Court seat by making a recess appointment, which has been done many times in the past. A recess appointment under Article II, Section 2, Clause 3 of the Constitution is an alternative method of appointing officials that allows the filling of vacancies to maintain the continuity of government through the temporary filling of offices during periods when the Senate isn't in session. To date, more than 300 federal judges have received recess appointments, including Supreme Court Justices William J. Brennan Jr., Thurgood Marshall, Potter Stewart and Chief Justice Earl Warren.

KENNETH HANSEN Gulfport, Fla.

Herbert Hoover and Lyndon Johnson both had Supreme Court nominees confirmed during an election year when their respective parties controlled the Senate. Presidents Obama and Eisenhower had confirmation votes delayed when the opposition party controlled the Senate, although Justice Brennan was confirmed after the election by a Democratic Senate. That's overwhelmingly been the historical pattern.

You may believe, like journalist Michael Barone, that all process arguments are insincere. But if there's a prize for hypocrisy, the Democrats are winning. Their argument is that you should hold a vote when the president and the Senate are from different parties (2016), but not when they're from the same party (2020).

KEVIN CLARK Franklin, Tenn.

#### What Evidence Is There of Big Tech's Harm?

In "Breaking Up or Better Regulating Big Tech?" (Letters, Sept. 21), Rep. Ken Buck calls the analysis in our article "The Misguided Antitrust Attack on Big Tech" (op-ed, Sept. 15) "simplistic and flawed" and claims that "the bipartisan instigator" of congressional antitrust concern is "that big tech companies are using their market dominance to strangle competition at the expense of the American consumer." The purpose of our article was to show the massive

#### Biden's Proposed Spending Comes With a High Cost

Democratic presidential candidate Joe Biden continues to trot out new spending proposals that are not only hopelessly unrealistic but also disturbingly reckless ("Biden Pitches Highest Spending in Decades," U.S. News, Sept. 15). Government spending already is well out of control and has been for some time. Even if Congress halted all the coronavirus emergency spending immediately, the previous underlying trends would persist and federal deficits and debt would continue swelling. It is just a matter of time before the potentially catastrophic consequences of this profligacy arise.

The current fiscal crisis results from years of extravagant promises by politicians, along with the rationale provided by economists and budget "experts" justifying deficit spending and ever-expanding government. The reckoning is now at hand. Until Congress gets spending under control, any proposals for vast new government programs should be dismissed as dangerous and immoral seductions.

PATRICK LOUIS KNUDSEN Alexandria, Va.

Mr. Knudsen served on the staff of the House Budget Committee from 1991 to 2011 and from 2015 to 2018.

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.

consumer benefits coming from the rise of American big tech companies. If Congress has evidence that consumers are being harmed, it should present it. To this point, as far as we are aware, no one has demonstrated that consumers have been harmed by the dominance of American tech companies.

We also questioned the desirability of dismembering American tech companies, which dominate the world's fastest-growing market, generate millions of jobs and yield equity values that are now a cornerstone of the private retirement security of tens of millions of American families

In the same issue of the Journal, letters by David Peterson and Sam Ashenbrenner both raise the issue of political bias in tech companies' content-control practices. This is not an antitrust issue. Congress gave socialmedia companies immunity from liability related to content moderation principally to deal with pornography. If Congress doesn't want tech companies to control political content it can reconsider the immunity granted in Section 230 of the Communications Decency Act.

PHIL GRAMM Helotes, Texas JERRY ELLIG Cassatt, S.C.

#### Pepper ... And Salt

THE WALL STREET JOURNAL



"I have the App but not the stomach to watch my retirement fund in real time."

P2JW268000-4-A01900-1----XA

#### **OPINION**

### No Need to Sweat Covid Vaccination Rates

By Tomas J. Philipson

resident Trump has said he hopes the federal government can begin distributing a Covid-19 vaccine in October. Many in the public-health community are skeptical, arguing instead for a more controlled, and likely slower, release. The National Academies of Sciences, Engineering and Medicine have recommended heavy-handed government rationing during the initial rollout. Science magazine reports that only half the U.S. population may eventually want the vaccine, a level too low to achieve herd immunity. Some in the media and the publichealth community are arguing that all this necessitates continued restrictions on economic activity.

As long as seniors and essential workers are immunized, deaths will drop and life can resume.

But the pessimism over a vaccine rollout and worries over widespread vaccination are misguided. The most critical factor for a disease like Covid-19 isn't the vaccination rate or how many people demand the vaccine, but who demands it. Given that 85% of deaths have occurred in the 15% of the population above 65, the mortality rate would drop dramatically if high-risk groups such as seniors are vaccinated, even if the overall vaccination rate is low. Private demand will push in this direction without broad government intervention.

Generally, demand for any product rises with a lower price and higher quality. Vaccines are no different. Regarding prices, some Operation Warp Speed contracts will enhance take-up by requiring free distribution of vaccines. Public and private insurance programs are likely to eliminate copayments.

But monetary price of the vaccine isn't the main barrier to wide adoption. The quality attributes that drive vaccine demand are its effectiveness in preventing infection and its safety. The better the vaccine is at reducing infection risk and the lower the risk of side effects, the higher the take-up rate will be. Infection risk is driven by the prevalence of the virus and the risk of serious complications, both of which raise demand. There may be no demand for the vaccine among some, such as professed anti-vaxxers. This is the case for polio; disease prevalence is low and thus fears of side effects

This role of prevalence in driving vaccine demand explains why vaccine-preventable diseases often come and go in cycles. Vaccination rates shoot up with outbreaks, limiting future disease, and fall when the disease is dormant. Analogous cycles have occurred with Covid-19. As the number of new cases falls, private and public preventive measures ease and the disease starts to spread again.

These patterns suggest demand for a Covid-19 vaccine will be highest among two groups. The first is health-care and other essential workers whose jobs put them at



A patient in Hollywood, Fla., gets a Covid shot in a clinical trial, Sept. 9.

greater risk of infection. The second is elderly or other vulnerable people, among whom infection has proved most deadly. If these two groups were the only ones receiving a vaccine, the overall vaccination rate would be low but mortality would be reduced enormously.

Moreover, these high-risk groups place great value on accelerated Food and Drug Administration approval of a vaccine, even an imperfect one. If the choice is between going unvaccinated and trying a vaccine with a low level of effectiveness, many will choose to get the shot. Where there will likely be slack demand is among low-risk groups, especially if they are concerned, rightly or wrongly, that the FDA is understating the potential side effects.

Covid-19's case fatality rate for otherwise young and healthy adults is comparable to that of seasonal flu, and Centers for Disease Control and Prevention data suggest only about half of adults get vaccinated for the flu every year. A similar lack of demand for a Covid-19 vaccine would be less consequential in reducing deaths. If those at low risk of death choose not to take the vaccine, it may prevent the herd immunity needed for the virus to disappear. but the health risks would be assumed by those who chose not to take an effective vaccine.

The president's distribution plan allows for 100 million doses at the time of FDA approval and 700 million doses by the end of March 2021. This will be enough to meet demand from high-risk populations quickly, even if double doses are needed. The overall number of Covid-19 deaths should fall greatly thanks to early high demand from high-risk groups, even though the overall vaccination rate may remain low. There has been much debate over how long it will take to complete the rollout. But what's important for cutting mortality quickly is not when the rollout is completed but when it starts, given the high initial demand from highrisk populations.

In late March 2020, I advised the president that after successfully bending the curve," the best strategy to resume economic growth while keeping mortality at bay would be to twofold. First, invest in protecting the high-risk elderly population, who tend to be retired and economically inactive. Second, let younger people with lower risk get back to work and resume their contributions to the economy. This lowmortality, high-growth strategy seems to be what America and other countries have converged on. It may be the most efficient way to minimize the disease's total harm, human and economic, which in the U.S. may be lower than some countries held up as role models.

A successful part of such a lowmortality, high-growth strategy would rely on public investments focused on stimulating vaccine demand among the elderly and other highrisk groups. These investments could help prevent spread across generations, which is the main argument against the young participating in the economy. Such a strategy would quickly cut overall mortality—and allow society to open up the economy.

Mr. Philipson, a professor at the University of Chicago, served on the White House Council of Economic Advisers as a member and acting chairman from 2017-20.

### Before Reporting Became 'Journalism'

By Lance Morrow

y father's favorite word of dismissal was "phony." As a young man, he worked for the Philadelphia Inquirer. For him and his fellow reporters, phony was the watchword—an instinct. That period—the late 1930s, going into the war—had the atmosphere of a movie by Frank Capra, who was big on newspaper reporters as everyman types. After the calamitous suckerpunch of the Great Depression, a guy didn't want to be a sap.

That generation of reporters would rather have died, or moved permanently to Albany, N.Y., than call themselves "journalists." The term itself was phony. When young Henry Luce, who went on to co-found the Time-Life empire, was just out of Yale, he showed up for his job at the Chicago Daily News (as a legman for the columnist Ben Hecht, who, with Charles MacArthur, would write 'The Front Page"), he carried a walking stick and a briefcase. The editor looked him up and down and said, "Ah, Mr. Luce. A journalist, I see."

The lesson I absorbed as a boy was that the work of reporting called for a disinfected mind that busied itself, with little-guy sympathies and self-effacing clarity, on available facts, collected conscientiously. The ideal was fairness: Let the reader decide. It would not have occurred to my father or his fellow reporters, or to me in my apprentice days at the Buffalo News or the Washington Star, to drape the facts in adjectives and adverbs and attitude. The eye of the city editor (the great Sid Epstein at the Star, for example) was vigilant and scathing: Who gives a damn

what *you* think? If a sensitive person, or, God forbid, one of us on the newspaper staff, had declared that something or other made him feel "uncomfortable" or "unsafe" or constituted a "microaggression," the answer would have been an incredulous stare: "So what?" If it happened again: "You're fired."

The journalistic paragon of my youth was David Broder, who covered politics for the Star and later moved to the Washington Post. He was everything that a reporter in the old model ought to be: dispassionate, nonpartisan, encyclopedic in his knowledge of his subject. Broder had not a trace of the disabling egotism, ruthless ambition or partisan zealotry that afflict media stars today.

Writers subdued their egos and encouraged readers to think. Nowadays it's all about arousing emotion.

It would be silly to idealize the old journalism, which had its problems, including excessive deference to authority and massive sins of omission in the scope of its curiosity; anyway, it belonged to a different world. But it had this virtue: The work, subduing the ego of the reporter, implied respect for the independent mind of the reader.

Alas, the independent, nonpartisan mind went out of fashion years ago in politics, media, academia and even corporate life. Emphasis on the integrity of individual judgment has all but disappeared in the face of identity politics, the religion of diversity and the radical corruption of American universities—the effect everywhere intensified by this year's obsessive and, one might say, compulsory racialism. America won't be an honest country until those influences have been defeated or have burned themselves out. It may take years, a generation or two.

For now, in the annus insanus of 2020, we are afflicted by a pandemic of media phoniness. Plastering the facts with attitude—tilting the story to the party line, moralizing it, sentimentalizing it, propagandizing it is the way of noisy, distracted cable news and, increasingly, of all media. Not a sparrow falls without the New York Times, in its news columns, telling the reader that the bird was shot by a "white supremacist." News is laid before the citizen's mind so packaged and tarted up with a narrative line that the simple facts are often impossible to discern.

This is not honest reporting but garish, partisan fabulation. Its object is not to inform, or to encourage reflection, but to stimulate feelings. Let not the listener or viewer or reader be detained by thought but instead move briskly on to emotions, which are the addictive and highly profitable drugs in which big media traffic. News media become crack houses of information and, all the while, ruthless participants in the struggle for political power and for what the parsons on "Morning Joe" call "the soul of America."

Journalism's metaphysical decline proceeds parallel to the deterioration of American politics. In both fields, we behold the lingering death of public trust. The energies that flow into the vacuum left by the departure of trust are self-righteousness, violence of mind and an ineffable stupidity—the civic despair and hysteria that have become the style of poor, miserable 2020.

Mr. Morrow's latest book is "God and Mammon: Chronicles of American Money."

### A Triumph for Peace Is a Humiliation for the 'Peace Industry'

By Michael Oren

he Abraham Accords, signed by Israel, Bahrain and the United Arab Emirates, represent an immense victory for peace in the Middle East and a major defeat for the peace industry. Composed of liberal think tanks and nongovernmental organizations, virtually all of academia and the media, and a cadre of former officials, commentators and philanthropists, that industry had long insisted that Arab-Israeli peace couldn't be achieved without Israeli territorial concessions, a freeze on settlement building, and the creation of a Palestinian state. "There will be no advance and separate peace with the Arab world without . . . Palestinian peace," Secretary of State John Kerry told the Brookings Institution in 2016. "That is a hard reality."

That "hard" reality was overturned by the Abraham Accords, which were secured without any preconditions. Rather than admit its mistake, though, the peace industry

now asserts that the new treaty didn't, in fact, create peace between Israel and two influential Gulf nations but merely normalized their relations. Contrary to Prime Minister Benjamin Netanyahu's "triumphal [of] achieving 'peace for " the New York Times editorialized, "for now, 'normalization' will suffice.'

The claim that the establishment of normal ties between Israel and Arab states is less momentous than peace isn't only unfounded, it is entirely backward. Whereas normalization implies a secure and lasting peace, peace without normalization has already proved hostile and tenuous.

That was the lesson of the Camp David Accords, signed in 1978 between Egypt and Israel with U.S. mediation. The peace treaty that followed in 1979 ended decades of conflict between the two states and provided for the exchange of ambassadors. Normalization was expected to ensue gradually, in tanwith further

concessions and the resolution of the Palestinian problem.

For several months afterward Egyptians could be seen in Tel Aviv shops, yet they soon ceased visiting Israel. The Egyptian army continued to train for war with Israel, and the state-run press turned virulently anti-Zionist and anti-Semitic. Conspiracy theories about Israel proliferated across Egyptian television, and national calamities were routinely blamed on Israel. Following the Arab Spring of 2011, an Egyptian mob nearly massacred Israeli Embassy employees, and the Muslim Brotherhood government threatened to renew the state of war.

President Abdel Fattah Al Sisi has since expanded defense and energy cooperation with Israel and acknowledged Egypt's Jewish past. Yet the country remains overwhelmingly hostile to the Jewish state. Camp David didn't lead to normalization but to its opposite, estrangement.

A similar process occurred in the peace treaty between Israel and Jordan, signed in 1994, again under American auspices. Following a short honeymoon period, Jordanians stopped touring Israel and public opinion grew intensely anti-Zionist. Twenty-five years later, after two Palestinian uprisings in the West Bank and recurring tensions in Jerusalem, the peace almost unraveled.

John Kerry said it couldn't be done, but Arab leaders are embracing normal relations with Israel.

King Abdullah refused to renew the lease on border areas cultivated by Israeli farmers, and parliamentary leaders called for canceling the peace treaty. Israeli diplomats in Amman leave their compound only on Fridays, when an armored convoy escorts them home to Israel.

The inability of Israel's treaties

with Egypt and Jordan to bring about normalization was a direct result of the failure of those agreements to address the core of the conflict—not settlements or Jerusalem's status, as the peace industry believes, but the refusal to recognize a Jewish people indigenous to the Middle East and endowed with the right to self-determination in its homeland.

"Israel is a part of this heritage of this whole region," declared Bahraini Foreign Minister Khalid bin Ahmed Al Khalifa. "The Jewish people have a place among us." Such words were never heard from Egyptian President Anwar Sadat in 1978-79 or Jordan's King Hussein in 1994. The determination of both Bahrain and the U.A.E. to exchange not only ambassadors but also business and religious leaders, journalists and tourists with Israel is unprecedented. It provides a model for all future Arab-Israeli agreements.

Sadly, little of this will affect the peace industry. In addition to dismissing the importance of normalization, its pundits play down the significance of the Abraham Accords, arguing that Israel was never at war with U.A.E. and Bahrain. That, too, is false. By participating in the Arab oil embargo of 1973-74, for example, both countries launched an economic and diplomatic offensive against Israel that caused incalculable damage.

The memory of that clash will fade, fortunately, as the pace of normalization proceeds. Despite the doubts of naysayers, Israelis will form close financial, strategic and interpersonal ties with the peoples of U.A.E. and Bahrain. The peace industry will no doubt continue grumbling as real peace comes to much of the Middle East.

Mr. Oren has served as Israel's ambassador to the U.S., a member of the Knesset and deputy minister in the Prime Minister's Office. He is author of "The Night Archer and Other Stories."

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From a Sept. 22 Alaska Public Media report:

If Democrats were counting on Lisa Murkowski to vote against President Trump's next nominee to the Supreme Court, they should think

Sen. Murkowski said Tuesday she could not rule out that she would vote to confirm a Trump nominee if the Judiciary Committee approves one before the November election.

"I know everybody wants to ask the question, 'will you confirm the nominee?" " she said outside the Capitol, as her Republican colleagues were gathering for their weekly policy lunch. "We don't have a nominee yet. You and I don't know who that is. And so I can't confirm whether or not

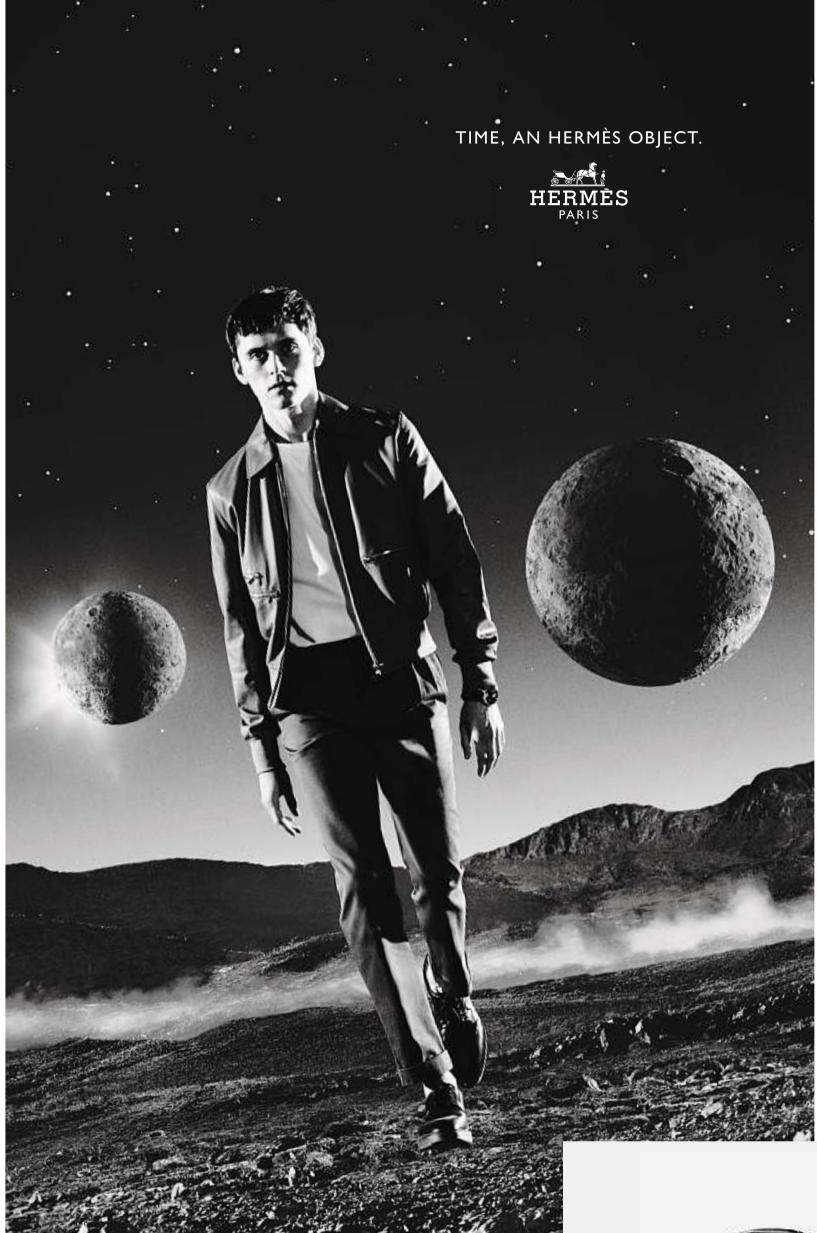
I can confirm a nominee when I don't know who the nominee is.".

Murkowski told Alaska Public Media last week, just before Justice Ruth Bader Ginsburg died, that she wanted to stick to the precedent set in 2016, when Senate Majority Leader Mitch McConnell refused to consider President Barack Obama's nominee because it was too close to an elec-

"And so I would not vote to confirm a Supreme Court nominee," she said Friday.

Murkowski said Tuesday she still opposes a Senate confirmation vote this close to an election.

"I do not support this process moving forward," she said. "Now, having said that, this process is moving forward with or without me."





Arceau L'heure de la lune Time flies to the moon

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THE WALL STREET JOURNAL.

Thursday, September 24, 2020 | **B1** 

**S&P** 3236.92 ▼ 2.37%

**S&PFIN** ▼ 2.19% **S&PIT** ▼ 3.21%

**DJTRANS** ▼ 1.07%

**WSJ\$IDX** ▲ 0.57%

**LIBOR 3M** 0.225

NIKKEI (Midday) 23214.49 ▼ 0.575% See more at WSJ.com/Markets

# Stocks Fall as Stimulus Hopes Ebb

Increase in virus cases, tech valuations trouble investors; Dow drops over 500 points

By Sam Goldfarb AND JOE WALLACE

Stocks extended their turbulent run Wednesday as hopes for additional fiscal stimulus dimmed, coronavirus cases rose and investors continued to question the valuations of tech

Stocks have whipsawed this

week: The S&P 500 briefly neared correction territory Monday, defined as a retreat of 10% from a recent high, only to rebound Tuesday. One bright spot on both days was the technology sector, which showed signs of stabilizing after dragging down indexes in previous

But traders were back in selling mode Wednesday, continuing to lighten up on large tech stocks—such as **Apple** Inc., Google parent **Alphabet** Inc. and **Amazon.com** Inc.—that had powered the market higher over much of the summer.

The S&P 500 slid 78.65 points, or 2.4%, to 3236.92, following a rally of more than 1% Tuesday. The Dow Jones Industrial Average fell 525.05 points, or 1.9%, to 26763.13, while the Nasdaq Composite dropped 330.65 points, or 3%, to 10632.99.

Putting pressure on the tech sector, the Justice Department submitted a proposal to Congress to curb longstanding legal protections for internet companies and force them to shoulder more responsibility for managing content on their sites.

Investors were also con-

Price of Tea Soars as Coronavirus, Weather Batter Harvest in Producer Nations

wave of coronavirus in Europe and an uptick in U.S. cases, helping pull down stocks across a range of sectors.

"Markets are really changing very rapidly their mind-set,' said Nadège Dufossé, deputy global head of multiasset at Candriam, an asset manager based in Luxembourg. The Federal Reserve's con-

tinued support of the economy should help stocks, but the dwindling chances that lawmakers agree on a new round of economic stimulus before November's election are weigh-

fronting the risk of a fresh ing on sentiment, Ms. Dufossé added.

> Reflecting on tech stocks, many investors remain confident that the fallout from the coronavirus pandemic will only accelerate shifts to a more online world that will provide major benefits to the sector. At the same time, worries have increased that this year's rally may have stretched valuations to an unsustainable level.

> 'Some of these names have risen so far so fast, I think that people have to start doing the work and saying, 'Does it make

Wholesale prices

\$3.50 a kilogram

2.00

Please turn to page B11

# JPMorgan To Settle Spoofing Charges

By Dave Michaels AND DAVID BENOIT

JPMorgan Chase & Co. is nearing an agreement with federal prosecutors and regulators to pay a fine to settle civil and criminal charges that its traders rigged futures and securities markets, people familiar with the matter said.

The bank would pay about \$1 billion to wrap up investigations into whether its trading desks manipulated prices for metals and Treasury securities, one of the people said.

The Justice Department's Fraud Section and the Commodity Futures Trading Commission and Securities and Exchange Commission involved in the probes.

Regulators have been on a campaign against an illicit practice known as spoofing, which has mainly focused on wily trading in derivatives. It involves submitting misleading orders to exchanges that traders use as a ruse. The orders are typically sent in large volume on one side of the market and quickly canceled but create the appearance of changing supply or demand.

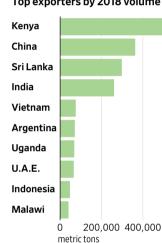


Top exporters by 2018 volume

2019

2020

2018



Sources: World Bank (prices): Food and Agriculture Organization (largest exporters)

### TikTok Asks Court to Halt Ban on **Downloads**

By Katy Stech Ferek

WASHINGTON-TikTok Inc. asked a federal judge to stop the Trump administration from imposing a ban on the popular video-sharing app over national-security concerns.

In a court-filed injunction request Wednesday, TikTok lawyers told a District of Columbia district-court judge that the U.S. government's proposed ban violates constitutional provisions for free speech and due process.

"If the prohibitions are not enjoined, the harm to plaintiffs will be irreparable," the company said.

Judge Carl J. Nichols set a hearing for Thursday morning to go over the request.

TikTok sued President Trump and the Commerce Department, which is in charge of implementing the ban, on Friday, its second legal challenge to the proposed mea-Please turn to page B4

# Harvard Business Vows to Tackle Race Bias

In June, following the na-

tional outcry stemming from

George Floyd's death while in

police custody, Mr. Nohria

wrote a letter that said past

efforts to recruit Black stu-

dents to Harvard were insuffi-

STEEP COST: The world's most consumed drink other than water has been in rising demand, but drought in Sri Lanka, flooding in

India and lockdowns world-wide have sent prices to levels not seen since 2017. Leaves are picked at a farm in Assam, India. B11

By Patrick Thomas

Harvard Business School said Wednesday it would boost its enrollment of Black students in future classes, hire a chief diversity officer and build more issues of race and diversity into its case-study

method of teaching. The new initiatives are aimed at promoting racial equality three months after the school acknowledged past missteps involving race. Harvard, which has one of the most prestigious and influential M.B.A. programs in the world, said it intends to make conversations about race a higher priority in its curriculum. as well as to recruit more Black faculty and staff.

"We hadn't made the progress I had hoped we would make," said Nitin Nohria, dean of the school. "Race needs its own independent focus."

"I apologize that we have not fought racism as effectively as we could have," Mr.

Nohria said in the letter. The number of black M.B.A.

students at Harvard Business

School has been stagnant for school's sizable international three decades at around 50 people per class, or roughly 5% of enrollment, the dean said in the letter. M.B.A. programs across the country have struggled to attract greater numbers of Black students for the past 10 years, with the national average stalled under

10% of enrollment. Former students who are Black have pointed to the lack of people of color outside the

frustration over a lack of diversity, called its culture unwelcoming to Black students. Please turn to page B5

student population, and the

lack of diversity in case stud-

ies that are taught. Former

Harvard Business School pro-

fessor Steven Rogers, who said

he left the school last year in

**♦** Wells Fargo CEO apologizes for racial comment.

### WeWork Sheds Control of China Unit for \$200 Million

By Konrad Putzier

WeWork is selling control of its China business, the latest sign that the company is abandoning its former rapidgrowth approach and looking to reduce risk. A group led by investment

firm Trustbridge Partners paid \$200 million to increase its stake in WeWork China, which leases and effectively sublets office space in the country, the companies said.

WeWork will license its name and services for a fee. Parts of the deal resemble a traditional franchise model. and WeWork is giving up operating control. But WeWork will retain a minority stake and a board seat in the China business, a person familiar with the arrangement said.

Since a failed initial public offering and former chief executive Adam Neumann's ouster last year, the company under CEO Sandeep Mathrani has been working to reduce its massive lease liabilities.

Franchise-type arrangements like the new one in China brings WeWork a smaller share of a location's revenues, but it also means the company reduces its exposure to expensive long-term leases. That can be a boon during recessions, when revenues fall but landlords still demand their rent. The company already has a similar arrangement in India.

In its bid to cut costs, the company has shed some locations across the globe, negotiated rent reductions at others and sought to turn some lease deals for buildings into revenue sharing arrangements. WeWork's business has been hit hard by the coronavirus pandemic and recession, which have led more companies to reduce real estate expenses and embrace remote work, but the company says sales have bounced back from

a spring low. WeWork opened its first location in Shanghai in 2016. A year later, WeWork formed a

joint venture with Chinese investment company Hony Capital, Japan's SoftBank Group Corp. and other investors to expand in the country. It held a 59% stake in the venture as of last year, public filings

In 2018 WeWork announced the acquisition of the Chinese co-working company Naked Hub and Mr. Neumann said he hoped to grow to one million customers in China by 2021. But the company faced fierce competition from local coworking companies, and ahead of its planned 2019 initial public offering the country had become a drag on earnings. WeWork said it currently has more than 65,000 customers at more than 100 office locations in China.

Trustbridge's operating partner Michael Jiang was named acting CEO of WeWork China. The investment firm, which has offices in Shanghai, Hong Kong and Boston, previously held a minority stake in the venture.

### INSIDE



#### **AUTOS**

VW challenges Tesla as it unveils a new electric sport-utility vehicle. **B3** 



#### **FINANCE**

Puerto Rican billionaire rides software deals to new heights in private equity. **B10** 

### Short Seller Who Hit Nikola Has Big Payday

By Gregory Zuckerman

Nathan Anderson started publishing skeptical articles about companies in 2017. Within months, he was sued, ran out of money and couldn't pay his bills. Fielding eviction notices, Mr. Anderson says that he and his pregnant fiancée were told to vacate their cramped, two-bedroom apartment in upper Manhattan.

"I was broke, and it was bad," he recalls.

The response has been different for Mr. Anderson's most recent work, a 67-page report published Sept. 10. In the wake of that report, alleging a series of improprieties at **Nikola** Corp. centering on founder Trevor Milton, the electric-truck startup's shares have sunk 50%. U.S. securities regulators and the Justice Department launched an investigation into whether Nikola misled investors, and on Monday Mr. Milton said he resigned as executive chairman. The stock's fall has helped the 36-year-old Mr.

Anderson and his five-person firm, Hindenburg Research, which bet against Nikola shares, score sizable profits.

Nikola spokesman pointed to previous comments by the company that the Hindenburg report was aimed at providing investors with "a false impression" to "negaimpact" tively stock. Nikola said the report contained "false and misleading statements."

Earlier this week, Mr. Milton said on Twitter that he intended to defend himself against "false allegations." A spokesman for Mr. Milton said he "does not have any further comment on these matters at this time."

Nikola has drawn attention as investors have chased technology and other hot stocks amid the market's recovery from its March lows. The enthusiasm reminds some of the late 1990s, when companies Please turn to page B2

◆ Report derails Nikola's talks with BP, others.....

in today's edition. Articles on regional page inserts aren't cited in these indexes

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### Rice Brand Drops 'Uncle'

Mars Inc. is changing the or change branding on prodname of Uncle Ben's rice to Ben's Original and dropping the image of a bow-tied Black man from its packaging, the latest company to change branding rooted in racist im-

Mars was one of a handful of food companies that said in June that they would review

ucts including Cream of Wheat, Mrs. Butterworth's and Eskimo Pie.

Changes to these supermarket staples come amid a national reckoning over racism in the wake of the killings of Black people by police.

-Annie Gasparro and Jennifer Maloney

#### **BUSINESS & FINANCE**

## **Short-Sales Report Derails** Nikola's Talks With BP, Others

AND MIKE COLIAS

Talks between electric-truck maker Nikola Corp. and several potential partners, including BP PLC, to build hydrogenrefueling stations stalled following allegations the company had misled investors, according to people familiar with the matter.

The setback is the first outward indication that the situation is affecting the startup's ability to execute its business

Nikola executives felt they were making progress toward reaching an agreement with at least one major energy company when short seller Hin**denburg Research** released a critical report, which cast doubt on the company and its statements about the readiness of its technology, the people said.

The conclusion of this deal was put on hold, they said, as Nikola responded to accusations outlined in the report, which the Phoenix-based startup has called false and misleading.

The Securities and Exchange Commission and Justice Department have opened inquiries involving the short seller's claims. Trevor Milton, Nikola's former executive chairman and founder, resigned Monday.

Potential partners have been reluctant to move forward amid the heightened scrutiny, but a deal could still

come together, the people said. Nikola continues to work on



potential partnerships, a spokeswoman said. A BP representative declined to comment.

The truck startup's stock lost 26% Wednesday in its worst day of trading as a public company. The company's valuation has been roughly halved since the Hindenburg report was released.

Securing partners to help develop a network of hydrogen-fueling stations for its semi trucks is a strategic objective for the company, and Nikola executives had hoped to lock in another high-profile deal after the one revealed Sept. 8 with General Motors Co., said some of the people close to the discussions.

Nikola has discussed its hydrogen-station plans with potential partners—including en-

says. The Hindenburg team

various

tested

public

ergy companies, industrial gas firms and truck-stop operators—Chief Financial Officer Kim Brady said on a call with investors Tuesday, but he didn't offer specifics on the timing or progress.

'Ultimately, I think we'll be in a position to disclose how we think about the partnership," he added.

Nikola, which went public in June through a reverse merger, is targeting the commercial trucking market with a plan to build, lease and sell fuel for semi trucks powered by batteries and hydrogen for businesses, like beverage producer Anheuser-Busch InBev SA and refuse hauler Republic Services Inc. Nikola has said both those companies have placed preliminary orders for

Under its model, Nikola would build the trucks and produce other necessities, including the hydrogen fuel needed to power its vehicles and their refueling stations.

On Sept. 10, New York-based Hindenburg released a report calling Nikola an "intricate fraud" and outlining what it said were instances of the company allegedly misrepresenting its technology and progress toward developing its

Nikola has called the report's allegations false, misleading and motivated by the short seller's desire to damage its stock. The company said it has engaged the SEC independently regarding the short seller's report but has declined to comment on whether it has been contacted by the Justice Department.

Founded by Mr. Milton last decade, Nikola is one of several new transportation startups that have captured Wall Street's attention this summer as investors hunt for the next Tesla Inc. Tesla's stock has jumped more than fourfold this year, giving the electricvehicle company a valuation of about \$370 billion as of Tuesday, higher than any other major auto maker in the world. Other newer startups like Fisker Inc. and Rivian Automotive LLC have also raised billions of dollars from both public and private funding as investors rush to place bets on who might lead the future of the automobile industry.

—Sarah McFarlane contributed to this article.

### Trader Sees Payday in Report

Continued from page B1 with great stories but few sales soared.

The market's rise has forced some short sellers and bearish investors to the sidelines, but Mr. Anderson's experience is a reminder that money can still be made with bearish calls.

In June, Nikola merged with a public company in a so-called reverse merger. Riding growing excitement for electric vehicles, the stock soared. A strategic partnership with General Motors Co. briefly pushed Nikola's market value above that of Ford Motor Co., even though Nikola had vet to produce a single

It took research from Mr. Anderson, an unknown in the investing world, to cut Nikola's market value, which has fallen to under \$11 billion from as high as \$30 billion earlier this month.

"This is all happening because of his report," says Gabriel Grego, who runs hedge fund Quintessential Capital Management, which placed its own Nikola short positions Hindenreading burg's research.

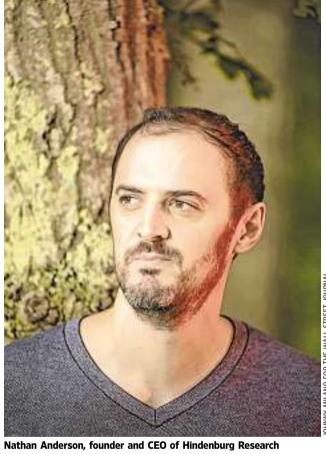
A native of Storrs, Conn., Mr. Anderson graduated from the University of Connecticut with a degree in international business. He spent a year as a volunteer ambulance medic in Jerusalem before joining data company FactSet Research Systems Inc. in New York. where he worked with large investment companies. He watched the credentialed investors operate.

"I realized they were doing a lot of run-of-the-mill analysis, there was a lot of conformity," he says.

Mr. Anderson joined a firm investing for a wealthy family, discovering promising hedge funds and identifying problematic investment vehicles.

"I was always more interested in digging into those," he savs.

around 2014, Starting he developed a network of like-minded individuals eager to uncover questionable investment firms. He submitted whistleblower complaints to the government, hoping to score rewards that sometimes accrue to those who identify wrongdoing. Harry Markopolos, the fraud investigator who tried to warn authorities



about Bernard Madoff's Ponzi scheme and more recently has profited from whistleblower complaints related to alleged bank misdeeds, became Mr. Anderson's model, he says.

That strategy can involve a long and often fraught process. It can take years for whistleblowers to be paid by the government, if they ever are compensated.

"I was living in a run-down place in Inwood," he says, referring to an area in upper Manhattan. "I wasn't doing a great job paying my bills."

After seeing a public company tumble as part of one of his fraud investigations, he switched gears. Mr. Anderson launched Hindenburg in 2017, searching for companies he believed were behaving in a fraudulent or illegal manner.

In 2018, overwhelmed by the mounting lawsuits related to accusations he had leveled at various firms, Mr. Anderson learned about a cannabis stock he believed was misleading investors. Bonding with Mr. Grego at a short sellers' conference, the pair teamed up to short the stock. Mr. Anderson used the resulting windfall to hire a few associates to identify new targets. Hindenburg uses its own capital to make trades or brings in a partner willing to put up cash for a short trade. It doesn't sell its research.

Mr. Anderson and a reporter for The Wall Street Journal are among the more than 20 defendants in a lawsuit brought by private-equity firm Catalyst Capital Group and Callidus Capital Corp. alleging a short-selling conspiracy related to a 2017 article about Catalyst. A Journal representative has said the news organization is "confident in the fairness and accuracy" of its reporting. Mr. Anderson says: "We stand by our research on the subjects 100%." Some of Hindenburg's work

has led to losses. The firm alleged problems at Canadian mining company New Pacific Metals Corp., but the stock has climbed as silver prices

#### As recently as June, Hindenburg's Mr. Anderson knew little about Nikola.

strengthened. A representative of the company wasn't available for comment.

As recently as June, Mr. Anderson knew little about Nikola. But two well-connected individuals—a former Nikola business partner and another person close to the company—began sharing texts, emails and a former emplovee's communications related to Mr. Milton and the company, raising questions about Nikola's operations, Anderson

claims of Mr. Milton and the company, such as that Nikola had extensive proprietary technology, concluding that many were misleading or inaccurate. Mr. Anderson came to believe Nikola had staged a

video showing one of its trucks cruising at a high speed. A former Nikola business partner concluded that the video was a ruse-Nikola had towed the truck to the top of a hill and filmed it rolling down the hill in neutral,

"This three-year-old video of a Nikola prototype is irrelevant except for the fact that the short seller is trying to use it for its main thesis," a company spokesman says.

Nikola adds that the truck shown had functional batteries and other parts. Nikola said the video, titled as showing the truck "in motion," never stated the prototype was driving under its own power. Nikola also has said its newer trucks are able to be driven.

Nikola boasted blue-chip investors, including hedgefund manager and company director Jeff Ubben, making Mr. Anderson wonder if he was missing something. Former GM executive Stephen Girsky was on Nikola's board and is now the company's executive chairman. The company also had various deals with companies like Anheuser-Busch InBev SA and GM, which called Nikola "one of the most innovative companies in the world." GM Mary Chief Executive Barra has defended the company's due diligence.

He was nervous as he published his report on Hindenburg's website and shared it with others. "I know people can lose their jobs, their careers," he says. "People will lose money, I'll be threatened with lawsuits."

The report said Mr. Milton had exaggerated Nikola's progress on key technology, including on hydrogen-powered semi-trucks, misled partners and claimed to have proprietary technology, among other accusations.

Nikola and Mr. Milton denied allegations fraud. Nikola has said it contacted and briefed the Securities and Exchange Commisregarding Hindenburg. Nikola said it had retained the law firm Kirkland

Mr. Anderson won't say how much he has made shorting Nikola. "It's been a big win," he says. "We are short and still are short."

& Ellis LLP.

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In re: ) Chapter 11 WINDSTREAM HOLDINGS, ) Case No.

19-22312 (RDD)

Debtors. (Jointly Administered)
NOTICE OF (I) ENTRY OF CONFIRMATION
ORDER, (II) OCCURRENCE OF EFFECTIVE DATE,
AND (III) RELATED BAR DATES
PLEASE TAKE NOTICE that on June 26, 2020,
the United States Bankruptcy Court for the
Southern District of New York (the "Bankruptcy
Court"), entered an order (Docket No. 2243)
confirming the First Amended Joint Chapter
11 Plan of Reorganization of Windstream
Holdings, Inc. et al., Pursuant to Chapter 11 of
the Bankruptcy Code (Technical Modifications)
[Docket No. 2201] (as amended, supplemented, or
otherwise modified from time to time, the "Plan")
(attached as Exhibit & to the Confirmation Order).<sup>2</sup>
PLEASE TAKE FURTHER NOTICE that the
Effective Date of the Plan occurred on September

21, 2020.

PLEASE TAKE FURTHER NOTICE that pursuant

PLASE TAKE FURTHER NOTICE that pursuant to the Confirmation Order, the settlement, release, injunction, and exculpation provisions in Article VIII of the Plan are now in full force and effect. PLEASE TAKE FURTHER NOTICE that pursuant to Article VE of the Plan, unless otherwise provided by a Final Order of the Court, Proofs of Claim with respect to Claims arising from the rejection of Executory Contracts or Unexpired Leases, if any, must be filed with the Bankruptcy Court within thirty (30) days after the date of service of the order approving such rejection. Any Claims arising from the rejection of an Executory Contract or Unexpired Lease not Filed within such time will be disallowed upon an order of the Bankruptcy Court, forever barred from assertion, and shall not be enforceable against, as applicable, the Debtors, the Reorganized Debtors, the Estates, or property of the foregoing parties, without the need for any objection by the Debtors or the Reorganized Debtors, as applicable, or further notice to, or action, order, or approval of the Bankruptcy Court or any other Entity, and any Claim arising out of the rejection of the Executory Contract or Unexpired Lease shall be deemed fully satisfied, released, and discharged, notwithstanding anything in the Schedules, if any, or a Proof of Claim to the contrary, Claims arising from the rejection of the Debtors' Executory Contracts or Unexpired Leases shall be classified as General Unsecured accordance with Article III.B.6 or Article III.B.7 of the Plan, as applicable.

deadline for filing requests for payment of unpaid Administrative Claims is October 21, 2020 (i.e., 30 days after the Effective Date). HOLDERS OF ADMINISTRATIVE CLAIMS THAT ARE REQUIRED TO, BUT DO NOT, FILE AND SERVE A REQUEST FOR PAYMENT OF SUCH ADMINISTRATIVE CLAIMS BY THE

ADMINISTRATIVE CLAIMS BAR DATE SHALL BE FOREVER BARRED, ESTOPPED, AND ENJOINED FROM ASSERTING SUCH ADMINISTRATIVE CLAIMS AGAINST THE DEBTORS, THE REORGANIZED DEBTORS, OR THEIR RESPECTIVE PROPERTY AND ASSETS AND SUCH ADMINISTRATIVE CLAIMS SHALL BE DEEMED DISCHARGED AS OF THE EFFECTIVE DATE.

PLEASE TAKE FURTHER NOTICE that pursuant to the Plan, the deadline to file final requests for payment of Professional Fee Claims is November

by the Plati, the deadnine to his man requests for payment of Professional Fee Claims is **November 5, 2020** (i.e., 45 days after the Effective Date). All Professionals must file final requests for payment of Professional Fee Claims by no later than this date to receive final approval of the fees and of the Confirmation Order, the Plan, and all other documents filed in these chapter 11 cases are available free of charge by visiting <a href="https://www.kccilc.nct/windstream">https://www.kccilc.nct/windstream</a> or by calling the Debtors restructuring hotline at (877) 759-8815 (toll free) or (424) 236-7262 (international) visiting also obtain costies. may also obtain copies of any pleadings filed in these chapter 11 cases for a fee via PACER at:

III.B.6 or Article III.B.7 of the Plan, as applicable.

PLEASE TAKE FURTHER NOTICE that except as otherwise provided by the Confirmation Order, the Plan, or a Final Order of the Court, the deadline for filling requests for any applicable.

of the Debtors' claims and noticing agent at <a href="http://www.kccllc.net/windstream">http://www.kccllc.net/windstream</a>. The location of the Debtors' agent as address for purposes of these www.kccllc.net/windstream. The location Debtors' service address for purposes chanter 11 cases is: 4001 North Rodney chapter 11 cases is: 4001 North I Road, Little Rock, Arkansas 72212. <sup>2</sup> Capitalized terms used but not otherwise defined herein shall have the meanings given to

and its provisions are binding on the Debtors, the Reorganized Debtors, any and all Holders of Claims or Interests (irrespective of whether such Holders of

Claims or Interests are deemed to have accepted or ejected the Plan), all Entities that are parties to or

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IF YOU HAVE ANY QUESTIONS ABOUT THIS

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The last four digits of Debtor Windstream

Holdings, Inc.'s tax identification number are 7717.

Due to the large number of Debtors in these chapter 11 cases, for which joint administration has been granted, a complete list of the debtor entities and the last four digits of their federal tax identification

numbers is not provided herein. A complete list of such information may be obtained on the website

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successor by assignment from Chaowai Lender LLC, a Delaware limited liability company) ("Secured Party") will offer for sale, at public auction, all of the right, title and interest (the "Collateral") of Stiles Properties Investor, LLC ("Debtor") in and to the limited liability company interests in Stiles Properties, LLC ("Property company interests in Stiles Properties, LLL ("Property Owner"), which Collateral is pledged to Secured Party by Debtor. Property Owner owns the real property located at 18 India Street, AKA 2 Java Street, AKA 157 Weet Street, Brooklyn, New York 11222. The public auction will be held on October 15, 2020, at 1:00 P.M. (EDT), by remote auction via the Cisco WebEx Platform. The above sale, originally scheduled for September 15, 2020 at 1:00 P.M. (EDT) has been postponed. The new sale date has been rescheduled for October 15. new sale date has been rescheduled for October 15, 2020 at the same time and place. The Collateral will be sold to the highest qualified bidder; provided, however, that Secured Party reserves the right to cancel the sale in its entirety, or to adjourn the sale to a future date. The sale will be conducted by Mannion Auctions, LLC, Matthew D. Mannion, licensed auctioneer (DCA 471420404). The Collateral will be sold transplace in a #1434494). The Collateral will be sold together in a single block. Interested parties who intend to bid on the above Collateral must contact Secured Party's agent, Eastdil Secured, to receive the Terms of Public Sale and bidding instructions. Interested parties who do not and bioding instructions. Interested parties who do not contact the Secured Party's agent and qualify prior to the sale will not be permitted to enter a bid. Attention: Will Silverman, Managing Director, Telephone: (212) 315-7200, Email: 18India@eastdilsecured.com Upon execution of a standard non-disclosure agreement, additional documentation and information will be available. http://www.18indiauccforeclosure.com/

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#### **BUSINESS NEWS**

### Disney Pushes Back More Film Releases

By R.T. WATSON

Walt Disney Co. is delaying the release of several movies, including its highly anticipated Marvel spinoff "Black Widow," by six months in the latest sign Hollywood's top movie studio remains wary of releasing big-budget films amid the fractured theatrical landscape.

Theaters have been gradually reopening around the globe but multiplexes in the U.S., the world's largest theatrical market, have shown little sign of recovery in recent weeks. Disney said Wednesday it would change the release dates for a total of 10 coming films, including Steven Spielberg's remake of "West Side Story"-which is moving by an entire year to December 2021—and another Marvel spinoff, "Eternals."

Disney is, for now, sticking to plans to release its Pixar animated feature "Soul" on Nov. 20, along with a few titles it inherited after purchasing the Twentieth Century movie studio. "Black Widow" moves to May 2021 from Nov. 6.

The studio signaled its dim view of the U.S. theatrical market last month, when it announced it would forgo a domestic release of its \$200 million "Mulan" remake. The company instead shipped the

ing service Disney+ at a cost to viewers of about \$30, on top of the monthly subscription fee. Disney hasn't said how the live-action remake has performed on the service.

While most of Hollywood applauded rival studio Warner Bros.' recent attempt to reignite the American theatrical industry with the release earlier this month of director Christopher Nolan's spy thriller "Tenet," the movie has stumbled in the U.S. Moviegoers appear reluctant to return to theaters en masse. Additionally, cinemas remain closed in large metropolitan markets like Los Angeles and New York City.

"Tenet" has grossed a lackluster \$36.1 million domestically on top of \$215 million overseas, according to Box Office Mojo.

Disney's decision to postpone "Black Widow," which also cost around \$200 million to produce, indicates the continued importance of the U.S. theatrical market even as overseas box-office revenue has grown steadily in recent years.

Soon after releasing the \$200-million "Tenet," Warner Bros., owned by **AT&T** Inc., announced it would delay the October release of the \$200 million "Wonder Woman 1984." The film's predecessor, 2017's "Wonder Woman," grossed more than \$800 million, about



Among delayed films, 'Black Widow' will be held back by six months.



The ID.4 is full of gadgets but the battery gets 250 miles of range on a single charge, compared with Tesla's Model Y's 316 miles.

### W SUV Takes Aim at Tesla

German auto maker challenges electric-car leader with new sportutility vehicle model

By WILLIAM BOSTON

BERLIN-Volkswagen AG took the wraps off its ID.4 allelectric sport-utility vehicle on Wednesday in a bid by the world's largest car maker to challenge Tesla Inc. and re-energize a problem-ridden electric strategy.

Volkswagen remains years behind its U.S. rival in developing and selling a mass market electric car. Even as Volkswagen slowly catches up, Tesla has stayed one step ahead, launching better-performing vehicles and building a factory near the German capital, in Volkswagen's backyard.

The ID.4's predecessor, the ID.3, has been plagued by software glitches, forcing Volkswagen to sell tens of thousands of the first models in a stripped-down version pending a full software update later this year or early next year.

The problems were so alarming to the company's

owners that directors stripped better price point," said Scott tanked as the details of diesel-CEO Herbert Diess of his job managing the Volkswagen brand earlier this year. Volkswagen has undergone a sweeping restructuring of management in charge of the electricvehicle development.

Ralf Brandstätter, CEO of the Volkswagen brand, said last week that the ID.4 would have the full software package when it is available next year.

Some 80% of the 245,000 electric vehicles sold in the U.S. last year were Teslas. Worldwide, the company sold 367,500 cars in 2019, a 50% increase from the previous year, giving the manufacturer 17.5% of all electric-car sales last year.

Volkswagen's ID.4 is full of gadgets and electronics-advanced driver assistance, overthe-air software updates, a digital assistant that responds to the command "Hello ID"—but the battery gets 250 miles of range on a single charge, compared with Tesla's Model Y's 316 miles. And Tesla has long had remote software-update capabilities and near autonomous driving features.

"Do we have the exact range of Tesla? No, but we have a Keogh, CEO of Volkswagen Group of America.

At a starting price of \$39,995 before subsidies and federal tax credits, the ID.4 is nearly \$7,000 cheaper than the Model Y, Mr. Keogh said. And the price of the ID.4 is expected to fall to around \$35,000 when the vehicle is produced in the U.S. after 2022. Until then, it will be imported from Europe.

Last year, Volkswagen sold 363,322 vehicles in the U.S.—a 2% market share and a steep drop from the 1970s, when the company was selling more than 500,000 cars a year in a smaller market.

Volkswagen is the biggest foreign auto maker in China, where it builds and sells more than four million vehicles a year. In Europe, Volkswagen and its stable of brands have 26% market share.

Volkswagen made several attempts at a U.S. comeback before, including its ill-fated "clean diesel" campaign which the company admitted in 2015 was built on illegal software that allowed its diesel-powered cars to cheat emissions tests. company's reputation gate, as the scandal was known, emerged.

But in 2016, the company launched the Atlas 7-seater SUV, built in the Chattanooga, Tenn., plant for the U.S. market. It has since become one of the most popular medium-size SUVs in the U.S. Last year, the company sold 81,508 Atlas models, nearly a quarter of its U.S. sales overall.

The Atlas was the result of years of trial and mostly error for Volkswagen in responding to American tastes. It informed Volkswagen's decision to make its first electric vehicle built for the U.S. an SUV.

Mr. Keogh said the "sweet spot" in the U.S. market is compact SUVs, which is now dominated by conventional brands such as Toyota's RAV4, and is the largest part of the U.S. passenger car market.

Analysts expect the share of electric vehicles to outpace traditional cars in coming years and account for up to 70% of the market by 2040. Volkswagen is targeting annual sales of 1.5 million electric vehicles a year by 2025, about a third of which it says will be ID.4 models.

### General Mills Aims to Keep Sales Gains Tied to Crisis

By Annie Gasparro

**General Mills** Inc. said the pandemic-fueled surge in grocery sales is waning, increasing pressure on food makers to hold on to new shoppers who tried their brands during the height of the pandemic.

The packaged-food industry caught a tailwind for much of this year because the pandemic changed how consumers approached food. Families bought more groceries to eat at home amid closures of restaurants and capacity limitations on dining rooms.

General Mills said Wednesday that it has gained market share in cereal, pet food and other categories in the latest quarter. Its sales rose 10% on a comparable basis, which excludes currency fluctuations and the effect of deals.

That growth was slower than in the spring, when consumers quarantined at home. General Mills said the easing of pandemic-related restrictions in recent months contributed to the moderating in its sales growth.

General Mills, maker of Cheerios, Yoplait and Betty Crocker, said it is making investments designed to hang on to the ground it gained in the past six months, such as increased marketing spending and added supply-chain capacity. Chief Executive Jeff Harmening said he doesn't want to look back after the pandemic and see that General Mills didn't do enough to capitalize on the shift to eating at home. "We're doing everything we can now, because when the pandemic is over, I want people to remember how great our food is," he said.

Shares rose 1.9% to \$59.10. Mr. Harmening said new consumers are trying General Mills products because of the pandemic and that sales data indicate they are returning to purchase more. He said ingredient changes General Mills made in recent years to make its products trendier, tastier or more nutritious helped draw people.

Some food makers, such as Campbell and Kraft Heinz Co., have struggled to maintain

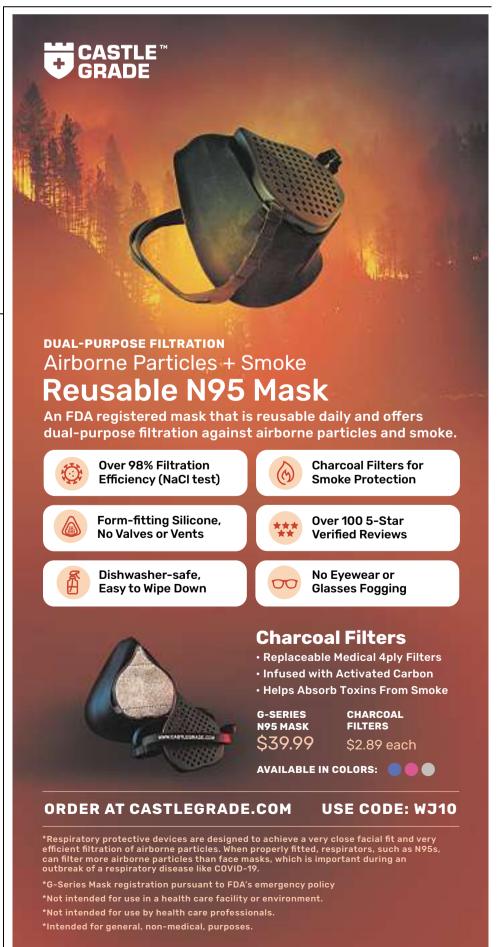
market share amid the pan- the latest quarter. demic. Campbell couldn't make enough of its Pepperidge Farm Goldfish crackers to meet demand. It recently added production capacity.

Some investors questioned the need for companies such as General Mills and Campbell Soup to spend more on marketing while demand for their products is so high. But even with the added costs, General Mills' profit margin improved in

Profit in the quarter ended Aug. 30 rose to \$638.9 million or \$1.03 a share, from \$520.6 million, or 85 cents a share, a year earlier. The company's adjusted profit of \$1 a share surpassed the 87 cents a share that analysts expected.

Revenue rose to \$4.36 billion from \$4 billion a year earlier. General Mills' North America grocery business logged 14% sales growth.





**B4** | Thursday, September 24, 2020

P2JW268000-5-B00400-1-----XA

#### **TECHNOLOGY**

#### WSJ.com/Tech

# ViacomCBS Commits to Showtime TikTok's U.S. Deal

CEO says premium network can stand by itself amid burgeoning streaming rivalry

By Joe Flint

When ViacomCBS Inc. unveiled plans last week to launch Paramount+, a supersize streaming service featuring content from across the media company's myriad units, something was missing: Showtime.

The omission set off a round of speculation about the fate of the premium network, best known for well-regarded dramas such as "Homeland" and "Shameless." Some observers viewed the move as a lack of confidence in a service that has toiled in the shadow of muchbigger rival HBO and competes gin a crowded environment that includes rivals Netflix, Hulu and Amazon Prime Video.

"We have urged them to sell 🖁 this asset to someone else," said Michael Nathanson, media analyst and founding partner at § MoffettNathanson.

Don't bet on that, says ViacomCBS Chief Executive Bob Bakish, who holds that the network, with its mix of original shows, movies and boxing, is strong enough to stand on its

"Showtime is not thought of as a leader in premium, but it is leading this year," Mr. Bakish said in an interview. Showdirect-to-consumer streaming offering, also called Showtime, gained more subscribers in the first six months of this year than it had in the previous three years, he said.

ViacomCBS doesn't break out subscribers for Showtimewhich is available as an add-on channel on cable or through the streaming platform—but people familiar with the operation say it has 27 million subscribers, seven million of whom are coming through the Showtime streaming service. Credit Suisse expects that number to top



The network, with its mix of original shows and films, was excluded from the Paramount+ service. William H. Macy in 'Shameless.'

nine million next year.

Those numbers still pale in comparison to HBO and Netflix, which respectively have 36 million and 60 million subscribers in the U.S. The size of the gap has prompted some media analysts to question Showtime's long-term value to ViacomCBS.

Mr. Nathanson said Showtime "is on a very modest revenue growth trajectory," adding that he doubts the network can spend at a level to compete with its rivals.

"I think we're a little bit underestimated," Showtime CEO David Nevins said.

Mr. Bakish said some of Showtime's streaming growth can be attributed to people staying at home during the coronavirus pandemic and buying

additional content, but that ratings for all versions of the service have been solid. Showtime got strong perfor-

mances from the final seasons of the spy drama "Homeland" and the Hollywood detective serial "Ray Donovan." Newer dramas including the high-finance soap "Billions" and urban drama "The Chi" have also been solid. The network also has unscripted fare, such as the latenight talk show "Desus & Mero."

Showtime has also benefited from the surge in new streaming services that might have overwhelmed and confused consumers, Mr. Nevins said. "Our competition becomes a little diluted in their brands," he said, alluding to the fact that HBO was briefly available

on three separately branded streaming platforms: HBO Now, HBO Go and HBO Max.

Showtime's streaming growth comes at a critical time for ViacomCBS. Revenue was down 22% in the company's most recent quarter, in large part because advertisers are cutting spending during the pandemic. Theatrical revenue was nonexistent for the same reason. Showtime's streaming subscribers are more profitable to ViacomCBS than cable and satellite subscribers because more of the revenue goes directly to the network.

Mr. Nevins said Showtime's willingness to form partnerships with all distributors gives it another edge. New streaming service HBO Max hasn't been able to reach agreements to be distributed via Roku and Amazon's streaming devices, and NBCUniversal's Peacock doesn't have a deal with Amazon. Showtime is available everywhere.

'We're a pure-play content company," Mr. Nevins said. "We have a flexibility other people don't have that gives us a competitive advantage." Unlike HBO Max, owned by AT&T Inc., and Peacock, a **Comcast** Corp. property, "we have no ulterior motives to support a distribution system" that complicates ties with third parties, he said.

ViacomCBS was also the first programmer to cut a deal with Apple Inc.'s new Apple TV+ streaming service, which is now selling access to Showtime as part of its own content offering.

# Slammed By China's Media

By Eva Xiao

HONG KONG—Chinese state media took turns denouncing a White House-approved plan to turn TikTok into a U.S.-based company, casting more doubt over the fate of the Chineseowned short-video app that needs nods from both Beijing and Washington to avoid a ban in the U.S.

Over the weekend, TikTok appeared to narrowly avoid having to shut down operations in the U.S., where it has roughly 100 million users, when President Trump said he had given his blessing to a deal that would see the app join with Oracle Corp. and Walmart Inc. to address the White House's national-security concerns.

Several Chinese state-run newspapers slammed TikTok's proposed deal in the U.S. as unfair and contrary to Chinese interests, a signal Beijing could reject the deal after months of negotiations.

"China has no reason to give the green light to such a deal, which is dirty and unfair and based on bullying and extortion," wrote the China Daily, the Chinese government's English-language mouthpiece newspaper, in an editorial on Wednesday. Doing so would set a bad precedent, it argued. "If the U.S. gets its way, it will continue to do the same with other foreign companies," it said.

The overseas edition of the Communist Party's flagship newspaper People's Daily and the Global Times, a tabloid published by the People's Daily, ran similar editorials this

TikTok, which is owned by Beijing-based ByteDance Ltd., has taken center stage in U.S.-China friction over technology, with both countries sparring over the app's future. In July, the Trump administration said it might ban the app for Americans because of concerns its data could be accessed by Beijing, something TikTok has said wouldn't happen.

At the end of August, Beijing hit back with new technologyexport rules, indicating that ByteDance would need to seek approval if it sold TikTok's video-recommendation rithm to a U.S. buyer.

# Streaming TV Grows but Ads Are on Repeat

By SAHIL PATEL

People are streaming more movies and shows on internetconnected TV sets. But keeping track of who is watching what and where—and how many times they see the same ads—is becoming a bigger frustration for advertisers seeking to move money into the medium.

Connected-TV advertising is growing, although it remains a fraction of the roughly \$70 billion that gets spent on traditional TV advertising in the U.S. every year. Ad spending on streaming TV will total almost \$8 billion in the U.S. this year, up from nearly \$6.4 billion in 2019, according to data from research firm eMarketer.

"In not too many years, it will be the primary way viewers receive their premium video," said David Campanelli, chief investment officer at media buyer Horizon Media Inc.

The bulk of streaming occurs in ad-free services such as Netflix Inc., but ad-supported offerings from providers including Amazon.com Inc., Roku Inc. and TV network programmers are drawing viewers.

The medium faces a raft of

advertising challenges, including a fragmented media-buying landscape that can lead to viewers getting hit repeatedly with the same ad.

Marketers buy ads in streaming TV from a galaxy of providers, including app owners like TV networks, vendors that connect ad buyers with sellers, and device makers with their own operating systems such as Roku, Amazon and Vizio Inc.

The wealth of options brings limitations: Roku, Amazon and Walt Disney Co.'s Hulu each sell ads and have their own audience data, but it is hard for advertisers to track or target viewers from app to app, or from one operating system to the next. Ad inventory bought from multiple sellers can often show up in the same app.

"There is a massive fragmentation of media in connected TV—and it's multidimensional fragmentation," said Tal Chalozin, chief technology officer of ad tech firm Innovid Inc.

That complicates marketer priorities like limiting how much a viewer sees the same ad. It has been a continuing problem for marketers in connected TV, where a smaller pool

of advertisers than those that and frequency controls within strategy for GM. Platform and buy traditional TV results in viewers sometimes seeing the same ad many times even in a single program.

"Connected TV usage has gone up significantly-and everyone is dumping money into it—but you can see how it's breaking at the seams," said one ad buyer who plans to spend \$15 million this year on stream-

Ad spending on streaming TV in the U.S. expected this year

ing TV advertising for marketer clients, more than double what he spent last year. "You get the same ad over and over-it's worse than ever."

Amazon said it offers frequency controls to its advertisers. But that doesn't apply to advertisers who buy through other sellers to run on apps on Amazon's Fire TV.

Roku said it made efforts to improve targeting and reach

its ad-buying tools. It sends a device ID to measurement partners such as Innovid. But Innovid helps advertisers serve ads and measure performance, not buy ads.

Some ad executives said the problem will improve as more people stream TV and more advertisers follow. Traditional TV suffers ad repetition if viewers watch long enough, they noted.

Others said more advertisers won't fix fragmentation. "No one is holistically doing frequency management," said Brad Stockton, vice president of video innovation at **Dentsu** Inc.owned Dentsu Aegis Network, which is doubling its upfront commitments to connected TV this year. "Everyone's solve is to give them every single one of your ad dollars.'

Over the past few years, General Motors Co. has increased its media spending on connected TVs, executives from the company said. One limitation from spending more has been a lack of transparency on when and where ads run within streaming platforms and apps, said David Spencer, assistant manager of audience buying

app owners have been better about sharing such information over the past 18 months, but the issue hasn't been completely resolved, he said. "The better that gets, the more willing we will be to invest larger dollars," Mr. Spencer said.

One solution could be a universally agreed-upon identifier for connected TV audiencesakin to the tracking cookies online. A universal ID could be a piece of data that represents a connected TV user or household that allow advertisers to track viewing behavior across devices, platforms and apps.

At the moment, device makers use data on their signed-in users to form audience segments for advertisers, while many ad tech vendors use data proxies including IP addresses.

But any universal ID will require buy-in from the companies that own the devices and operating systems. And these ad sellers benefit from keeping advertisers within their own ecosystems, buyers said. This is among the reasons marketers and ad buvers said a universal ID is unlikely to be introduced anytime soon

### Suit Filed Over Ban on Downloads

Continued from page B1

sure. Wednesday's measure built on that challenge, explicitly asking the judge to halt the ban, which followed an executive order from Mr. Trump on Aug. 6.

TikTok filed a lawsuit on Aug. 24 in a California federal court but later dropped it, suggesting it considered a judge based in Washington better positioned to handle legal challenges related to regulatory issues.

In their request, TikTok lawyers asked the court to make a determination on their request before the Commerce Department's proposed ban is scheduled to take effect at 11:59 p.m. on Sunday.

The download ban was originally scheduled to begin on Sept. 20, but Commerce officials delayed implementation by a week.

The proposed ban would prevent U.S. users of TikTok from downloading the app and from updating it while TikTok officials negotiate a deal to rescue its U.S. operations. The legal challenge is un-

folding as TikTok and Byte-Dance Ltd., its Chinese parent, await a decision from Mr. Trump and a national-security review panel on that effort, aimed at preserving the app's presence in the U.S. through a deal led by Oracle Corp. and Walmart Inc.

Under the arrangement, Oracle would provide cloud services and enforce safeguards for U.S. TikTok users' per-

### Woodward's 'Rage,' A Bestseller, Trails **Some Trump Books**

By Jeffrey A. Trachtenberg

Journalist Bob Woodward's latest book, "Rage," sold 600,000 copies across all formats through its first week on sale in the U.S., fewer than two other recent high-profile titles about the Trump administration.

The book, published Sept. 15 by Simon & Schuster, ranked No. 1 on Amazon.com Inc.'s Top 100 bestseller list on Wednesday morning. In his book, Mr. Woodward reported that President Trump understood the dangers associated with Covid-19 while he played down the risks associated with the illness to the public.

Simon & Schuster said it has ordered a fourth printing of "Rage" that would bring its total number of hardcover copies to 1.3 million.

In comparison, Mr. Woodward's last book, "Fear: Trump in the White House," sold more than 750,000 copies in all formats through its first day on sale, according to results released by Simon & Schuster. That book, published in September 2018, has now sold two million copies across all formats in the U.S., according to Simon & Schuster, which is the publishing arm of ViacomCBS Inc.

The publisher, which Viacom is looking to sell, has had a banner run of books related

to the Trump administration. In June, it published former national security adviser John



The book, which reports on the president's coronavirus response, sold 600,000 copies in its first week.

Bolton's "The Room Where It tional security concerns. Fed- Enough: How My Family Cre-Happened," which sold more than 780,000 copies in all formats through its first week on sale in the U.S., according to the publisher.

The Trump administration tried to block publication of Mr. Bolton's book, citing na-

eral prosecutors launched a criminal probe earlier this month into whether Mr. Bolton mishandled classified information.

Simon & Schuster also published Mary L. Trump's memoir "Too Much and Never

ated the World's Most Dangerous Man" in July. It sold more than 950,000 copies through July 14 in the U.S., the day it went on sale. The book, a tellall by the president's niece, ranked No. 73 on Amazon's bestseller list on Wednesday.

#### **BUSINESS NEWS**

### Wells Fargo CEO Apologizes for Racial Comment

By Dave Sebastian

Wells Fargo & Co. Chief Executive Charlie Scharf apologized in a letter to employees for his remarks related to recruiting Black talent.

In a June 16 memo, Mr. Scharf said the bank's regulatory troubles have made it harder to cast a wide net for top jobs.

"The unfortunate reality is that there is a very limited pool of Black talent to recruit from with this specific experience," he said.

His comments triggered backlash, when companies face a reckoning on race following the police killings of Black people.

"I apologize for making an

insensitive comment reflecting my own unconscious bias," Mr. Scharf said Wednesday. "There are many talented, diverse individuals working at Wells Fargo and throughout the financial services industry and I never meant to imply other-

Mr. Scharf said the financial-services industry hasn't done enough to improve diversity, especially at senior leadership levels.

He said the company is requiring diverse candidate slates for key roles with compensation north of \$100,000, among other efforts.

Mr. Scharf, who took the helm last year, is tasked with moving the bank past a fakeaccounts scandal.



Charlie Scharf, seen in March, triggered a backlash following his remarks in June related to recruiting Black talent.

### Harvard Business to Fight Bias

Continued from page B1 Jan Rivkin, a senior associ-

ate dean who runs Harvard's M.B.A. program, said June was a month of soul-searching where leaders asked whether they had done all they could to advance Black talent.

'The resounding answer from our community was no,"

The new plan also calls for collaborations between Harvard Business School professors and faculty at historically black colleges and universities, though it offers no specific details about what that would look like. Harvard said it would fund new measures on race by pledging \$25 million over 10 years and seeking additional support from donors.

"By making race the focus I hope we will improve a problem vital to our nation but we will teach every student to be leaders who can in their own countries fight systemic discrimination," Mr. Nohria said. Harvard will train business-

school faculty to better engage in sensitive discussions about race in the classroom, Mr. Rivkin said, by taking past examples of class discussions on race that went well, or fell apart, and creating case studies for faculty members to learn from. He cited an example of a professor teaching a case about concussions in the NFL. If a student raises their hand and compares the league to modern-day slavery, "as the professor, what would you do?" Mr. Rivkin asked.

Harvard Business School said it can recruit more underrepresented minority students by increasing scholarships and expanding outreach efforts to prospective students while they are still at the undergraduate level. The business school will revise its needs-based scholarships to take into account the income and assets of a candidate's parents, Mr. Rivkin said.

"The big key for us is expanding the pool of talented Black individuals who apply," he said. "Reducing financial barriers is key. It increases financial aid to families that have historically been unable to accumulate wealth over generations and therefore struggled to send their kids to grad school."

Dilan Gomih, a 2019 graduate of Harvard Business School who served on the task force that helped formulate the news measures, said many prospective Black students can't envision themselves at the school, but more financial aid will help.

"I've had those conversa tions where someone is like, I would not get into HBS. I don't know that many people that look like me there," she said.

Alterrell Mills, a 2016 M.B.A. graduate and former co-president of the school's African-American student union, said the plan lacks specificity. Talk of recruiting more Black students and staff doesn't address existing internal obstacles, such as the retention of Black professors, he said.

"It feels like there is this overemphasis on the efforts that they are taking to do new things, rather than assessing what has not worked," he said. "They are filling the bathtub with more water, rather than filling the cracks first."

Harvard will join the Haas School of Business at the University of California, Berkeley as one of a few M.B.A. programs with a chief diversity and inclusion officer.

Harvard Business School's race initiatives come just months before Mr. Nohria is expected to step down as dean at the end of the year.

"Institutionally, we've been leery of things that end up being politicized," he said. "I don't view the work we're currently doing on race as political in any sense. This moment has reminded us that we are not living up to our own aspirations and values and we should do better."



The school will boost Black enrollment and discuss race in classes.

his announcement is neither an offer to purchase nor a solicitation of an offer to sell Shares (as defined below). The Offer (as defined below) is made solely pursuant to the Offer to Purchase, dated September 24, 2020, and the related Letter of Transmittal, and any amendments or supplements to such Offer to Purchase or Letter of Transmittal. Purchaser (as defined below) is not aware of any state where the making of the Offer is prohibited by any administrative or judicial action pursuant to any valid state statute. If Purchaser becomes aware of any valid state statute prohibiting the making of the Offer or the acceptance of the Shares pursuant thereto, Purchaser will make a good faith effort to comply with that state statute or seek to have such statute declared inapplicable to the Offer. If, after a good faith effort, Purchaser cannot do so, Purchaser will not make the Offer to the holders of Shares. In any jurisdiction where the securities, "blue sky" or other laws require the Offer to be made by a licensed broker or dealer, the Offer will be deemed to be made on behalf of Purchaser by one or more registered brokers or dealers that are licensed under the laws of such jurisdiction.

**Notice of Offer to Purchase All Outstanding Shares of Common Stock** 

### Immunomedics, Inc.

#### \$88.00 Net Per Share

Pursuant to the Offer to Purchase dated September 24, 2020

### Maui Merger Sub, Inc.

a wholly owned subsidiary of

### Gilead Sciences, Inc.

Maui Merger Sub, Inc., a Delaware corporation ("Purchaser"), is offering to purchase all outstanding shares of common stock, par value \$0.01 per share (the "Shares"), of Immunomedics, Inc., a Delaware corporation ("Immunomedics"), at a price per Share of \$88.00, net to the holder in cash, without interest (the "Offer Price") and subject to any withholding of taxes, upon the terms and subject to the conditions described in the Offer to Purchase, dated September 24, 2020 (together with any amendments or supplements thereto, the "Offer to Purchase"), and in the related Letter of Transmittal (together with any amendments or supplements thereto, the "Letter of Transmittal" and, together with the Offer to Purchase, the "Offer"). Purchaser is a wholly owned subsidiary of Gilead Sciences, Inc., a Delaware corporation ("Gilead")

The Offer is being made in connection with the Agreement and Plan of Merger, dated as of September 13, 2020 (together with any amendments or supplements) and the Offer is being made in connection with the Agreement and Plan of Merger, dated as of September 13, 2020 (together with any amendments or supplements) and the Offer is being made in connection with the Agreement and Plan of Merger, dated as of September 13, 2020 (together with any amendments or supplements).thereto, the "Merger Agreement"), among Immunomedics, Gilead and Purchaser, pursuant to which, after the completion of the Offer and the satisfaction or waiver of certain conditions, Purchaser will be merged with and into Immunomedics, and Immunomedics will be the surviving corporation and a wholly owned subsidiary of Gilead (such merger, the "Merger"). At the effective time of the Merger, each Share outstanding immediately prior to the effective time of the Merger other than (i) Shares held by Immunomedics (or held in Immunomedics' treasury), (ii) Shares held by Gilead, Purchaser or any other direct or indirect wholly owned subsidiary of Gilead and (iii) Shares held by stockholders who are entitled to appraisal rights under Section 262 of the General Corporation Law of the State of Delaware ("DGCL") and have properly exercised and perfected their respective demands for appraisal of such Shares in the time and manner provided in Section 262 of the DGCL and, as of the effective time of the Merger, have neither effectively withdrawn nor lost their rights to such appraisal and payment under the DGCL will be converted into the right to receive the Offer Price. As a result of the Merger, Immunomedics will cease to be a publicly-traded company and will become wholly owned by Gilead. Under no circumstances will interest be paid on the purchase price for Shares, regardless of any extension of the Offer or any delay in making payment for Shares. The parties to the Merger Agreement have agreed that, upon the terms and subject to the conditions specified in the Merger Agreement, the Merger will become effective as soon as practicable after the consummation of the Offer, without a vote of Immunomedics' stockholders to adopt the Merger Agreement, in accordance with Section 251(h) of the DGCL. Accordingly, if the Offer is consummated, Purchaser will not seek the approval of Immunomedics' remaining public stockholders before effecting the Merger. The Merger Agreement is more fully described in the Offer to Purchase.

Tendering stockholders who have Shares registered in their names and who tender directly to Computershare Trust Company, N.A. (the "Depositary") will not be obligated to pay brokerage fees or commissions or, except as set forth in the Letter of Transmittal, transfer taxes on the purchase of Shares by Purchaser pursuant to the Offer. Stockholders who hold their Shares through a broker or bank should consult with such institution as to whether it charges any service fees or commissions.

THE OFFER AND WITHDRAWAL RIGHTS WILL EXPIRE AT ONE MINUTE AFTER 11:59 P.M., EASTERN TIME, ON OCTOBER 22, 2020 (SUCH DATE, OR ANY SUBSEQUENT DATE TO WHICH THE EXPIRATION OF THE OFFER IS EXTENDED, THE "EXPIRATION DATE"), UNLESS THE OFFER IS EXTENDED OR EARLIER TERMINATED.

The Offer is conditioned upon, among other things, (a) the Merger Agreement not having been terminated in accordance with its terms (the "Termination ndition") and (b) the satisfaction of:

- (i) the Minimum Tender Condition (as described below);
- (ii) the HSR Condition (as described below); and (iii) the Governmental Impediment Condition (as described below).

The Offer is not subject to a financing condition. The Minimum Tender Condition requires that the number of Shares validly tendered and not validly withdrawn, together with all other Shares (if any) beneficially owned by Gilead and its subsidiaries, represents one Share more than 50% of the total number of Shares outstanding at the time of the expiration of the Offer (excluding Shares tendered in the Offer pursuant to guaranteed delivery procedures that have not yet been "received" (as such term is defined in Section 251(h)(6)(f) of the DGCL)). The HSR Condition requires that the waiting period applicable to the Offer under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and the rules and regulations promulgated thereunder, shall have expired or been terminated and, if Gilead and Immunomedics have entered into an agreement with any governmental body regarding the timing of the consummation of the Offer, that agreement shall permit such consummation. The Governmental Impediment Condition requires that there shall not have been issued by any governmental body of competent jurisdiction in any jurisdiction in which Gilead or Immunomedics has material business operations, and remain in effect, any judgment, temporary restraining order, preliminary or permanent injunction or other order, decree or ruling restraining, enjoining or otherwise preventing the acquisition of or payment for Shares pursuant to the Offer or the consummation of the Offer or the Merger or subsequent integration, nor shall any legal requirement have been promulgated, enacted, issued or deemed applicable to the Offer or the Merger by any governmental body in any jurisdiction in which Gilead or Immunomedics have material business operations which prohibits or makes illegal the acquisition of or payment for Shares pursuant to the Offer or the consummation of the Merger or subsequent integration. The Offer is also subject to other conditions as described in the Offer to Purchase (collectively, the offer Conditions"). See Section 13—"Conditions of the Offer" of the Offer to Purchase.

After careful consideration, the Immunomedics board of directors has, subject to the terms and upon the conditions set forth in the Merger

Agreement, unanimously: (i) determined that the Merger Agreement and the transactions contemplated thereby, including the Offer and the Merger, are fair to, and in the best interest of, Immunomedics and its stockholders, (ii) declared it advisable to enter into the Merger Agreement, (iii) approved the execution, delivery and performance by Immunomedics of the Merger Agreement and the consummation of the transactions contemplated thereby, including the Offer and the Merger, (iv) resolved that the Merger shall be effected under Section 251(h) of the DGCL, and

(v) resolved to recommend that the stockholders of Immunomedics accept the Offer and tender their Shares to Purchaser pursuant to the Offer.

Immunomedics will file a Solicitation/Recommendation Statement on Schedule 14D-9 (the "Schedule 14D-9") with the United States Securities and Exchange Commission (the "SEC") and disseminate the Schedule 14D-9 to Immunomedics' stockholders with the Offer to Purchase. The Schedule 14D-9 will include a description of the Immunomedics board of directors' reasons for authorizing and approving the Merger Agreement and the transactions contemplated thereby

and therefore stockholders are encouraged to review the Schedule 14D-9 carefully and in its entirety.

The Merger Agreement contains provisions to govern the circumstances in which Purchaser is required to extend the Offer and in which Gilead is required to cause Purchaser to extend the Offer. Specifically, the Merger Agreement provides that Purchaser shall (and Gilead shall cause Purchaser to) extend the Offer (i) if, as of the then-scheduled Expiration Date, any Offer Condition is not satisfied (unless such condition is waivable by Purchaser or Gilead and has been waived), for additional periods of up to 10 business days per extension to permit such Offer Condition to be satisfied and (ii) from time to time for any period required by any legal requirement, any interpretation or position of the SEC or its staff or the NASDAQ Stock Market LLC applicable to the Offer. Notwithstanding the foregoing, in no event will Purchaser be required to extend the Offer beyond March 13, 2021 (such date, including as it may be extended pursuant to the terms of the Merger Agreement, the "End Date") or the earlier termination of the Merger Agreement, and in no event will Purchaser be permitted to extend the Offer beyond the End Date or the earlier termination of the Merger Agreement without Immunomedics' prior written consent.

The purpose of the Offer and the Merger is for Gilead and its affiliates, through Purchaser, to acquire control of, and the entire equity interest in,

Immunomedics. Following the consummation of the Offer, subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, Gilead and Purchaser intend to effect the Merger. No appraisal rights are available to holders of Shares in connection with the Offer. However, if the Merger is consummated, a stockholder of Immunomedics that has not tendered its Shares in the Offer will have rights under Section 262 of the DGCL to dissent from the Merger and demand appraisal of, and obtain payment in cash for the "fair value" of, that stockholder's Shares.

On the terms and subject to the conditions of the Merger Agreement and the applicable rules and regulations of the SEC, Purchaser expressly reserves the right to (i) increase the amount of cash constituting the Offer Price, (ii) waive any Offer Condition (to the extent permitted under applicable Legal Requirements (as defined in the Merger Agreement)) and (iii) make any other changes in the terms and conditions of the Offer that are not inconsistent with the Merger Agreement. However, without the consent of Immunomedics, Gilead and Purchaser are not permitted to (i) decrease the Offer Price, (ii) change the form of consideration payable in the Offer (provided that nothing in the Merger Agreement shall limit the ability of Gilead and Purchaser to increase the cash consideration payable in the Offer), (iii) decrease the maximum number of Shares sought to be purchased in the Offer, (iv) impose conditions or requirements to the Offer in addition to the Offer Conditions, (v) amend, modify or waive the Minimum Tender Condition, the Termination Condition, the HSR Condition or the Governmental Impediment Condition, (vi) otherwise amend or modify any of the other terms of the Offer in a manner that adversely affects, or would reasonably be expected to adversely affect, any holder of Shares in its capacity as such, (vii) terminate the Offer or accelerate, extend or otherwise change the Expiration Date except as provided in the Merger Agreement, or (viii) provide any "subsequent offering period" (or any extension thereof) within the meaning of applicable SEC rules and regulations. Any extension, waiver or amendment of the Offer or termination of the Offer will be followed, as promptly as practicable, by public announcement thereof, such

nouncement in the case of an extension to be issued no later than 9:00 a.m., Eastern Time, on the next business day after the previously scheduled Expiration Date. For purposes of the Offer, Purchaser will be deemed to have accepted for payment, and thereby purchased, Shares validly tendered, and not properly withdrawn, prior to the expiration of the Offer if and when Purchaser gives oral or written notice to the Depositary of Purchaser's acceptance for payment of such Shares pursuant to the Offer. Upon the terms and subject to the conditions of the Offer, payment for Shares accepted for payment pursuant to the Offer will be made by deposit of the aggregate Offer Price for such Shares with the Depositary, which will act as paying agent for the tendering stockholders for the purpose of receiving payments from Purchaser and transmitting such payments to the tendering stockholders. Under no circumstances will interest be paid on the Offer Price for Shares, regardless of any extension of the Offer or any delay in making payment for Shares.

In all cases, payment for Shares tendered and accepted for payment pursuant to the Offer will be made only after timely receipt by the Depositary of (a) certificates for such Shares ("Share Certificates") or timely confirmation of the book-entry transfer of such Shares ("Book-Entry Confirmations") into the Depositary's account at The Depository Trust Company ("DTC") pursuant to the procedures set forth in the Offer to Purchase, (b) a Letter of Transmittal, properly completed and duly executed, with any required signature guarantees (or, in the case of a book-entry transfer, an Agent's Message (as defined in the Offer to Purchase) in lieu of the Letter of Transmittal) and (c) any other documents required by the Letter of Transmittal. Accordingly, tendering stockholders may be paid at different times depending upon when Share Certificates or Book-Entry Confirmations with respect to Shares are actually received by the Depositary.

Pursuant to Section 14(d)(5) of the Securities Exchange Act of 1934, as amended, Shares tendered pursuant to the Offer may be withdrawn at any time prior to the expiration of the Offer and, unless theretofore accepted for payment by Purchaser pursuant to the Offer, may also be withdrawn at any time after vember 22, 2020, which is the 60th day after the date of the commencement of the Offer.

For a withdrawal of Shares to be effective, a written notice of withdrawal must be timely received by the Depositary at its address set forth on the back cover of the Offer to Purchase. Any such notice of withdrawal must specify the name of the person having tendered the Shares to be withdrawn, the number of Shares to be withdrawn and the name of the record holder of the Shares to be withdrawn, if different from that of the person who tendered such Shares. The signature(s) on the notice of withdrawal must be guaranteed by an Eligible Institution (as defined in the Offer to Purchase), unless such Shares have been tendered for the account of any Eligible Institution. If Shares have been tendered pursuant to the procedures for book-entry transfer as set forth in the Offer to Purchase, any notice of withdrawal must specify the name and number of the account at DTC to be credited with the withdrawn Shares and must otherwise comply with DTC's rocedures. If certificates representing the Shares to be withdrawn have been delivered or otherwise identified to the Depositary, the name of the registered holder and the serial numbers shown on such certificates must also be furnished to the Depositary as aforesaid prior to the physical release of such certificates

All questions as to the form and validity (including time of receipt) of any notice of withdrawal will be determined by Purchaser, in its sole discretion, which determination shall be final and binding, subject to the rights of tendering stockholders to challenge Purchaser's determination in a court of competent jurisdiction. No withdrawal of tendered Shares shall be deemed to have been properly made until all defects and irregularities have been cured or waived. None of Gilead, Purchaser or any of their respective affiliates or assigns, the Depositary, the Information Agent (listed below), or any other person will be under any duty to give notification of any defects or irregularities in any notice of withdrawal or incur any liability for failure to give such notification. Withdrawals of tendered Shares may not be rescinded, and any Shares properly withdrawn will be deemed not to have been validly tendered for purposes of the Offer. However, withdrawn Shares may be retendered by following one of the procedures for tendering Shares described in the Offer to Purchase at any time prior to the expiration of the Offer. The information required to be disclosed by paragraph (d)(1) of Rule 14d-6 under the Securities and Exchange Act of 1934, as amended, is contained in the

Offer to Purchase and is incorporated herein by reference.

Immunomedics has provided Purchaser with Immunomedics' stockholder list and securities position listings for the purpose of disseminating to the holders of Shares information regarding the Offer. The Offer to Purchase and related Letter of Transmittal will be mailed to record holders of Shares whose names appear on Immunomedics' stockholder list and will be furnished to brokers, dealers, commercial banks, trust companies and similar persons whose names, or the names of whose nominees, appear on the stockholder list or, if applicable, who are listed as participants in a clearing agency's security position listing for subsequent transmittal to beneficial owners of Shares.

The receipt of the Offer Price for Shares in the Offer or consideration for Shares in the Merger will be a taxable transaction for U.S. federal income tax purposes. Stockholders should consult with their tax advisors as to the particular tax consequences of the Offer and the Merger to them. For a more complete cription of the principal U.S. federal income tax consequences of the Offer and the Merger, see the Offer to Purchase

The Offer to Purchase, the related Letter of Transmittal and Immunomedics' Solicitation/Recommendation Statement on Schedule 14D-9 (which contains the recommendation of the Immunomedics board of directors and the reasons therefor) contain important information and ould be read carefully and in their entirety before any decision is made with respect to the Offer.

Questions and requests for assistance may be directed to the Information Agent at the address and telephone numbers set forth below. Requests for copies of the Offer to Purchase and the related Letter of Transmittal, the Notice of Guaranteed Delivery and other tender offer materials may be directed to the Information Agent or to brokers, dealers, commercial banks or trust companies. Such copies will be furnished promptly at Purchaser's expense. Except as set forth in the Offer to Purchase, neither Purchaser nor Gilead will pay any fees or commissions to any broker or dealer or any other person for soliciting tenders of Shares pursuant to the Offer.

The Information Agent for the Offer is:



#### Innisfree M&A Incorporated

501 Madison Avenue, 20th Floor New York, New York 10022

Shareholders may call toll free: (888) 750-5834 Banks and Brokers may call collect: (212) 750-5833

September 24, 2020

**B6** | Thursday, September 24, 2020

#### **BUSINESS NEWS**

### Stadiums, Dunkin' Test Pay Systems

By Katie Deighton

Coffee chain Dunkin' and hospitality stands at sports stadiums are testing a new checkout-free payment system from **Mastercard** Inc. as retailers try to meet shoppers' desire for speed and reduced human contact.

Their initiatives are similar to Amazon.com Inc.'s Go technology, which uses scanners, cameras and software to let shoppers walk out of a store without stopping to pay for their purchases. Amazon has opened more than two-dozen Go-branded stores since 2018 and offered other retailers access to the technology in March.

Now similar experiments are spreading as companies double down on plans to reduce social contact in stores.

Retailers are still weighing key questions, including how many people will go through an inconvenient sign-up process to get queue-free shopping—and how much the costly technology will be worth to stores themselves.

Dunkin' Brands Group Inc. is testing Mastercard's system at an undisclosed store in California that will be rebranded as Dunkin' Dash. Customers will have to register their credit card at a kiosk outside to receive a QR code that lets them enter. Cameras inside will track them as they select individually packaged baked goods, self-pour coffee and snacks.

Customers will have to sign up separately with each retailer using Mastercard's technology, according to Stephane Wyper, Mastercard's senior vice president of innovation. He said the Shop Anywhere registration process is designed to take less than 30 seconds.

### **Corporate Leaders Weigh In on Remote Work**

CEOs and other executives say they have seen enough to judge whether employees working at home is working. But the verdict depends on whom you ask. Here's what some are saying about the workplace shift and the value of an office:



Tim Cook

CEO of Apple Inc., speaking at a virtual conference hosted by the Atlantic in September

"In all candor, it's not like being together physically. And so I can't wait for everybody to be able to come back into the office. I don't believe that we'll return to the way we were because we've found that there are some things that actually work really well virtually."



Andi Owen

Chief executive of furniture giant Herman Miller Inc., on longing for the chance to stop by a colleague's desk

"That unplanned kind of interaction that contributes so much to how we build relationships with people and how we build culture, those things are what are missing."



**Dana Canedy** 

Publisher of the flagship imprint of the Simon & Schuster book-publishing unit of ViacomCBS Inc.

"We're all grown-ups and we have adapted to these new work realities. That's going to produce permanent changes in how we all work. I'm getting my work done, and so are my colleagues. I don't have an issue with it."



Laszlo Bock

Chief executive of human-resources startup Humu and former HR chief at Google, on the state of remote work

"There's sort of an emerging sense behind the scenes of executives saying, 'This is not going to be sustainable."



**Heyward Donigan** 

Chief executive of Rite Aid Corp., on managing remotely

"We have adapted to work-from-home unbelievably well. I had a philosophy that I want to hire the best and the brightest even if they work from a different location, and now, ironically, we're all working from another location. We've learned that we can work remote, and we can now hire and manage a company remotely."



James Dimon

CEO of JPMorgan Chase & Co., at a virtual conference session moderated by CNBC in September

"I don't know the future better than anyone else. I think going back to work is a good thing. I think there are negatives to working from home...We've seen productivity drop in certain jobs and alienation go up in certain things. So we want to get back to work in a safe way."



**Larry Fink** 

CEO of BlackRock Inc., speaking at the digital Morningstar Investment Conference on Sept. 17

"I don't believe BlackRock will be ever 100% back in office. I actually believe maybe 60% or 70%, and maybe that's a rotation of people, but I don't believe we'll ever have a full cadre of people in [the] office."



Rajat Bhageria

Chief executive of robotics startup Chef Robotics, on what the company learned in attempting to work remotely

"We tried it...It's just not the same. You just cannot get the same quality of work."



Satya Nadella

CEO of Microsoft Corp., speaking at a virtual conference in June

"Even in the Seattle region, where we have now sent a lot of people home, we're realizing that some people would rather have workspace at work once the Covid-19 crisis goes away because they want dedicated workspace with good network connectivity."



Mark Zuckerberg

CEO of Facebook Inc., which is investing in offices. The social-media giant spent \$367.6 million to buy Recreational Equipment Inc.'s new campus near Seattle.

"I think we're going to be the most forward-leaning company on remote work at our scale, for sure, but we're going to do this in a way that is measured, and thoughtful and responsible, and in phases over time."



#### **BIGGEST 1,000 STOCKS**

How to Read the Stock Tables
The following explanations apply to NYSE, NYSE
Arca, NYSE American and Nasdag Stock Market
listed securities. Prices are composite quotations
that include primary market trades as well as
trades reported by Nasdag BX (formerly Boston),
Chicago Stock Exchange, Cboe, NYSE National and
Nasdag ISE.
The list comprises the 1,000 largest companies
based on market capitalization.
Underlined quotations are those stocks with
large changes in volume compared with the
issue's average trading volume.
Boldfaced quotations highlight those issues
whose price changed by 5% or more if their
previous closing price was \$2 or higher. How to Read the Stock Tables

THE WALL STREET JOURNAL.

Wednesday, September 23, 2020

I-New 52-week high.
I-New 52-week low.
dd-Indicates loss in the most recent four

da-indicates loss in the most recent four quarters.

FD-First day of trading.

h-Does not meet continued listing standards

If-Late filing
q-Temporary exemption from Nasdaq requirements.

t-NYSE bankruptcy
v-Trading halted on primary market.
y-In bankruptcy or receivership or being reorganized under the Bankruptcy Code, or securities assumed by such companies.

Wall Street Journal stock tables reflect composite regular trading as of 4 p.m. and changes in the closing prices from 4 p.m. the previous day.

Wednesday, So	eptemi	ber 23,	2020				Net				Net	ConagraBr
			Net	Stock	Sym	ı Close	Chg	Stock	Sym	Close	Chg	ConchoRs
Stock	Cum	Class										
Stock	ЭУП	Close	Cng	Apple	AAPL	. 107.12	-4.69	BritishAmTob	BTI	35.17	0.21	ConocoPh
Δ	В	<u></u>		ApplMaterials	AMAT	57.25	-0.64	Broadcom		351.59	-10.00	ConEd
A	D	C		Aptargroup		112.14	-2.19	BroadridgeFin			-3.16	ConstBran
				Aptiv	APTV		-0.56	BrookfieldMgf		31.93	-0.90	Cooper
ABB	ABB	24.80										Copart
AcadiaPharm	ACAD	40.45	-0.52	Aramark	ARMK		-0.33	BrookfieldInfr		46.14	-1.05	Corning
ADT	ADT	8.18	-0.46	ArcelorMittal		12.10	-0.33	BrookfieldPropREIT			-0.24	Corteva
AECOM	ACM	38.76	0.19	ArchCapital	ACGL		-1.07	BrookfieldRenew	BEPC	50.91	-0.25	CoStar
AES	ΔES	17.76		ArcherDaniels	ADM	45.16	-1.84	Brown&Brown	BRO	43.34	-1.17	
				AresMgmt	ARES		-0.19	Brown-Forman A	BF.A	67.98	-0.54	Costco
Aflac	AFL	35.62		arGEN-X	ARGX	245.85	2.98	Brown-Forman E		75.34	-0.81	CoupaSoft
AGNC Invt		13.98		AristaNetworks			-1.45	Bruker	BRKR		-0.05	Credicorp
Ansys		302.55		ArrowElec	ADW	77.05	-1.03	Bunge	BG	44.66	-1.32	CreditSuis
ASETech	ASX	4.02	-0.13	ATTOWERC	ACNI	11.00						Cree
ASML	ASML	357.56	-7.08	AscendisPharma	ASNL	146.00	1.73	BurlingtonStr			-8.71	CrowdStri
AT&T	т	27.87	-0.64	AspenTech		124.44	-6.01	CBRE Group			-1.01	CrownCas
AbbottLabs		102.73	-2.07	Assurant	AIZ	118.73	-2.18	CDW	CDW	109.21	-0.96	
		87.14		AstraZeneca	AZN	55.66	0.22	CF Industries	CF	30.92	-0.33	CrownHold
AbbVie	ADDV	07.14	-1.46	Athene	ATH	33.00	-0.84	CGI	GIB	68.01	-0.27	CubeSma
Abiomed		260.11		Atlassian		176.88	-3.38	CH Robinson			-1.39	Cummins
AcceleronPharma			1.67	AtmosEnergy		92.87	-0.85	CME Group		162.35	-4.24	CureVac
Accenture		230.65	-6.27			221.87	-7.69			59.57	-1.12	CyrusOne
ActivisionBliz	ATVI	80.13	-2.52	Autodesk				CMS Energy				
AdaptiveBiotech		48.21	0.14	Autohome	ATHM		-2.67	CNA Fin	CNA	29.68	-0.62	
Adobe		470.39	-16 39	Autoliv	ALV	70.13	-1.50	CNH Indl	CNHI	7.50	-0.05	
AdvanceAuto				ADP		128.72	-4.19	CNOOC	CEO	99.14	-3.76	DISH Netv
				AutoZone	AZO	1128.95	-37.76	CRH	CRH	35.14	-0.73	DTE Ener
AdvMicroDevices				Avalara	AVLR	124.05	-0.68	CRISPR Therap	CRSP	84.69	-4.12	DadaNex
AgilentTechs			-1.71	Avalonbay		147.06	-2.14	CSX	CSX	76.50	-1.43	Danaher
AgnicoEagle	AEM	74.71	-4.23	Avangrid	AGR	48.95	-0.52	CVS Health	cvs	57.40	-0.74	
AirProducts	APD	285.43	-8.02			22.17				1732.93		Darden
AkamaiTech	AKAM	110.08	-2.67	Avantor			-0.14	CableOne				Datadog
Albemarle		80.42		AveryDennison		118.71	-3.30	CabotOil	COG	18.65	-0.76	DaVita
Albertsons	ACI	13.62	-0.28	BCE	BCE	41.08	-0.79	CadenceDesign	CDNS	99.72	-3.11	DeckersOut
				BHP Group	BHP	51.83	-1.06	CaesarsEnt	CZR	54.86	-3.27	Deere
Alcon	ALC	56.55	-0.85	BHP Group	BBL	43.05	-0.79	CamdenProperty	CPT	88.02	-0.60	DellTechC
AlexandriaRIEst				BP	BP	17.97	-0.51	CampbellSoup		45.18	-0.48	DeltaAir
AlexionPharm	ALXN	112.43	-2.08	B2Gold	BTG	6.10	-0.52	CIBC	CM	75.83	-0.74	DentsplySi
Alibaba	Baba	272.95	-2.34	Baidu		122.92	-1.11	CanNtlRlwy	CNI	104.88	-0.26	
AlignTech	ALGN	308.32	-14.25			13.53				16.40	-0.59	Deutschel
Alleghany	Υ	489.20		BakerHughes			-0.87	CanNaturalRes				DexCom
Allegion	ALLE	95.37		Ball	BLL	79.85	-1.73	CanPacRlwy	CP	298.64	-2.63	Diageo
AlliantEnergy		49.83		BancoBilbaoViz	BBVA	2.49	-0.04	Canon	CAJ	16.21	-0.02	DigitalRea
				BancoBradesco	BBDO	3.28	-0.15	CanopyGrowth	CGC	14.60	-1.44	
Allstate	ALL	89.62	-2.72	BancodeChile	BCH	14.98	-0.78	CapitalOne	COF	68.13	-1.83	
AllyFinancial	ALLY		-0.79	BancSanBrasil			-0.25	CardinalHealth	CAH	45.25	-1.83	<b>IPOS</b>
AlnylamPharm	ALNY	134.50	0.86	BcoSantChile			-0.69	Carlisle	CSL	116.61	-3.91	IPUS
Alphabet A	GOOGL	1409.39	-50.43			1.79	-0.07		CG	24.07	-0.50	Perforr
Alphabet C	GOOG	1415.21	-50.25	BancoSantander				Carlyle				Perion
Alteryx		105.71		BanColombia		25.70	-0.47	CarMax		105.93	1.63	l
AlticeUSA	ATUS		-0.77	BankofAmerica		23.26	-0.68	Carnival	CCL	14.13	-0.28	Company
				BankofMontrea	BMO	58.02	-0.70	Carnival	CUK	11.76	-0.24	IPO date/0
Altria	МО	37.93		BankNY Mellon	BK	33.25	-0.23	CarrierGlobal	CARR	29.11	-1.15	
AlumofChina			-0.21	BkNovaScotia		40.62	-0.22	Carvana		218.67	-8.16	GoodRx F
Amazon.com	amzn	2999.86	-129.13	Barclays	BCS	4.64	-0.04	CaseysGenStores			-1.56	<b>GDRX</b> Se
Ambev	ABEV	2.24	-0.12	BarrickGold	GOLD		-1.28	Catalent	CTLT	83.90	-1.27	GDRX 36
Amcor		10.58										Aspirational
Amdocs	DOX	57.04	-0.95	BauschHealth	BHC	15.74	-0.30	Caterpillar	CAT	144.38	-2.77	ASPL.UT
			0.77	BaxterIntl	BAX	78.33	-0.72	Celanese	CE	106.05	-3.11	ASFE.OT
Amedisys		224.06		BectonDicknsn			1.79	Centene	CNC	54.94	0.60	ArcLight (
Amerco		357.68		BeiGene	BGNE	274.68	5.88	CenterPointEne	CNP	18.86	-0.05	<b>ACTCU</b> S
Ameren	AEE	75.61	-1.45	Berkley	WRB	59.56	-1.88	CentraisElBras	EBR	5.75	-0.24	
AmericaMovil A	AMOV	11.73	-0.10	BerkHathwy B	BRK B		-4.55	CeridianHCM		76.34	-2.04	Bentley S
AmericaMovil	AMX	11.71		BerkHathwy A				Cerner	CERN		-0.90	<b>BSY</b> Sept
AmerAirlines		11.93	-0.41	BerryGlobal	BERY		-0.64	CharlesRiverLabs		212.55	-4.78	<b>Б</b> 51 Эср
AEP	AEP		-0.67		RRY							Caraniro
AmerExpress		95.56		BestBuy		106.49	-1.14	CharterComms				Corsair G
				BeyondMeat			-3.25	CheckPoint		118.55	-1.50	<b>CRSR</b> Sep
AmericanFin		63.72		Bilibili	BILI	41.85	-1.46	Chegg	CHGG		1.46	l —
AmHomes4Rent		27.07	-1.06	Bill.com	BILL	92.30	0.65	Chemed	CHE	474.46	-7.84	l
AIG	AIG	26.43		Bio-Techne	TECH	242.99	-0.25	CheniereEnergy		48.50	-1.90	I
AmerTowerREIT			-6.23	Bio-RadLab A		511.77	-3.91	CheniereEnerPtr		31.90	-0.92	I
AmerWaterWorks	<b>AWK</b>	138.05	-2.12	Biogen	BIIB	272.20	-0.56	Chevron	cvx	71.95	-3.58	
AmericoldRealty			-0.07	BioMarinPharm			-0.93		CHWY		0.51	I
Ameriprise		145.35	-3.34		BNTX		-3.22	Chewy				Divis
				BioNTech				ChinaEastrnAir		21.12	-0.65	Divid
AmerisourceBrgr		94.14		BlackKnight	BKI		-1.73	ChinaLifeIns		11.38	-0.21	I
Ametek	AME	95.32		BlackRock	BLK	538.54		ChinaMobile	CHL	32.51	-0.69	Divider
Amgen		242.59		Blackstone	BX	50.79	-0.51	! ChinaPetrol	SNP	40.47	-1.07	Divide
Amphenol	APH	103.29	-1.33	Boeing	BA	151.18	-5.62	ChinaSoAirlines	ZNH	26.95	-0.70	I
AnalogDevices	ADI	112.50	-2.20	BookingHldgs				ChinaTelecom		30.08	-0.68	Company
Anaplan	PLAN	59.84	-0.55	BoozAllen	BAH		-3.54	ChinaUnicom		6.81	-0.12	Company
AngloGoldAsh		24.79	-1.52	BorgWarner	BWA		-0.01	Chipotle		1248.39	13.81	Stocke
AB InBev	BUD	52.53	-1.81						CIVIG			Stocks
				BostonBeer     BostonBrone		895.63		Chubb		113.85	-2.19	Marinus F
AnnalyCap	NLY	7.19	-0.19	BostonProps	BXP	79.00	-1.50	ChunghwaTel		36.57	-0.41	
Anthem		245.73	-1.71	BostonSci	BSX	37.72	-0.88	Church&Dwight		91.61	0.02	VEV. A.
Aon		200.41	0.44	BrightHorizons		142.57	0.07	ChurchillDowns	CHDN	164.44	1.23	KEY: A: ar
ApolloGlbMgmt	: APO	43.93	-0.40	BristolMyers		58.99	0.23	Ciena	CIEN	39.29	-1.82	spin-off.
				•								

- 11	Stock	Sym	Close	Net Chg	Stock	Syn	ı Close	Net Chg	Stock	Syn	ı Close	Net Chg
	Cigna CincinnatiFin	CI CINF	160.50 74.95	-1.24 -0.93	DiscoverFinSvcs DiscoveryB		53.23 <b>35.00</b>	-1.29 <b>2.00</b>	Eversource	eEner <b>ES</b> ences <b>EXAS</b>	78.29 74.35	-0.69 1.43
	Cintas		316.71		DiscoveryB			-1.21	Exelixis			-1.89
	CiscoSystems				DiscoveryC	DISCH	19.12	-1.09	Exelon	EXC	34.48	-0.73
	Citigroup CitizensFin	C CFG	41.85 23.95		Disney	DIS		-3.93	Expedia	EXPE sinti EXPO	91.92	-2.03 -0.42
	CitrixSystems				DocuSign DolbyLab	DLB	211.52 64.90	-0.61 -0.99		ceSt EXR		-3.45
	Clarivate	ccc		-1.08	i DollarGeneral		204.22	-4.12	ExxonMo	bil XOM	34.39	-1.14
	Clorox Cloudflare	CLX NET	212.23 39.98	-0.15 0.11	DollarTree		86.72		F5Netwo FMC		118.87 104.51	-1.48 -3.04
	Coca-Cola	KO	48.21		DominionEner Domino's			-1.23 -0.21	Facebook		249.02	-5.73
	Coca-Cola Euro		38.85	-0.30	Donaldson	DCI		-0.83	FactSet	FDS	330.72	-8.08
	Cognex CognizantTech		60.60		Dover		106.95	-0.61	Fairlsaac		417.42 23.94	
	ColgatePalm		75.14	-0.93	Dow DrReddy'sLab	DOW	46.74 68.56	-1.06 -1.45	Farfetch Fastenal	FAST		-0.49 -0.60
	ColumbiaSportswr			0.69	DraftKings			-1.45 -3.82	Fastly		88.11	-6.20
	Comcast A		45.36		Dropbox	DBX	19.18	-0.35	FedEx		241.42	-2.00
4	CommerceBcshrs SABESP	SBS	8.45	-0.77 -0.28	DukeEnergy	DUK		-1.41	Ferrari FiatChrys		181.58 11.96	-1.72 -0.04
t	ConagraBrands		33.86	-1.29	DukeRealty Dun&Bradstreet	DRE DNR	35.90 24.10	-0.75 0.20	FidNatlFi			-1.20
9		схо	43.35	-2.25	Dunkin'	DNKN		0.13	FidNatlIn		143.61	
1	ConocoPhillips ConEd	ED	32.92 73.32		DuPont	DD	54.37	-1.39		Bncp FITB		-0.55
0	ConstBrands A		186.57	-1.93	Dynatrace ENI	DT E	40.29 15.90	-0.94 -0.52	FirstSola	Bank FRC r FSLR		-2.26 0.47
6 0	Cooper	COO	333.63		EOG Rscs	EOG	36.38	<b>-2.07</b>	FirstEner	gy <b>FE</b>	27.58	-0.99
5	Copart Corning	CPRT GLW	102.32		EPAM Systems	EPAN	314.75	-6.98	Fiserv	FISV	99.35	-1.74
4	Corteva		30.59 27.46		E°TRADE	ETFO		-1.28	FiveBelov Five9		127.30 123.60	-1.44 -3.03
5 7	CoStar	CSGP	821.26	-16.24	EastmanChem Eaton	EMN ETN	77.01 98.78	-2.00 -0.53	FleetCorT	ech <b>FLT</b>	234.00	-2.04
4	Costco		344.63	0.18	eBay		50.68	-0.24		cor FND	72.79	-1.21
1	CoupaSoftware Credicorp		266.11 123.27		Ecolab	ECL	195.20	-3.96	FordMoto	onMex <b>FMX</b> or <b>F</b>	54.54 6.64	-0.14
5 2		cs		-0.23	Ecopetrol EdisonInt	EIX	10.21 49.30	-0.31 -1.12	Fortinet		115.27	-3.41
1	Cree	CREE		-3.48	Edisonint EdwardsLife		76.05	-2.63	Fortis	FTS	39.42	-0.34
1	CrowdStrike CrownCastle		138.60 155.62	-4.08 -4.36	ElancoAnimal	ELAN	26.41	-0.64	Fortive FortBrands	FTV Home FBHS	71.70 82.39	-1.08 -2.11
6	CrownHoldings		73.15	-1.10	Elastic		105.28	-3.00	FoxA	FOXA		-0.86
3 7	CubeSmart	CUBE	31.01	-0.92	ElectronicArts EmersonElec		128.42 63.89	-2.60 -1.34	FoxB	FOX	25.98	-0.97
9	CuroVac		203.01 47.63		Enbridge	ENB	29.51	-1.00		evada <b>FNV</b> scs <b>BEN</b>	135.81 19.58	-6.47
4	CureVac CyrusOne	CONE	70.43	-2.57 -1.61	EncompassHealth		61.35	-0.63		SCS BEN	19.58 <b>14.77</b>	-0.29 <b>-0.91</b>
2	_		70.15		EnelAmericas EnergyTransfer		6.45 5.56	-0.11 -0.26		Med FMS	41.45	-0.34
5	D	E			EnphaseEnergy			-1.96		GН	1	
6	DISH Network			-1.53	Entegris	ENT	66.91	-0.16			•	
3 2			111.90	-0.11	Entergy EnterpriseProc	ETR	95.17 15.33	-2.11 -0.67		tyA GLIBA		-1.94
3	DadaNexus Danaher	DADA DHR		<b>-1.92</b> -1.95	EnterpriseProc Equifax	EFX		-3.93		dings GDS mental GFL	77.49 20.30	-1.68 -0.96
4	Darden	DRI	90.00	0.02	Equinix	EQIX	730.67	-19.33		edu <b>GSX</b>		0.40
2	Datadog			-2.31	Equinor		14.49		Galapago	s GLPG	137.04	-0.40
6 1	DaVita DeckersOutdoor	DVA	82.41 214 51	-2.23 0.84	Equitable EquityLife	EQH ELS		-0.11 -1.33	Gallagher Gaming&l	· AJG eisure GLPI	102.36 35.62	-1.93 -0.74
7	Deere		214.55		EquityResdnt	EQR	51.25	-1.41	Gap	GPS	16.55	-0.16
0	DellTechC	DELL	65.61	-0.70	ErieIndemnity A	ERIE		-5.19	Garmin	GRMN	93.46	-1.68
8 4	DeltaAir DentsplySirona	DAL	29.56 42.73	-0.66 -1.85	EssentialUtil EssexProp	WTR6	38.53 201.93	-0.86 -5.55	Gartner Generac	GND	124.00 175.76	-2.71 -7.14
6	DeutscheBank			-0.09		EL			GeneralDyn			-2.94
9	DexCom	DXCM	386.07	-12.06	Etsy		115.09	-4.26	GeneralE	ec <b>GE</b>	6.11	-0.14
2	Diageo			-0.65	EverestRe	RE	197.10 49.12	-3.01	GeneralM GeneralM		57.72	-0.27
4	DigitalRealty	DLK	127.17	-4.22	Evergy	EVK	49.12	-1.55	GeneralM	otors <b>GM</b>	29.34	-0.10
3												
3	IPO Sco	rec	ard									
1 0	Performa	nce	f IPC	)s. m	ost-recent	liste	d firs	t				
3	. ci ioiiiidi			٥, ١١١١	% Chg From		J 1113	•		9	6 Chg Fr	om
	Company <b>SY</b> I			Wed.'s	Offer 1st-day		ompany				Offer 1s	
	IPO date/Offe			lose (\$)			O date/					close
5	GoodRx Hldg			50.50	53.0		aird Sup			40.80	85.5	
5	GDRX Sept. 2	23/\$33	3.00				<b>SF</b> Sept	t. 23/\$	22.00			
	Aspirational Cons			10.00					Acquisition	10.27	2.7	-0.9
	ASPL.UT Sep	t. 23/\$	10.00				CACUS	Sept. 2	2/\$10.00			
TI.	ArcLight Clea	n Tran	sition	10.00		. P	MV Cons	sumer	Acquisition	9.97	-0.3	0.4
Ď							MVC.UT	<b>r</b> Sept.	22/\$10.00			
5	ACTCU Sept.	23/\$1		33.49	52.2	. U	nity So	ftware	e	81.85	57.4	19.8
5		23/\$1						8/\$52				
5	ACTCU Sept.		00			•	ocpt. 1					
544	ACTCU Sept. Bentley Sys BSY Sept. 23	/\$22.0	00		-16.2					16 20	_// 1	_// 7
544	<b>ACTCU</b> Sept. Bentley Sys <b>BSY</b> Sept. 23, Corsair Gami	/\$22.0 ng		14.25	<b>-16.2</b>	. А	thira		/\$17.00	16.30	-4.1	-4.7
544	ACTCU Sept. Bentley Sys BSY Sept. 23	/\$22.0 ng			<b>-16.2</b>	. А	thira		/\$17.00	16.30	-4.1	-4.7
0 5 4 4 0 8 0 0 6 4	<b>ACTCU</b> Sept. Bentley Sys <b>BSY</b> Sept. 23, Corsair Gami	/\$22.0 ng			<b>-16.2</b>	. А	thira <b>THA</b> Se	ept. 18	/\$17.00 Dow Jones			
0 5 4 4 4 0 8 0 0 6 4 4 0 0	<b>ACTCU</b> Sept. Bentley Sys <b>BSY</b> Sept. 23, Corsair Gami	/\$22.0 ng			<b>-16.2</b>	. А	thira <b>THA</b> Se	ept. 18				
0 5 4 4 0 8 0	<b>ACTCU</b> Sept. Bentley Sys <b>BSY</b> Sept. 23, Corsair Gami	/\$22.0 ng			<b>-16.2</b>	. А	thira <b>THA</b> Se	ept. 18				
00 55 44 44 00 88 00 66 44 00 22 88	ACTCU Sept. Bentley Sys BSY Sept. 23, Corsair Gami CRSR Sept. 2	/\$22.0 ng 3/\$17.	.00	14.25		. А	thira <b>THA</b> Se	ept. 18				
00 54 44 00 80 00 66 44 00 28 11 55	<b>ACTCU</b> Sept. Bentley Sys <b>BSY</b> Sept. 23, Corsair Gami	/\$22.0 ng 3/\$17.	.00	14.25		. А	thira <b>THA</b> Se	ept. 18				
005544400880006644002881551	ACTCU Sept. Bentley Sys BSY Sept. 23, Corsair Gami CRSR Sept. 2	/\$22.0 ng 3/\$17.	.00	14.25 <b>ang</b>	jes	. А <b>А</b>	thira THA Se	ept. 18				
00 55 44 00 88 00 66 44 00 22 88 11 55 11 99 77	ACTCU Sept. Bentley Sys BSY Sept. 23, Corsair Gami CRSR Sept. 2	/\$22.0 ng 3/\$17.	.00	14.25 <b>ang</b>		. А <b>А</b>	thira THA Se	ept. 18				
0 5 5 5 6 8 8 0 0 6 8 1 1 9 7 7 0	ACTCU Sept. Bentley Sys BSY Sept. 23, Corsair Gami CRSR Sept. 2	/\$22.0 ng 3/\$17.	.00	14.25 <b>ang</b>	jes	. А <b>А</b>	thira THA Se	ept. 18	Dow Jones			tSet
00 544 440 80 00 644 00 281 511 97 00 88	ACTCU Sept. Bentley Sys BSY Sept. 23, Corsair Gami CRSR Sept. 2	/\$22.0 ng 3/\$17.	.00	14.25 <b>ang</b>	jes	. А <b>А</b>	thira THA Se So mber 2	ept. 18 ources:	Dow Jones		ata; Fac	tSet
00 544 440 880 00 644 00 281 151 97 00 82	ACTCU Sept. Bentley Sys BSY Sept. 23 Corsair Gami CRSR Sept. 2  Divide Divide Company	/\$22.0 ng 3/\$17.	.00	14.25 <b>ang</b>	<b>Jes</b> ts from Se	. A	thira THA Se So mber 2	ept. 18 ources:	Dow Jones		ata; Fac	tSet
054440800664002815197082119	ACTCU Sept. Bentley Sys BSY Sept. 23. Corsair Gamic CRSR Sept. 2	/\$22.0 ng 3/\$17. <b>nd</b> anno	Cha	ang	<b>Jes</b> ts from Se	. A	thira THA Se So mber 2	ept. 18 ources:	Dow Jones		Payal Rec	tSet

 $\textbf{KEY: A: annual; M: monthly; Q: quarterly; r: revised; SA: semiannual; S2:1: stock split and ratio; SO: annual; SA: semiannual; SA: semiann$ 

Net Chg	Stock	Sym	Close	Net Chg		Sym	Close	Net Chg	Stock	Sym	Close	Net Chg
-0.69 1.43	Genmab Genpact	GMAE	<b>36.05</b> 37.73	<b>-2.15</b> -1.14	HSBC HUYA	HSBC HUYA	18.42 25.14	0.07	HowmetAerospace I HuanengPower I			-0.64 -0.17
-1.43 -0.73 -2.03 -0.42 -3.45 -1.14	Gentex GenuineParts Gerdau GileadSciences GSK	GNTX GPC GGB GILD GSK		-0.04 -1.76 -0.10 -0.31 -0.21	Halliburton	HAL HIG HAS HTA	<b>12.65</b> 35.29 76.88 24.93 25.58	<b>-0.68</b> -0.55 1.43 -0.45	Huazhu Hubbell HubSpot Humana	ITHT IUBB 1 IUBS 2 IUM 3 IBHT 1	43.98 132.02 283.17 385.42 129.63	2.21
-1.48 -3.04 -5.73 -8.08 -10.91 -0.49	GlobeLife GoDaddy <b>GoldFields</b> GoldmanSachs	GLOB GL GDDY GFI GS	173.78 77.41 73.55 <b>11.37</b> 186.12	-5.32 -2.06 -0.95 <b>-0.92</b> -5.50	Heico HenrySchein Herbalife Hershey Hess	HEI HSIC HLF HSY HES	102.90 57.18 46.95 134.34 39.40	-4.61 -1.85 -1.55 -3.09 -1.83	HuntingIngalls IIAA IICICI Bank IIdexxLab IIHS Markit I	HII 1 AA BN	139.43 50.47 9.49 363.87 76.73	-4.18 -1.09 -0.24
-0.60 -6.20 -2.00 -1.72 -0.04 -1.20 -2.58 -0.55 -2.26 0.47	Grainger Grifols Grubhub GpoAvalAcc GuardantHealth Guidewire HCA Healthcare HDFC Bank	GRFS GRUB AVAL GH GWRE	4.59 105.85 104.62	-4.59 0.53 -1.92 -0.08 -1.82 -1.99 -4.32 -0.19	HormelFoods	HIW HLT HOLX HD HMC HON HZNP	266.55 24.05 158.79	-1.63 -6.76 -0.32	IPG Photonics I IQVIA I IcahnEnterprises I Icon IDEX I IllinoisToolWks I Illumina I Immunomedics I ImperialOil I	PGP 1 QV 1 EP CLR 1 EX 1 TW 1	160.10 148.96 47.65 177.80 176.51 190.84 273.00 85.17 12.63	-2.18 -4.34 -0.95 0.09 -3.83
-0.99 -1.74	HP	HPQ	18.32	-0.12	HostHotels	HST	10.24	-0.16	Conti	nued o	n Page	≥ B10

#### **Borrowing Benchmarks**

wsj.com/market-data/bonds/benchmarks

#### **Money Rates**

September 23, 2020

**2.00** 2.00 3.75 2.00

**0.11** 0.13 2.53 0.04

0.15000 2.05363 0.14813

0.23325 2.10438 0.22250

0.27038 2.06438 0.27038 0.37800 2.04325 0.37175

-0.564 -0.360 -0.621

-0.521 -0.142 -0.539

-0.496 -0.052 -0.498 -0.429 0.008 -0.441

0.10 2.35 0.01

- 52-Week -

-52-WEEK-

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.

	Infl	ation				Latest	Week ago	—52- High	
	Aug. ii		Chg Fror		011				
	le	vel .	July '20	Aug. '19	Otne	er short-	term	rates	
U.S. consu	mer pri	ce inde	×				Week	- 52-1	We
All items		9.918	0.32	1.3		Latest	ago	high	
Core	26	B <b>.756</b>	0.39	1.7	Call money	,			
ln	ternat	ional r	ates			2.00	2.00	3.75	
		Week	-52	-Week –	Commerci	al paper (	(AA fin	ancia	i)
	Latest	ago	High	Low	90 days	0.11	0.13	2.53	
Prime rate	s				Libor				
U.S.	3.25	3.25	5.00	3.25	One month	0.14813	0.15000	2.05363	0.
Canada	2.45	2.45	3.95	2.45	Three month	0.22500		2.10438	0.
Japan	1.475	1.475	1.475	1.475	Six month	0.27163		2.06438	0.
Policy Rat	06				One year	0.37175		2.04325	0.
Euro zone	0.00	0.00	0.00	0.00	Euro Libor				
Switzerland	0.00	0.00	0.50	0.00			0.574	0.240	^
Britain	0.10	0.10	0.75	0.10	One month	-0.566	-0.564		-
Australia	0.25	0.25	1.00	0.25	Three month		-0.521		-
Overnight	repurc	hase			Six month One year	-0.498 -0.430	-0.496 -0.429	0.008	_
U.S.	0.06	0.11	2.35	-0.07	One year	-0.420	0.427	0.000	_
					Secured O	_	Financ	ing Ra	ate
U.S.	gover	nmen	t rates	;		0.07	0.10	2.35	
Discount							Value	- 52-1	We
	0.25	0.25	2.50	0.25	L	atest	Traded	High	_
Federal fu	nds				DTCC GCF	•			
Effective rate	0.0900	0.0900	1.9200	0.0600	Treasury	0.072	52.850		
High	0.1500	0.1000	2.0000	0.1000	MBS	0.096	37.740	2.651	0
Low		0.0500			Notes on data	•			_
Bid		0.0800			U.S. prime rat		o rato o	corner	ata
Offer	0.1100	0.1100	2.0000	0.0500	loans posted b				
Treasury b	oill auct	ion			U.S. banks, an	d is effective	e March :	16, 2020	).
					Other prime i	<b>'ates</b> aren't	airectly	compar	abl

4 weeks 13 weeks 26 weeks

Fannie Mae

30 days

Secured Overnight Financing Rate 0.07 Value Traded High Low Latest OTCC GCF Repo Index **0.072** 52.850 2.460 0.002 **0.096** 37.740 2.651 0.011 ИBS lotes on data: **J.S. prime rate** is the base rate on corporate oans posted by at least 70% of the 10 largest J.S. banks, and is effective March 16, 2020.

U.S. banks, and is effective March 16, 2020.

Other prime rates aren't directly comparable; lending practices vary widely by location;

Discount rate is effective March 16, 2020.

Secured Overnight Financing Rate is as of September 22, 2020. DTCC GCF Repo Index is Depository Trust & Clearing Corp.'s weighted average for overnight trades in applicable (USISE) value traded is in billions of U.S. dollars. **0.080** 0.090 1.950 0.000 **0.105** 0.120 1.860 0.080

Secondary market CUSIPs. Value traded is in billions of U.S. dollars 30-year mortgage yields

Federal-funds rates are Tullett Prebon rates as of 5:30 p.m. ET. Sources: Federal Reserve; Bureau of Labor **1.975** 1.962 3.388 1.751 Statistics; DTCC; FactSet; Tullett Prebon Information, Ltd.

# MY SON IS PROOF THAT A VICTIM OF OPIOID ADDICTION CAN RECOVER

FIND HELP. FIND HOPE. **DRUGFREE.ORG** 



**Dow Jones Industrial Average** 

**26763.13 ▼**525.05, or 1.92%

High, low, open and close for each

#### MARKETS DIGEST

# **EQUITIES**

24.36

19.35

17.67

Trailing P/E ratio 26.26

P/E estimate \*

S&P 500 Index

**3236.92** 78.65, or 2.37%

High, low, open and close for each

trading day of the past three months.



Bars measure the point change from session's open

...... 20000 Sept. Aug. \*Weekly P/E data based on as-reported earnings from Birinyi Associates Inc.; †Based on Nasdag-100 Index

### 3550 3400 3250 3100 65-day moving average 2950

Sept. Aug. July

#### **Nasdaq Composite Index**

**10632.99 7** 330.65, or 3.02% High, low, open and close for each trading day of the past three months.

Trailing P/E ratio \*† 35.99 24.56 P/E estimate \*† 31.11 21.03 Dividend yield \*† 0.78 1.03 All-time high: 12056.44, 09/02/20



\_\_\_\_\_\_

**Trading Diary** 

Volume, Advancers, Decliners

**Total volume**\*1,002,410,614 16,170,336

**Adv. volume**\* 95,308,767 1,858,777

**Decl. volume**\* 901,301,792 14,298,922

NYSE NYSE Amer.

#### Major U.S. Stock-Market Indexes

									0/	
·	High	Low	Latest Close	Net chg	% chg	High	52-Week — Low	% chg		chg 3-yr. ann.
Dow Jones										
Industrial Average	27464.46	26716.12	26763.13	-525.05	-1.92	29551.42	18591.93	-0.8	-6.2	6.2
Transportation Avg	11426.52	11062.99	11095.09	-119.92	-1.07	11555.14	6703.63	6.3	1.8	4.6
Utility Average	800.73	784.80	785.16	-14.21	-1.78	960.89	610.89	-10.2	-10.7	2.6
Total Stock Market	33913.18	32971.02	33005.83	-828.98	-2.45	36434.12	22462.76	7.9	-0.1	8.4
Barron's 400	707.77	687.57	687.57	-15.76	-2.24	752.15	455.11	0.7	-6.1	1.3
Nasdaq Stock Marke	et									
Nasdaq Composite	10962.03	10612.91	10632.99	-330.65	-3.02	12056.44	6860.67	31.6	18.5	18.3
Nasdaq 100	11179.59	10806.05	10833.33	-353.04	-3.16	12420.54	6994.29	38.8	24.0	22.2
S&P										
500 Index	3323.35	3232.57	3236.92	-78.65	-2.37	3580.84	2237.40	8.4	0.2	9.0
MidCap 400	1848.04	1791.67	1792.09	-41.63	-2.27	2106.12	1218.55	-8.0	-13.1	0.4
SmallCap 600	853.29	822.53	822.63	-23.55	-2.78	1041.03	595.67	-14.6	-19.4	-2.0
Other Indexes										
Russell 2000	1503.98	1451.41	1451.46	-45.50	-3.04	1705.22	991.16	-6.4	-13.0	0.0
NYSE Composite	12657.20	12355.43	12359.16	-243.38	-1.93	14183.20	8777.38	-5.2	-11.2	0.6
Value Line	459.56	444.76	444.77	-11.71	-2.57	562.05	305.71	-15.3	-19.5	-5.7
NYSE Arca Biotech	5338.42	5212.98	5217.26	-62.72	-1.19	6142.96	3855.67	20.4	3.0	7.8
NYSE Arca Pharma	661.44	652.35	653.08	-3.04	-0.46	675.64	494.36	11.8	-0.1	6.1
KBW Bank	72.95	69.86	69.87	-1.74	-2.43	114.12	56.19	-30.4	-38.4	-10.4
PHLX <sup>§</sup> Gold/Silver	143.49	135.05	135.75	-9.79	-6.73	161.14	70.12	43.6	27.0	16.4
PHLX <sup>§</sup> Oil Service	31.80	29.52	29.52	-1.98	-6.29	80.99	21.47	-56.9	-62.3	-39.9
PHLX <sup>§</sup> Semiconductor	2190.55	2120.78	2126.69	-53.57	-2.46	2370.18	1286.84	34.6	15.0	22.8
Cboe Volatility	29.73	25.19	28.58	1.72	6.4	<b>40</b> 82.69	11.54	79.1	107.4	43.9
2										

§<sub>Nasdaq</sub> PHLX Sources: FactSet; Dow Jones Market Data

#### **Late Trading**

Trailing P/E ratio

P/E estimate

Dividend vield

36.74

25.59

1.79

All-time high 3580.84, 09/02/20

23.26

18.25

1.91

Most-active and biggest movers among NYSE, NYSE Arca, NYSE Amer. and Nasdaq issues from 4 p.m. to 6:30 p.m. ET as reported by electronic trading services, securities dealers and regional exchanges. Minimum share price of \$2 and minimum after-hours volume of 50,000 shares.

2800

2650

#### Most-active issues in late trading

		Volume			After Hour	·	
Company	Symbol	(000)	Last	Net chg	% chg	High	Low
SPDR S&P 500	SPY	10,404.3	323.37	0.73	0.23	327.58	322.50
SPI Energy	SPI	9,070.2	21.29	7.29	52.07	23.43	12.00
Kinross Gold	KGC	6,300.8	8.31	0.09	1.09	8.32	8.21
iShares Russell 2000 ETF	IWM	3,525.4	144.45	0.38	0.26	144.50	143.92
Invesco QQQ Trust I	QQQ	3,223.5	264.06	-0.10	-0.04	264.45	263.10
Apple	AAPL	2,925.8	106.64	-0.48	-0.45	107.80	105.78
Bank of America	BAC	2,563.1	23.30	0.04	0.17	25.46	23.26
Coca-Cola	KO	2,343.1	48.45	0.24	0.50	50.90	48.20
Percentage gai	ners						
SPI Energy	SPI	9,070.2	21.29	7.29	52.07	23.43	12.00
Marchex CI B	MCHX	53.2	2.09	0.29	16.11	2.40	1.83
<b>Nektar Therapeutics</b>	NKTR	276.1	21.68	2.77	14.65	21.68	18.91
American Intl Group	AIG	127.1	28.92	2.49	9.42	28.92	26.29
Jefferies Financial Group	) JEF	122.8	18.47	1.40	8.20	19.75	17.07
And losers							
Kite Realty Group Trus	KRG	58.2	10.03	-0.54	-5.11	10.57	10.03
Global X E-commerce ETF	EBIZ	250.0	26.02	-0.65	-2.44	26.48	26.02
Ritchie Bros	RBA	63.7	55.00	-1.37	-2.43	56.37	55.00

58.5

584.0

Beacon Roofing Supply BECN

ProSharesUltVIXST UVXY

28.02

21.70

-0.67

-0.51

#### **Advances**

Issues traded 3,108 265 310 47 **Declines** 2,757 214 41 4 Unchanged **New highs** 28 1 54 4 New lows 0.92 1.30 Closing Arms **Block trades** 5,751 142 Nasdaq **Total volume**\*4,042,369,264 284,009,453 Adv. volume\*1,045,023,455 40,826,578 Decl. volume\*2,934,505,757 242,767,431 **Issues traded** 3,544 1,398 501 **Advances** 160 Declines 2,972 1,227 Unchanged 71 11 New highs 48 1 94 18 0.47 0.51 Closing Arms<sup>†</sup>

Primary market NYSE, NYSE American NYSE Arca only. ¹(TRIN) A comparison of the number of advancing and declining issues with the volume of shares rising and falling. An Arms of less than 1 indicates buying demand; above 1 indicates selling pressure.

16,401

1,268

Block trades\*

#### **International Stock Indexes**

Region/Countr	y Index	Close	Net chg	— Latest ——— % chg	— YTD % chg
World	The Global Dow	2923.58	-35.81	-1.21	-10.1
	DJ Global Index	421.32	-6.06	-1.42	-2.9
	DJ Global ex U.S.	245.75	-0.48	-0.19	-6.8
Americas	DJ Americas	753.37	-18.67	-2.42	-1.0
Brazil	Sao Paulo Bovespa	95734.82	-1558.72	-1.60	-17.2
Canada	S&P/TSX Comp	15817.11	-325.78	-2.02	-7.3
Mexico	S&P/BMV IPC	35829.58	-24.00	-0.07	-17.7
Chile	Santiago IPSA	2425.87	-78.68	-3.14	-27.3
EMEA	Stoxx Europe 600	359.53	1.98	0.55	-13.5
Eurozone	Euro Stoxx	351.59	1.53	0.44	-13.0
Belgium	Bel-20	3215.63	-5.25	-0.16	-18.7
Denmark	OMX Copenhagen 20	1347.03	11.03	0.83	18.6
France	CAC 40	4802.26	29.42	0.62	-19.7
Germany	DAX	12642.97	48.58	0.39	-4.6
Israel	Tel Aviv	1287.80	-20.68	-1.58	-23.5
Italy	FTSE MIB	18929.89	34.30	0.18	-19.5
Netherlands	AEX	545.68	4.90	0.91	-9.7
Russia	RTS Index	1195.77	2.71	0.23	-22.8
South Africa	FTSE/JSE All-Share	54247.81	982.48	1.8	<b>4</b> -5.0
Spain	IBEX 35	6654.20	5.60	0.08	-30.3
Sweden	OMX Stockholm	712.36	3.78	0.53	4.6
Switzerland	Swiss Market	10330.06	-25.51	-0.25	-2.7
Turkey	BIST 100	1102.65	6.48	0.59	-3.6
U.K.	FTSE 100	5899.26	69.80	1.20	
U.K.	FTSE 250	16992.99	171.33	1.02	-22.3
Asia-Pacific					
Australia	S&P/ASX 200	5923.90	139.83	2.4	
China	Shanghai Composite		5.41	0.17	7.5
Hong Kong	Hang Seng	23742.51	25.66	0.11	-15.8
India	S&P BSE Sensex	37668.42	-65.66	-0.17	-8.7
Japan	Nikkei Stock Avg	23346.49	-13.81	-0.06	-1.3
Singapore	Straits Times	2481.14	17.84	0.72	-23.0
South Korea	Kospi	2333.24	0.65	0.03	6.2
Taiwan	TAIEX	12583.88	-61.63	-0.49	4.9
Thailand	SET	1264.01	-3.62	-0.29	-20.0

#### Percentage Gainers...

		— La	itest Sess	ion —		- 52-Wee	ek
Company	Symbol	Close	Net chg	% chg	High	Low	% chg
Laird Superfood	LSF	40.80	18.80	85.45	44.00	22.00	
GoodRx Holdings	GDRX	50.50	17.50	53.03	51.78	33.00	
Bentley Systems	BSY	33.49	11.49	52.23	33.49	22.00	
JinkoSolar Holding ADR	JKS	33.46	5.80	20.97	33.74	11.42	73.6
ProSh Ult Bloombg Nat Gas	BOIL	42.86	6.02	16.34	156.10	22.50	-71.5
MicSec US Big Oil 3X InLv	NRGD	30.06	4.19	16.20	304.72	10.72	-36.0
American Well	AMWL	28.50	3.80	15.38	30.48	22.10	
Direxion Jr Gold Bear 2X	JDST	12.35	1.62	15.10	1062.50	8.93	-96.6
ProShrsUltraShortSilver	ZSL	10.34	1.31	14.51	56.62	6.73	-61.6
Hilltop Holdings	HTH	20.46	2.27	<b>12.4</b> 8	26.28	11.05	-17.3
HireQuest	HQI	7.70	0.82	11.92	8.57	5.00	7.0
Direxion Gold Miner 2x Br	DUST	20.60	2.17	11.77	445.00	15.14	-88.0
Adicet Bio	ACET	11.27	1.10	10.76	69.16	6.02	-82.5
Direxion S&P Oil Gas Br	DRIP	69.94	6.78	10.73	596.52	31.90	17.4
Wilhelmina International	WHLM	3.14	0.29	10.18	12.92	2.32	-47.2

#### **Most Active Stocks**

Company	Symbol	(000)	65-day avg	Close	% chg	High	Low
SPI Energy	SPI	340,380	71242.4	14.00	1236.52	46.67	0.55
Apple	AAPL	148,950	-14.2	107.12	-4.19	137.98	53.15
Sunworks	SUNW	107,243	2147.4	1.16	50.38	4.57	0.29
ProSh UltraPro Shrt QQQ	SQQQ	98,824	137.7	28.00	9.29	181.60	19.55
iShares Silver Trust	SLV	97,143	83.4	21.17	-7.11	27.39	10.86
Tesla	TSLA	92,499	17.4	380.36	-10.34	502.49	43.67
SPDR S&P 500	SPY	91,820	30.0	322.64	-2.32	358.75	218.26
General Electric	GE	88,198	-1.6	6.11	-2.24	13.26	5.48
Vale ADR	VALE	84,012	210.8	10.65	0.09	13.67	6.49
NIO ADR	NIO	69,803	-47.7	17.96	-6.60	21.05	1.19
* Volumes of 100.000 shares or r	nore are ro	unded to	the nearest t	housand			

Volume %chafrom Tlatest Session T

**Forex Race** 

Yen, euro vs. dollar; dollar vs.

major U.S. trading partners

Track the Markets Compare the performance of selected global stock indexes, bond ETFs. currencies and commodities at wsj.com/graphics/track-the-markets

#### **Percentage Losers**

-2.30

**-2.32** 28.69 28.01

22.22 21.60

Company	Symbol	Close	Net chg	% chg	High	Low	% chg
AC Immune	ACIU	4.80	-3.92	-44.95	13.00	4.07	-6.6
WAVE Life Sciences	WVE	10.02	-5.82	-36.74	39.98	6.61	-55.4
Usio	USIO	1.58	-0.69	-30.40	3.72	0.75	-24.0
Aurora Cannabis	ACB	5.17	-2.15	-29.37	59.04	5.14	-90.9
Nikola	NKLA	21.15	-7.36	-25.82	93.99	10.20	106.9
Wrap Technologies	WRTC	6.07	-2.07	-25.43	14.40	3.07	45.6
NextDecade	NEXT	2.98	-0.88	-22.80	6.78	1.12	-45.7
MICT	MICT	3.85	-1.09	-22.06	8.45	0.38	587.5
Lithium Americas	LAC	7.09	-1.95	-21.57	11.22	1.92	130.9
Retractable Technologies	RVP	6.34	-1.65	-20.65	13.65	0.97	481.7
Vaccinex	VCNX	1.86	-0.46	-19.83	12.23	1.85	-75.8
VivoPower International	VVPR	7.75	-1.75	-18.42	14.84	0.59	469.9
Vaxart	VXRT	7.19	-1.56	-17.83	17.49	0.25	2257.4
Priority Technology Hldgs	PRTH	2.53	-0.53	-17.32	6.09	1.33	-52.0
Zogenix	ZGNX	18.68	-3.90	-17.27	57.22	16.65	-56.2

#### **Volume Movers** Ranked by change from 65-day average\*

Company	Symbol	Volume (000)	% chg from 65-day avg	Latest S Close	Session % chg	52-We	eek
iShares MSCI BRIC ETF	BKF	2,125	15328	45.63	-1.02	48.56	31.75
Gores Holdings IV CI A	GHIV	8,516	8704	10.45	-3.33	11.39	9.30
Nuveen Enh Yd US Agg Bd	NUAG	7,821	4881	25.67	-0.33	26.49	22.55
iShares Govt/Credit Bond	GBF	1,615	4273	125.30	-0.26	127.83	111.36
HireQuest	HQI	172	3204	7.70	11.92	8.57	5.00
WAVE Life Sciences	WVE	12,348	1672	10.02	-36.74	39.98	6.61
iShares Agency Bond ETF	AGZ	877	1496	121.05	-0.28	124.18	115.21
BankFinancial	BFIN	348	1246	6.93	0.00	14.14	6.73
FinTech Acqn Corp. III	FTAC	5,304	1231	10.29	0.00	11.55	9.75
Invsc DB USD Bullish	UUP	12,114	1154	25.52	0.55	28.90	24.64
* Common stocks priced at \$2 as 5.000 shares #Has traded fewer			average v	olume ove	r 65 tradi	ng days of a	at least

#### **CURRENCIES & COMMODITIES**

#### **Currencies**

 $U.S.-dollar\,for eign-exchange\,rates\,in\,late\,New\,York\,trading$ 

			US\$vs,				US\$ vs,
		Ved —	YTD chg			Ved —	YTD chg
Country/currency	in US\$	per US\$	(%)	Country/currency	in US\$	per US\$	(%)
Americas				<b>Vietnam</b> dong	.00004313	23186	0.1
<b>Argentina</b> peso	.0132	75.6508	26.3	Europe			
<b>Brazil</b> real	.1787	5.5962	39.2	Czech Rep. koruna	.04321	23.141	2.1
<b>anada</b> dollar	.7470	1.3387	3.1	<b>Denmark</b> krone	.1567	6.3827	-4.2
<b>hile</b> peso	.001277	783.30	6.0	Euro area euro	1.1662	.8575	-3.8
<b>Colombia</b> peso	.000261	3826.02	16.6	<b>Hungary</b> forint	.003191	313.43	6.1
cuador US dollar	1	1	unch	Iceland krona	.007225	138.41	14.3
<b>Nexico</b> peso	.0447	22.3751	18.2	Norway krone	.1054	9.4916	8.1
<b>Jruguay</b> peso	.02357	42.4350	14.3	Poland zloty	.2582	3.8725	2.1
Asia-Pacific				Russia ruble	.01298	77.042	24.1
Australian dollar	.7072	1.4140	0.0	Sweden krona	.1110	9.0112	-3.8
	.1468	6.8104		Switzerland franc	1.0824	.9239	-4.5
ihina yuan	.1290	7.7502		Turkey lira	.1298	7.7040	29.5
long Kong dollar	.01359	73.580	3.1	<b>Ukraine</b> hryvnia	.0355	28.1500	18.9
ndia rupee ndonesia rupiah	.0000675	14815	6.7	<b>UK</b> pound	1.2726	.7858	4.2
<b>apan</b> yen	.0000675	105.36	•	Middle East/Afri	ca		
(azakhstan tenge	.002347			Bahrain dinar	2.6536	.3769	-0.1
<b>Nacau</b> pataca	.1253	7.9810		Egypt pound		15.7494	
<b>//alaysia</b> ringgit	.2426	4.1225	0.8	Israel shekel	.2890	3.4600	0.2
lew Zealand dollar	.6548	1.5272	2.8	Kuwait dinar	3.2702	.3058	0.9
Pakistan rupee	.00602	166.050	7.1	Oman sul rial	2.5974	.3850	
Philippines peso	.0206	48.557	-4.2	<b>Qatar</b> rial	.2746	3.642	-0.04
<b>Singapore</b> dollar	.7283	1.3731	2.0	Saudi Arabia riyal	.2666	3.7509	-0.01
<b>South Korea</b> won	.0008541	1170.78	1.4	South Africa rand	.0586	17.0790	22.0
<b>iri Lanka</b> rupee	.0054054	185.00	2.0				
<b>Taiwan</b> dollar	.03429	29.166	-2.5		Close Net C	hg %Chg	YTD%Chg
<b>Thailand</b> baht	.03166	31.590	6.1	WSJ Dollar Index	89.32 0.5	51 0.57	-0.27

Sources: Tullett Prebon, Dow Jones Market Data

Gold, \$ per troy oz.

#### **Commodities** Wednesday High % Chg Close Net chg % Chg Low % chg DJ Commodity 623,93 **-0.31** 647.86 1.67 -2.86 -1.94 433.70 TR/CC CRB Index 147.74 0.22 **0.15** 187.39 106.29 -16.36 -20.48 Crude oil, \$ per barrel 39.93 0.13 0.33 63.27 -37.63 -29.31 -34.61 Natural gas, \$/MMBtu 2.125 0.291 15.87 2.862 1.482 -15.07

-38.70

**-2.04** 2051.50

1452.10

23.61 22.40

#### **CREDIT MARKETS**

#### Five-year ARM, Rate A consumer rate against its benchmark over the past year Bankrate.com avg†: 2.85% Citadel Federal Credit Union 2.63% adjustable-rate 4.00% 800-666-0191 Exton, PA mortgage (ARM) Star One Credit Union 2.63% 3.00 408-742-2801 Sunnvvale, CA Hanscom Federal Credit Union 2.88% 2.00 5-year Treasury Hanscom AFB, MA 800-656-4328 note yield Associated Bank, NA 3.00% Rockford, IL 800-682-4989 \_\_\_\_\_0.00 San Diego County Credit Union 3.00%

**Consumer Rates and Returns to Investor** 

**U.S.** consumer rates

**Selected rates** 

2019 2020	5		Diego, CA	Cicuit Oill		32-2848
Interestrate		Rate (%) <del>-</del> ) Week ago		/eek Range 2 4 6	(%) — 8 High	3-yr chg (pct pts)
Federal-funds rate target	0.00-0.25	0.00-0.25	0.00		1.75	-1.00
Prime rate*	3.25	3.25	3.25	•	5.00	-1.00
Libor, 3-month	0.23	0.23	0.22		2.10	-1.10
Money market, annual yield	0.22	0.23	0.22		0.78	-0.07
Five-year CD, annual yield	0.64	0.65	0.64		1.57	-0.79
30-year mortgage, fixed <sup>†</sup>	2.94	3.06	2.93	•	4.22	-0.93
15-year mortgage, fixed <sup>†</sup>	2.53	2.56	2.48	•	3.57	-0.60
Jumbo mortgages, \$510,400-plus	2.97	3.09	2.94	•	4.43	-1.38
Five-year adj mortgage (ARM)	2.85	3.27	2.85	•	4.61	-0.54
New-car loan, 48-month	4.16	4.15	4.15	•	4.65	1.10
Bankrate.com rates based on survey of ov	/er 4,800 or	iline banks. 3	Base rate po	sted by 70% o	of the nation	's largest
banks.† Excludes closing costs.		Sources: F	actSet: Dow	Jones Marke	t Data: Banl	krate.com

#### Treasury yield curve Yield to maturity of current bills, notes and bonds

2.50% One year ago 2.00 1.50 1.00 Tradeweb ICE 0.50 Wednesday Close 0.00 3 6 1 2 3 5 7 10 20 30 2019 month(s) years

WSJ Dollar index -8 . . . . . . . . . . . . . . . . . 2020 maturity Sources: Tradeweb ICE U.S. Treasury Close; Tullett Prebon; Dow Jones Market Data **Corporate Borrowing Rates and Yields** 

			1(%) —			Total Re	
Bond total return index	Close	Last	Week ago	High	Low	52-wk	3-yr
U.S. Treasury, Barclays	2482.390	0.480	0.490	1.870	0.400	8.38	5.43
U.S. Treasury Long, Barclay	s 4892.320	1.300	1.320	2.370	0.980	17.48	11.64
Aggregate, Barclays	2279.230	1.170	1.170	2.410	1.020	7.31	5.25
Fixed-Rate MBS, Barclays	2223.480	1.330	1.300	2.690	0.930	4.36	3.65
High Yield 100, ICE BofA	3136.876	4.884	4.448	10.740	4.235	0.695	3.247
Muni Master, ICE BofA	587.866	1.015	1.028	3.441	0.838	4.556	4.011
EMBI Global, J.P. Morgan	882.688	4.879	4.586	7.480	4.523	2.316	3.147
Sources: LD M	Aorgan: S.C.D.	Dow Jon	oc Indicoc	Plaamba	ra Parclas	c.ICE Dat	Sorvicos

1859.90 Sources: FactSet; Dow Jones Market Data; Bankrate.com Get real-time U.S. stock quotes and track most-active stocks, new highs/lows and mutual funds. Available free at WSJMarkets.com

#### **COMMODITIES**

wsj.com/market-data/commodities

#### **Futures Contracts**

THE WALL STREET JOURNAL.

		-1-101	N - 4 1	F	_	
	IVI		Petroleum	Future	S	0
	Open		ntract hi lo Low	Settle	Chg	Open interest
			00 lbs.;\$ per lb.			
Sept	3.0500	3.0500	2.9800		-0.0655	1,321
<sup>Dec</sup> <b>Gold (см</b>	3.0700 <b>IX)-</b> 100 tr	3.0725	2.9800 er trov oz	2.9930	-0.0680	149,338
Sept	1875.50	1875.50	1875.50	1859.90	-38.70	348
Oct	1895.00	1901.60	1848.00	1860.50	-38.80	61,021
Dec	1905.10	1909.90	1856.00	1868.40	-39.20	427,240
Feb'21 April	1910.40 1915.80	1916.60 1921.20	1863.60 1868.40	1875.70 1880.40	-39.30 -40.10	42,390 19,519
June	1916.60	1916.60	1874.60	1884.50	-40.40	9,464
	m (NYM	<b>)</b> - 50 troy	oz.; \$ per troy o			
Sept Dec	2212.30	2296.60	2184.80	2244.70 2258.30	28.70 28.70	87 9,233
March'21	2228.40	2288.00	2228.40	2264.00	27.90	190
June	2216.30	2241.10	2212.20	2259.50	26.50	7
	n (NYM)	-50 troy oz	z.;\$ per troy oz.			
Sept	071 40	003.00	020.00	842.30	-14.20	27,400
Jan'21 <b>Silver (C</b>	871.40 <b>MX)</b> -5.00	883.90 Otrovoz	839.00 \$ per troy oz.	850.80	-15.40	36,408
Sept	24.000	24.000	23.000	23.014	-1.428	260
Dec	24.525	24.620	22.725	23.105	-1.418	134,936
			(NYM)-1,000 b			2/0 440
Nov Dec	39.76 40.03	40.75 41.04	39.26 39.56	39.93 40.22	0.13 0.13	369,440 290,314
Jan'21	40.03	41.33	39.88	40.22	0.13	140,787
March	40.97	41.94	40.56	41.18	0.12	137,037
June	41.77	42.68	41.37	41.95	0.10	184,484
Dec NV Harb	42.63	43.48	42.33	42.84	0.08	224,408
NY Mari Oct	1.0992	-(NYM) 1.1278	-42,000 gal.; \$ p 1.0871	er gai. <b>1.1075</b>	.0114	44,036
Nov	1.1094	1.1396	1.0988	1.1178	.0088	102,973
Gasoline			<b>M)</b> -42,000 gal.;			,
Oct	1.1744	1.2000	1.1644	1.1813	.0170	40,102
Nov Natural	1.1507	1.1777	1.1409 O MMBtu.; \$ pe	1.1578	.0140	110,069
Oct	1.845	2.207	1.815	2.125	.291	36,326
Nov	2.580	2.841	2.518	2.794	.197	291,055
Dec	3.106	3.273	3.074	3.229	.095	138,840
Jan'21	3.244	3.388	3.205	3.348	.084	146,502
March April	3.081 2.774	3.196 2.844	3.047 2.752	3.165 2.834	.066 .042	120,357 78,404
			culture Fut			
		Agric	.uitui e rut	uics		
Corn (CB	<b>T)</b> -5,000	bu.; cents				
	<b>T)</b> -5,000 368.25	bu.; cents 370.25	per bu. 365.75	368.50	75	802,897
Dec March'21	368.25 377.75	370.25 379.50	per bu. 365.75 375.50	368.50 377.50	75 -1.25	
Dec March'21 <b>Oats (CB</b>	368.25 377.75 <b>T)</b> -5,000	370.25 379.50 bu.; cents	per bu. 365.75 375.50 per bu.	377.50	-1.25	255,428
Dec March'21 <b>Oats (C</b> B Dec	368.25 377.75 <b>T)</b> -5,000 289.00	370.25 379.50 bu.; cents 289.50	perbu. 365.75 375.50 perbu. 282.00		-1.25 -1.50	255,428 5,003
Dec March'21 <b>Oats (CB</b> Dec March'21	368.25 377.75 <b>T)</b> -5,000 289.00 285.00	370.25 379.50 bu.; cents 289.50 289.50 -5,000 bu.	per bu. 365.75 375.50 per bu.	377.50 287.75	-1.25	255,428 5,003
Dec March'21 <b>Oats (CB</b> Dec March'21 <b>Soybear</b> Nov	368.25 377.75 <b>T)</b> -5,000 289.00 285.00 <b>ns (CBT)</b> 1020.50	370.25 379.50 bu.; cents 289.50 289.50 -5,000 bu. 1025.50	per bu. 365.75 375.50 per bu. 282.00 283.25 ; cents per bu. 1011.00	377.50 287.75 288.50 1014.50	-1.25 -1.50 .25 -5.25	802,897 255,428 5,003 367 412,529
Dec March'21 <b>Oats (CB</b> Dec March'21 <b>Soybear</b> Nov March'21	368.25 377.75 (T)-5,000 289.00 285.00 1020.50 1018.75	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1025.50 1023.50	per bu.  365.75 375.50 per bu. 282.00 283.25 ; cents per bu. 1011.00 1010.00	377.50 287.75 288.50 1014.50 1013.50	-1.25 -1.50 .25	255,428 5,003 367 412,529
Dec March'21 <b>Oats (CB</b> Dec March'21 <b>Soybear</b> Nov March'21 <b>Soybear</b>	368.25 377.75 (T)-5,000 289.00 285.00 (CBT) 1020.50 1018.75 (Meal (	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1025.50 1023.50 <b>CBT)-</b> 100	per bu. 365.75 375.50 per bu. 282.00 283.25 ; cents per bu. 1011.00 1010.00	377.50 287.75 288.50 1014.50 1013.50	-1.25 -1.50 .25 -5.25	5,003 367 412,529 183,760
Dec March'21 Oats (CB Dec March'21 Soybear Nov March'21 Soybear Oct Dec	368.25 377.75 T)-5,000 289.00 285.00 ns (CBT)- 1020.50 1018.75 n Meal ( 337.70 341.70	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1025.50 1023.50 <b>CBT)-</b> 100 346.50 348.60	perbu.  365.75 375.50 perbu. 282.00 283.25 ; cents per bu. 1011.00 1010.00 ctons; \$perton. \$\text{\texi{\texi\text{\text{\texi\text{\text{\text{\texi\texi{\text{\text{\texi\text{\text{\t	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60	-1.25 -1.50 .25 -5.25 -5.50	5,003 367 412,529 183,760 33,357
Dec March'21 Oats (CB Dec March'21 Soybear Nov March'21 Soybear Oct Dec Soybear	368.25 377.75 T)-5,000 289.00 285.00 ns (CBT)- 1020.50 1018.75 n Meal ( 337.70 341.70 n Oil (CB	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1025.50 1023.50 <b>CBT)</b> -100 346.50 348.60 <b>T)</b> -60,000	perbu.  365.75 375.50 perbu. 282.00 283.25 ; cents per bu. 1011.00 1010.00 (tons; \$perton. \$\text{\texi{\texi\text{\text{\texi\text{\text{\text{\texi\text{\text{\text{\text{\text{\texi\t	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b.	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60	5,003 367 412,529 183,760 33,357 192,421
Dec March'21 <b>Oats (CB</b> Dec March'21 <b>Soybear</b> Nov March'21 <b>Soybear</b> Oct Dec <b>Soybear</b> Oct	368.25 377.75 T)-5,000 289.00 285.00 18 (CBT) 1020.50 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1025.50 1023.50 <b>CBT)</b> -100 346.50 348.60 <b>T)</b> -60,000	per bu.  365.75 375.50 per bu. 282.00 283.25 ; cents per bu. 1011.00 100.00 tons; \$per ton.  336.30  339.40  0 lbs; cents per j	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b.	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60 98	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606
Dec March'21 Oats (CB Dec March'21 Soybean Nov March'21 Soybean Oct Dec Soybean Oct	368.25 377.75 T)-5,000 289.00 285.00 ns (CBT) 1020.50 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1025.50 1023.50 <b>CBT)</b> -100 348.60 <b>T)</b> -60,000 33.83 33.76	per bu. 365.75 375.50 per bu. 282.00 283.25 ; cents per bu. 1011.00 1010.00 (tons; \$ per ton. 4 336.30 4 339.40 0 lbs; cents per l 32.66 32.61	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b.	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606
Dec March'21 Oats (CB Dec March'21 Soybear Nov March'21 Soybear Oct Dec Soybear Oct Dec Rough R	368.25 377.75 T)-5,000 289.00 285.00 ns (CBT) 1020.50 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1025.50 1023.50 <b>CBT)</b> -100 348.60 <b>T)</b> -60,000 33.83 33.76	per bu.  365.75 375.50 per bu. 282.00 283.25 ; cents per bu. 1011.00 100.00 tons; \$per ton.  336.30  339.40  0 lbs; cents per j	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b.	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60 98	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229
Dec March'21 Oats (CB Dec March'21 Soybean Nov March'21 Soybean Oct Dec Soybean Oct Poc Rough R	368.25 377.75 T)-5,000 289.00 285.00 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 8tice (CBT	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1025.50 1023.50 <b>CBT)</b> -100 346.50 348.60 <b>T)</b> -60,000 33.83 33.76 <b>C)</b> -2,000 c 12.60 12.75	perbu.  365.75 375.50 perbu.  282.00 283.25 ;cents perbu. 1011.00 1010.00 (tons; \$perton.  \$\text{\tilite\text{\texi\ti	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60 98 80	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109
Dec March'21 Oats (CB Dec March'21 Soybear Nov March'21 Soybear Oct Dec Soybear Oct Dec Rough R Nov Jan'21 Wheat (C	368.25 377.75 377.5,000 289.00 285.00 10 1020.50 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 kice (CBT 12.48 12.73 CBT)-5,00	370.25 379.50 bu; cents 289.50 289.50 1025.50 1023.50 <b>CBT</b> )-100 348.60 <b>T)</b> -60,000 33.83 33.76 <b>C)</b> -2,000 c 12.60 12.75	per bu. 365.75 375.50 per bu. 282.00 283.25 ;cents per bu. 1011.00 1010.00 ktons; \$per ton. \$\text{\lambda}\$ 336.30 \$\text{\lambda}\$ 01bs; cents per lu. 32.66 32.61 wt; \$per cwt. 12.32 12.56 ats per bu.	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60 98 80 03	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386
Dec March'21  Oats (CB Dec March'21  Soybear Nov March'21  Soybear Oct Dec Rough R Nov Jan'21  Wheat (CB Dec Clock Dec CROUGH Dec Dec CROUGH Dec	368.25 377.75 377.5,000 289.00 285.00 10 1020.50 1018.75 1 Meal ( 337.70 331.70 1 Oil (CB 33.74 33.68 Rice (CB1 12.48 12.73 CBT)-5,00 558.50	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1023.50 <b>CBT)</b> -100 346.50 348.60 <b>T)</b> -60,000 33.83 33.76 <b>O</b> -2,000 c 12.60 12.75 00 bu; cer 560.25	per bu.  365.75 375.50 per bu.  282.00 283.25 ; cents per bu. 1011.00 1010.00 tons; \$ per ton.  ▲ 336.30 0 lbs; cents per l 32.66 32.61 wt; \$ per cwt. 12.32 12.56 its per bu.	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60 98 80 03 03	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060
Dec Warch'21  Oats (CB Dec March'21  Soybean Nov March'21  Soybean Dec Soybean Oct Dec Boc Mov March'21  Wheat (Dec March'21  Wheat (Dec March'21  Wheat (March'21  Mrch'21  March'21  March'21  March'21	368.25 377.75 T7)-5,000 289.00 285.00 1018.50 1018.75 337.70 341.70 1 Oil (CB 33.74 33.68 12.48 12.73 CBT)-5,00 565.25	370.25 379.50 bu; cents 289.50 289.50 289.50 1025.50 1025.50 346.50 348.60 T)-60,000 33.83 33.76 T)-2,000 c 12.60 12.60 12.75 00 bu; cents 560.25 568.00	perbu.  365.75 375.50 perbu.  282.00 283.25 ;cents perbu. 1011.00 1010.00 !tons;\$perton.  \$\text{336.30}\$ \$\text{339.40}\$ 20.61 32.66 32.61 wt;\$percwt. 1232 12.56 ats perbu. 547.25 555.25	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60 98 80 03	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060
Dec March'21  Oats (CB Dec March'21  Soybear Nov March'21  Soybear Dec Soybear Dec Rough R Nov Jan'21  Wheat (Dec March'21  Wheat (Dec March'21  Wheat (Dec March'21  Obec March'21	368.25 377.75 TT)-5,000 289.00 289.00 285.00 1020.50 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 Rice (CBT 12.43 12.43 CBT)-5,0 558.50 565.25 KC)-5,00 492.00	370.25 379.50 bu; cents 289.50 289.50 1025.50 1023.50 CBT)-100 348.60 T)-60,000 33.83 33.76 C)-2,000 c 12.60 12.75 00 bu; cent 494.50	per bu.  365.75 375.50 per bu.  282.00 283.25 ; cents per bu.  1011.00 1010.00 itons; \$ per ton.  ▲ 336.30 0 lbs; cents per l 32.66 32.61 wt; \$ per cwt. 12.32 12.56 ats per bu. 547.25 555.25 s per bu. 483.25	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.6098800303 -9.00 -8.75	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375
Dec March'21 Oats (CB Dec March'21 Soybear Nov March'21 Soybear Oct Dec Rough R Nov Jan'21 Wheat (D Dec March'21 Wheat (D Dec March'21 Wheat (D Dec March'21 Mrach'21 Mrach'21 Mrach'21 Mrach'21 Mrach'21 Mrach'21 Mrach'21	368.25 377.75 717-5,000 289.00 285.00 15 (CBT) 1020.50 1018.75 1 Meal ( 337.70 3341.70 1 Oil (CB 33.74 33.68 12.48 12.73 CBT)-5,00 558.50 565.25 KC)-5,000 492.00 502.50	370.25 379.50 bu; cents 289.50 289.50 1025.50 1023.50 CBT)-100 348.60 33.83 33.76 C)-2,000 c 12.60 12.75 00 bu; cent 494.50 505.75	per bu.  365.75 375.50 per bu.  282.00 283.25 ; cents per bu. 1011.00 1010.00 ltons; \$ per ton.  ▲ 336.30  ▲ 339.40 Olbs; cents perl 32.66 32.61 wt; \$ per cvt. 12.32 12.56 its per bu. 547.25 555.25 s per bu. 483.25 494.25	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60 98 80 03 03 -9.00 -8.75	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375
Dec March'21  Oats (CB Dec March'21  Soybean Nov March'21  Soybean Oct Dec Soybean Oct Dec Rough R Nov Jan'21  Wheat (Dec Dec March'21  Wheat (Dec Dec Dec Dec Dec Dec Dec Dec Dec Dec	368.25 377.75 717-5,000 289.00 289.00 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 tice (CBT 12.48 12.73 CBT)-5,00 492.00 502.50 teeder (	370.25 379.50 bu; cents 289.50 289.50 -5,000 bu. 1025.50 1023.50 CBT)-100 348.60 T)-60,000 12.75 00 bu; cert 494.50 505.75 CME)-50,	perbu.  365.75 375.50 perbu.  282.00 283.25 ;cents perbu. 1011.00 1010.00 tons; \$perton.  3339.40  ∂ 339.40  ∂ ibs; cents pertu. 12.32 12.56 its per bu. 547.25 555.25 s per bu. 483.25 494.25 000 lbs; cents per	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00 per lb.	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60 98 80 03 03 -9.00 -8.75 -7.50	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375 56,797
Dec March'21  Oats (CB Dec March'21  Soybear Nov March'21  Soybear Dec Soybear Oct Dec Rough R Nov March'21  Wheat (Dec March'21  Wheat (Dec March'21  Cattle-F Sept	368.25 377.75 717-5,000 289.00 285.00 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 12.73 CBT)-5,00 558.50 565.25 KC)-5,000 492.00 502.50 (141.725	370.25 379.50 bu; cents 289.50 289.50 1025.50 1025.50 1023.50 CBT)-100 348.60 T)-60,000 33.83 33.76 D'-2,000 c 12.60 12.75 00 bu; cent 494.50 505.75 CME)-50,0 142.200 142.200	per bu. 365.75 375.50 per bu. 282.00 283.25 ; cents per bu. 1011.00 1010.00 ; tons; \$per ton. \$\text{\tex{\tex	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00 eer lb.	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.6098800303 -9.00 -8.75 -7.50 -7.75	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375 56,797
Dec March'21 Oats (CB Dec March'21 Soybean Nov March'21 Soybean Dec Soybean Oct Dec Rough R Nov Jan'21 Wheat ( Dec March'21 Cattle-F Sept Nov	368.25 377.75 717-5,000 289.00 285.00 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 8tice (CBT) 12.48 12.73 CBT)-5,00 565.25 KC)-5,000 502.50 eeder ( 141.725 141.725 141.725	370.25 379.50 bu; cents 289.50 289.50 1025.50 1023.50 CBT)-100 348.60 348.60 12.60 12.60 12.75 00 bu; cent 560.25 568.00 0 505.75 CME)-50,1 142.200 141.975	perbu.  365.75 375.50 perbu.  282.00 283.25 ;cents perbu. 1011.00 1010.00 tons; \$perton.  3339.40  ∂ 339.40  ∂ ibs; cents pertu. 12.32 12.56 its per bu. 547.25 555.25 s per bu. 483.25 494.25 000 lbs; cents per	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00 oer lb. 142.000 141.650	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.60 98 80 03 03 -9.00 -8.75 -7.50	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375 56,797
Dec March'21 Oats (CB Dec March'21 Soybean Nov March'21 Soybean Oct Dec Soybean Oct Dec Rough R Nov Jan'21 Wheat (Cattle-F Sept Nov Cattle-F Sept Nov Cattle-L Oct	368.25 377.75 717-5,000 289.00 289.00 285.00 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 8ice (CBT) 12.48 12.73 CBT)-5,00 492.00 505.25 KC)-5,000 492.00 502.50 eeder ( 141.725 140.950 ive (CMI) 106.650	370.25 379.50 bu; cents 289.50 289.50 1025.50 1025.50 346.50 348.60 T)-60,000 33.83 33.76 T)-2,000 c 12.65 00 bu; cert 494.50 568.00 0 bu; cent 494.50 568.00 141.975 CME)-50, 142.200 141.975 E)-40,000 E)-40	per bu. 365.75 375.50 per bu. 282.00 283.25 ;cents per bu. 1011.00 1010.00 ctons; \$per ton. 336.30 32.61 wt; \$per cwt. 12.32 12.56 at sper bu. 483.25 595.25 sper bu. 483.25 494.25 1000 lbs; cents per bu. 12.47 140.650 lbs; cents per bu. 166.65	377.50 287.75 288.50 1014.50 1013.50 344.60 5. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00 141.650 b.	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.6098800303 -9.00 -8.75 -7.50 -7.75 .300 .475	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375 56,797 955 15,748 31,718
Dec March'21 Oats (CB Dec March'21 Soybear Nov March'21 Soybear Oct Dec Soybear Oct Dec Rough R Nov Jan'21 Wheat (I Dec March'21 Cattle-F Sept Nov Cattle-L Oct Dec	368.25 377.75 717-5,000 289.00 285.00 1018.75 1 Meal (120.50 337.70 341.70 1 Oil (CB 33.74 33.68 12.73 CBT)-5,0 558.50 565.25 KC)-5,00 502.50 6eeder (141.725 140.950 1ve (CMI	370.25 379.50 bu; cents 289.50 289.50 1025.50 1023.50 CBT)-100 348.60 T)-60,000 33.83 33.76 C)-2,000 c 12.60 12.75 00 bu; cent 494.50 505.75 CME)-50, 141.975 E)-40,000 141.975 E)-40,000 107.475 111.550	per bu.  365.75 375.50 per bu.  282.00 283.25 ; cents per bu.  1011.00 1010.00 itons; \$ per ton.  ▲ 336.30 0 lbs; cents per l2.32 12.56 its per bu. 547.25 555.25 s per bu. 483.25 494.25 000 lbs; cents per l41.475 140.650 0 lbs; cents per l910 106.625 110.225	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00 oer lb. 142.000 141.650 b.	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.6098800303 -9.00 -8.75 -7.50 -7.75 .300 .475	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375 56,797 955 15,748 31,718
Dec March'21 Oats (CB Dec March'21 Soybean Nov March'21 Soybean Oct Dec Soybean Oct Dec Rough R Nov Jan'21 Wheat (D Dec March'21 Cattle-F Sept Nov Cattle-L Oct Dec Hogs-Lee Hogs-Lee	368.25 377.75 779-5,000 289.00 289.00 1018.75 1020.50 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 12.48 12.73 CBT)-5,00 565.25 KC)-5,00 492.00 502.50 104.75 140.950 ive (CMI 106.650 110.250	370.25 379.50 bu; cents 289.50 289.50 289.50 1025.50 1025.50 1023.50 <b>CBT)</b> -100 348.60 <b>T)</b> -60,000 12.75 00 bu; cert 494.50 505.75 <b>CME)</b> -50, 142.200 142.200 141.975 <b>E)</b> -40,000 107.475 111.550 <b>E)</b> -40,000	per bu.  365.75 375.50 per bu.  282.00 283.25 ; cents per bu. 1011.00 1010.00 ! tons; \$per ton.  339.40 20 bs; cents per ut. 12.32 12.56 ats per bu. 483.25 494.25 000 lbs; cents per lu. 14.475 140.650 0 lbs; cents per lu. 106.625 110.225	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00 oer lb. 142.000 141.650 b. 107.150 111.200	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.6098800303 -9.00 -8.75 -7.50 -7.75 .300 .475 .675 1.025	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375 56,797 15,748 31,718 31,718 31,718 31,718 31,718 31,718
Dec March'21 Oats (CB Dec March'21 Soybean Nov March'21 Soybean Oct Dec Soybean Oct Dec Rough R Nov Jan'21 Wheat (I) Dec March'21 Cattle-F Sept Nov Cattle-L Oct Dec Dec Hogs-Le Oct	368.25 377.75 717-5,000 289.00 289.00 1018.75 1020.50 337.70 341.70 1011 (CB 33.74 33.68 81ce (CBT 12.48 12.73 CBT)-5,00 492.00 556.25 KC)-5,00 492.00 502.50 140.950 140.950 140.950 110.250 881 (CBT)	370.25 379.50 bu; cents 289.50 289.50 1025.50 1025.50 1023.50 CBT)-100 348.60 T)-60,000 33.83 33.76 T)-2,000 c 12.60 12.75 568.00 0 bu; cent 494.50 505.75 CME)-50, 141.975 E)-40,000 107.475 111.550 E)-40,000 69.550	per bu.  365.75 375.50 per bu.  282.00 283.25 ;cents per bu. 1011.00 1010.00 (tons; \$ per ton.  32.66 32.66 32.61 wt; \$ per cwt. 12.32 12.56 sts per bu. 547.25 555.25 s per bu. 483.25 494.25 000 lbs; cents per l 141.475 140.650 0 lbs; cents per l 106.625 110.225	377.50 287.75 288.50 1014.50 1013.50 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00 per lb. 142.000 141.650 b. 107.150 111.200	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.6098800303 -9.00 -8.75 -7.50 -7.75 .300 .475 .675 1.025	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375 56,797 955 15,748 31,718 119,843 30,655
Dec March'21 Oats (CB Dec March'21 Soybear Nov March'21 Soybear Oct Dec Rough R Nov Jan'21 Wheat (C Dec March'21 Wheat (C Dec March'21 Wheat (C Dec March'21 Wheat (C Dec March'21 Unec March'21 Wheat (C Dec March'21 Unec March'	368.25 377.75 717-5,000 289.00 285.00 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 12.73 CBT)-5,00 492.00 502.50 (411.725 140.950 106.650 110.250 eal (CM 68.300 63.775	370.25 379.50 bu; cents 289.50 289.50 1025.50 1025.50 1023.50 CBT)-100 348.60 T)-60,000 33.37 33.76 T)-2,000 c 12.75 00 bu; cent 494.50 500.55 600.55 600.5	per bu.  365.75 375.50 per bu.  282.00 283.25 ; cents per bu. 1011.00 1010.00 ! tons; \$per ton.  339.40 20 bs; cents per ut. 12.32 12.56 ats per bu. 483.25 494.25 000 lbs; cents per lu. 14.475 140.650 0 lbs; cents per lu. 106.625 110.225	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00 ober lb. 107.150 111.200 0. 69.500 64.350	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.6098800303 -9.00 -8.75 -7.50 -7.75 .300 .475 .675 1.025	255,428 5,003 367
Dec March'21 Oats (CB Dec March'21 Soybear Nov March'21 Soybear Oct Dec Rough R Nov Jan'21 Wheat (C Dec March'21 Wheat (C Dec March'21 Cattle-F Sept Nov Cattle-L Oct Dec Hogs-Le Oct Dec	368.25 377.75 717-5,000 289.00 285.00 1018.75 1 Meal ( 337.70 341.70 1 Oil (CB 33.74 33.68 12.73 CBT)-5,00 492.00 502.50 (411.725 140.950 106.650 110.250 eal (CM 68.300 63.775	370.25 379.50 bu; cents 289.50 289.50 1025.50 1025.50 1023.50 CBT)-100 348.60 T)-60,000 33.37 33.76 T)-2,000 c 12.75 00 bu; cent 494.50 500.55 600.55 600.5	per bu.  365.75 375.50 per bu.  282.00 283.25 ; cents per bu.  1011.00 1010.00 ; sper ton.  \$ 336.30 \$ 339.40 \$ 01bs; cents per bu.  12.32 12.56 ats per bu.  483.25 494.25 \$ 200 lbs; cents per bu.  483.25 494.25 000 lbs; cents per bu.  283.261 141.475 140.650 0 lbs; cents per lb.  166.250 110.225 110.225	377.50 287.75 288.50 1014.50 1013.50 342.10 344.60 b. 32.69 32.80 12.49 12.67 549.00 557.00 484.25 495.00 ober lb. 107.150 111.200 0. 69.500 64.350	-1.25 -1.50 .25 -5.25 -5.50 4.80 3.6098800303 -9.00 -8.75 -7.50 -7.75 .300 .475 .675 1.025	255,428 5,003 367 412,529 183,760 33,357 192,421 22,606 195,229 9,109 386 214,060 71,779 129,375 56,797 955 15,748 31,718 119,843 30,655

		Cont	ract			Open
	0pen	High hilo	Low	Settle	Chg	interest
Coffee	(ICE-US)-	37,500 lbs.; ce	ents per lb.			
Dec	110.80	112.60	109.05	110.50	15	110,798
March'21	112.70	114.40	110.95	112.25	20	64,389
Sugar-\	Norld (1	CE-US)-112,0	00 lbs.: cents	s per lb.		,
Oct	12.89	13.06	12.77	12.82	07	92,997
March'21	13.36	13.57	13.27	13.33	08	398,933
Sugar-I	Domesti	ic (ICE-US)-1	12,000 lbs.;	ents per lb	).	
Nov	26.51	26.51	26.51	26.51		1,745
March'21	27.06	27.06	27.06	27.06		2,103
Cotton	(ICE-US)-	50,000 lbs.; c	ents per lb.			
Oct	63.38	63.59	63.38	63.76	08	91
Dec	65.31	65.46	64.80	65.25	29	125,506
Orange	Juice (10	<b>CE-US)</b> -15,00	00 lbs.; cents	per lb.		
Nov	113.75	113.75	106.05	108.75	-4.15	7,045
Jan'21	116.00	116.00	109.00	111.55	-4.30	1,356
		Interest	: Rate Fu	tures		
Ultra Tı	easury	Bonds (CB	<b>T)</b> - \$100,00	0; pts 32nd	s of 100	%
Dec	222-280	223-240	221-220	222-250	-14.0	987,804
Treasu	ry Bond:	S (CBT)-\$100	0,000; pts 32	nds of 100	%	
Dec	176-160	176-310	175-300	176-150	-7.0	1,179,810
March'21	177-170	178-150	177-170	178-010	-8.0	2,624
Treasu	ry Notes	(CBT)-\$100	),000; pts 32	nds of 100	%	
Dec	139-175	139-215	139-125	139-160	-4.0	3,243,946
March'21	139-315		139-200	139-160	-4.0	526
		Notes (CBT	<b>)</b> -\$100,000;	pts 32nds	of100%	
Sept	125-300	125-307	125-277	125-285	-1.7	35,009
Dec	126-010		125-310	126-002		3,261,983
	easury l	Notes (СВТ	<b>)</b> -\$200,000;	pts 32nds	of 100%	
Sept	110-132	110-137	110-132	110-133	3	40,680
Dec	110-147		110-144	110-146		1,983,818
		Funds (CB				
Sept	99.9100	99.9125	99.9100	99.9125	.0025	137,945
Oct	99.9150	99.9200	99.9150	99.9200	.0050	215,360
		late Swap				
Dec	102-210		102-190	102-210	-5.5	112,055
		•)-\$1,000,00				
Oct	99.7750	99.7775	99.7725	99.7750		265,398
Dec	99.7250	99.7350	99.7200	99.7250		1,053,602
March'21		99.8000	99.7850	99.7900		1,006,303
June	99.8050	99.8150	99.7950	99.7950	0100	880,691
		Cur <u>re</u>	ncy Futu	ires		
Janane	se Ven	<b>CME)</b> -¥12,50				
2upane	3C . CII (	CIVIL) #12,50	,0,000, pei	100+	0045	510

Dec	99.7250	99.7350	99.7200	99.7250		1,053,602
March'21	99.7950	99.8000	99.7850	99.7900		1,006,303
June	99.8050	99.8150	99.7950	99.7950	0100	880,691
		Curre	ency Futi	ıres		
Japane	se Yen		600,000; \$ pei			
Oct	.9524	.9534	.9483	.9490	0045	513
Dec	.9540	.9541	.9485	.9496	0045	167,734
			D 100,000;\$		.0015	10///2
Oct	.7514	.7523	.7472	.7475	0039	198
Dec	.7519	.7524	.7473	.7476	0040	115,817
		CME)-£62,5		•		,
Oct	1.2736	1.2777	▼ 1.2678	1.2717	0019	663
Dec	1.2742	1.2782	1.2679	1.2720	0019	150,093
Swiss F	ranc (CI		5,000; \$ per C			
Dec	1.0899	1.0907	1.0844	1.0845	0051	51,689
March'21	1.1020	1.0938	1.0881	1.0878	0051	139
Austral	ian Dol	ar (CME)-/	AUD 100,000;	\$ per AUD		
Oct	.7169	.7177	▼ .7068	.7077	0090	570
Dec	.7170	.7179	.7070	.7078	0090	131,860
Mexica	n Peso (	CME)-MXN	500,000; \$ p	er MXN		, , ,
Oct	.04534	.04596	.04446	.04468	00115	16
Dec	.04564	.04572	.04415	.04439	00114	136,524
Euro (CI	<b>ME)</b> -€125	.000;\$per€				
Oct	1.1711	1.1725	▼ 1.1658	1.1664	0048	3,140
Dec	1.1728	1.1739	1.1671	1.1678	0049	656,035
		Ind	ex Future	es		
Mini DJ	Indust		<b>ge (CBT)</b> -\$5			
Dec	27219	27392	26586	26685	-458	69,696
March'21	27121	27294	26503	26588	-460	75
		(CME)-\$25		20700	400	/-
Dec	3295.30	3318.90	3230.60	3231.20	-68.10	7,50
		CME)-\$50 x		2221.20	00.10	7,50
Dec	3303.75	3319.75	3221.00	3231.25	-68.00	2,467,13
March'21	3293.50		3213.00	3223.00		5.78
			ME)-\$100 x ir		-00.00	2,70
Dec	1823.80		1784.50	1785.50	-42.50	58,730
March'21		1830.70	1786.10	1783.50	-41.50	n.a
	 .cdaa 10	1050.70 O (CME)-\$		1/05.50	-41.50	11.0
Dec		JO (CME)-⊅ 11222.00		10020.00	220 50	221 01
			10786.00	10829.00		331,012
		11210.50	10778.00	10820.75	-321./5	1,002
			-\$50 x index	4444.70	10.10	E0 / E /
Dec	1489.80	1500.20	1444.70	1446.70	-42.10	506,768
			\$50 x index			
	1837.30	1844.20	1793.80		-45.20	8,71
		V /ICE HC\	-\$1,000 x inde	ex.		
U.S. Do						
<b>U.S. Do</b> Dec	94.03	94.50	93.97	94.44		
				94.44 94.40	.42 .42	28,249 493
<b>U.S. Do</b> Dec	94.03	94.50	93.97			
<b>U.S. Do</b> Dec	94.03	94.50	93.97		.42	

#### **Macro & Market Economics**

16.23 18.35

2,529

 Sept
 16.25
 16.37
 16.25

 Oct
 18.42
 18.95
 18.35

 Cocoa (ICE-US)-10 metric tons; \$ per ton.

Dec 2,553 March'21 2,537

2,598 2,578

#### Watching the Gauges: U.S. Supply and Demand

18.45

Inventories, imports and demand for the week ended September 18. Current figures are in thousands of barrels or thousands of gallons per day, except natural-gas figures, which are in billions of cubic feet. Naturalgas import and demand data are available monthly only.

4,515

.03

24 20

ı	nvento	ries, o	00s barr	els			I	mport	<b>S,</b> 000s b	arrels	per day	/
	Current	Expected change	Previous week	Year ago	4-week avg	5-year avg	Current	Expected change	Previous week	Year ago	4-week avg	5-year avg
Crude oil and							:					
petroleum prod	1,421,684		1,429	1,298	1,426	1,287	7,202		7,001	8,788	7,085	9,187
Crude oil												
excluding SPR	494,406	-1,400	496	420	497	444	5,168		5,008	6,378	5,125	7,154
Gasoline	227,499		232	230	231	226	474		600	800	556	663
Finished gasoline	25,247	-600	24	23	25	25	163		30	8	104	95
Reformulated	47		0	0	0	0	0		0	0	0	0
Conventional	25,200		24	23	25	25	163		30	8	104	95
Blend. components	202,252		208	208	207	201	311		571	792	452	568
Natural gas (bcf)	3,614		4	3	4	4						
Kerosene-type							:					
jet fuel	39,025		39	45	39	43	196		231	123	159	89
Distillates	175,942	1,000	179	134	177	138	136		112	94	144	112
Heating oil	9,481		9	11	9	12	0		0	4	0	3
Diesel	166,461		170	123	168	126	136		112	88	144	103
Residual fuel oil	33,253		33	30	34	35	199		36	158	145	195
Other oils	333,673		334	317	330	290	909		889	1,018	841	859
Net crude, petroleum												
products, incl. SPR	2,066,636		2,075	1,942	2,073	1,959	-793		-9	693	-481	2,959

#### Weekly Demand, 000s barrels per day Natural gas storage

	Current	Expected change	Previous week	Year ago	4-week avg	5-year avg	Billions of cubic feet; weekly totals
Total petroleum product	18,439		17,027	21,181	17,781	19,862	Natural gas,
Finished							lower 48 states 3250
motor gasoline Kerosene-type	8,515		8,478	9,346	8,542	9,125	2250
jet fuel	935		947	1,500	922	1,608	
Distillates	3,959		2,809	3,897	3,600	3,888	Five-year average 1250
Residual fuel oil	137		112	384	235	373	for each week
Propane/propylene	1,049		1,478	1,457	1,062		
Other oils	3,844		3,203	4,597	3,421		O N D J F M A M J J A S 2019 2020

#### **Exchange-Traded Portfolios** | wsj.com/ETFresearch

	Lar	gest 100	excha	ange-tra	aded funds, latest ses	sion				ETF	Symbo	Closing Price	(%)	
Wednesday,	Septem	her 23. 20	20				Closing	Chg	YTD	SPDR DJIA Tr		267.58	-1.92	
,,,	- up	Closing		VTD	ETF	Symbol	Price	(%)	(%)	SPDR S&PMdCpTr		326.16	-2.26	
TF	Symbo	l Price	(%)	(%)	iShMSCI ACWI	ACWI	77.70	-1.86	-2.0	SPDR S&P 500	SPY SDY	322.64	-2.32 -2.15	
					iShMSCIEAFE	EFA		-0.84	-2.0 -9.4	SPDR S&P Div TechSelectSector		89.80 110.66	-3.12	
CommSvsSPDR	XLC		-2.39	7.5	iShMSCIEmgMarkets			-1.55	-9.4 -3.9	UtilitiesSelSector	XLK	57.13	-3.12	
CnsmrDiscSelSector	XLY		-1.64	13.3	iShNatlMuniBd			-0.26	1.6	VanEckGoldMiner	GDX	37.63	-5.97	
CnsStapleSelSector	XLP		-1.50	-1.2	iShPfd&Incm	PFF		-1.24	-4.8	VanadinfoTech		295.97	-2.99	
FinSelSectorSPDR	XLF			-24.6	iShRussell1000Gwth			-2.72	17.6	Vangdillio recii VangdSC Val		107.66	-2.32	
T DJ Internet	FDN		-2.20	30.9	iShRussell1000			-2.40	0.9	VangdSC Grwth		207.82	-2.17	-23
SSActiveBetaUSLC	GSLC		-2.33	1.5	iShRussell1000Val				-15.9	VangdExtMkt		124.90	-2.76	
HealthCareSelSect	XLV		-1.03	0.0	iShRussell2000				-13.0	VangdDivApp		125.46	-1.60	
ndSelSectorSPDR	XLI		-1.79	-7.6	iShRussellMid-Cap	IWR		-2.16		VangdFTSEDevMk	VEA	40.31	-1.03	
nvscQQQI	QQQ		-3.05	24.2	iShRussellMCValue	IWS			-17.3	VangdFTSEEM	VWO	42.28	-1.56	
nvscS&P500EW	RSP		-2.15	-9.5	iShS&P500Growth			-2.65		VangdFTSE Europe	VGK	51.51	-1.45	
Sh3-7YTreasuryBd	IEI		-0.01	6.2	iShS&P500Value				-16.0	VangdFTSEAWxUS	VEU	49.71	-1.07	
ShCoreDivGrowth	DGRO		<b>-1.9</b> 8	-8.4	iShShortCpBd	IGSB		-0.15	2.4	VangdGrowth		217.79	-2.78	
ShCoreMSCIEAFE	IEFA		-0.90	-8.8	iShShortTreaBd		110.70	0.10	0.2	VangdHlthCr		196.73	-1.23	2
ShCoreMSCIEM	IEMG		-1.66	-4.1	iShSilver	SLV		-7.11	26.9	VangdHiDiv	VYM	78.75	-1.86	
ShCoreMSCITotInt	IXUS		<b>-1.0</b> 8	-7.2	iShTIPSBondETF	TIP		-0.10	8.2	VangdIntermBd	BIV	93,46	-0.20	
ShCoreS&P500	IVV		-2.33	0.2	iSh1-3YTreasuryBd	SHY	86.50		2.2	VangdIntrCorpBd	VCIT	95.78	-0.47	2
ShCoreS&P MC	IJH		-2.28		iSh7-10YTreasurvBd	IEF	121.92		10.6	VangdLC		151.16	-2.39	
ShCoreS&P SC	IJR			-19.5	iSh20+YTreasurvBd	TLT	164.49	0.13	21.4	VangdMegaGrwth	MGK		-2.93	
ShS&PTotlUSStkMkt			<b>-2.</b> 48	-0.1	iShRussellMCGrowth			-1.79	8.8	VangdMC		170.25	-2.34	
ShCoreUSAggBd	AGG		-0.21	5.1	iShUSTreasuryBdETF	GOVT	27.98	0.04	7.8	VangdMBS	VMBS	54.23	0.04	. 2
ShSelectDividend	DVY		-2.15		JPM UltShtIncm	JPST	50.81	-0.02	0.8	VangdRealEst	VNQ	76.31	-3.01	
ShEdgeMSCIMinEAFE			-0.35	-9.5	PIMCOEnhShMaturit	/ MINT	101.98	0.02	0.4	VangdS&P500ETF	V00	297.68	-2,32	(
ShEdgeMSCIMinUSA			-1.94	-5.5	SPDR BlmBarcHYBd	JNK	103.26	-0.94	-5.7	VangdST Bond	BSV	82.99	-0.06	- 3
ShEdgeMSCIUSAMon			-2.77	11.8	SPDRBloomBar1-3MTI	3 BIL	91.52		0.1	VangdSTCpBd	VCSH	82.85	-0.10	- 2
ShEdgeMSCIUSAQua			-1.70	-0.9	SPDR Gold	GLD	174.79	-2.16	22.3	VangdSC	VB	149.11	-2.38	-10
ShGoldTr	IAU		-2.20	22.4	SchwabIntEquity	SCHF	31.02	-0.96	-7.8	VangdTotalBd	BND	88.22	-0.23	
ShiBoxx\$InvGrCpBd	LQD		-0.72	5.3	SchwabUS BrdMkt	SCHB		-2.42	-0.3	VangdTotIntlBd	BNDX	58.11	-0.08	
ShiBoxx\$HYCpBd	HYG		-1.01	-5.6	SchwabUS Div	SCHD		-1.95	-7.6	VangdTotIntlStk	VXUS	51.39	-1.21	
ShIntermCorpBd	IGIB		-0.47	4.8	SchwabUS LC	SCHX		-2.38	1.0	VangdTotalStk		164.64	-2.41	
ShJPMUSDEmgBd	EMB		-1.29	-4.4	SchwabUS LC Grw			-3.00	17.8	VangdTotlWrld	VT	78.40	-1.93	
ShMBSETF	MBB	110.29	0.01	2.1	Schwab US TIPs	SCHP	61.42	-0.05	8.5	VangdValue	VTV	102.33	-1.85	-14

#### **Cash Prices**

Wednesday, September 23, 2020

These prices reflect buying and selling of a variety of actual or "physical" commodities in the marketplace separate from the futures price on an exchange, which reflects what the commodity might be worth in future

	Wednesday		Wednesday	\	Vednesda
Energy		Aluminum, LME, \$ per metric ton Copper,Comex spot	*1744.0 2.9935	Wheat - Hard - KC (USDA) \$ per bu-u Wheat, No.1soft white, Portld, OR-u	4.9425 5.5250
Coal,C.Aplc.,12500Btu,1.2SO2-r,w Coal,PwdrRvrBsn,8800Btu,0.8SO2-r,v	59.500 v 11.700	Iron Ore, 62% Fe CFR China-s Shredded Scrap, US Midwest-s,m	114.4 283	Food	
Metals		Steel, HRC USA, FOB Midwest Mill-s	602	Beef,carcass equiv. index choice 1-3.600-900 lbsu	179.99
Cold november		Fibers and Textiles	5	select 1-3,600-900 lbsu	170.03
Gold, per troy oz Engelhard industrial Handy & Harman base Handy & Harman fabricated LBMA Gold Price AM LBMA Gold Price PM	1885.00 1873.40 2079.47 *1903.10 *1906.00	Burlap,10-oz,40-inch NY yd-n,w Cotton,1 1/16 std lw-mdMphs-u Cotlook 'A' Index-t Hides,hvy native steers piece fob-u Wool,64s,staple,Terr del-u,w	0.6000 0.6125 *70.70 31.500 n.a.	Broilers, National comp wtd. avgu,w Butter, AA Chicago Cheddar cheese, bbl, Chicago Cheddar cheese, blk, Chicago Milk, Nonfat dry, Chicago lb.	0.6348 1.5200 163.00 254.00 108.50
Krugerrand,wholesale-e	1941.06	Grains and Feeds		Coffee,Brazilian,Comp Coffee,Colombian, NY	1.0356 1.5755
Maple Leaf-e American Eagle-e Mexican peso-e Austria crown-e Austria phil-e <b>Silver, troy oz.</b>	1959.72 1959.72 2258.32 1832.45 1959.72	Barley, top-quality Mnpls-u Bran, wheat middlings, KC-u Corn, No. 2 yellow, Cent IL-bp, u Corn gluten feed, Midwest-u, w Corn gluten meal, Midwest-u, w	n.a. 100 3.4800 115.7 408.2	Eggs,large white,Chicago-u Flour,hard winter KC Hams,17-20 lbs,Mid-US fob-u Hogs,Jowa-So. Minnesota-u Pork bellies,12-14 lb MidUS-u Pork loins,13-19 lb MidUS-u	0.8050 14.40 0.70 70.63 1.5005 0.8678
Engelhard industrial Handy & Harman base	23.5600 23.0800	Cottonseed meal-u,w Hominy feed,Cent IL-u,w	260 100	Steers,TexOkla. Choice-u Steers,feeder,Okla. City-u,w	n.a. 147.88
Handy & Harman fabricated LBMA spot price	28.8500 *£18.9000	Meat-bonemeal,50% pro Mnpls-u,w Oats,No.2 milling,Mnpls-u	193 3.0075	Fats and Oils	
(U.S.\$ equivalent) Coins,wholesale\$1,000 face-a	*24.3000 17493	Rice, Long Grain Milled, No. 2 AR-u,w Sorghum, (Milo) No. 2 Gulf-u	29.25 5.6850	Corn oil,crude wet/dry mill wtd. avgu,w Grease,choice white,Chicago-h	43.3300 0.2850
Other metals LBMA Platinum Price PM	*878.0	SoybeanMeal,Cent IL,rail,ton48%-u Soybeans,No.1 yllw IL-bp,u	337.60 9.8350	Lard,Chicago-u Soybean oil,crude;Centl IL-u	n.a. 0.3319
Platinum,Engelhard industrial Palladium,Engelhard industrial	857.0 2260.0	Wheat,Spring14%-pro Mnpls-u Wheat,No.2 soft red,St.Louis-u	6.5300 5.5950	Tallow,bleach;Chicago-h Tallow,edible,Chicago-u	0.33175

KEY TO CODES: A=ask; B=bid; BP=country elevator bids to producers; C=corrected; E=Manfra,Tordella & Brooks; G=ICE; H=American Commodities Brokerage Co; M=monthly; N=nominal; n.a.=not quoted or not available; R=SNL Energy; S=Platts-TSI; T=Cotlook Limited; U=USDA; W=weekly; Z=not quoted. \*Data as of 9/22 Source: Dow Jones Market Data

Bonds | wsj.com/market-data/bonds/benchmarks

#### **Tracking Bond Benchmarks**

Return on investment and spreads over Treasurys and/or yields paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the paid to investors compared with 52-week and on the state of the statehighs and lows for different types of bonds

Total return	YTD to	otal		— Yie	I - (0/	′	Total return	VTD	total		,	V:-1-1 /0:	/
close	return		Index	Latest			close		n (%)	Index		Yield (% st Low	
Broad N	<b>Narket</b> E	Bloombe	rg Barclays				Mortga	ge-Bac	<b>ked</b> Bl	oomberg Barclays			
2279.23		6.9	U.S. Aggregate	<b>1.170</b> 1	.020	2.410	2223.48		3.5	Mortgage-Backed	1.330	0.930	2.690
U.S. Cor	porate	ndexes	Bloomberg Barclays				2164.84		3.1	Ginnie Mae (GNMA)	0.870	0.290	2.660
3371.33		7.1	U.S. Corporate	<b>1.970</b> 1	820	4.580	1314.38		3.7	Fannie mae (FNMA)	1.500	1.110	2.690
3063.21		5.8	Intermediate	<b>1.330</b> 1	230	4.400	2017.14		3.6	Freddie Mac (FHLMC)	1.480	1.080	2.710
4983.60		9.4	Long term	<b>3.000</b> 2	730	4.930	587.87		3.9	Muni Master	1.015	0.838	3.441
692.81		7.6	Double-A-rated	<b>1.470</b> 1	300	3.360	415.60		4.2	7-12 year	1.006	0.771	3.447
889.05		6.2	Triple-B-rated	<b>2.320</b> 2	210	5.350	472.62		4.3	12-22 year	1.487	1.224	3.690
High Yie	eld Bond	<b>is</b> ICE Bo	ofA				455.39		3.3	22-plus year	2.231	1.765	4.123
464.25	-0.6		High Yield Constrain	ed <b>5.848</b> 5	151	11.400	Global C	Govern	ment J	.P. Morgan†			
406.74	-7.1		Triple-C-rated	<b>12.043</b> 10	).735	19.071	615.49		5.6	Global Government	0.530	0.390	1.060
3136.88	-1.8		High Yield 100	4.884 4	235	10.740	867.78		8.0	Canada	0.730	0.590	1.740
420.53	-0.2		Global High Yield Constrair	ned <b>5.719</b> 4	893	11.310	414.99		3.7	EMU§	0.182	0.143	0.794
322.03	-2.0	Ì	Europe High Yield Constrair	ned <b>3.998</b> 2	464	8.183	787.07		3.7	France	-0.030	-0.160	0.430
U.S Age	ncy Blo	omberg l	Barclays				548.65		2.4	Germany	-0.380	-0.740	-0.050
1866.56		5.4	U.S Agency	<b>0.490</b> 0	470	1.950	295.61	-0.8		Japan	0.280	0.040	0.320
1625.21		4.0	10-20 years	<b>0.370</b> 0	340	1.860	611.81		2.6	Netherlands	-0.280	-0.540	0.080
4305.20		12.8	20-plus years	<b>1.470</b> 1	170	2.480	1088.77		8.3	U.K.	0.580	0.390	1.180
2877.85		5.3	Yankee	<b>1.520</b> 1	430	3.500	882.69		0.1	Emerging Markets **	4.879	4.523	7.480
*Constrair			dividual issuer concentra	ations to 2%	; the	High Yie	ld 100 are th			nds † In local currer CE Data Services; Bloomber	,		

#### **Global Government Bonds: Mapping Yields**

Yields and spreads over or under U.S. Treasurys on benchmark two-year and 10-year government bonds in selected other countries; arrows indicate whether the yield rose ( $\blacktriangle$ ) or fell ( $\blacktriangledown$ ) in the latest session

Country/ ————————————————————————————————————										Spread Under/Over U.S. Treasurys, in basis points			points		
Coupon (%)	Maturity, in year	s Latest	(•)-	2 -1	0	1	2	3	4 Previous	Month ago	Year ago	Late	st	Prev	Year ago
0.125	<b>U.S.</b> 2	0.141	<b>A</b>		•				0.137	0.170	1.694				
0.625	10	0.678	<b>A</b>		•	•			0.676	0.636	1.729				
5.750	<b>Australia</b> 2	0.161	▼		•				0.172	0.273	0.770		2.1	3.6	-92.4
2.500	10	0.811	▼			•			0.845	0.892	1.010		13.2	16.9	-71.9
0.000	France 2	-0.646	▼	•					-0.644	-0.617	-0.675	-78.7		-78.0	-236.8
0.000	10	-0.242	▼						-0.236	-0.199	-0.285	-92.0		-91.1	-201.4
0.000	Germany 2	-0.702	<b>A</b>	•	)				-0.709	-0.676	-0.737	-84.3		-84.5	-243.1
0.000	10	-0.502	▼	•					-0.501	-0.504	-0.578	-118.0		-117.7	-230.7
1.000	Italy 2	-0.227	<b>A</b>		•				-0.229	-0.137	-0.237	-36.7		-36.6	-193.1
1.650	10	0.856	▼			•			0.871	0.943	0.832		17.7	19.5	-89.7
0.100	<b>Japan</b> 2	-0.151	▼		•				-0.147	-0.115	-0.308	-29.2		-28.3	-200.2
0.100	10	0.010	▼		•				0.015	0.035	-0.218	-66.8		-66.1	-194.6
0.400	Spain 2	-0.507	<b>A</b>	•	•				-0.517	-0.465	-0.509	-64.8		-65.3	-220.2
1.250	10	0.227	▼		•				0.231	0.301	0.142	-45.1		-44.4	-158.7
0.500	<b>U.K.</b> 2	-0.042	<b>A</b>		•				-0.044	-0.042	0.483	-18.2		-18.1	-121.1
4.750	10	0.220	<b>A</b>		•				0.205	0.208	0.550	-45.8		-47.1	-117.8

#### **Corporate Debt**

Prices of firms' bonds reflect factors including investors' economic, sectoral and company-specific

#### Investment-grade spreads that tightened the most...

				-		ad*, in basis poi	
Issuer	Symbol	Coupon (%)	Yield (%)	Maturity	Current	One-day change	Last week
Blackstone / GSO Secured Lending Fund	BLAGSO	3.650	2.90	July 14, '23	274	-50	n.a.
National Bank of Canada	NACN	2.100	0.41	Feb. 1, '23	25	-17	42
Unilever Capital	UNANA	0.375	0.23	Sept. 14, '23	7	-12	12
UniCredit	UCGIM	7.830	2.03	Dec. 4, '23	187	-7	185
Sprint Spectrum LLC	SPRNTS	5.152	2.52	March 20, '28	224	-6	222
Metropolitan Life Global Funding		0.950	0.67	July 2, '25	40	-5	n.a.
Australia and New Zealand Banking	ANZ	2.050	0.31	Nov. 21, '22	17	-4	17
Aflac	AFL	3.625	0.64	Nov. 15, '24	36	-3	n.a.
And spreads that widene	d the m	ost					
Southwest Airlines	LUV	4.750	1.98	May 4, '23	183	19	177
Delta Air Lines	DAL	4.500	4.12	Oct. 20, '25	384	15	n.a.
Volkswagen Group of America Finance	vw	4.750	2.11	Nov. 13, '28	142	14	n.a.
John Deere Capital		3.650	0.33	Oct. 12, '23	17	10	19
Procter & Gamble	PG	2.800	0.87	March 25, '27	41	10	31
Verizon Communications	VZ	2.625	1.01	Aug. 15, '26	n.a.	10	59
GE Capital International Funding		4.418	3.92	Nov. 15, '35	325	9	327
Wells Fargo	WFC	3.000	1.41	Oct. 23, '26	114	9	97

#### High-yield issues with the biggest price increases...

Issuer	Symbol	Coupon (%)	Yield (%)	Maturity		as % of face v One-day change	alue —— Last week
Intesa Sanpaolo	ISPIM	5.710	3.47	Jan. 15, '26	110.758	1.47	110.738
Royal Caribbean	RCL	7.500	9.58	Oct. 15, '27	89.500	1.35	92.405
QVC	QVCN	4.375	2.49	March 15, '23	104.500	1.13	104.000
Occidental Petroleum	OXY	2.700	6.11	Aug. 15, '22	94.000	1.00	95.250
Dish DBS		7.750	5.50	July 1, '26	111.000	0.96	113.750
CF Industries	CF	4.950	3.81	June 1, '43	117.250	0.80	n.a.
Ford Motor Credit		4.250	3.92	Sept. 20, '22	100.620	0.61	100.250
American Airlines	AAL	3.750	21.13	March 1, '25	51.500	0.56	52.250
And with the bigge	st price decre	ases					
Carnival	CCL	6.650	10.39	Jan. 15, '28	81.150	-2.85	87.650

Carnival	CCL	6.650	10.39	Jan. 15, '28	81.150	-2.85	87.650
Occidental Petroleum	OXY	6.200	7.59	March 15, '40	86.000	-2.58	89.438
Navient	NAVI	7.250	6.32	Sept. 25, '23	102.495	-1.26	106.000
Intesa Sanpaolo	ISPIM	5.017	3.47	June 26, '24	105.379	-1.22	106.634
Sprint Capital		8.750	3.75	March 15, '32	146.240	-1.14	150.000
Dish DBS		5.875	5.09	Nov. 15, '24	102.875	-1.13	105.467
Springleaf Finance		7.125	5.06	March 15, '26	109.740	-1.01	114.500
Ford Motor Credit	F	4.375	4.37	Aug. 6, '23	100.000	-1.00	102.000

 $"Estimated spread over 2-year, 3-year, 5-year, 10-year or 30-year hot-run Treasury; 100 basis points=one percentage \verb|pt|; change in spread shown is for Z-spread.$ Note: Data are for the most active issue of bonds with maturities of two years or more

Sources: MarketAxess

Source: Tullett Prebon

**B10** | Thursday, September 24, 2020

## Billionaire Sets Pace in Software Deals

By MIRIAM GOTTFRIED

Orlando Bravo has argued for years that software is so essential to business that companies won't stop paying for it, even in a crisis. The coronavirus pandemic has proven him out.

As companies across various sectors of the economy laid off employees and dramatically cut back on spending, revenue at software providers owned by the Puerto Rican billionaire's firm, Thoma Bravo LP, has largely kept chugging along, he

The resiliency has allowed the San Francisco private-equity firm, already a prolific deal maker, to continue buying and selling at a torrid pace even as some rivals sit by and wait for the turmoil to subside. It has signed more than 15 transactions since the pandemic began, including an \$11 billion deal last month to sell mortgage-software company Ellie Mae Inc. to New York Stock Exchange owner Intercontinental Exchange Inc. Thoma Brayo. which bought Ellie Mae for \$3.75 billion just last year, is set to make four times its

"People have proven that they can conduct business without going to an office, but they can't do it without software," Mr. Bravo says. "Software is everything. It is the business. It's what makes the business go."

Software has been the most popular sector for U.S. leveraged buyouts every year since

**Mutual Funds** 

Top 250 mutual-funds listings for Nasdag-published share classes by net assets.

2014, with annual deal volume more than doubling to \$39.6 billion in 2019, according to Dealogic. Even as the pandemic has crimped mergers and acquisitions, firms have struck \$18.5 billion worth of software buyouts in 2020 through the end of August, more than double the volume of the nextmost-active sector, technology services.

That has helped Thoma Bravo become one of the private-equity industry's most dominant players. Launched in its current form in 2008, the firm oversees around \$60 billion in assets, up from just \$9 billion at the beginning of 2016. It's close to completing a \$21 billion-plus round of fundraising for multiple vehicles, including a new \$16.5 billion flagship fund, The Wall Street Journal reported.

The firm declined to comment on fundraising.

The success of Thoma Bravo and rival software specialist Vista Equity Partners hasn't gone unnoticed at bigger, more established buyout firms like KKR & Co., Blackstone Group Inc. and Carlyle Group Inc., which have ramped up their activity in the sector.

It's a far cry from the early 2000s when Mr. Bravo, who turned 50 years old on Wednesday, first began investing in business-software companies. At the time, the prospects of many software firms were uncertain and banks were wary of lending to them in part because they lacked hard assets.



Orlando Bravo's private-equity firm oversees \$60 billion in assets.

him the first Puerto Rican-born

billionaire, according to Forbes.

on the island's west coast, Mr.

Bravo's father and grandfather

ran a shipping company tied to

the tuna industry. He attended

private schools and learned to

play tennis, eventually becom-

ing one of Puerto Rico's ton

players. Mr. Bravo's tennis

prowess helped earn him a spot

at Brown University, where he

studied economics and political

science. After college, he

worked in the mergers-and-ac-

quisitions department at Mor-

gan Stanley before heading to

Stanford University, where he

earned MBA and law degrees.

Bravo's graduation, Carl Thoma

and Bryan Cressey left Chicago

private-equity firm GTCR and

formed Thoma Cressey Equity

Around the time of Mr.

Born in the city of Mayagüez

"We entered at a time when tune worth \$3.7 billion, making valuations were low and the risks were high," Mr. Bravo says.

But then many business-software companies shifted to a subscription revenue model. which is ideal for generating the predictable cash flows buyout firms and their lenders crave.

Purchase-price multiples for U.S. and European software deals are now the highest in the buyout business, averaging 14.4 times earnings before interest, taxes, depreciation and amortization between 2018 and 2020, compared with 10.4 times for all other sectors, according to DealEdge. Along with the firm's push into bigger-ticket deals, which are notoriously tricky to pull off, that could make it more challenging for Thoma Bravo to continue grow-

ing at such a rapid clip. Mr. Bravo has amassed a fordeals in San Francisco. Things got off to a rocky start after two of his early deals for business-consulting and websitedesign companies imploded. The experience taught Mr. Bravo that instead of backing

Partners. They hired Mr. Bravo

in 1998 to work on IT-services

startups, he should be buying established tech companies with existing business customers. His first such deal in 2002, for a small software company called Prophet 21 Inc., earned the firm five times its money.

By 2005, the firm was renamed Thoma Cressey Bravo, and by 2008 Messrs. Thoma and Bravo decided to spin off again, creating the software-focused Thoma Bravo.

"I don't believe there's any other firm that can say they've focused on software for over 20 years," says Tom Galuhn, president of Mesirow Financial Private Equity, which first invested in Thoma Cressey Bravo in 2005 and was one of the lead contributors to the first Thoma Bravo fund in 2008. "That generates an enormous amount of what I'll call intellectual capital."

Enthusiastic and driven, Mr. Bravo bounds around the firm's glass-walled office in downtown San Francisco. He strives to maintain a flat organizational structure in which a handful of top partners who have worked together for the bulk of their careers oversee small teams devoted to each portfolio company and subsector.

He has also devoted a fair bit of that energy to his native

Net YTD NAV Chg % Ret Fund

72.62 -1.79 50.17 -1.22

TotBdAdml

Net YTD NAV Chg % Ret

NA ... NA 56.49 -1.70 31.3 27.44 -0.19 2.0 42.57 -0.59 -0.1 -0.76 NA

NAV Chg % Ret Fund

NA TotIntBdlxInv

NA

FotIntlAdmldx r 27.62 -0.33

island. After Hurricane Maria devastated Puerto Rico in 2017, Mr. Bravo loaded up his private plane with food, water and other supplies and distributed them to areas local authorities were struggling to reach. He ultimately donated \$10 million.

Last year, Mr. Bravo committed \$100 million to start a program aimed at backing and mentoring early-to-mid-stage Puerto Rican startups.

Like Vista, Thoma Bravo identifies software companies with a loyal customer base but middling profits and transforms them into moneymaking engines by retooling pricing, shutting down unprofitable business lines and adding employees in cheaper labor markets.

The firm then guides its companies to use the profits they generate to do add-on acquisitions, snapping up smaller rivals with offerings that they could spend months and millions of dollars trying to replicate.

Unlike some of its peers that tend to replace top executives with their own acolytes. Thoma Bravo prefers to work with existing management, believing turnover costs it valuable time.

Examples include mainframe provider Compuware Corp. which Thoma Bravo bought for \$2.4 billion in 2014. Inside the company was a business called Dynatrace that monitored the performance of applications. Thoma Bravo separated the businesses. Dynatrace, which went public last year, now has a market capitalization of around \$11 billion.

Biggest 1,000	Stocks   wsj.com/s	tocks	Net Stock Sym Close Chg	Stock	Net Sym Close Chg	Stock	Net Sym Close Chg	Stock	Net Sym Close Chg		Net Sym Close Chg	Stock	Net Sym Close Chg
Continued From Page B7	Net Stock Sym Close Chg	Net Stock Sym Close Chg	NewellBrands NWL 16.89 -0.33	Paylocity	PCTY 148.12 -1.77	ReynoldsCns	smr <b>REYN</b> 30.97 -0.85	Sony	SNE 77.33 -1.37	ThomsonReute	rs <b>TRI</b> 77.52 -0.64	Vodafone	VOD 13.32 -0.10
Net Stock Sym Close Chg			Newmont NEM 60.22 -3.23	PayPal	<b>PYPL</b> 181.61 -6.17	RingCentral	RNG 261.36 -7.46	Southern	<b>SO</b> 52.53 -0.59	3M	MMM 159.51 -2.83	VornadoRealty	
	LKQ <b>LKQ</b> 27.89 -0.59 LPL Financial <b>LPLA</b> 74.64 -1.70	MarvellTech MRVL 37.57 -1.29 Masco MAS 54.28 -2.30	NewsCorp B <b>NWS</b> 14.16 -0.51 NewsCorp A <b>NWSA</b> 14.24 -0.50	Pegasystems  Peloton	<b>PEGA</b> 116.13 -4.62 <b>PTON</b> 95.23 0.84	RioTinto RitchieBros	RIO 60.40 -1.01 RBA 56.37 -0.98	SoCopper SouthwestA	<b>SCCO</b> 43.95 -1.44 ir <b>LUV</b> 37.55 -0.57		<b>TIF</b> 116.42 0.15 <b>TOL</b> 47.00 -1.19		<b>VOYA</b> 46.08 -0.76 <b>VRM</b> 51.73 -1.53
Infosys <b>INFY</b> 13.59 -0.25 IngersollRand <b>IR</b> 35.03 -0.07	L3HarrisTech <b>LHX</b> 178.13 -2.62	Masimo MASI 217.60 -2.63	NextEraEnergy NEE 273.31 -4.75		PBA 21.30 -1.25	RobertHalf	RHI 51.58 -1.03	Splunk	SPLK 177.48 -7.45	Toro	TTC 81.74 -1.54		VMC 126.42 -2.01
Inphi IPHI 106.87 -3.22	LabCpAm <b>LH</b> 178.68 -6.22	Mastercard <b>MA</b> 324.53 -10.78	Nike NKE 127.11 10.24 Nikola NKLA 21.15 -7.36	PennNationa Pentair	I PENN 69.00 -5.36	RocketCos.		Spotify Square	<b>SPOT</b> 235.05 -5.96 <b>SQ</b> 149.59 -6.00		<b>TOT</b> 45.28 -0.54	w)	YZ
Insulet <b>PODD</b> 227.65 -2.91 <b>INTC</b> 48.82 -1.13	LamResearch <b>LRCX</b> 317.02 -1.67 LamarAdv <b>LAMR</b> 64.31 -1.39	MaximIntProducts <b>MXIM</b> 64.60 -1.23 McCormick <b>MKC</b> 185.49 -6.90	NiSource NI 21.15 -7.36	Penumbra	PNR 44.93 -0.47 PEN 204.47 0.17	Rockwell RogersComm	<b>ROK</b> 212.78 -1.31 n B <b>RCI</b> 38.08 -0.97		ck <b>SWK</b> 156.72 -0.74		TM 133.29 1.04		<b>WEC</b> 93.06 -2.34
InteractiveBrkrs IBKR 47.07 -1.69	LambWeston LW 63.53 -0.04	McCormickVtg MKC.V 187.60 -4.99	Nokia <b>NOK</b> 3.88 -0.10	PepsiCo	PEP 131.00 -1.15	Roku	ROKU 187.25 -6.54	Starbucks	SBUX 82.99 -0.96		y <b>TSCO</b> 139.93 -1.68		WEX 140.74 -0.47
ICE ICE 97.00 -1.80	LasVegasSands <b>LVS</b> 45.04 -1.21	McDonalds MCD 214.97 -1.44	NomuraHoldings <b>NMR</b> 4.72 -0.11 Nordson <b>NDSN</b> 182.78 -3.29	PerkinElmer Perrigo	<b>PKI</b> 117.58 -2.37 <b>PRGO</b> 45.37 -1.18	Rollins RoperTech	<b>ROL</b> 52.30 -0.60 <b>ROP</b> 386.45 -6.28	StateStreet SteelDynamic	<b>STT</b> 57.77 -1.11 cs <b>STLD</b> 29.00 -0.39	TradeDesk Tradeweb	<b>TTD</b> 457.27 -10.45 <b>TW</b> 53.30 -0.71		<b>WPC</b> 63.57 -1.82
InterContinentl <b>IHG</b> 50.57 0.06 IBM <b>IBM</b> 118.83 -1.68	Lear LEA 107.83 -1.33 Leidos LDOS 90.00 -1.60	McKesson MCK 147.09 -2.52 MedicalProp MPW 16.25 -0.44	NorfolkSouthern NSC 213.43 -2.96	90	PTR 30.66 -0.56	RossStores		Steris	STE 165.67 -3.92	TraneTech	TT 118.79 -2.73		<b>WPP</b> 36.15 -0.62 <b>WAB</b> 60.34 -1.85
IntlFlavors IFF 116.12 -3.72	Lennar A <b>LEN</b> 76.28 -3.57	Medtronic MDT 102.98 -1.37	NorthernTrust NTRS 75.99 -1.80	PetroleoBrasi		RoyalBkCana		STMicroelec		TransDigm TransUnion	<b>TDG</b> 479.28 -22.75 <b>TRU</b> 80.40 -1.65		WBA 35.06 -0.66
IntlPaper IP 39.27 -1.51 Interpublic IPG 16.20 -0.48	Lennar B LEN.B 60.39 -3.53 Lennoxinti LII 260.35 -10.11	MelcoResorts MLCO 16.06 -0.50	NorthropGrum NOC 328.06 -4.74 NortonLifeLock NLOK 20.33 -0.68	PetroleoBrasil/ Pfizer	<b>A PBR.A 7.22 -0.41 PFE</b> 36.00 -0.25	RoyalCaribbe	ean <b>RCL</b> 61.24 -1.13 A <b>RDS.A</b> 26.12 -0.52	StoneCo Stryker	<b>STNE</b> 52.25 -0.69 <b>SYK</b> 202.40 -0.97	Travelers	TRV 107.49 -1.76		WMT 135.99 -2.32
Intuit INTU 304.93 -12.35	LiAuto LI 15.68 -1.06	MercadoLibre <b>MELI</b> 1020.96 -40.01 Merck <b>MRK</b> 82.63 -0.31	Novartis <b>NVS</b> 87.45 -1.47		PM 75.50 -0.31		B RDS.B 24.94 -0.37	SumitomoMit	ts <b>SMFG</b> 5.78 0.02	Trex	TREX 67.04 -1.20		WMG 27.95 -0.28 WCN 100.69 -1.76
IntuitiveSurgical ISRG 657.41 -8.61	LibertyBroadbandA LBRDA 139.83 -3.50	MetLife MET 36.09 -0.86	Novavax NVAX 101.57 -10.06	Phillips66	<b>PSX</b> 52.63 -2.73	RoyalGold	RGLD 115.91 -7.30		SUI 139.31 -3.04		<b>TRMB</b> 47.64 -0.91 <b>TCOM</b> 27.66 -0.30		WM 111.73 -3.24
Invitae NVTA 40.75 -2.35	LibertyBroadbandC LBRDK 140.96 -3.19 LibertyGlobal B LBTYB 20.65 -2.23	MettlerToledo MTD 957.14 -28.93	NovoNordisk <b>NVO</b> 69.40 0.34 Novocure <b>NVCR</b> 105.91 1.76	Pinduoduo PinnacleWest	PDD 76.64 -3.40 PNW 70.93 -0.90	RoyaltyPhari Ryanair	ma <b>RPRX</b> 41.78 0.06 <b>RYAAY</b> 80.43 0.81	SunLifeFinanci SuncorEnerg			TFC 35.43 -0.82		WAT 190.60 -3.63
InvitatHomes INVH 26.44 -1.28 IonisPharma IONS 49.33 -1.44	LibertyGlobal A LBTYA 20.47 -0.84	MicrochipTech MCHP 97.65 -1.55 MicronTech MU 49.85 0.15	NuanceComms NUAN 32.69 -0.84	i Pinterest	PINS 39.55 -1.00	SAP	SAP 152.11 -5.12	SunRun	RUN 61.72 -1.08	Twilio	TWLO 232.00 -5.00		WSO 229.32 -2.38 W <b>286.72 -17.45</b>
iQIYI <b>IQ</b> 23.66 0.08	LibertyGlobal C LBTYK 20.09 -0.76	Microsoft MSFT 200.59 -6.83	Nucor <b>NUE</b> 44.67 -1.01			S&P Global		Suzano	SUZ 8.28 -0.33		TWTR 45.33 2.60 TYL 338.80 -5.23		WB 35.37 -0.61
iRhythmTechs IRTC 217.80 -4.41 IronMountain IRM 26.06 -1.13	LibertyFormOne A <b>FWONA</b> 32.06 -0.23 LibertyFormOne C <b>FWONK</b> 34.82 -0.20	MidAmApt MAA 113.42 -1.76	Nutrien <b>NTR</b> 39.50 -0.98 NVIDIA <b>NVDA</b> 484.95 -20.56	PlainsAllAmPipe Pool	PAA 5.61 -0.48 POOL 307.28 -0.62	SBA Comm SEI Investme		SynchronyFir SyneosHealt	n <b>SYF</b> 25.10 -0.51 h <b>SYNH</b> 51.91 -2.58		TSN 57.09 -2.30		WFC 22.83 -0.82
ItauUnibanco ITUB 3.99 -0.23	LibertyBraves A BATRA 19.85 -0.02	MiratiTherap MRTX 159.49 -4.30 MitsubishiUFJ MUFG 4.15 0.04			POST 82.36 -1.68	SK Telecom		Synnex	SNX 126.86 -5.45	UBS Group	<b>UBS</b> 10.91 -0.32		WELL 51.96 -2.75 WST 268.30 -8.74
	LibertyBraves C BATRK 20.06 0.05	MizuhoFin MFG 2.64 0.01	OPQ	i i i i i cipani ii i	<b>PFG</b> 37.79 -1.03	SS&C Tech	SSNC 59.69 -1.44	Synopsys	SNPS 197.86 -6.94		UDR 32.00 -0.85 UGI 31.81 -0.65		WDC 38.92 2.45
JKL	LibertySirius A <b>LSXMA</b> 32.17 -0.71 LibertySirius C <b>LSXMK</b> 32.05 -0.76	MobileTeleSys MBT 8.82 -0.14		Procter&Gamble Progressive	PG 136.31 -1.65 PGR 91.19 -3.23	StoreCapita SVB Fin	al STOR 26.18 -0.76	Sysco	SYY 60.52 -3.50	Uber	UBER 33.55 -0.85	WesternUnion	
JD.com <b>JD</b> 74.59 -0.41	LibertySirius B LSXMB 33.91 -1.74	Moderna MRNA 67.16 -1.56 Mohawkinds MHK 94.70 -1.61	ONEOK <b>OKE</b> 24.54 -1.13 OReillyAuto <b>ORLY</b> 448.62 -6.78	Prologis	PLD 95.30 -3.89		<b>SIVB</b> 226.62 -3.85 om <b>CRM</b> 235.99 -11.79	Т	UV	Ubiquiti	UI 152.31 -3.22	WestlakeChem WestpacBanking	
Joyy <b>YY</b> 77.98 -1.95 JPMorganChase <b>JPM</b> 92.74 -1.53	EliLilly <b>LLY</b> 149.81 -0.05	MolinaHealthcare MOH 153.07 -3.14	OakStreetHealth <b>OSH</b> 42.20 -1.54		<b>PFPT</b> 103.59 -2.67	Sanofi	<b>SNY</b> 50.61 0.75	TAL Education	on <b>TAL</b> 73.82 0.11	UltaBeauty Unilever	ULTA 217.04 -6.92 UN 59.08 -0.13		WRK 32.83 -1.55
JackHenry <b>JKHY</b> 159.41 -3.71	LincolnNational <b>LNC</b> 30.44 -0.87 Linde <b>LIN</b> 233.15 -5.08	MolsonCoorsB TAP 33.08 -0.65	OccidentalPetrol OXY 10.41 -0.67	PrudentialFin Prudential	PRU 61.96 -1.75 PUK 27.65 0.03		rap <b>SRPT</b> 143.96 -2.35	TC Energy	TRP 43.89 -2.17	Unilever	UL 60.45 -0.06	Weyerhaeuser	<b>WY</b> 26.85 -0.87
JacobsEngg <b>J</b> 89.27 -2.06	LiveNationEnt LYV 51.34 -1.77	MomentaPharm MNTA 52.29 -0.07 Mondelez MDLZ 54.82 -0.99	0.110	PublicServiceEn		Schlumberg SchwabC	ger <b>SLB</b> 16.61 -0.72 <b>SCHW</b> 34.78 -0.19		de <b>AMTD</b> 37.64 -0.22	Official define	UNP 194.32 -3.00		WPM 47.23 -2.76
JamesHardie JHX 22.20 0.07 JazzPharma JAZZ 138.07 -1.14	LivongoHealth LVGO 134.35 -3.80	MongoDB MDB 219.01 -3.90	OldDomFreight <b>ODFL</b> 182.18 1.46 Ollie'sBargain <b>OLLI</b> 86.55 -1.15		<b>PSA</b> 212.91 -6.46		Gro <b>SMG</b> 145.80 -6.35	TE Connectivit Telus	ty <b>TEL</b> 93.96 -2.37 <b>TU</b> 17.60 -0.19		s <b>UAL</b> 33.08 -0.99 <b>UMC</b> 4.35 0.06		WHR 175.74 -3.95 WMB 19.91 -0.90
JFrog FROG 75.50 -2.21	LloydsBanking <b>LYG</b> 1.19 LockheedMartin <b>LMT</b> 383.24 -5.18	MonolithicPower MPWR 252.06 -7.42	OmegaHealthcare OHI 29.54 -1.04	PulteGroup QTS Realty	<b>PHM</b> 43.84 -2.03 <b>QTS</b> 61.76 -0.89	Sea	SE 147.88 -4.24	TIM Part	TSU 11.94 -0.62	UPS B	UPS 161.55 -0.34	Williams-Sonoma	WSM 88.40 0.52
J&J <b>JNJ</b> 144.44 0.23	Loews L 33.54 -1.18	MonsterBev MNST 77.79 -1.44 Moody's MCO 273.66 -5.47	Omnicom <b>OMC</b> 48.81 -0.90	Qiagen	QGEN 50.73 0.38	Seagate SealedAir	<b>STX</b> 47.62 -0.09 <b>SEE</b> 37.02 -0.51	TJX	TJX 52.87 -1.01 TMUS 109.00 -3.39	o i ii ce di terredi	s <b>URI</b> 161.98 -5.99		WLTW 203.99 0.32
JohnsonControls JCI 40.35 -0.98 JuniperNetworks JNPR 21.38 -1.16	LogitechIntl LOGI 72.98 -0.32	MorganStanley <b>MS</b> 46.42 -1.21	ON Semi ON 20.08 -0.74 OneConnectFinTech OCFT 20.45 0.12	Qorvo	QRVO 125.77 -5.44		tics <b>SGEN</b> 179.27 -2.68	T-MobileUS TRowePrice			USB 34.50 -1.09 UNH 292.14 -2.12	p	WIT 4.72 -0.04 WIX 250.22 -9.05
KB Fin <b>KB</b> 31.38 -0.76	Lowe's LOW 158.61 -2.94 lululemon LULU 316.77 3.17	Morningstar MORN 153.58 -1.23	OpenText <b>OTEX</b> 41.35 -0.88		<b>QCOM</b> 110.57 -3.25 <b>PWR</b> 51.29 1.21		rgy <b>SRE</b> 114.50 -4.55	TaiwanSemi	TSM 77.92 -2.56	▲ UnitySoftwar			WDAY 207.39 -4.41
KE Holdings BEKE 53.98 1.60	LumenTech LUMN 10.05 -0.21	Mosaic MOS 18.26 0.21 MotorolaSol MSI 152.20 -5.07	Oracle ORCL 58.96 -1.66		DGX 111.32 -3.91	SensataTec ServiceCorp			re <b>TTWO</b> 162.31 -3.91	o.m.o.spici)	OLED 169.40 -2.96	WynnResorts	
KKR KKR 34.10 -0.55 KLA KLAC 180.79 -2.51	Lyft <b>LYFT</b> 26.97 -1.34	Mylan MYL 14.37 -0.45	Orange <b>ORAN</b> 10.62 -0.26 Orix <b>IX</b> 65.45 -0.03	Quidel	<b>QDEL</b> 196.21 -2.77		NOW 460.47 -10.10		n <b>TAK</b> 18.60 0.01 es <b>TNDM</b> 107.29 -1.05	VEREIT	BUHS 101.58 -4.85 VER 6.08 -0.26	XP XPO Logistics	<b>XP</b> 41.55 -1.83 <b>XPO</b> 83.04 -0.70
KSCitySouthern KSU 180.62 -0.46	LyondellBasell LYB 69.99 -3.52	MyoKardia MYOK 129.39 -3.22	OtisWorldwide OTIS 60.41 -0.58		₹ 5		n B <b>SJR</b> 17.80 -0.47	Target	TGT 151.01 -3.07	VF	VFC 69.07 -0.21		XEL 66.19 -0.68
Kellogg K 61.13 -1.54	M N	NICE NICE 216.60 -8.58 NIO NIO 17.96 -1.27		_		SherwinWillia ShinhanFin	ms <b>SHW</b> 677.32 -19.00 <b>SHG</b> 23.04 -0.55	TataMotors TeckRscsB		VICI Prop	VICI 22.81 -0.45		XLNX 97.29 -2.73
KeurigDrPepper <b>KDP</b> 27.19 -0.66 KeyCorp <b>KEY</b> 11.54 -0.20	M&T Bank MTB 90.86 -2.25	NRG Energy <b>NRG</b> 28.52 -0.32		RELX RH	RELX 22.13 0.26 RH 352.66 -19.30	Shopify	SHOP 918.81 -35.44		<b>TECK</b> 13.75 -0.57 th <b>TDOC</b> 209.22 -6.06	VailResorts Vale	MTN 228.63 3.26 VALE 10.65 0.01		<b>XPEV</b> 18.41 -0.90 <b>XYL</b> 82.43 -1.50
KeysightTechs KEYS 96.36 -1.06	MGMGrowthProp MGP 27.58 -0.28	NVR NVR 3853.15-191.37	PNC Fin PNC 102.48 -2.88	RPM	<b>RPM</b> 79.18 -1.31		ater SBSW 10.74 -0.73	TeledyneTecl	h <b>TDY</b> 309.11 -7.71	ValeroEnerg	y VLO 44.51 -2.91	Yandex	YNDX 64.80 -1.26
KilroyRealty KRC 51.74 -1.64	MGM Resorts <b>MGM</b> 21.38 -0.24	NXP Semi <b>NXPI</b> 119.94 -2.69 Nasdag <b>NDAQ</b> 119.73 -3.59	POSCO <b>PKX</b> 41.08 -0.62 PPD <b>PPD</b> 33.74 -1.59	RaymondJame		SimonPrope SiriusXM	erty <b>SPG</b> 62.89 -2.22 <b>SIRI</b> 5.02 -0.11	Teleflex Ericsson	TFX 330.77 -1.06 ERIC 10.58 -0.29		VAR 171.81 -0.69		YUM 89.77 -0.82
KimberlyClark <b>KMB</b> 144.82 -2.14 KinderMorgan <b>KMI</b> 12.23 -0.57	MKS Instrum MKSI 107.61 -0.57 MPLX MPLX 15.89 -0.94	NationalGrid <b>NGG</b> 53.80 0.09	PPG Ind <b>PPG</b> 118.32 -2.50	RaytheonTecl RealPage	<b>RTX</b> 58.33 -1.46 <b>RP</b> 58.34 -1.69	Skyworks	SWKS 133.92 -5.72	TelefonicaBra		* = ===================================	<b>VEDL</b> 6.86 -0.04 s <b>VEEV</b> 270.57 -2.87	YumChina ZTO Express	<b>YUMC</b> 50.36 -0.84 <b>ZTO</b> 29.95 0.09
KingsoftCloud KC 32.29	MSCI MSCI 345.46 -5.78	NatlRetailProp NNN 33.60 -0.91	PPL PPL 25.91 -0.35	RealtyIncome	<b>o</b> 59.03 -1.60	SlackTech	WORK 26.37 -0.04	Telefonica	<b>TEF</b> 3.43 -0.12	Ventas	VTR 39.58 -2.11	ZaiLab	<b>ZLAB</b> 76.62 0.59
KinrossGold KGC 8.22 -0.99		Natura&Co NTCO 17.83 -0.84	PRA HealthSci PRAH 97.95 -1.88	RegencyCtrs		Smartsheet SmithAO	SMAR 47.91 -0.38 AOS 51.80 -0.86	TelekmIndones		VeriSign	VRSN 200.14 -5.15		ZBRA 249.58 -2.70
KirklandLakeGold <b>KL</b> 47.22 -1.80 Knight-Swift <b>KNX</b> 41.06 0.20	MagnaIntl MGA 44.19 0.71 ManhattanAssoc MANH 93.88 -2.58	NatWest NWG 2.43 -0.01 nCino NCNO 82.19 1.84	PTC PTC 81.70 -4.15 Paccar PCAR 81.61 -0.73		<b>REGN</b> 565.19 -6.32 <b>RF</b> 10.75 -0.29		ew <b>SNN</b> 37.68 -0.04	Tenaris	s <b>TXG</b> 120.30 -2.32 <b>TS</b> 9.73 -0.42	VeriskAnalytic	s <b>VRSK</b> 177.08 -3.31 <b>VZ</b> 58.91 -0.91		<b>ZEN</b> 99.26 -1.15 <b>Z</b> 96.32 -2.87
KoninklijkePhil <b>PHG</b> 44.80 -0.61	ManulifeFin MFC 13.58 -0.29	NetApp NTAP 41.19 -0.69	PackagingCpAm PKG 104.15 -3.00	ReinsGrp	RGA 92.49 -4.41	Smucker	<b>SJM</b> 108.29 -1.59		ic <b>TME</b> 14.73 -0.21	VertxPharm	VRTX 263.82 -3.76	Zillow A	<b>ZG</b> 95.93 -2.67
KoreaElcPwr KEP 8.48 -0.15	MarathonPetrol MPC 28.73 -2.31	NetEase NTES 470.98 -13.30 Netflix NFLX 470.61 -20.56	PagSeguroDig PAGS 36.33 -2.51	RelianceSteel		Snap SnapOn	<b>SNAP</b> 25.37 -0.10 <b>SNA</b> 141.09 -3.40	Teradyne <b>Tesla</b>	TER 75.41 -1.15		3 VIAC 28.82 -0.59	ZimmerBiomet Zoetis	
KraftHeinz <b>KHC</b> 28.77 -0.46 Kroger <b>KR</b> 33.28 -0.46	Markel <b>MKL</b> 951.13 -25.77 MarketAxess <b>MKTX</b> 449.46 2.51	Netflix NFLX 470.61 -20.56 Neurocrine NBIX 99.37 -0.56	PaloAltoNtwks PANW 239.13 -7.37 PanAmerSilver PAAS 30.38 -2.92		RNR 164.73 -2.65 RGEN 142.38 -1.58	SnapOn Snowflake		Tesla TevaPharm	TSLA 380.36 -43.87 TEVA 8.64 -0.21		A VIACA 30.97 -1.00 VIPS 16.92 -0.27		<b>ZTS</b> 159.33 -2.18 <b>ZM</b> 500.53 7.93
L Brands <b>LB</b> 30.10 -0.45	Marriott MAR 92.94 -2.56	NewFortressEner NFE 35.78 -1.33		RepublicSvcs			H SQM 28.97 -3.89		ts <b>TXN</b> 135.16 -3.49		V 195.37 -5.19	ZoomInfoTech	
LHC Group LHCG 199.02 -4.62	Marsh&McLen <b>MMC</b> 114.54 -1.73	NewOrientalEduc EDU 151.31 -1.57			RMD 168.70 -3.56		ech <b>SEDG</b> 189.44 4.24	Textron	TXT 34.80 -0.80		VST 17.96 0.14		<b>ZS</b> 135.61 -2.38
	MartinMarietta MLM 220.00 -1.47		PaycomSoftware <b>PAYC</b> 275.53 -4.55	RestaurantBrand	s <b>QSR</b> 55.11 -0.06	52-Wk %	SWI 19.20 -0.57	2-Wk %	5ci <b>TMO</b> 420.76 -9.48	VMware	VMW 139.02 -3.59		ZNGA 8.70 52-Wk %
itew inglis alle	EO 143   WSJ.COM/N	Stock	Sym Hi/Lo Chg Stock	Sym Hi/Lo Ch	Stock Sy	m Hi/Lo Chg	Stock Sym I	Hi/Lo Chg Sto	ock Sym Hi/I		Sym Hi/Lo C	hg Stock	Sym Hi/Lo Chg
The following explanations apply	y to the New York Stock Exchange,	NIVSE Arca NIVSE Nike	NKE 130.38 8.8 ZoomVideo	<b>ZM</b> 529.74 1	l.6 BlueCity BLC BostonPrivFin BPE					.96 -1.4 PA Reit	PEI 0.54 - Tree DNK 4.52 -1		TLGT 0.80 -23.2 TBNK 19.23 -3.4
	y to the New York Stock Exchange, arket stocks that hit a new 52-week		nms <b>NUAN</b> 34.34 -2.5	ows	BostonPrivFin BPF BridgeBancorp BDF		EmpireStateReal60 OGCP EmpireStateRealty ESRT	5.96 -1.5 Intl: 5.79 -4.1 Kais		.18 -2.5 Phoenix .02 -2.9 PilgrimP		4.6 Thermon	THR 10.87 -3.7
	ily percentage change from the prev	rious trading session. OrisunAcqu	ORSNU 12.05 9.5	ACNB 19.25 -4	CCNeubergerllWt PRPE	LWS 1.73 -5.8	Express EXPR	0.70 -8.9 Kea	rnyFinancial <b>KRNY</b> 6	.91 -2.4 PrefApa	rtment APTS 5.06 -	4.9 3D Systems TimberPharm	DDD 4.70 -5.0 TMBR 0.91 -2.3
Was	dnesday, September 23, 2020	PacBiosciC PactivEver	green PTVE 13.13 2.6 Alector	ALEC 11.19 -9	7.7 CapitolFedFin CFF		· · · · · · · · · · · · · · · · · · ·	4.46 -4.8 Lex	iconPharm LXRX 1	.82 Provider .50 -1.9 QurateR	ntFin <b>PROV</b> 11.54 etailPfd <b>QRTEP</b> 88.63 -	4.9 TootsieRoll	TR 29.02 -2.0
52-Wk %	52-Wk %	Peloton	PTON 100.44 0.9 Amarin	AMRN 3.62 -4	Carterbroxii CAI			6.58 -6.6 Libe	ertyLatAmRt LILAR 0.			6.0 TorchlightEne	r TRCH 0.23 -10.4 TCDΔ 9.27 -8.8
Stock Sym Hi/Lo Chg Sto		Sym Hi/Lo Chg QurateReta	PINS 42.56 -2.5 AmerantBancorpA ailA QRTEA 7.82 -3.9 AmesNational	ATLO 16.75 -4	<ul> <li>ChinaPetrol SNI</li> <li>ChinaXiangFood PLI</li> </ul>	V 40.24 -2.6 N 0.68 -4.1	FstCmntyBcsh FCBC FourSeasonsEduc FEDU			.59 -5.7 RangerEn		1.0 Tricida	TRMK 20.22 -2.6

#### QurateRetailA RenewableEnergy RibbitLeapUn thinaXiangFood PLIN thurchillCapIVWt CCIVWS thurchillCapIV CCIV titizens&Northern CZNC FourSeasonsEduc FEDU Frank'sIntl FI FranklinFinlSvc FRAF 0.75 -2.0 1.59 -15.7 19.60 -1.8 3.42 -6.0 2.28 -3.7 ibertyLatAmC LILAK izhi LIZI MedalistDivREIT MDRR 16.75 -4.8 1.37 -10.6 9.94 ... 3.08 -7.4 1.44 -7.5 1.35 -13.5 3.25 2.0 9.99 ... 16.00 -2.1 Aptorum ArcLightClean APM ACTCU CNeubergerII **PRPB.U** 10.50 1.0 ITICCapAcqnWt **CCAC.WS** 1.24 -10.2 HibbettSports HIBB 41.10 -3.2 CAPAU 10.47 -0.2 **Highs** ArcLightClean ACTCU ArdmoreShipping ASC ArtiusAcqnWt AACQW AshfordHosp AHT AshfordHospPfdD AHTpD AspirationalCns ASPLU AtthiraPharma ATHA AuroraCannabis ACB AuroraMobile JG BCB Bancorp BCEP BELLIUS Health BLII lighCapeCap 8.57 11.1 10.44 1.1 82.60 2.1 44.04 -5.1 83.50 -2. HQI HZAC.U RushEnt A AcceleronPharma XI PN 112.89 1 Sabre6.5%Pfd RUSHA 51.98 -1.3 ivistaBcshrs CIVB 11.25 GTY Tech MesaRoyalty MTR 3.60 86.81 51.98 -1.7 46.67 1236.5 7.11 5. 53.63 -7. 65.53 -1 4.57 50 18.82 -4 4.682 ( 88.88 -1 6.31 -9.8 53.21 -4.9 5.56 -9.9 8.22 -4.6 8.18 -3.9 52.41 34.72 209.86 60.10 21.10 12.60 26.78 25.59 142.79 11.22 51.78 AlussaEnergyWt ALUS.WS AmFinGrp4.5%Deb. AFGE 0.94 27.57 SPI Energy SkySolar Genetron Genfit Momo NakedBrand 13.83 SagaComm ScorpioBulkers 3.86 -2.2 3.86 -2.2 3.86 -2.2 2.76 -5.8 8.72 -4.1 2.38 -8.6 0.28 -17.1 1.47 -5.2 2.06 -6.8 2.63 -6.1 2.55 -1.9 1.47 8.00 5.38 14.09 2.92 2.75 0.96 0.12 0.59 5.39 0.80 12.19 8.77 43.41 SkySolar SpringWorks SunRun Sunworks TFF Pharm Twitter UnitySoftwai DAVA ESCA FSCA FSDC FirstCitizensPfdA FCNCP 2 FirstRepublicPfdK FRCpK 22 FiverIntl FVRR 18\*\* GS Acqn II GSAP\*\* ToodRx TresHir\* ScorpioBulkers STNG ScorpioTankers STNG ScullyRoyalty SRL SeaChange SEAC SiebertFin SIEB SkillfulCrafts EDTK Snowflake SNOW AmericanWell AMWL ApexTechAcqn APXTU leosTherap leuroBoPharm Jring FROG JinkoSolar JKS Juniperindia JIH LairdSuperfood LSF Lennar B LifeSciAcqnUn LSACU MeritageHomes MTH MountainCrestRt MCACR MyovantSciences MYNU 83.50 -2.6 33.74 21.0 10.62 0.0 44.00 85.0 64.00 -5. 11.25 ... 108.78 -5. 0.73 -5. ritstoneOncology **GRTS** uangshenRail **GSH** lallofFameResort **HOFV** lallofFameWt **HOFVW** 4.90 0.91 3.23 2.90 213.00 HallofFamekesor HallofFameWt Histogen HothTherap -4.5 Vaccinex -6.1 Verso -7.6 VertexEnergy -0.6 WashingtonFeder -1.6 Weidal -2.4 WeycoGroup orthwestNat HSTO HOTH IRS IMTXW BELLUS Health BLU 2.17 NWN OLB 9.98 -0.6 23.66 -1.6 13.34 -2.4 Bandwidth 2.49 -1.6 BAND VPC Impact Vaxcyte VIHAU 10.01 BancoBilbaoViz BBVA BancoMacro BMA DBV Tech 1.62 OLB Group 3.60 SoftwareAconGrpII SAIIU PCVX VSLR 58.48 35.99 6.78 IRSA OACB.U 10.29 SouthsideBcshs SBSI StateAutoFin STFC ImmaticsWt BentleySystems BSY oresHldgsIV oresIV A MyovantSciences MYOV /ivintSolar BancoSantander SAN OncternalTherap ONCT 1.82 -10 StateAutoFin ril-Quip CMOHO 22.98 1.40 ainReform SundialGrowers **SNDL** Telefonica **TEF**

Net YTD NAV Chg %Ret Fund

23.94 -0.69 24.5 Growth I 25.56 -0.76 33.7 Valuel

MFS Fur -4.2 IntlEq

Net YTD NAV Chg % Ret Fund

148.21 -3.96 16.6 AggGrowth r 46.26 -1.10 3.0 39.68 -0.68 -10.3 **Schwab Funds** 

1000 Inv r

Net YTD NAV Chg %Ret Fund

 SmCpldxInstPrem
 18.45
 -0.58 -12.1
 Softwr r

 TMktldxInstPrem
 91.42
 -2.29
 1.2
 Tech r

 USBdldxInstPrem
 12.57
 -0.01
 7.2
 First Eagle

Data provided by **LIPPER** 

e-Ex-distrib	ution. <b>f</b> -Previous o	av's quotation. q-	Footno	tes x ar	d s apply, i-Footno	otes e and s		USBdldxInstPrem	12.57	-0.01	7.2	First Eagle Fur				MFS Funds Inst				1000 Inv r	72.62				62 -0.3	3 -6.2 Wellsl	27.44 -0.1	
					ition costs apply, 1			Fidelity Advisor				GlbA	55.51	-0.99 -				-0.23		S&P Sel			1.6 TotStAc		11 -2.0		42.57 -0.5	
					otnotes p and r ap		tes	NwInsghtI	35.71	-0.93	9.2	FPA Funds				Northern Funds	;		ľ	TSM Sel r	56.62	-1.42	1.2 TxMCap	Adml 168.	55 -4.2	) 2.5 Wndsrll	33.91 -0.7	/6 NA
					Not available due			Fidelity Freedo	m			FPACres	30.52	-0.51 -	7.0	Stkldx	37.23	-0.91	1.5	TIAA/CREF Fu	nds		TxMIn r	12.	95 -0.1	3 -7.1 VANGUAR	D INDEX FDS	
								FF2020	16.09	-0.15	2.3	Franklin A1				Old Westbury F				EqldxInst	23.66		1.4 USGroA	dml 146.	41 -4.4	1 31.4 IdxIntl	16.51 -0.2	
price, performance or cost data. <b>NE</b> -Not released by Lipper; data under review. <b>NN</b> -Fund not tracked. <b>NS</b> -Fund didn't exist at start of period.							FF2025	14.24	-0.15	2.0	CA TF A1 p	7.71		3.0	LrgCpStr	14.96	-0.28	-0.7	VANGUARD A	DMIRAL		ValAdm	I 39.	89 -0.7	9 -13.3 SmValAdı	nl 46.22 -1.1		
								FF2030	17.55	-0.22	1.3	IncomeA1 p	2.06	-0.02 -	8.5	Parnassus Fds				500Adml	299.86	-7.26	1.6 WdsrllA	dml 60.	16 -1.3	6 NA TotBd2		NA
								Freedom2020 K	16.08	-0.15	2.3	FrankTemp/Fra						-0.97	5.3	BalAdml	40.46	-0.60	4.4 WellsIA	dml 66.	48 -0.4		dx r 110.45 -1.3	
		Wednesday, So	eptemb	er 23, 20	)20			Freedom2025 K	14.22			IncomeAdv		-0.03 -	8.5	PGIM Funds Cl	Z			CAITAdml	12.30		NA WelltnA	dml 73.	51 -1.0		lld r 110.47 -1.3	
	Net YT	D		Net \	/TD	Net	YTD	Freedom2030 K	17.54	-0.21	1.5	FrankTemp/Fra	nklin A		ľ	TotalReturnBond	14.89	-0.03	NA	CapOpAdml r	159.77	-3.31	1.3 WndsrA	dml 60.	94 -1.20	NA TotSt	80.07 -2.0	00 1.4
Fund	NAV Chg %R	et Fund	NAV	Chg %	Ret Fund	NAV Chg	% Ret					Growth A p					1			DivAppldxAdm	34.05	-0.55	1.6 VANGUA	ARD FDS			D INSTL FDS	
American Cer	ntury Inv	HiYBlk	7.41	-0.02	-0.8 US CoreEa1	24.74 -0.5	9 -3.7	Freedom2040 K	10.22	-0.17	-0.4			-1.41	1.3	AllAsset	NA		NA	EMAdmr	35.29	-0.56 -	3.0 DivdGro	30.	34 -0.3	7 NA Ballnst	40.47 -0.6	
Ultra		.2 HiYldBd Inst			-0.7 US CoreEq2	22.23 -0.5		Fidelity Invest				FrankTemp/Fra					11.12			EqIncAdml			1.4 INSTTR		AV		Inst 12.96 -0.1	
American Fu		BlackRock Fun		0.02	US Small	29.02 -0.7	6 -16.6		26.09	-0.43	7.0	Income C t	2.09	-0.03 -	8.8	TotRt	10.95		7.9	ExplrAdml	97.46	-2.14	NA INSTTR	F2025 N	A۷		dnst 20.26 -0.2	
AmcpA p	34.58 -0.69 4			-0.27	5.7 US SmCpVal	25.48 -0.7	6 -25 6	BluCh				Guggenheim F				PIMCO Funds A				ExtndAdml	94.69	-2.76 -	0.4 INSTTR	F2030 N	A۷	. NA ExtndInst	94.69 -2.7	
AMutIA p		.7 BlackRock Fun			USLqVa	31.05 -0.7	1 -18.6	Contra				TotRtnBdFdClInst	29.82	-0.06 1	2.0	IncomeFd	11.70	-0.02		GNMAAdml	NA		NA INSTTR				112.11 -3.2 NA	NA
BalA p	28.38 -0.34 1	.2 StratincOpptvins	10.07	-0.01	3.1 Dodge & Cox			ContraK				Harbor Funds				PIMCO Funds 12							0.0 INSTTR			5 -2.1 Inctidy	289.81 -7.0	
BondA p		.2 Bridge Builder			Balanced	91.93 -1.3	6 -7.2	CpInc r				CapApInst		-3.14 3		Income		-0.02		HlthCareAdml r						5 -1.8 InctDlue	289.83 -7.0	
CapIBA p	57.35 -0.65 -6	.9 CoreBond	10.99	-0.01	7.5 Income	14.76 -0.0	2 6.9	DivIntl	42.47			Harding Loevn				PIMCO Funds In				HYCorAdml r			NA INSTTR			5 -1./ InctTStDI		
CapWGrA	50.87 -0.76 -1	.4 CorePlusBond	10.68	-0.01	7.2 Intl Stk	35.42 -0.4	8 -18.8	GroCo	29.59	-0.88	38.5	IntlEq		-0.25		IncomeFd	11.70	-0.02		InfProAd	NA		NA INSTTR			3 -1.8 MidColoct	46.61 -1.0	
EupacA p	56.85 -0.53 2	.1 Intl Eq	11.43	-0.12	-4.7 Stock	163.17 -3.6	7 -13.7					Invesco Funds	Υ			Price Funds							6.7 IntIVal		81 -0.4	2 -12.6 MidCplstF		
FdInvA p	59.28 -1.19 -2	.2 LargeCapGrowth	18.25	-0.43	15.3 DoubleLine Fu	unds		InvGrBd	12.26	-0.01	8.1	DevMktY	44.43	-0.59 -						ITBondAdml	NA		NA LifeCon	N	AV	. NAIs-contra	. 71 // 1 -	
GwthA p	58.28 -1.54 14	.0 LargeCapValue	12.24	-0.23	-9.8 CoreFxdIncm				41.94	-0.68	-10.0	JPMorgan I Cla	ISS							ITIGradeAdml			NA LifeGro	35.	J9 -1.4	5 -2.1 STIGradel	nst 10.99 -0.0	
HI TrA p	9.60 -0.03 -0				TotRetBdI	10.77 +0.0		Magin	11.64	-0.29	14.1	CoreBond	12.46			EqInc				LTGradeAdml			VA LifeMod	I I	VA	<ul> <li>NA STIPSIxin</li> </ul>	s NA	NA
ICAA p				-1.67	NA Edgewood Gr			NASDAQ r	134.21	-4.18	19.1	EqInc		-0.31		EqIndex							3.5 PrmcpC		28 -0.5	1 -5.9 TotBdInst	NA	NA
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Bad weather and the coronavirus hinder harvest with world consumption growing

By Lucy Craymer

The world's most popular beverage is becoming more expensive.

Remote working arrangements **COMMODITIES** other routines es-

tablished during the coronavirus pandemic have led more people to reach for cups of tea, which is consumed in larger amounts world-wide than any drink other than water. But supplies of tea leaves are tightening, due to bad weather in some producer countries, labor shortages, port closures and other logistical issues.

Prices of wholesale tea leaves have jumped 50% since March, when they tumbled to their lowest levels in more than a decade due to oversupply. At \$3.16 a kilogram (\$1.44 a pound) recently, they are at levels last seen in November 2017, according to World Bank

Some of the increase has started to lift store prices in the U.S. Prices of so-called liquid tea, which is typically sold as bottled concentrate, have

on average increased 9.6% from a year earlier, while prices for packaged tea—sold in tea bags—have risen 1.7%, according to Nielsen, a market research firm. Prices of readyto-drink tea, which comes already prepared in bottles, cans or packets, have been

"This is largely a supplydriven event," said El Mamoun Amrouk, economist in the raw materials and tropical products team at the Food and Agriculture Organization of the United Nations.

The FAO previously warned that climate change is threatening the limited agro-ecological area required for tea production, while global consumption is growing as more people believe in the antioxidant properties and other health benefits

Around the world, about 3.7 billion cups of tea are consumed daily, according to Euromonitor International, a market-research provider.

On any given day, more than half of the U.S. population drinks tea, according to TeaUSA, an industry association. The majority of American tea drinkers consume the black variety and most prefer it iced. The beverage is especially popular among millennials, according to TeaUSA.

The pandemic has caused

sharp drops in tea consumption at restaurants and cafes, but people who are spending more time at home are brewing and drinking more tea, according to industry players.

Tea is most often grown on terraced hillsides in mountainous regions with tropical or subtropical climates. China, India, Kenya and Sri Lanka dominate the world's tea production. while most tea sold in the U.S. is grown in Argentina, according to data from the FAO and the United Nations Comtrade database.

In Sri Lanka and India, leaves are largely picked by hand from evergreen shrubs before they are dried and packaged for sale. Workers focus on picking small, young leaves that taste better than older, more coarse ones. Tea leaves typically take about two weeks to grow before they are ready for picking; their color is determined by the way they are pro-

Earlier this year, a severe drought in Sri Lanka, the world's third-largest tea exporter, resulted in production falling by 15% in the first seven months of 2020 from a vear earlier. Exports have dropped 10%, according to the country's tea exporters' associ-

Tea plantations in the country have seen better rainfall in



Tea leaves are loaded in Assam, India, where a shortage has been exacerbated by port closures and floods.

recent weeks, which is helping rupted and port closures have producers increase volumes, said Dilhan Fernando, chief executive of Sri Lankan tea producer Dilmah Tea.

"At the moment it's bucketing down and the sky's looking ominously gray," he said in an interview earlier this month. "The rain means we've got the possibility of a significant increase in output."

In neighboring India, tea production has also fallen. The country has been hard-hit by the coronavirus pandemic, and social-distancing rules have in some cases prevented workers from getting to fields for harvesting. Trucking services in the country have been disled to export and shipping de-

Production fell 22% to 509,000 metric tons in the first seven months of 2020, according to the government-run Tea Board India. In August, tea prices at a Kolkata auction hit a record high.

The shortage has been compounded by severe flooding in Assam in northeastern India, which produces the bulk of the country's tea, according to data provider Mintec.

As of Wednesday, India had recorded nearly 5.65 million coronavirus cases, according to data compiled by Johns Hopkins University, the second-

highest in the world after the U.S. Many parts of India are still locked down, meaning many businesses are closed and movements around the country are restricted.

Some industry analysts say tea prices should stop climbing as production improves in Sri Lanka and Kenya.

Earlier, an oversupply forced some companies to sell bulk tea leaves at less than what it cost to produce the commodity, said Joshua Kaiser, founder of Rishi Tea and Botanicals, a firm that purchases directly from growers.

"We're now seeing the real cost of production flowing through the market," he said.

### S&P 500 cumulative performance in the six months following a bear-market low March 9-Sept. 9, 2009 Sept. 23, 2020 75

TRADING DAYS

### Stocks Fall As Stimulus **Stumbles**

Continued from page B1 sense for all of these companies to be so strong?" said Pete Santoro, senior portfolio manager at

Columbia Threadneedle.

Recent declines in stocks still pale in comparison to the gains that preceded them. Wednesday marked

#### WEDNESDAY'S months since MARKETS

the S&P 500 reached its low

for the year on March 23, a period in which the S&P 500 climbed nearly 45%—its best sixmonth stretch since 2009 when the market was also recovering from a selloff.

Among individual companies, shares of Tesla fell \$43.87, or 10%, to \$380.36 after Chief Executive Elon Musk said it could take three years to fully realize large reductions in battery costs, disappointing some investors.

Mr. Musk's target to produce 20 million vehicles a year also came without a precise timeline

or budget. Shares of Nike rose \$10.24, or 8.8%, to \$127.11 after the sportswear company said sales rebounded over the summer. Shares of General Mills gave up early gains to fall 27 cents, or 0.5%, to \$57.72 after the Cheerios and Bisquick maker reported stronger sales for its most recent quarter.

Surveys of U.S. purchasing managers indicated manufacturing and service-sector activity kept expanding this month, though at a slightly slower pace than in August.

Meanwhile, surveys of purchasing managers in Germany, France and Japan showed resurgent coronavirus cases were pinching service providers in Europe and Asia.

The reports on overseas conditions by data firm IHS Markit suggested a faltering end to the third quarter for the global economy, though the manufacturing sector remained a bright spot.

The data suggested output may struggle to return to prepandemic levels until a vaccine becomes widely available.

The House passed a shortterm spending bill keeping the government funded through Dec. 11, likely averting a partial shutdown when the funding expires next Thursday.

Still, the focus in Congress has shifted this week to the efforts to fill the late Justice Ruth Bader Ginsburg's seat on the Supreme Court, rather than reaching an agreement over a second coronavirus-relief package, investors said.

Testifying before a congressional panel, Fed Chairman Jerome Powell repeated his view that more government spending would allow the Fed to more quickly meet its goals of a healthy labor market and 2% annual inflation.

U.S. government bonds remained in a narrow range. The yield on 10-year Treasury notes edged up to 0.676% from 0.663% Tuesday. The WSJ Dollar Index gained 0.6%, climbing for a fourth day.

U.S. crude gained 0.3% to \$39.93 a barrel, while gold for September delivery lost 2% to \$1,859.90 a troy ounce.

The Stoxx Europe 600 rose 0.6%. Asian stocks moved lower early Thursday. South Korea's Kospi was down 2.3%, Hong Kong's Hang Seng Index was down 1.8% and the Shanghai Composite was down 1.4%.

#### **AUCTION RESULTS**

difference between that price a	and the face value.						
FIVE-YEAR NOTES							
Applications Accepted bids "noncompetitively	\$140,919,837,200 \$60,256,032,200 \$13,779,800						
" foreign noncompetitively Auction price (rate)	\$7,700,000 99.875940						
Interest rate Bids at clearing yield accepted Cusip number	(0.275%) 0.250% 4.59% 91282CAM3						
The notes, dated Sept. 30, 2020 2025.	0, mature on Sept. 30,						

ONE TERMY TO MICHT	1111111
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" noncompetitively	\$8,207,7
Spread	0.05
Bids at clearing yield accepted	50.9
Cusip number	91282CA
The floating-rate notes, dated Sept on July 31, 2022.	. 25, 2020, matur

### CME, Nasdaq Plan Water Futures

By Ryan Dezember

Farmers are known to pray for rain. Now they can hedge against unanswered invoca-

Exchange operators CME Group Inc. and Nasdaq Inc. plan to launch a futures contract this year that will allow farmers, speculators and others to wager on the price of The market will be the first

of its kind, its creators say, putting water on the board for investors alongside other raw materials like crude oil, soybeans and copper.

"You have the most important commodity in the world and everything else is listed except the water price," said Lance Coogan, chief executive of **Veles Water** Ltd., which created a water-price index to which the futures will be tied.

Besides allowing farmers, manufacturers and other big water users to protect against price swings, water futures can serve as a risk-management tool for other investors, Mr. Coogan said. They could be used to hedge against inflation or climate change or simply serve as an asset that is uncorrelated to others, he said.

The futures will reflect Spot price for California transactions in the market for water in California, which a huge population and vast agricultural lands make America's thirstiest state. Water futures contracts will be priced in dollars an acre-foot, which is the volume required to cover an acre a foot deep, about 325,851 gallons. Last week, an acre-foot of

water cost \$526.40, according to the Nasdaq Veles California Water Index. That is a 25% decline since the start of summer. Prices tripled in spring due to a dry February in California.

The prices are derived from prior-week purchases in markets for California surface water and in four groundwater basins in the state. Nasdag and London-based Veles launched the index in October

Nasdaq, best known for listing tech stocks, had pitched water pricing before, but Veles was the first to produce a data set of actual transactions with volume and history sufficient for a pricing index, said Patrick Wolf, senior manager for Nasdaq Global Indexes. The aim was to present a reference point for buyers and sellers in an otherwise opaque market.

water rights, weekly



Source: Nasdag Veles California Water Index

"They might know a few other deals in their local part of the market," Mr. Wolf said. They don't have access to the full market of buvers."

Layering futures trading on top of the index was the next step. Trading will be hosted by CME, which makes options and derivatives markets in assets ranging from stocks to livestock, lumber and cheese.

Water futures will be available for trading up to two years out over 10 monthly

contracts: one every three months along with the two most immediate nonquarterly months. Each contract will stand for 10 acre-feet of water.

Unlike in markets for many commodities, buyers won't have to find somewhere to put 3.3 million gallons of water if they hold an expiring water futures contract. Whereas a buyer of a West Texas Intermediate crude future in the same situation must take delivery of 1,000 barrels of crude at a pipeline junction in Cushing, Okla., water wagers are purely financial and squared up with cash.

"There's no big water fountain like there would be for oil in Cushing," Mr. Wolf said.

Had there been water futures, a farmer who bought summer-dated futures at the prevailing price months earlier could have pocketed big profits when drought hit and prices soared. Those gains could then be used to offset the higher cost of buying actual water.

"You're just moving dollars so it will be relatively straightforward to trade and to settle," said Tim McCourt, CME's head of equity index and alternative investment products.



The futures will reflect transactions in the market for water in California, with a huge population and vast agricultural lands.

### Unisys Weighs Debt to Cut Pension Deficit

By Mark Maurer

Unisys Corp.'s finance chief is weighing a bond sale in the coming months to reduce the company's substantial pension deficit.

technology-services company's unfunded pension obligations stood at 236%—or \$1.75 billion—of its market capitalization of \$740 million at the end of 2019. That is the highest ratio among the 100 largest defined-benefit pension plans owned by U.S. companies, according to actuarial consulting firm Milliman Inc.

Under defined-benefit plans, companies promise to pay out fixed sums to retirees, sometimes over decades. Low interest rates have made it difficult for some companies in recent years to achieve the investment returns needed to match their obligations to re-

Unisys's investors are increasingly pushing the com-

pany to resolve its pensions deficit, Chief Financial Officer Mike Thomson said. "We've been getting more external pressure," Mr. Thomson said. "We probably spend 70% of our dialogue with analysts and investors answering questions about the pension and 30% talking about the business," he

Having a sizable pension deficit has several downsides for finance chiefs, including limiting a company's ability to

borrow money or invest. It can also deflate the company's market value. The average deficit for the 100 largest defined-benefit plans in the U.S. was \$2.32 billion in 2019, and most of them were held by companies much larger than Unisys, Milliman said.

Tapping the market for high-yield bonds, which have a higher default risk than investment-grade bonds, could help ease a burden that has plagued Unisys for the past decade.

# HEARD ON STREET

FINANCIAL ANALYSIS & COMMENTARY



A glut coupled with a Covid-pandemic-induced fall in demand of 20% provided an early glimpse of the future.

### Oil Peak Shifts Markets

Prospect of falling demand could spur a scramble between producer nations

After decades of relative maturity, the oil market might be about to enter a second childhood.

Although there is little consensus on the timing, most expect demand for crude to top out in the coming years—if it hasn't already. Oil giant **BP** argues 2019 might be the peak. Others expect the decline to begin in the mid-2020s, or even as late as the mid-2030s.

The threat of shrinking demand undermines a strategy that has regulated the market for nearly a century: In times of plenty, producers agreed to pump less today to boost prices for a more profitable tomorrow. This approach no longer makes sense if demand consistently falls. Producer nations will likely become impatient about selling their supplies and compete to get crude out of the ground.

This year, an oil glut coupled with a Covid-induced fall in demand of 20% provided an early glimpse of this future. The peak might be followed by a plateau or gentle decline rather than a plunge. Once demand starts decreasing, prices will be more volatile and enter a downward trajectory, much as they have

for coal and fuel oil for power generation, says Artyom Tchen of researchers Rystad Energy.

Producer nations will have to compete to persuade companies to drill in their country. Geography and geology can't be changed, but politicians can adjust taxes and regulations. The competition is going on now, says Alan Gelder of researchers Wood Mackenzie. Norway, Russia and Angola are among the countries considering new incentives.

This could mark a historical shift. From the mid-1900s, the "Seven Sisters"—predecessor companies to today's supermajorsworked together to balance production and prices. The Organization of the Petroleum Exporting Countries, later joined by Russia, took over and has done much the same

Rising U.S. shale production ence of OPEC+. Prices have become more volatile: Three of the five big oil-price drops since World War II happened in the past 15 years. The cartel had a neardeath experience earlier this year but revived in the current crisis.

If producer nations start to believe their barrels might be stranded in the ground, the market could degenerate further. The result might be reminiscent of its earliest years, when "Wild West" production drained wells and crushed prices. Without OPEC, annual average prices would have been nearly twice as volatile over the past three decades, according to an analysis by Bassam Fattouh of the Oxford Institute for Energy Studies.

To be sure, exploration cutbacks should offset some of the impact of shrinking demand. This year, big oil companies adjusted their forecasts, prompting big writedowns, new investment criteria and lower capital budgets. European producers plan to transition to lower-carbon energy sources, while banks tightened their lendto less cash to drill new oil wells.

However, at a global level, supply will probably remain robust. A new long-term scramble between rival producer-nation frenemies is in the cards. The next 50 years for the oil market likely won't look much like the last 50.

## Nike's Fast Rebound Sets It Up for a Fall

While there is much to be excited about, keeping up with a soaring valuation could prove difficult

Nike has made an impressive rebound.

The apparel brand's revenues were roughly flat in the quarter ended Aug. 31 compared with a year earlier-a solid performance compared with the 14.4% decline analysts expected. In the preceding quarter, Nike's sales fell 38% despite its proven ability to sell online.

It probably helped that some major sporting events resumed last quarter, including U.S. professional baseball and basketball, helping drive interest in athletic gear and apparel. Nike also kept launching new products, including its first dedicated maternity collection and a yoga collection, both of which were well-received. Sale of women's apparel, Nike's strategic focus, grew at a higher pace than men's, the company said on Tuesday's earnings call after the market close.

Sales were strong globally. China and Europe, Middle East and Africa stood out, with revenue growing by 6% and 5%, respectively. In North America, where revenue was hit hard in the peak pandemic months, sales mostly recovered and were down 2%.

The good news for Nike is that digital sales continued to grow last quarter at 82% year over year—a

75%

higher pace compared with the preceding quarter—despite stores reopening. Digital sales earn higher margins. Operating costs were 11% lower than a year earlier as Nike spent much less on marketing and athlete endorsements, or what it calls "demand creation" expenses. Inventories, which were too low, improved, rising 15% and expected to return to prior year levels in the next 60 days.

Like Lululemon, another star apparel performer, Nike is in a better position than competitors that lacked the balance sheet to be able to continue investing in new products. But the secret is out: Nike shares rose 8.8% Wednesday and are up by more than 25% year to date. Even before that leap, its shares were valued at 42 times forward earnings, well above its five-year average of 28 times. At those levels, merely keeping up with expectations won't be enough to maintain investor enthusiasm. Lululemon provides a cautionary tale: Its shares were up as much as 72% this year but gave up roughly half of that gain this month even after beating analyst estimates.

Sprinting too quickly can lead to some sprains down the line.

—Jinjoo Lee

#### job for the past 60 years. ing requirements. This all adds up since 2010 has weakened the influ-

-Rochelle Toplensky

#### Share-price and index performance, year to date



### Stock Exchanges Present Opening as Volumes Rise

Stocks might be expensive right now. But stock exchanges aren't.

Shares of American exchange operators have mostly performed well this year, especially compared with other financials. The engine for exchanges has been the U.S. stock market's elevated trading levels, record options volume and new public listings—all three of which are in no small part being driven by a surge in retail activity. This has helped Nasdaq and Intercontinental Exchange, owner of the NYSE, to outperform. They are up 7% and 15%, respectively, versus a more than 20% decline for financials overall.

Recently however, the sector has faced some adversity. Nasdag and ICE are down 11% and 8.7%, respectively, in September. Two recent events that have hit exchange shares are the state of New Jersey's proposed financial transaction tax law. and the launch of a new competing stock market, Members Exchange.

This creates opportunity. Yes, New Jersey's proposed bill for a quarter-of-a-cent per transaction tax is potentially a big deal because many key exchange data centers are physically located in the Garden State. But some exchanges later this month are planning a test using data centers in Chicago, demonstrating their geographic flexibility.

The showdown demonstrates the intense opposition to, and complex impact of a state-based transaction tax. What's more, exchanges would likely pass much of the tax onto customers, meaning its ultimate effect on them might be measured by the impact on volumes.

As for the new exchange, also known as MEMX, it is backed by some major banks, investors and trading firms. It appears poised to grab market share by undercutting exchange pricing on data. But it is hard to put a time frame or magnitude on its overall revenue impact. And as was seen in retail trading, a broad move to cheaper pricing could also boost volumes a lot. Market-data fees have also recently been a shrinking share of overall

#### Average daily volume, change from a year earlier



Note: Current month is through Sept. 21. Equities olumes are shares, options are contracts Source: Piper Sandler

revenue for exchange operators.

Meanwhile, retail trading is likely growing the fee pie that exchanges split. A recent analysis by Burton-**Taylor International Consulting** found that trading-tape data subscriptions grew by 63% from a year earlier in the first half of the year in the category that includes retail accounts. At the current pace, 2020 could see the biggest annual pot of tape fees in more than a decade.

Buoyant trading trends are also continuing. September through midmonth was tracking at record levels for equity options, according to Piper Sandler analysts. Cash equity volume this month is up about 40% year-over-year, Piper said. Even a sharp decline could draw more interest and perhaps boost institutional equity volatility products.

Exchanges' future potential comes at a somewhat discounted price, unlike other sources of earnings growth. Cboe Global Markets, ICE and Nasdaq are trading at around 20 times forward earnings on average, cheaper than they were at the start of February-at over 23 times-according to FactSet figures. That isn't true of S&P financials overall, which are up from about 12.7 times to 13.4 times. Trading the traders might be a decent way to navigate a confusing -Telis Demos

It is a "DOG" eat dog world for exchange-traded funds.

With so many providing exposure to some ridiculously narrow slice of the investment universe or unwisely applying leverage to them, it is hard to last long. A clever ticker symbol like DOG, which shorts the Dow Jones Industrial Average, with a cute reference to the "Dogs of the Dow," has helped that fund survive since 2006.

Not so for LACK and NEED, three times leveraged funds launched less than two years ago that are bearish and bullish, respectively, on consumer staples. Direxion Shares said that the

funds will be liquidated in October, along with MUTE and TAWK, which similarly multiply bets on communications stocks.

While few outside the managers



will shed tears over closed funds, losing so many corny symbols is a shame. Do we need BARN, MOO and DIRT to track agriculture? Should investors really use illiquid funds to track individual commodities like livestock, corn, coffee, sugar and aluminum in their brokerage accounts through COW, CORN, CAFE, CANE and FOIL, respectively?

No, but market efficiency means that easy-to-remember symbols may be gone forever too. Such is the yin and yang of progress—not to be confused with YINN and YANG, which will get you three times leverage on or against Chinese stocks.

### **Inventory Effect Gains More Power on Economy**

Businesses that ran down their inventories when the Covid-19 crisis struck are trying to build them back up. That is creating a powerful boost that, while temporary in nature, investors shouldn't ignore.

The sapping of demand that hit during the first half of the year dealt a blow to the economy, but what happened to inventories made it worse. In the earlier stages of the pandemic, disruptions to supply chains emanating from China led to shortages of the parts and materials manufacturers needed. Then, as Covid-19 gripped the U.S., factories and their suppliers sharply curtailed, and in many cases halted, production, further reducing inventories. Finally, as they were able to come back on line, many were leery of ramping up production, worrying that any rebound in demand as the economy reopened might be meager.

When inventories get run down, gross domestic product gets depressed. That is because demand is being met by what is on businesses' shelves rather than new production. In the first quarter, when GDP fell at a 5% annual rate, 1.3 percentage points of the decline were due to falling inventories. In the second quarter, when GDP fell 31.7%, falling inventories accounted for 3.5 percentage points of the decline.

But when businesses stop drawing down inventories, more production is needed to meet demand. If inventory levels are flat in the third quarter from the second, for example, GDP growth will be boosted by

Many manufacturers might be aiming to hold higher inventories in case disruptions hit again.

about 6 percentage points.

The inventory effect in the third quarter may not be as large as that for the simple reason that maintaining inventory levels while meeting an unexpected pickup demand is hard. But if businesses merely draw down inventories at a slower pace in the quarter, manufacturers will need to produce more, adding

to GDP. That could set off what is known as the "bullwhip effect," in which efforts to restock while meeting increased demand travel through supply chains, affecting finished-goods manufacturers, makers of parts and components and raw-materials suppliers.

Such inventory effects are temporary and shouldn't be confused with changes in underlying demand. Manufacturers know this and are careful about hiring workers or investing in new equipment on the basis of inventory swings.

The boosts to production that inventory swings bring about are real and temporary though they may be, they can last longer than one quarter. Moreover, just as many Americans probably keep more toilet paper on hand after watching shelves get cleared out earlier this year, many manufacturers might be aiming to hold higher inventories in case disruptions hit again. That could magnify and prolong the inventory effect, extending it through the end of the year.

Nothing lasts forever, but for now manufacturing is in a sweet spot. -Justin Lahart